WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

GLOBAL REDESIGN INITIATIVE

Everybody's Business: Strengthening International Cooperation in a More Interdependent World

Report of the Global Redesign Initiative



Under the patronage of the:

Government of Qatar
Government of Singapore
Government of Switzerland
Government of Tanzania

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REF: 210510

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Preface

WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

GLOBAL REDESIGN INITIATIVE

Over the past year, the World Economic Forum has facilitated a global, multistakeholder dialogue on the future of international cooperation under the patronage of the Governments of Qatar, Singapore, Switzerland and Tanzania. Our purpose has been to stimulate a strategic thought process among all stakeholders about ways in which international institutions and arrangements should be adapted to contemporary challenges. This report summarizes and interprets the significance of the proposals that the Forum's many communities have developed in response to this challenge.

Since the summer of 2009, over 1,200 of the world's leading authorities have been working in interdisciplinary, multistakeholder Global Agenda Councils to identify gaps and deficiencies in international cooperation and to formulate specific proposals for improvement on over 50 global challenges. A meeting of more than 700 of these experts was held in Dubai in November. Other Forum communities, notably Industry Partners, Young Global Leaders and Social Entrepreneurs have also contributed ideas. In parallel these discussions have run through the Forum's Regional Summits during 2009 as well as the Forum's recent Annual Meeting 2010 in Davos-Klosters, where many of the emerging proposals were tested with ministers, CEOs, heads of NGOs and trade unions, leading academics and other members of the Davos community. In addition, three country hearings were hosted by patron governments on the topics of United Nations reform (Switzerland), energy security governance (Qatar) and Asia's role in global governance (Singapore).

The Global Redesign process is now at a point where the findings, a critique of the gaps and failures in international cooperation and a series of specific proposals for how some of these shortcomings might begin to be addressed, are ready for discussion with policy-makers. The final report has three main components: a systemic overview; nine thematic essays by distinguished rapporteurs; and nearly 60 individual proposals by Global Agenda Councils, Industry Partner communities and Young Global Leader Task Forces. These proposals to create or improve existing international cooperative structures and arrangements address a wide range of international economic, social, environmental and security challenges. We invite leaders from politics, industry, civil society and academia to debate, refine and adopt these ideas.

It is with immense gratitude that we thank our patron governments for having had the foresight and commitment to partner with the World Economic Forum to make this process not only possible but also successful. Without their support and guidance, the ambitious initiative would not have been possible.

I would also like to thank the Forum's many communities for engaging enthusiastically in this exercise as well as the Forum's entire management and staff. This has been a cross-cutting effort that has drawn on nearly every aspect of our capabilities and inspired us to pursue our mission of improving the state of the world with an even deeper sense of commitment. Special thanks are due to Vice-Chairman Lord Malloch-Brown and Managing Director Rick Samans for their co-leadership of the process, as well as Associate Director, Michele Petochi.

Particularly in the wake of the global economic crisis, we need to rethink our values, redesign our systems, and rebuild our institutions to make them more proactive and strategic, more inclusive, more reflective of the new geo-political and geo-economic circumstances, and more reflective of inter-generational accountability and responsibility.

The Global Redesign process has provided an informal working laboratory or marketplace for a number of good policy ideas and partnership opportunities in these respects that governments, international organizations, companies and other institutions may wish to consider incorporating into their own initiatives. We have sought to expand international governance discussions beyond the important work being done in the G20 on financial supervision and macroeconomic cooperation, encouraging the wider international community to take more pre-emptive and coordinated action on the full range of risks that have been accumulating in the international system.

As the report emphasizes, the efforts of all stakeholders are needed to adapt the international system to our increasingly interconnected and interdependent world. I congratulate the Forum communities that have contributed to this report for having set such a positive example for the world in this regard.

Many of the ideas and proposals presented in this report are of a far-reaching nature and require strong global consensus and cooperation. It would be presumptuous to assume that all of these ideas will be immediately integrated into the global decision-making process. Therefore the Global Redesign Initiative should not be seen as an end in itself but as the beginning of a sustained process to adapt and better prepare the global system for the challenges of the 21st century.

I can give to all those who worked so hard to make this initiative a reality the promise that the Forum will remain a forceful catalyst for rethinking our values, redesigning our systems and rebuilding our institutions.



Klaus Schwab
Executive Chairman
Geneva, May 2010

Executive Summary

WORLD ECONOMIC FORUM
COMMITTED TO IMPROVING THE STATE OF THE WORLD
GLOBAL REDESIGN INITIATIVE

Everybody's Business: Strengthening International Cooperation in a More Interdependent World

Global Redesign Executive Summary

Over the past two decades, the international community has become much more deeply interconnected and interdependent due in large part to its rapid technological progress and economic development and integration.

International institutions and arrangements are now out of step in important respects with a world in which economic strength and political influence are much more widely dispersed among countries and regions, national governments are no longer such dominant intermediaries of relations among nations, and socioeconomic and technological advancement has created a new set of interrelated risks and opportunities for progress.

For several months in 2008-09, when the full extent of the world economy's systemic weaknesses and cooperative deficits were laid bare, there was a popular and diplomatic consensus on the need to make fundamental changes. But as the world economy has begun to recover from recession and governments have begun to focus on fiscal and social strategies to exit from the crisis, the appetite for fundamental improvements in international governance and cooperation appears to have waned.

The international community has paid a severe price for its complacency about systemic financial and macroeconomic risks that were well publicized but nevertheless allowed to accumulate for too long. Other serious global risks are accumulating, awaiting a proactive cooperative response. It would be a serious, historic error to revert to complacency and return to business as usual in international relations.

How can the architecture of global cooperation be redesigned not only to accommodate our deeper interdependence but also to capitalize on it? That is the essence of the question the World Economic Forum posed to all of its communities over the past year, including particularly its 76 multistakeholder Global Agenda Councils. The Forum challenged them to respond with concrete proposals. This combined report – encompassing a systemic overview, a set of nine thematic summaries by distinguished rapporteurs, and 58 individual proposals developed by many Councils, Industry Partner communities and Young Global Leader (YGL) Task Forces – is the result of that global, multistakeholder thought process.

The ideas and proposals that have emerged from the Global Redesign process suggest that very substantial progress can be achieved by:

1) **Redefining the international system as constituting a wider, multifaceted system of global cooperation in which intergovernmental legal frameworks and institutions are embedded as a core, but not the sole and sometimes not the most crucial, component**

2) **Strengthening the state-based part of the system where its rules and capacities are inadequate, while expanding the geometry of cooperation to capitalize on the wider availability of non-state expertise and resources**

3) **Deploying this augmented institutional geometry in a pragmatic, results-oriented push to accelerate progress on individual priority challenges**

4) **Undertaking similarly practical, targeted initiatives to strengthen legitimacy, participation and accountability in the state-based core of the system**

5) **Expanding the constituency for international cooperation by cultivating a shift in values within societies and professions grounded in a deeper appreciation of the implications of global interdependence for the achievement of their objectives**

These five steps constitute a blueprint for renovating international cooperation in an era of increasingly complex interdependence, rendering it both more effective and legitimate. The many concrete proposals made by the Forum's Global Agenda Councils, Industry Partner communities and Young Global Leader Task Forces span all of these areas and each of the domains of economic and social, environmental and security cooperation (see the summaries of selected proposals below).

Multidimensional Cooperation

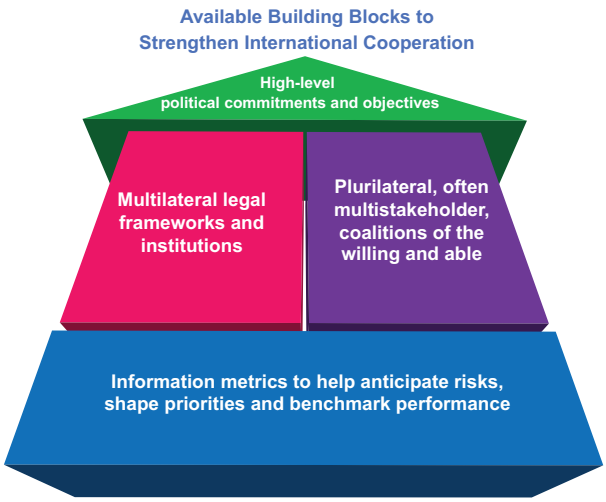
When states were the overwhelmingly dominant actors on the world stage and major policy decisions were commonly decided by a limited number of them, progress on international cooperation tended to be measured by the establishment of new intergovernmental legal frameworks and institutions. But the Global Redesign proposals suggest that efforts today to strengthen international cooperation will increasingly need to have a wider focus and apply multiple tools: creating new international law and institutions; upgrading the mandate and capacity of existing international institutions; integrating non-governmental expertise into the formulation of policy frameworks, be they formal (legal) or informal (voluntary or public-private); and integrating non-governmental resources into policy implementation.

This is both because a larger cast of politically influential states makes it harder to attain multilateral agreement on universal frameworks, and because private and other civil society resources are needed to match the scale of many global challenges. While new international laws and institutions are often desirable – and indeed many have been proposed as part of this process – they are not always essential for major progress to be made. And even where they can be achieved, their effective implementation may well depend on whether they are linked with these other practical elements.

But having a bigger toolkit is not enough; we need to know how to use it. The wider global cooperation system that is available to strengthen progress on any given issue consists of four modular building blocks that can be applied in partial and different combinations to different problems:

- High-level political commitments and objectives
- Multilateral legal frameworks and institutions
- Plurilateral, often multistakeholder, coalitions of the willing and able
- Information metrics to assist with anticipating risks, shaping priorities and benchmarking performance

A key lesson of the Global Redesign process is that the way to strengthen results on a given problem is to explore the practical opportunities that exist to construct or strengthen building blocks in each of these dimensions, seeing them as a system and therefore seeking to cultivate a positive feedback loop of momentum among them. The challenges of scale, information and coherence inherent in deep interdependence imply that, if the international community focuses its cooperation on only one of these components of progress, it is much more likely to be disappointed with the results.



Particularly when the road to stronger multilateral rules is impracticable, a strategy to construct or strengthen a number of these building blocks in parallel is likely to be the most effective way to accelerate progress. By attacking problems pragmatically on several fronts, such a multidimensional (as opposed to purely multilateral) approach to international cooperation has the potential to generate both additional results on the ground and political momentum.

Multidimensionality, rather than multilateralism alone, is the strategy that emerges from the work of the Global Redesign process for achieving a breakthrough in progress on global warming. It is also the approach proposed to achieve much stronger results on several other critical global challenges, including Oceans, Education, Nuclear Proliferation, Health, and Employment and Social Protection.

A New Stakeholder Paradigm of International Governance

Strengthened international cooperation and governance is not just a matter of institutional arrangements and incentives. It is also a matter of values. The international system requires an upgrade not only in its functional institutional architecture but also in societal institutions that have the potential to inculcate values consistent with humanity's interconnectedness and interdependence within professional disciplines and communities.

The time has come for a new stakeholder paradigm of international governance analogous to that embodied in the stakeholder theory of corporate governance on which the World Economic Forum itself was founded. The 1945 UN Charter explicitly identifies people, or society at large, as the ultimate stakeholder of international governance, notwithstanding the role sovereign states play as the central actors in the international system. The state-based core of the system needs to be adapted to a more complex, bottom-up world in which non-governmental actors have become a more significant force. But what is also required is a corresponding sense of ownership in the health of the international system by these very non-state stakeholders, which until now have tended, with the notable exception of certain NGOs, to leave such matters entirely to their national governments.

Most importantly, these institutions should cultivate among their leaders before they become leaders a keener awareness of how the achievement of their objectives can be heavily influenced by conditions in various areas of the international system. Those who educate and select leaders of political, business, academic, religious, media and other social institutions, particularly graduate education programmes and boards of directors and human resources departments, have the greatest responsibility in this respect. Their curricula and senior talent development and promotion policies must reflect that they are cultivating not only leaders of functional organizations but also stewards of the international system and the contribution of their professional disciplines thereto. In support, societies should measure better what they value and use such information to stimulate ongoing dialogue among the leaders about the challenge of integrating such values into the decisions they respectively face. Several concrete proposals are made in this respect.

Achieving Systemic Improvement in International Cooperation

Renovating the international system in these five ways would enable the international community to accelerate progress on many individual global challenges, sometimes dramatically so. By widening our conception of the modes and means of cooperation available in our more complex, bottom-up world, and applying this expanded cooperative geometry in a pragmatic, targeted push for results, we can achieve transformational change even when an expansion of universal norms and legal obligations is not politically feasible. At the same time, by opening our international institutions to more direct interaction with citizens and their elected representatives, while cultivating a greater sense of personal and professional responsibility among them for the health of the international system, we can enlarge the political constituency for international cooperation around the globe.

But many of these individual challenges are deeply interrelated. Progress on one depends on progress on one or more of the others. It is therefore necessary but not sufficient to improve the system's capacity to boost performance on individual problems. We also need special mechanisms to mobilize systemwide progress, including:

The Ongoing Role of the G20 Leaders Process. The G20 represents the international community's best potential mechanism for mobilizing systemic leaps forward in international cooperation. It enjoys considerable goodwill due to the success of its crisis-response measures and greater diversity than the G8. However, there is a risk this goodwill will dissipate among the rest of the so-called G192 if its ongoing purpose and relationship with the United Nations and specialized international organizations are not clarified soon.

The G20 is an informal group and should remain so in order to preserve its intimacy, wherein lies much of its potential to enhance systemwide effectiveness. However, it needs to be embedded explicitly in the formal multilateral system in order to demonstrate more clearly its commitment to acting in the general interest and being accountable to the entire international community rather than simply to the national populations of its member countries. The report proposes a number of steps to anchor the G20 in the multilateral system as well as rationalize participation and inculcate a sense of systemic stewardship within it.

The best reason to continue the G20 Leader process is to create regular opportunities for political breakthroughs on issues that ministers are unable to resolve within the scope of their particular authority. But it will take more than principles and peer review discussions to rebalance the world economy and render global economic growth more sustainable and inclusive.

The UNFCCC climate change, WTO Doha Development Agenda, IMF and World Bank reform, Millennium Development Goal funding, and global macroeconomic rebalancing discussions are all apparently unable to progress much further within their respective ministerial processes. Yet in combination, they would yield major net benefits for developing, emerging and advanced countries alike.

It is therefore time for G20 leaders to muster the political imagination necessary to assemble a package deal providing each with the essential victory that permits additional flexibility to be shown in areas of comparable political importance for colleagues. Leaders should dedicate themselves in 2010-11 to taking such a synchronized, systemic leap forward in international cooperation.

The key to achieving such a win-win-win-win package of breakthroughs in international macroeconomic, trade, climate and development cooperation lies less in finding new formulations in negotiating text and more in constructing and properly resourcing a number of crucial, related institutional building blocks that can build diplomatic confidence by showing additional progress on the ground. Many of these have been proposed as part of the Global Redesign process. If G20 leaders are able to deliver an early harvest of multidimensional progress along these lines, then they will have done much to justify their institutionalization and legitimization as the *de facto* steering committee of the world economy and its principal institutions.

Upgrading Global Environmental Governance. There is a further opportunity to achieve a step change in global environmental governance by focusing not on the traditional agenda (UN structure, new legal frameworks) but on a new agenda to build the kind of practical, often public-private, mechanisms that can accelerate the transformation of energy and industrial systems even in the absence of agreement on new multilateral legal obligations. Various Global Agenda Councils, Industry Partner communities and YGL Task Forces have independently put forward significant proposals to build enabling institutions, install information systems, mobilize major coalitions and, in some cases, extend international law in such areas as marine life and coral conservation; energy efficiency; low-carbon technology development; deforestation; safe drinking water and sanitation; investor, corporate and consumer carbon metrics; sustainable consumption and energy security.

The next big opportunity for progress in global environmental governance is to create this wider global cooperation system – to construct major, new pieces of enabling architecture aimed at scaling public and private action on each of these interrelated environmental challenges. This, rather than negotiating new principles and legal instruments, should be the main objective of the Rio+20 Summit which the United Nations will organize in 2012. Such a strategy holds the prospect of producing tangible achievements comparable in

significance to those agreed in Rio. As such, it would provide a justification for world leaders to attend in numbers not seen since that conference and the UN Millennium Summit in 2000.

Enabling More Proactive and Integrated Cooperation. Even as relevant sources of expertise and capacity have multiplied and global risks and challenges have become more interconnected, our methods for assessing and responding to them remain highly fragmented among different ministries, countries, industries, professional and academic disciplines, specialized international organizations, etc. This fragmentation makes it more difficult for all of these institutions to remain confident that the information on which they base decisions is comprehensive, consistent and current. It creates a bias within the international system for partial and reactive responses to global challenges that require a more integrated and proactive approach.

Better means of connecting insight around the world on an ongoing, self-organizing basis could enable more coherent and proactive responses to global challenges. Such multidimensional, real-time connectivity of expertise has been constrained by the natural limitations of physical meetings, dedicated e-mail lists and bilateral conversations requiring advance scheduling. No network exists that is sufficiently interdisciplinary, interactive and international to overcome these barriers to collective intelligence and action. However, communications technology has evolved to the point where this should now be feasible, and a potential framework is proposed for discussion.

Conclusion

In 1944, well before the end of the war but after the tide had turned, a series of international discussions were held at Dumbarton Oaks, Washington DC and Bretton Woods, New Hampshire to design the post-war international security and economic architecture. Governments assembled teams of people with governmental, academic and business backgrounds to engage in sustained discussions aimed at drawing fundamental lessons about the failures of the pre-war cooperation and designing new, more robust institutional arrangements.

Now that the tide appears to have turned in the global economic crisis, governments, companies and other civil society institutions should engage in an effort to absorb the larger meaning of the changes that have transformed the international community during the past generation and rendered much of its cooperative architecture not fully fit for the purpose of addressing risks that are accumulating in many domains.

They are more likely to succeed in doing so if they take a practical, multidimensional approach, focusing on the “how” rather than merely the “what”. The international system requires a sustained process of innovation and institutional deepening that capitalizes on the full range of available modes and means of cooperation to make progress where it is most needed and feasible.

International cooperation is now everybody’s business. The efforts of all stakeholders are required to adapt the international system to our more interdependent world.

Rapporteurs

1. **Creating a Values Framework** – *John DeGioia, President, Georgetown University, USA*
2. **Building Sustained Economic Growth** – *Robert Lawrence, Albert L. Williams Professor of Trade and Investment, John F. Kennedy School of Government, Harvard University, USA*
3. **Strengthening the International Monetary and Financial System** – *David Daokui Li, Director and Mansfield Freeman Professor of Economics, Center for China in the World Economy (CCWE), Tsinghua University, People's Republic of China; and Suzanne Nora Johnson, Trustee, Carnegie Institution for Science, USA*
4. **Creating Employment, Eradicating Poverty and Improving Social Welfare** – *John McArthur, Chief Executive Officer, Millennium Promise, USA; and Dennis Snower, President, Kiel Institute for the World Economy, Germany*
5. **Managing and Mitigating Global Risks** – *Ian Goldin, Director, James Martin 21st Century School, and Professorial Fellow, Balliol College, University of Oxford, United Kingdom*
6. **Ensuring Health for All** – *Peter Piot, Professor and Director, Institute of Global Health, Imperial College London, United Kingdom; David E. Bloom, Clarence James Gamble Professor of Economics and Demography, Harvard School of Public Health, USA; and Peter C. Smith, Professor, Health Policy, Imperial College London, United Kingdom*
7. **Enhancing Global Security** – *Lilia Shevtsova, Senior Associate, Carnegie Endowment for International Peace, Carnegie Moscow Center, Russian Federation; and Jean-Marie Guéhenno, Senior Non-resident Fellow, Brookings Institution, USA*
8. **Ensuring Sustainability** – *Ashok Khosla, Chairman, Development Alternatives, India; and Caio Koch-Weser, Vice-Chairman, Deutsche Bank Group, Deutsche Bank, United Kingdom*
9. **Building Effective Institutions in an Empowered Society** – *Ngaire Woods, Professor of International Political Economy, University of Oxford, United Kingdom; and Kishore Mahbubani, Dean, Lee Kuan Yew School of Public Policy, Singapore*

Selected Proposals

Economic Cooperation

- The Council on the International Monetary System has proposed a significant **strengthening of the global financial safety net,** including through reforms of the International Monetary Fund's Articles of Agreement that would authorize the International Monetary and Financial Committee (IMFC) at the request of the Managing Director to issue Special Drawing Rights for the provision of emergency liquidity in times of financial distress.

- The Councils on Global Investment Flows and Systemic Financial Risk have proposed the creation of a **global systemic financial risk watchdog** with the necessary authority to sound and compel a response to alarm bells, while respecting the regulatory purview of national authorities and building on the institutional framework that has been constructed in the wake of the financial crisis.

- The Financial Services Industry Partner Rethinking Risk Management Project has proposed a new **public-private financial risk information repository** that would improve the aggregation of systemically relevant data across the global financial system for the benefit of regulators.

- The Council on Trade has proposed the establishment of a **World Trade Organization protocol on plurilateral trade agreements** and a **review of regional free trade and preference agreements** to strengthen guidelines ensuring their consistency with the long-term vitality of the multilateral trading system.

- The Council on Employment & Social Protection has proposed a **major expansion of the capacity of the International Labour Organization and multilateral development banks** to help developing countries strengthen domestic institutions relevant to employment generation and wage progress as well as the provision of basic retirement, health and unemployment insurance systems, as envisioned by the Decent Work Agenda.

- The Council on the Skills Gap, in consultation with the Councils on Migration and Talent & Diversity, has proposed a new, structured public-private process to identify and encourage the **replication of model national labour migration policies.**

- The Council on Benchmarking Progress in Society has proposed an international initiative to strengthen the quality and **broaden the application of benchmarking metrics and other evidence-based policy-making tools** as a means of improving the demand for and accountability of performance against economic reform objectives.

Selected Proposals

Development Cooperation

- The Health Cluster Rapporteurs and Council on Global Healthcare Systems & Cooperation have put forward a set of proposals to **strengthen global health governance**, including an annual multi-actor Global Health Summit adjacent to the World Health Organization's intergovernmental World Health Assembly; a Partnership for Health Risk Accountability and Health Data Charter to create a more rigorous analytical foundation for such planning; a strengthening of the normative and coordinating role of the WHO and clearer division of labour among health agencies; and coalitions on specific challenges, including on the malnutrition of under-two children, chronic diseases, and health workforce shortages.

- The Council on Education Systems has proposed to **reformulate the governance and supporting institutional architecture of the Education for All effort** through a multistakeholder review of its governance, financing and institutional capacity, including a call to action to G20 leaders to engage education, development and finance ministries in the review, as well as a first set of targeted initiatives in the areas of teacher training, North-South university cooperation, and informal learning.

- The Council on Humanitarian Assistance has proposed the creation of a **new humanitarian business model** that emphasizes tri-sector national and regional partnerships to pre-emptively reduce disaster-related risks and strengthen disaster response capabilities.

- The Councils on Nutrition and Food Security have proposed the creation of a **Global Food, Agriculture and Nutrition Redesign Initiative** to provide an action-oriented strategy and set of high profile partnerships to increase the diet quality of the poor and particularly the nutritional status of children under the age of two.

- The Forum's Partnering Against Corruption Initiative (PACI) has proposed the creation of a new **global multistakeholder partnership to scale the "supply side" (i.e., business) commitment to a zero tolerance policy with respect to bribery** as a complement to official "demand side" efforts by governments to strengthen policy in this respect.

- The Council on Fragile States has proposed creation of a **dual-oversight agency** where responsibility is shared between state authorities and external funders in order to meet the urgent needs of the population in fragile states through the delivery of essential social and economic services, while building sustainable and accountable systems of public authority.

Selected Proposals

Sustainability Cooperation

- The Council on Ocean Governance and the YGL Task Force on Oceans have proposed a **significant expansion of Marine Protected Areas, including Large Ocean Reserves, as well as a formal review of the adequacy of the Law of the Sea Treaty and Fish Stocks Agreement** in view of the ongoing degradation of major fisheries around the world. They also propose new mechanisms to strengthen monitoring and enforcement and an **Ocean Health Index** to strengthen the information available for setting priorities and tracking progress with respect to the protection of marine life.

- The Council on Sustainable Energy has proposed the creation of a **sectoral free trade arrangement for sustainable energy products and services** that would eliminate tariffs and harmonize standards as well as begin to discipline domestic fossil fuel subsidies.

- The Industry Partner Low-Carbon Prosperity Task Force has proposed the creation of:

  - **regional, public-private climate investment funds** that leverage large-scale private institutional capital flows into low-carbon energy systems in developing countries through the scaled application of the public finance and risk mitigation tools of development finance institutions.

  - a **global platform for intra-industry cooperation on energy efficiency** via the addition of a private sector dimension to the International Partnership for Energy Efficiency Cooperation (IPEEC), potentially leading to a set of globally-accepted minimum energy efficiency standards on a limited but critical range of energy intensive industrial and consumer goods.

  - **international public-private portfolios of up to 25 carbon capture and sequestration and 10 large-scale integrated smart grid demonstration projects** across different regulatory regimes to accelerate the development and commercial readiness of these promising technologies.

  - **support for the low-carbon growth of developing countries**, including through the creation of a Consultative Group for International Energy Research and a process to ready an operational framework for large-scale avoided deforestation and land use change projects and programmes.

  - a Joint Project of the International Accounting Standards Board (IASB) with the business-NGO Climate Disclosure Standards Board (CDSB) to develop a **principles-based international financial reporting standard for corporate climate disclosure** suitable for ultimate adoption by regulators as well as a similar public-private collaboration to create a **global standard for the labelling of emission footprints** on consumer products, building on work also already under way in the non-governmental community.

- The Industry Partner Water initiative and the Council on Water Security have proposed a **new international multistakeholder platform to help water-stressed countries and regions** transform the management of their water resources, supported by an unparalleled network of public, civil society and private expertise.

Selected Proposals

Security Cooperation

- The Council on Terrorism & Weapons of Mass Destruction has proposed the creation of a **Global Alliance Against Nuclear Terrorism** composed of states that commit to secure all nuclear weapons and materials to a "gold standard" – beyond the reach of terrorists or thieves – by embedding principles of "assured nuclear security" and "nuclear accountability".

- The Council on Human Rights & Protection has proposed a series of steps to strengthen particularly the non-military **institutional capacity required for the effective prevention of mass atrocities** under the United Nations Responsibility to Protect framework.

- The Council on Energy Security has proposed the creation of a **global public-private partnership to manage the civilian nuclear fuel cycle** as a means of reducing the risk of nuclear weapons proliferation as additional countries engage in nuclear power generation.

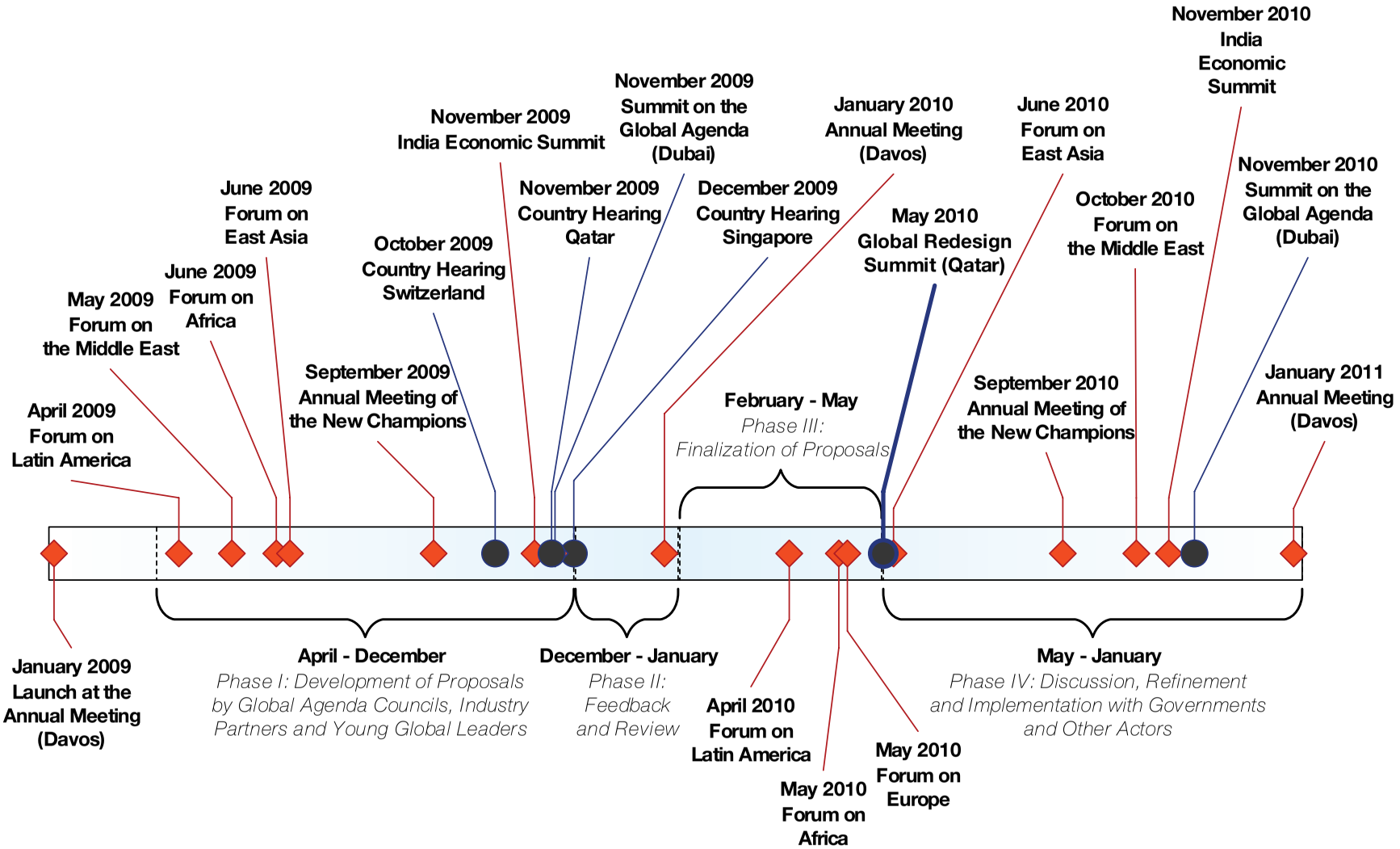
- The Council on Energy Security has also proposed the creation of a **new intergovernmental energy security forum** encompassing producing and consuming nations and providing a platform for the identification of areas of potential cooperation on a wide range of energy challenges.

- The Council on Catastrophic Risks has proposed a high-level, inclusive dialogue including business, political and civil society leaders to develop better institutions and networks to support **global risk management**.

- The Council on the Future of the Internet has proposed new, **self-associating ways of mobilizing international cooperation to strengthen the resilience of the World Wide Web**.

- The YGL Civic Eyes Task Force has proposed a new organization to strengthen domestic capacity to replicate **mass citizen participation in the monitoring and reporting of election irregularities** through crowdsourcing technologies.

Global Redesign Process Timeline



Everybody's Business: Strengthening International Cooperation in a More Interdependent World

By Richard Samans, Managing Director, Klaus Schwab, Founder and Executive Chairman, and Mark Malloch-Brown, Vice-Chairman, World Economic Forum

The world has changed. Over the past two decades, the international community has become much more deeply interconnected and interdependent due in large part to its rapid technological progress and economic development and integration.

Current preoccupations such as global warming, the recent systemic financial crisis and nuclear proliferation are manifestations of this underlying transformation, which has been gathering force and appears to have reached a tipping point in public and diplomatic consciousness in the past few years.

People around the world increasingly perceive their interconnectedness and interdependence. In principle, they recognize that this implies a need for closer international cooperation. And yet governance at all levels – public and private as well as global, national and local – is struggling to adapt.

The list of intergovernmental initiatives in which progress is halting or stalled outright is dismayingly long, including but not limited to:

- United Nations climate change negotiations
- World Trade Organization Doha Development Agenda
- Millennium Development Goal funding
- G20 financial supervision reforms
- Non-Proliferation Treaty reforms
- UN Security Council reform
- Bretton Woods institution voting reform
- Macroeconomic cooperation to redress global economic imbalances

National and local governments are consumed by social and political challenges at home as they contend with crisis-related economic slowdowns and fiscal deficits. The financial industry has just experienced one of its worst governance failures in history, resulting in an enormous privatization of gains and socialization of losses with which societies will be coping for years to come.

The international system has reached an evolutionary crossroads. At best, it can be said to be experiencing natural growing pains as it adapts to new circumstances. At worst, it is in full crisis, facing the prospect that further shortfalls of cooperation will generate political tensions that degrade the international order which was painstakingly constructed out of the ashes of conflict in the mid-20th century.

The world has paid a severe price for its complacency about systemic financial and macroeconomic risks that were well publicized but nevertheless allowed to accumulate for too long. Many other serious global risks are accumulating, awaiting a proactive cooperative response.

A new era of international relations characterized by more complex interdependence has dawned. The challenge for this generation of leaders is to muster the imagination and will necessary to update and upgrade international cooperative structures and arrangements accordingly.

In the immediate aftermath of the 2008 breakdown in the international financial markets, the international community appeared to be rising to this challenge. A consensus emerged across the public and private sectors that deep reforms were needed in many aspects of international cooperation. This was reflected in the historic expansion of the G8 Leaders process to 20 countries and the commitment expressed by such leaders in London to "lay the foundation for a fair and sustainable world economy [and] . . . to build an inclusive, green, and sustainable recovery."[1] But as the world economy has begun to recover from recession and governments have begun to focus on fiscal and social strategies to exit from the crisis, the appetite for fundamental improvements in international governance and cooperation appears to have waned.

The world has paid a severe price for its complacency about systemic financial and macroeconomic risks that were well publicized but nevertheless allowed to accumulate for too long. Many other serious global risks are accumulating, awaiting a proactive cooperative response. It would be a serious, historic error to revert to complacency and return to business as usual in international relations.

For a moment in 2008-09, the international community was seized with the transformational nature of our times. It must hold on to that moment of possibility, consolidate its considerable collective accomplishment in containing the crisis, and renew its earlier commitment to renovate the international system.

The revolution that is required is in our conception of the international system – in our understanding of the additional modes of cooperation and sources of capability available in a more interconnected and interdependent world.

How can the architecture of global cooperation be redesigned not only to accommodate our deeper interdependence but also to capitalize on it? That is the essence of the question the World Economic Forum posed to all of its communities over the past year, including particularly its 76 multistakeholder Global Agenda Councils. The Forum challenged them to respond with concrete proposals. This combined report – encompassing this systemic overview, a set of nine thematic summaries by distinguished rapporteurs, and 58 individual proposals developed by many Councils, Industry Partner communities and Young Global Leader (YGL) Task Forces – is the result of that global, multistakeholder thought process.

The proposals that have emerged from these interdisciplinary deliberations demonstrate that a dramatic improvement in global cooperation is entirely achievable on the big, individual challenges humanity is facing as well as across the international system as a whole. But no "Big Bang" demolition and replacement of the existing international architecture is required. Rather, the revolution that is required is in our conception of the international system – in our understanding of the additional modes of cooperation and sources of capability available in a more interconnected and interdependent world. This begins with a fuller appreciation of the extent to which the international community itself has changed in the past 20 years.

A World Transformed

Many of the challenges now bedevilling international institutions and arrangements are rooted in the profound economic, technological, social and political changes that have occurred over the course of just a single generation.

Emerging economies have become a global force. In the 1970s and 1980s, industrial output was almost entirely concentrated in the United States, European Community and Japan. Since then, the share represented by middle-income developing countries has doubled, reflecting particularly the faster pace of economic growth in Asia. In the 1990s, average annual growth in the G7 was 2.2%. In Asia, the figure was 7.6% – with 6.1% in India and 11.54% in China.[2] In this decade, emerging economies have continued to grow more than twice as fast on average as those of advanced industrialized countries.[3]

International economic integration has deepened dramatically. The Soviet Union's disintegration, China's shift towards market-oriented policies and entry into the World Trade Organization (WTO), and India's economic reforms and greater openness have had the effect of adding over a billion people to the global workforce.[4] World merchandise trade has tripled, growing at twice the rate of world GDP, with developing nations now accounting for 38%, up from 23% 20 years ago.[5]

The global middle class has mushroomed. As a result of rapid growth and integration, emerging economies have added over 400 million middle class consumers to the world economy. This number has been growing by about 70 million per year, including about 20 million per year outside of China and India.[6] It has been estimated that middle-income countries could account for as much as 57% of global GDP by 2050, up from 31% today.[7]

The world's capital markets have become much more interconnected. Since 1975, international capital flows have increased more than eightfold in volume,[8] rising from roughly 5% to 20% of global GDP.[9] In contrast to the 1970s, when the exchange rates of major economies were fixed and international capital movements tightly regulated, average daily turnover in global foreign exchange markets was estimated by the Bank for International Settlements at US$ 4 trillion as of April 2007, about 40 times greater than the value of current account (trade) transactions.

Societies, too, have become more interconnected, driven by extraordinary technological progress, widespread deregulation and corresponding decreases in telecommunications and travel costs. On average, international calling rates in OECD countries fell by 56% between 1993 and 2003.[10] For example, the cost of a three-minute call from the US to France dropped from US$ 4.14 in 1988 to as little as US$ 0.06 today. As a result, international telephone traffic increased by 125% between 1997 and 2006.[11]

The Internet is now used by nearly a quarter of the world's 6.7 billion people, a figure that grew by 743% between 1998 and 2008.[12] And between 2000 and 2009, cell phone penetration rose from 12% to 60% of the world's population, or more than 4 billion users. Brazil, Russia, India and China alone have more than 1.3 billion cell phone subscribers.[13]

The physical interaction of people from different countries has also expanded dramatically. From 1990 to 2006, worldwide tourism arrivals grew by an average of 3.5% per year to reach a record high of 845 million. This growth has been widely distributed. The Asia-Pacific region's share rose from 17.4% to 24.7%.[14] In Sub-Saharan Africa, international arrivals increased by approximately 8% a year – from 6.8 million to 23.6 million. In China, they grew almost 10% annually.[15]

Migration has increased. Between 1990 and 2010, the number of migrants worldwide rose by 38%, from about 155 million to 214 million.[16] And since 1975, the number of international students has grown almost three and a half fold.[17]

Cities have exploded. The urban population today (roughly 3.3 billion) is far larger than the total global population of only 50 years ago.[18] This shift has been most dramatic in developing countries. By 2015, demographers predict that there will be 59 cities in Africa with populations between 1 and 5 million. In Latin America and the Caribbean, there will be 65; in Asia, 253.[19]

Decades of economic development and population growth have degraded the environment on a planetary scale. According to the UN Millennium Ecosystem Assessment, rates of species extinction in modern times are 100 to 1,000 times higher than average rates estimated from the fossil record. Harvest pressure has exceeded maximum sustainable levels of exploitation in one-quarter of all wild fisheries and is likely to exceed this limit in most other wild fisheries in the near future.[20] Water scarcity is an accelerating condition for roughly 1-2 billion people worldwide, with per capita levels of water availability having declined from 11,300 to about 5,600 cubic metres per person per year between 1960 and 2000.[21]

The effects of climate change on ecosystems have also become more apparent, especially in polar regions, where, on average, temperatures are now warmer than at any time in the last 400 years and the Antarctic peninsular is one of the most rapidly warming regions on the planet; in mountains, where there has been widespread glacier retreat and loss of snowpack; and in coastal systems, where coral reefs in particular have been affected by sea temperature warming and increased carbon dioxide concentrations.

Finally, political influence has become less concentrated as economies and societies have developed and integrated. In the 1970s and 1980s, diplomacy was dominated by three large blocs of countries: the West and its liberal democratic and other allies; the Soviet Union and its communist and other allies; and non-aligned countries. Today, as the recent climate, trade and Security Council expansion negotiations have demonstrated, the playing field has become much more complex and difficult to navigate. Security rapporteurs Lilia Shevtsova and Jean-Marie Guéhenno have captured this shift in their observation that the international community is now characterized by "asymmetric multipolarity".

A Comparatively Static International System

In contrast to these profound changes, the basic infrastructure of international economic, security, social and environmental cooperation largely reflects conditions that prevailed in the earlier era in which it was designed. International institutions and arrangements are now out of step in important respects with an international community in which economic strength and political influence are much more widely dispersed among countries and regions, national governments are no longer such dominant intermediaries of relations among nations, and socioeconomic and technological advancement has created a new set of interrelated risks and opportunities for progress.

Much of the ordering of economic, social and even political activity among countries now occurs at a sub-state, highly disaggregated level. Private sector actors dominate international commerce and finance. There has been an explosion of grass roots international interaction through increased travel and educational exchanges, transnational civil society activities, and traditional as well as interactive electronic media. Science and technology are advancing at a pace and interdisciplinary pattern that far outstrip consideration among experts and officials of the corresponding risks and required ethical and governance frameworks.

This increasingly complex interconnectedness and interdependence poses major challenges to institutions and arrangements designed for a world in which there were a limited number of influential countries, the state thoroughly dominated international relations, and cross-border threats were mainly political in nature and could therefore be addressed by national governments acting alone or in limited groups.

The modern international system has three main architectural features that were built in stages, one on top of the other. The first and most fundamental is the nation state as the primary instrument of international relations. It is customary to locate the start of the state system in the 1648 Treaty of Westphalia establishing peace in Europe after decades of religious strife and warfare. It was there that the foundations were laid for a global conversation based on universal national sovereignty, each political territory settling the religious question on its own terms. However, the "nation state" was ultimately consolidated as the predominant expression of sovereignty only in the 19th century, and the promise of statehood itself was realized for most of the world only in the 20th. To this day, it is common to consider national governments as the only legitimate actor in international policy-making processes.

The second primary feature is alliances among major nation states. This evolution in the state-based system is associated with the 1815 Congress of Vienna, in which the major European powers negotiated an end to two decades of war and redrew the continent's political map. The major Cold War alliances and many of today's intergovernmental arrangements can be thought of as latter-day applications of the kind of interstate diplomacy that stabilized Europe in the early 19th century (e.g., the North Atlantic Treaty Organization, the Association of Southeast Asian Nations (ASEAN) and ASEAN+3, the Gulf Cooperation Council, the Shanghai Cooperation Organization, etc).

The third main architectural feature is the formal multilateral United Nations system. It was largely constructed in the 1940s in the aftermath of World War II but had post-World War I antecedents such as the League of Nations and International Labour Organization (ILO). The Dumbarton Oaks, Bretton Woods and San Francisco conferences of 1944-45 drew up plans for the construction of a wide range of formal universal norms and specialized institutions to advance cooperation in many aspects of economics, security and society. These have generally been very successful and are what most people think of today as the international system.

These three main elements of the system will remain important pillars of international relations for a long time to come. But they have been overtaken in key regards by the sweeping economic, political, technological and social changes of the past generation. In particular, these transformations have created problems of legitimacy and effectiveness in the world's cooperative architecture.

Voting and leadership in the major institutions have yet to adapt adequately to the rise of Asian and other emerging powers, leading some of these countries to question their legitimacy at times and emphasize instead regional or unilateral approaches. And a global population that is more informed about global challenges is by definition more conscious that its priorities are not being translated adequately into action. This fuels popular frustration and cynicism about whether international institutions genuinely reflect popular will and are fully accountable.

At the same time, the proliferation of influential actors has complicated efforts to gain agreement on common, multilateral approaches even as the problems of a more crowded, polluted, unequal and vulnerable world demand greater attention. As a result, progress is lagging on many priority challenges, including a number of those for which political leaders have agreed on clear goals.

The rapporteurs discuss these priority shortfalls in cooperation in their respective thematic chapters. The larger conclusion to be drawn is that more complex interdependence has not only made it more politically challenging for our multilateral institutions to deliver effective international cooperation. It has also exposed important structural weaknesses. In particular, the increased number, interrelationship and disaggregated nature of the actors involved in many of these challenges have revealed serious limitations of scale, information and coherence.

Scale. Many of the most crucial collective action problems the world faces, such as poverty alleviation, income inequality and climate change, require resources to be mobilized on a scale that far exceeds those of governments and international organizations. Success is possible only by using limited official resources in ways that leverage much larger private and civil society flows of funds and capabilities. But while experimentation with individual public-private and multistakeholder partnerships has flourished over the past decade, including in many international organizations, they continue to play an incremental, even experimental, role in the international system rather than a systematic one. For this to change, policy-making processes and institutional structures themselves will need to be adapted and perhaps even fundamentally repositioned with this in mind.

Information. Rapid change and the greater diversity of actors make it more difficult for governments and intergovernmental institutions to remain confident that the information on which they base decisions is comprehensive, consistent and current. They need to adapt by casting a much wider net, systematically embedding themselves in diverse, often informal, networks of expertise. Enabled by new modes of virtual interaction, such blending of formal and informal sources of information can

enhance *ex ante* understanding of threats and challenges as well as *ex post* accountability of performance against agreed policy objectives. Here again, the challenge for today's institutions is to make the transition from *ad hoc* experimentation to institutionalization.

Coherence. Deeper interdependence poses an inherent challenge to a system that is highly segmented in the sense that it is characterized by specialized agencies and corresponding intergovernmental processes with responsibility for specific issue areas. The thematically stove-piped nature of our system has often been criticized for producing fragmented, partial and sometimes even incoherent responses to problems.

RENOVATING THE INTERNATIONAL SYSTEM

These deficiencies in legitimacy and effectiveness exacerbate each other. The more disconnected or disenfranchised certain countries and citizens feel from international institutions, the less they invest themselves in the success of the institutions' endeavours. The larger the shortfall in results in relation to goals, the greater is the tendency towards such detachment.

In short, the international system is in need of a new round of major structural renovations to enable it to better accommodate an international community that has been transformed over the past generation. The new architectural features must be designed not only to accommodate the arrival of a new set of informed and empowered actors on the world stage, thereby enhancing the system's diplomatic and popular legitimacy. They must also aim to harness the full potential of these actors to contribute to the system's effectiveness in achieving results.

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Every architectural renovation project starts with the identification by the owner of a number of core specifications. This is to ensure that the process remains guided by his or her fundamental interests. Fortunately, the core design specifications for international governance that were established during the international system's last round of major renovations remain as valid today as ever.

The ultimate "owner" of international governance is identified in the first words of the 1945 United Nations Charter: "We the peoples." Although the Charter was signed by states, it clearly positions the individual rather than the state as the ultimate stakeholder of international cooperation. This point is also underscored by its strong emphasis on "fundamental human rights", which were enshrined three years later in the Universal Declaration of Human Rights, the preamble of which proclaims: "*the advent of a world in which human beings shall enjoy freedom of speech and belief and freedom from fear and want . . . as the highest aspiration of the common people.*"

Similarly, the Charter states that the purposes of the United Nations system are to:

- maintain international peace and security
- develop friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples
- achieve international cooperation in solving international problems of an economic, social, cultural, or humanitarian character
- be a centre for harmonizing the actions of nations in the attainment of these common ends

In other words, the fundamental aim of the international system is to help advance the physical and material security of people. Sometimes threats or obstacles thereto require a response that is broader than that which can be organized by local, national or regional authorities. International cooperation is an instrument, complementary to local and national instruments, to strengthen human security and possibility rather than to build remote and bureaucratic supranational structures for their own sake. International governance is not an end in itself.

International cooperation is an instrument, complementary to local and national instruments, to strengthen human security and possibility rather than to build remote and bureaucratic supranational structures for their own sake.

If the fundamental reason to renovate international institutions and arrangements is to strengthen their contribution to the advancement of human security, then the specific goals of the exercise must be to correct or at least significantly narrow the shortcomings of legitimacy and effectiveness that have been exposed in the system in the years since its last major renovation. The ideas and proposals that have emerged from the Global Redesign process suggest that very substantial progress can be achieved in these two respects if we:

1) **Redefine the international system as constituting a wider, multifaceted system of global cooperation in which intergovernmental legal frameworks and institutions are embedded as a core, but not the sole and sometimes not the most crucial, component**

2) **Strengthen the state-based part of the system where its rules and capacities are inadequate, while expanding the geometry of cooperation to capitalize on the wider availability of non-state expertise and resources**

3) **Deploy this augmented institutional geometry in a results-oriented push to accelerate progress on individual priority challenges**

4) **Undertake similarly practical, targeted initiatives to strengthen legitimacy, participation and accountability in the state-based core of the system**

5) **Expand the constituency for international cooperation by cultivating a shift in values within societies and professions grounded in a deeper appreciation of the implications of global interdependence for the achievement of their objectives**

These five steps constitute a blueprint for renovating and rejuvenating international cooperation in an era of increasingly complex interdependence. As described in greater detail below, if the international community can progress on these five fronts, it will be in a much better position to tackle the toughest challenges and seize the brightest opportunities facing it in the 21st century.

These five steps constitute a blueprint for renovating and rejuvenating international cooperation in an era of increasingly complex interdependence.

1) Redefining the international system

Decades of economic development, integration of product and service markets, cross-border travel and new technologies enabling communication and virtual interaction have created a world that is much more multifaceted and bottom-up than top-down. The international community has become not only more economically and environmentally interdependent, but also more interwoven in a socio-political sense. People around the globe increasingly perceive their interconnectedness and seek ways to express themselves about it outside of formal national political structures. They have become more aware that global problems require global trusteeship and efforts to solve problems solely through traditional political processes, often characterized by the defence of national interests, may be inadequate in the face of critical global challenges.

Our state-centric international system needs to be adapted to an era of deeper global interdependence in which the big challenges to human security increasingly span national borders, ministerial portfolios and stakeholders. Nation states and intergovernmental structures will continue to play a central role in global decision-making. But they must be adapted to today's needs and conditions if they wish to preserve their effectiveness and legitimacy.

The first step is for governments and international organizations to conceive of themselves more explicitly as constituting part of a much wider global cooperation system that has the potential to overcome the limitations of scale, information and coherence from which they currently suffer. Indeed, they should work deliberately to cultivate such a system by anchoring the preparation and implementation of their decisions more deeply in processes of interaction with interdisciplinary and multistakeholder networks of relevant experts and actors. This will help transcend the silo and reactive thinking that are an acknowledged weakness of the formal multilateral system. It will also help improve accountability and legitimacy.

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The international system lacks adequate built-in incentives to focus disparate, but relevant, resources and capabilities on common, complex challenges. The G20 is an important new instrument, but as a top-down mechanism it alone is not sufficient to improve the effectiveness and legitimacy of the international system. Big challenges need to be dealt with increasingly in a more inclusive, results-oriented and holistic fashion – i.e., through a "we the peoples" rather than "we the states" approach to international governance and cooperation.

It is in this sense that the traditional, state-based conception of the international system requires redefinition. Deepened global cooperation along current lines is necessary but not sufficient. A more multidimensional and inclusive approach to setting norms and generating collective action is needed if we are to succeed in addressing the market and public governance failures that have accompanied globalization.

We can start by embedding our intergovernmental institutions and processes in wider processes and networks that permit scaled and continuous interaction among all stakeholders and sources of expertise in global society in the search for better solutions.

2) Strengthening the state-based part of the system while expanding the geometry of cooperation to capitalize on the wider availability of non-state expertise and resources

The Forum's Global Agenda Councils, Industry Partner communities and Young Global Leader Task Forces have proposed many specific ways in which global cooperation could be improved. The Forum challenged them to think strategically and structurally rather than incrementally based on their perception of current political feasibility. The specific question they were posed was: what would international cooperative structures look like in your field if they were designed today with contemporary circumstances and challenges in mind rather than those that prevailed in the mid-20th century?

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These leading experts responded with proposals to improve the effectiveness of the international system in four basic ways:

- **Extending intergovernmental norms and legal frameworks**
- **Reinforcing the capacity of intergovernmental institutions**
- **Integrating non-governmental expertise to strengthen policy formulation**
- **Integrating non-governmental resources to strengthen policy implementation**

They have identified significant opportunities for boosting progress in all four of these ways in each of the areas of economic, development, sustainability and security cooperation. For example:

Economic Cooperation

- The Councils on Global Investment Flows and Systemic Financial Risk have proposed the creation of a **global systemic financial risk watchdog** with the necessary authority to sound and compel a response to alarm bells, while respecting the regulatory purview of national authorities and building on the international framework that has been constructed in the wake of the financial crisis.
- The Council on the International Monetary System has proposed a significant **strengthening of the global financial safety net,** including through reforms of the International Monetary Fund's Articles of Agreement that would authorize the International Monetary and Financial Committee (IMFC) at the request of the Managing Director to issue Special Drawing Rights for the provision of emergency liquidity in times of financial distress.
- The Financial Services Industry Partner Rethinking Risk Management Project[22] has proposed a new **public-private financial risk information repository** that would improve the aggregation of systemically relevant data across the global financial system for the benefit of regulators.
- The Council on Trade has proposed the establishment of a **World Trade Organization protocol on plurilateral trade agreements** and a **review of regional free trade and preference agreements** to strengthen guidelines ensuring their consistency with the long-term vitality of the multilateral trading system.
- The Council on Employment & Social Protection has proposed enhancements to macroeconomic policy cooperation, such as the Mutual Assessment Process related to the G20's Framework for Strong, Sustainable and Balanced Growth, aimed at **introducing employment and living standards-related trends and policies as an explicit parameter of analysis and discussion**.
- The Council on the Skills Gap, in consultation with the Councils on Migration and Talent & Diversity, has proposed a new, structured public-private process to identify and encourage the **replication of model national labour migration policies.**
- The Council on Benchmarking Progress in Society has proposed an international initiative to strengthen the quality and **broaden the application of benchmarking metrics and other evidence-based policy-making tools** as a means of improving the demand for and accountability of performance against economic reform objectives.
- The Council on the Future of Mining & Metals has proposed a multistakeholder process to draft a **model framework for Fair Mineral Development Agreements** that would establish best practice regarding both the negotiating process for and content of resource extraction agreements in developing countries.

Development Cooperation

- The Health Cluster Rapporteurs, Peter Piot, David Bloom and Peter C. Smith and the Council on Global Healthcare Systems & Cooperation have put forward a set of proposals to **strengthen global health governance** through better integration of relevant information and actors, including a Partnership for Health Risk Accountability to strengthen policy planning and resource allocation; a standing, informal forum to enhance coordination across public, private, philanthropic, university and civil society health actors; and a strengthening of the capacity and division of labour among international institutions.

- The Council on Education Systems has proposed to **reformulate the governance and supporting institutional architecture of the Education for All effort** through a multistakeholder review that involves G20 education, development and finance ministries.

- The Council on Education Systems has also proposed the creation of **alternative innovative sources of financing to resource national education plans** drawn up by developing countries in connection with the Education for All initiative as well as targeted initiatives in the areas of teacher training, North-South university cooperation and informal learning.

- The Council on Employment & Social Protection has proposed a **major expansion of the capacity of the International Labour Organization and multilateral development banks** to help developing countries strengthen domestic institutions relevant to employment generation and wage progress as well as the provision of basic retirement, health and unemployment insurance systems, as envisioned by the Decent Work Agenda.

- The Council on Humanitarian Assistance has proposed the creation of a **new humanitarian business model** that emphasizes tri-sector national and regional partnerships to pre-emptively reduce disaster-related risks and strengthen disaster response capabilities.

- The Forum's Partnering Against Corruption Initiative (PACI) has proposed the creation of a new **global multistakeholder partnership to scale the "supply side" (i.e., business) commitment to a zero tolerance policy with respect to bribery** as a complement to official "demand side" efforts by governments to strengthen policy in this respect.

- The Councils on Nutrition and Food Security have proposed the creation of a **Global Food, Agriculture and Nutrition Redesign Initiative** to provide an action-oriented strategy and set of high profile partnerships to increase the diet quality of the poor and particularly the nutritional status of children under the age of two.

- The YGL Global Responsibility Licensing Task Force and Council on the Intellectual Property System have proposed a new initiative to expand access to **intellectual property** relevant to poverty alleviation and humanitarian assistance while preserving protection for commercial uses.

- The Council on Population Growth has proposed **sharpening the mandate and strengthening the capacity of the United Nations Population Fund** so that it can more effectively lead and coordinate international efforts related to population growth.

- The Council on Fragile States has proposed creation of a **dual-oversight agency** where responsibility is shared between state authorities and external funders in order to meet the urgent needs of the population in fragile states through the delivery of essential social and economic services, while building sustainable and accountable systems of public authority.

- The Council on Poverty & Development Finance has proposed new means of improving dialogue and cooperation among the overlapping public, private and civil society networks of aid funders and providers, including the creation of a **Global Aid Partnership for Innovation** that would promote a yearly marketplace for the funding and systematic evaluation of innovative approaches to development assistance.

Sustainability Cooperation

- The Council on Ocean Governance and the YGL Task Force on Oceans have proposed a **significant expansion of Marine Protected Areas, including Large Ocean Reserves, as well as a formal review of the adequacy of the Law of the Sea Treaty and Fish Stocks Agreement** in view of the ongoing degradation of major fisheries around the world.
- The Council on Ocean Governance has also proposed the creation of an **Ocean Health Index** to strengthen the information available for setting priorities and tracking progress with respect to the protection of marine life.
- The Industry Partner Low-Carbon Prosperity Task Force has proposed the creation of:
  - **regional, public-private climate investment funds** that leverage large-scale private institutional capital flows into low-carbon energy systems in developing countries through the scaled application of the public finance and risk mitigation tools of development finance institutions.
  - **international public-private portfolios of up to 25 carbon capture and sequestration and 10 large-scale integrated smart grid demonstration projects** across different regulatory regimes to accelerate the development and commercial readiness of these promising technologies.
  - **supporting processes and institutional capacity for the low-carbon growth plans** that developing countries are formulating in connection with the United Nations climate negotiations, including the creation of a Consultative Group for International Energy Research and a process to ready an operational framework for large-scale avoided deforestation and land use change projects and programmes.
  - a **global platform for intra-industry cooperation on energy efficiency** via the addition of a private sector dimension to the International Partnership for Energy Efficiency Cooperation (IPEEC), potentially leading to a set of globally-accepted minimum energy efficiency standards on a limited but critical range of energy intensive industrial and consumer goods.
  - a Joint Project of the International Accounting Standards Board (IASB) with the business-NGO Climate Disclosure Standards Board (CDSB) to develop a **principles-based international financial reporting standard for corporate climate disclosure** suitable for ultimate adoption by regulators, as well as a similar public-private collaboration to create a **global standard for the labelling of emission footprints** on consumer products, building on work also already under way in the non-governmental organization community.
- The Council on Sustainable Energy has proposed the negotiation of a **sectoral free trade arrangement for sustainable energy products and services** that would eliminate tariffs and harmonize standards on such trade as well as begin to discipline domestic fossil fuel subsidies.
- The Industry Partner Water Initiative and the Council on Water Security have proposed a **new international multistakeholder platform to help water-stressed countries and regions** transform the management of their water resources, supported by an unparalleled network of public, civil society and private expertise.

Security Cooperation

- The Council on Terrorism & Weapons of Mass Destruction has proposed the creation of a **Global Alliance Against Nuclear Terrorism** composed of states that commit to secure all nuclear weapons and materials to a "gold standard" – beyond the reach of terrorists or thieves – by embedding principles of "assured nuclear security" and "nuclear accountability".
- Based in part on discussions at the Qatar country hearing, the Council on Energy Security has proposed the creation of a **new intergovernmental energy security forum** encompassing producing and consuming nations and providing a platform for the identification of areas of potential cooperation on a wide range of energy challenges.
- The Council on Human Rights & Protection has proposed a series of steps to strengthen particularly the non-military **institutional capacity required for the effective prevention of mass atrocities** under the United Nations Responsibility to Protect framework.
- The Council on Energy Security has proposed the creation of a **global public-private partnership to manage the civilian nuclear fuel cycle** as a means of reducing the risk of nuclear weapons proliferation as additional countries engage in nuclear power generation.
- The Council on Catastrophic Risks has proposed a high-level, inclusive dialogue including business, political and civil society leaders to develop better institutions and networks to support **global risk management**.
- The Council on the Future of the Internet has proposed new, **self-associating ways of mobilizing international cooperation to strengthen the resilience of the World Wide Web.**
- The YGL Civic Eyes Task Force has proposed a new organization to strengthen domestic capacity to replicate **mass citizen participation in the monitoring and reporting of election irregularities** through crowdsourcing technologies.

3) Deploying this augmented institutional geometry in a results-oriented push to accelerate progress on individual priority challenges

Out of this systemic overview of the proposals emerges a clearer picture of how progress can be organized more effectively in our more complex, bottom-up world.

When states were the overwhelmingly dominant actors on the world stage and major policy decisions were commonly decided by a limited number of them, progress on international cooperation tended to be measured by the establishment of new intergovernmental legal frameworks and institutions. Today, however, the pluralization of political and economic power among states and the greater weight of business, civil society and even sub-national governmental institutions implies that efforts to strengthen international cooperation will increasingly need to have a wider focus, applying many if not all of the four aforementioned tools: creating international laws and institutions; upgrading the mandate and capacity of existing international institutions; integrating non-governmental expertise into the formulation of policy frameworks, be they formal (legal) or informal (voluntary or public-private); and integrating non-governmental resources into the policy implementation.

This is both because a larger cast of politically influential states makes it harder to attain multilateral agreement on universal frameworks, and because private and other civil society resources are needed to match the scale of many global challenges. While new international laws and institutions are often desirable – and indeed many have been proposed as part of this process – they are not always essential for major progress to be made. And even where they can be achieved, their effective implementation may well depend on whether they are linked with these other practical elements.

One of the key lessons of the Global Redesign process is that the road towards more effective international cooperation on any given issue begins with a systematic examination of the possibilities for strengthening and integrating efforts across all four of these dimensions. Each tool needs to be checked to see if it can contribute to the job at hand.

By appreciating more fully the range of tools at its disposal to advance progress, the international community will be in a better position to move forward even if its efforts to create new multilateral frameworks falter or take longer than anticipated. This lesson has particular relevance today given the slow pace of such multilateral processes as the United Nations Framework Convention on Climate Change (UNFCCC), WTO trade and Nuclear Non-Proliferation Treaty (NPT) renewal negotiations.

But understanding that we have a bigger toolkit is not enough; we need to know how to use it. What components of progress can be most readily assembled with these tools and how are they likely to fit most productively together? Although the response to this question is likely to vary from one challenge to another, a clear pattern emerges from the work of the Forum's Global Agenda Councils, Industry Partner Initiatives and Young Global Leader Task Forces.

Multidimensional Cooperation

The wider global cooperation system that is available to strengthen progress on any given issue consists of four modular building blocks that can be applied in partial and different combinations to different problems:

- High-level political commitments and objectives
- Multilateral legal frameworks and institutions
- Plurilateral, often multistakeholder, coalitions of the willing and able
- Information metrics to assist with anticipating risks, shaping priorities and benchmarking performance

The way to strengthen results on a given problem is to explore the practical opportunities that exist to construct or strengthen building blocks in each of these dimensions, seeing them as a system and therefore seeking to cultivate a positive feedback loop of momentum among them. The challenges of scale, information and coherence inherent in deep interdependence imply that, if the international community focuses its cooperation on only one of these components of progress, it is much more likely to be disappointed with the results.

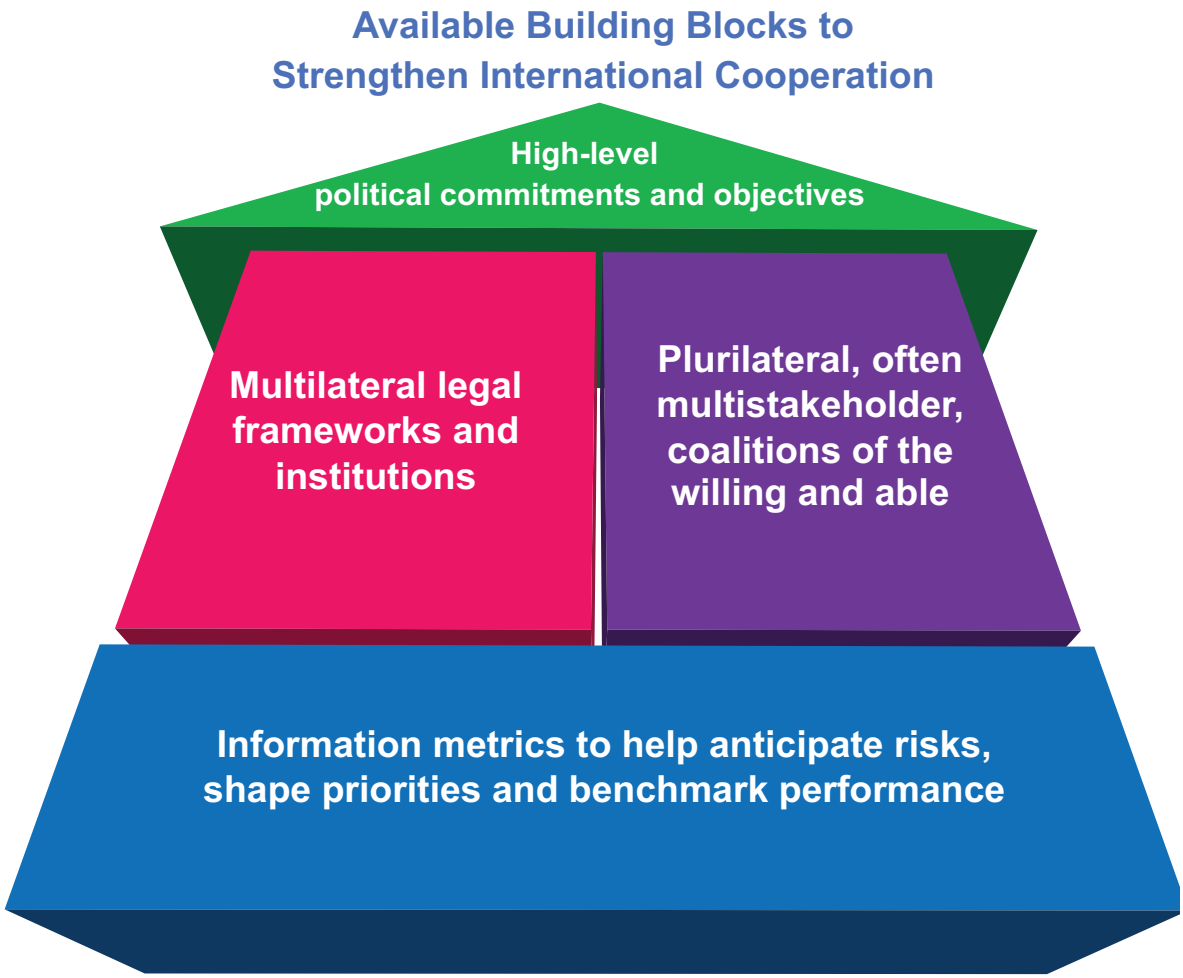
The wider global cooperation system that is available to strengthen progress on any given issue consists of four modular building blocks that can be applied in partial and different combinations to different problems.

Of course, these individual elements are not new. They exist in different forms in relation to many different issues. The novelty is in conceiving of them as a system, i.e., constructing a set of building blocks along these multiple lines in relation to specific challenges. Therein lies the potential for major strides forward in international cooperation on some of the thorniest and most consequential problems of our time.

Existing examples of high-level political capital investment and signalling include G8 and now G20 Leader communiqués, the UN Millennium Declaration establishing the Millennium Development Goals, communiqués of regional Leader summits like the Asia-Pacific Economic Cooperation (APEC) forum, etc. Such leader-level declarations and initiatives are not panaceas, but they can set new priorities, trigger new or more energetic action by international bureaucracies and their corresponding ministerial processes, and invest the prestige and reputation of our top democratically accountable leaders in stronger results. As such, they can be a very useful contributor to progress, even if they require additional action in order to be translated into results on the ground.

Examples of multilateral legal frameworks and institutions include the World Trade Organization, UN Charter, Montreal Protocol banning chlorofluorocarbons, the Ottawa Mine Ban Treaty, International Labour Organization standards, etc. Formal treaties, rules and institutions like these form the core of the international system. They ensure a level playing field and give formal expression to the international community's common norms and principles.

Examples of the third building block, practical, results-oriented coalitions, include such intergovernmental initiatives as the World Trade Organization Information Technology Agreement, US-Russia START nuclear arms reduction treaty and even the recent Copenhagen climate accord, which was originally signed by 28 countries but now has over 110 adherents. They also include such multistakeholder initiatives as the Investment Climate Facility for Africa, Global Alliance for Vaccines and Immunization (GAVI), Marine Stewardship Council, Extractive Industries Transparency Initiative, UN Global Compact, etc. These alliances of willing and able parties can often achieve considerable progress on a problem, particularly when a large proportion of the most relevant actors participate.



Examples of the final building block, information and metrics, include the Intergovernmental Panel on Climate Change, the OECD Programme for International Student Assessment (PISA) reports, Transparency International's *Global Corruption Report*, the WTO Trade Policy Review Mechanism, the World Bank's *Doing Business* reports, the Centre for Global Development's Commitment to Development Index, Human Rights Watch's *World Report*, the World Economic Forum's *Global Competitiveness Report*, the Millennium Ecosystem Assessment, etc. Information exercises such as these can be highly effective at influencing the political debate and agenda, shaping policy planning and resource allocation, and tracking results in relation to political objectives. They have the potential to enable and mobilize grass roots political support behind each of the other three building blocks. As such, they deserve to be considered as a structural feature of international cooperation in their own right.

Particularly when the road to stronger multilateral rules is impracticable, a strategy to construct or strengthen a number of these building blocks in parallel is likely to be the most effective way to accelerate progress.

Particularly when the road to stronger multilateral rules is impracticable, a strategy to construct or strengthen a number of these building blocks in parallel is likely to be the most effective way to accelerate progress. By attacking problems pragmatically on several fronts, such a multidimensional (as opposed to purely multilateral) approach to international cooperation has the potential to generate both additional results on the ground and political momentum.

Multidimensionality, rather than multilateralism alone, is the strategy proposed by the Forum's Low-Carbon Prosperity Task Force and Global Agenda Council on Climate Change to achieve a breakthrough in progress on global warming. It is also the approach arrived at independently by Councils working on several others critical challenges, including Oceans, Education, Nuclear Proliferation, Global Health, and Employment and Social Protection.

Global Warming. Despite years of negotiations and great public expectation, governments were unable to reach agreement in Copenhagen last December on a multilateral climate change policy framework to succeed the Kyoto Accord, notwithstanding the public commitments issued earlier by G20, EU, APEC and other groups of leaders. In June 2008 and again in September 2009, the Forum's cross-industry Gleneagles Dialogue and Low-Carbon Prosperity Task Force outlined the elements of a complementary, bottom-up strategy to build enabling architecture in several crucial areas, including low-carbon investment in developing countries, diffusion of energy efficient products and industrial processes, accelerated development of smart grid and carbon capture and storage technologies, implementation of large-scale deforestation and land use initiatives in developing countries, and establishment of consistent, carbon-related corporate and consumer product metrics. Outlined in detail in the Low-Carbon Prosperity Task Force proposals included in this report, these and other initiatives in the international community summarized by Sustainability rapporteurs Caio Koch-Weser and Ashok Khosla represent a way to build on the two other building blocks already in place – high-level political commitments as well as the information represented by Intergovernmental Panel on Climate Change analyses and the new system of registering and benchmarking country progress established by the Copenhagen Accord – in a practical, results-oriented strategy to accelerate the transition to low-carbon energy systems around the world even as the negotiations on a multilateral legal framework continue. Indeed, such mechanisms will be needed anyway to translate the legal framework of national commitments that is ultimately agreed by governments into actual changes in investor, industrial and consumer behaviour.

Multidimensionality, rather than multilateralism alone.

Oceans. The collapse in world fisheries over the past generation is in many respects an even more serious and urgent crisis than global warming. But unlike global warming, the crisis confronting marine life has yet to generate a high-level commitment to action by world leaders. Nor is there a multilateral legal remedy under negotiation or a comprehensive information source on which to base policy decisions and rally grass roots political engagement. And while practical coalitions have already formed and taken important actions, such as the Marine Stewardship Council and certain regional marine protected areas, they are of insufficient scale relative to the challenge. Thus, the global redesign proposals developed by the Council on Ocean Governance and the YGL Oceans Task Force are a highly significant contribution in that they would construct a mutually reinforcing set of building blocks in all four areas on one of the most urgent global environmental challenges. The proposals include a high-level, independent review of the adequacy of the two most relevant multilateral legal conventions, the Law of the Sea and Fish Stocks Agreement; a major expansion of Large Ocean Reserves through bilateral and plurilateral agreements among relevant nations; multistakeholder initiatives to strengthen the enforcement of fisheries agreements and shift the procurement of fish to sustainably managed fisheries; a public-private dialogue process to facilitate progress in the WTO fisheries subsidy negotiations; and the creation of global information metrics to measure ocean health and shape policy.

Education. Education presents another complex challenge of global proportions. In this case, excellent metrics already exist, in particular the OECD's Programme for International Student Assessment (PISA), which benchmarks the scholastic performance of 15-year olds across 65 countries, and UNESCO's Global Monitoring Report, which tracks progress on the Education for All goals. However, there is a notable lack of high-level political commitment, a comparatively weak and poorly resourced set of international institutions and an insufficient emphasis on practical, results-oriented alliances, including those involving the business community. In response, the Council on Education Systems has proposed a multistakeholder review of the structure and capacity of the Education for All architecture, and it has issued a call to action to G20 Leaders to champion educational reform and resource mobilization in much the same way they rallied attention – and support – for global health in the past decade. In particular, they have called on these leaders to engage their education, development and finance ministries in this review as well as undertake with other stakeholders a first set of practical, targeted initiatives in the areas of teacher training, North-South university cooperation, lifelong and informal learning, and new approaches to assessment.

Non-Proliferation. 2010 is an important year for international cooperation in the area of nuclear non-proliferation. In this case, the international legal regime (Non-Proliferation Treaty) and high-level political commitment (United Nations Security Council Resolution 1540, which mandates that all countries provide "effective, appropriate" security and accounting for their nuclear stockpiles) are well established. What is missing is a practical mechanism to operationalize the Security Council resolution and make such behaviour sufficiently transparent to enhance confidence. The Council on Terrorism & Weapons of Mass Destruction proposes a new Global Alliance Against Nuclear Terrorism in which a coalition of countries would attempt to set a new standard governing the responsibility of states to secure all of their nuclear weapons and materials to a "gold standard" and adopt accounting and transparency measures to ensure such standards are being met. If nuclear weapons or materials were stolen, states that had satisfied the requirements of the Alliance would be judged less culpable. A state that was unwilling to participate fully would put itself on the list of suspect sources of a terrorist nuclear bomb. For their part, the Council on Energy Security has proposed an additional practical approach to nuclear non-proliferation: a global public-private partnership to manage the nuclear fuel cycle of civilian power plants in a politically neutral and technically secure manner, thereby reducing the incentive for countries to develop their own nuclear processing and enrichment capabilities.

Health. One of the defining features of global health cooperation over the past decade has been a marked increase in high-level political commitment. This has translated into very substantial increases in resources and innovation. However, in the view of Health rapporteurs Peter Piot, David Bloom and Peter C. Smith and the health-related Global Agenda Councils, the effectiveness of public health efforts around the world remains constrained by inadequate institutional capacity, metrics and coordination across different actors. They observe that much of health gets built or destroyed through water and sanitation, transportation, communication, education and information, and food systems as well as individual behaviours – not in hospitals and not by health workers. Rather than trying to rally these multiple sectors around an agenda entirely conceived and driven by health professionals, a more integrated planning process is needed to improve the impact of curative and particularly preventive health activities. To this end, they propose an annual multi-actor Global Health Summit adjacent to the WHO's intergovernmental World Health Assembly as well as a Partnership for Health Risk Accountability and Health Data Charter to enable the creation of a more rigorous analytical foundation for such planning. They recommend strengthening the normative, leadership and coordinating role of the World Health Organization, while delineating more clearly the division of labour among specialized health agencies. And they propose a number of practical coalitions and mechanisms focused on immediate challenges, including on the malnutrition of children under the age of two, non-communicable diseases, health workforce shortages and skills, etc.

Employment and Social Protection. No issue is more pressing in the wake of the global economic crisis than unemployment and social protection, a topic that traditionally has been a low priority of international economic policy cooperation. In fact, there is universal political agreement, in the form of the Decent Work Agenda and Global Jobs Pact, on the aspects of cooperation that should be deepened; however, this consensus on goals and principles has yet to be translated into the necessary increases in capacity of relevant international and national institutions. The Council on Employment & Social Protection proposes an integrated strategy to strengthen building blocks in all four areas of international cooperation. Specifically, they call for G20 Leaders to direct their labour, finance and development ministers to develop a set of reforms to upgrade the mandates and resources of development finance institutions and the ILO for the purpose of providing much greater assistance to countries wishing to strengthen domestic institutions related to employment creation, private investment, labour standards assessment and implementation, and basic pension, unemployment and health insurance systems. They also propose a process of surveying and encouraging the replication of good practice in respect of raising the employment intensity of economic recovery and limiting the employment and social impacts of economic downturns. And they call for a broadening of macroeconomic policy cooperation exercises, such as the mutual assessment process that the G20 created in Pittsburgh last year, to include explicit analytical parameters and policy dialogue on progress in employment and living standards.

For each of these six priority global challenges, the Councils and communities involved in the Global Redesign process have framed results-oriented strategies to boost progress by addressing the problem systemically, i.e., by assessing practical opportunities for improvement across all four components of the ecosystem of global cooperation in their area. Their ideas point the way towards a new approach to strengthening international cooperation based on a broader conception of the international system and wider appreciation of the available modes of cooperation and governance. No doubt, there are many other challenges that could benefit from this kind of multidimensional, results-oriented push to accelerate progress on key challenges.

4) Strengthening legitimacy, participation and accountability in the state-based core of the system

Practical, results-oriented ways are also needed to make the principal international institutions more representative of and accountable to our more interdependent, bottom-up world. Strengthening their effectiveness in the ways suggested above would also certainly strengthen their legitimacy. But based on the many views expressed over the course of the Global Redesign process, including particularly the country hearings in Switzerland and Singapore, there are three additional areas that require special attention if the multilateral system is to retain the confidence of the international community: updating voting structures, consulting more directly with citizens and their elected parliamentary representatives, and embedding the G20 in a manner that achieves both greater legitimacy and effectiveness for the system as a whole.

Rebalancing of Voting Strength

As outlined by Institutions rapporteurs Kishore Mahbubani and Ngaire Woods, the voting structures and leadership selection processes of the Bretton Woods institutions have yet to adapt adequately to the increased weight of emerging economies in the world economy. Calling for further reforms, they cite the recent Zedillo and Manuel Reports' recommendations for changes at the World Bank and International Monetary Fund, respectively. In addition, the Council on the International Monetary System has proposed a further 5% shift in the IMF's voting allocation beyond the increases (of approximately 5%) agreed in 2009.

There may be more traction in Asia to global governance reforms that address specific problems to be solved, rather than institutions to be built.

According Asian and other emerging powers their rightful weight in decision-making within multilateral institutions, including through leadership appointments, will help to ensure the institutions' legitimacy and relevance in the 21st century. But we should anticipate that it may also change their culture and agendas, particularly if such countries exercise leadership commensurate with their voting weight. The Singapore country hearing concluded that:

> *There is wide agreement in Asia that the approach to global governance should be one of evolution rather than revolution. Asians want to grow and perpetuate the global system, not revolutionize or reset it.*
>
> *Asian countries have adopted a main agenda of economic development and an overarching sense of pragmatism. The development of policy in Asia tends to be exclusive, elitist and technocratic. This approach, while consistent with pragmatism, is markedly different from that taken by Europe and the United States, which have more a pluralistic and contentious style to governance.*
>
> *In this sense, it is worth noting that pragmatism has two distinct meanings. Its negative connotation is of avoiding grand principles. But its more positive sense refers to a practical approach to problems. There may be more traction in Asia to global governance reforms that address specific problems to be solved, rather than institutions to be built*.
>
> *The vast majority of Asian governments now understand that collective action does not erode, but instead protects sovereignty. The ability to manage internal problems increasingly requires engagement at the international level.*[23]

Citizen and Parliamentary Engagement

The second legitimacy challenge to international institutions posed by the transformation of the international community in recent decades relates to changes among their ultimate stakeholders: people. Citizens around the world are increasingly educated, interconnected and engaged in global affairs. This trend is generating new demands on institutions of all types to explain and account for their strategies and performance.

We know from historical experience that legitimacy in governance works as a reverse function of distance to the people. The shorter the distance to the people, the stronger is the perception of legitimacy. Thus, international organizations would appear to be even more implicated by this general trend than national governments, businesses, universities, NGOs or religious organizations.

Citizens around the world are increasingly educated, interconnected and engaged in global affairs. This trend is generating new demands on institutions of all types to explain and account for their strategies and performance.

There are two concrete steps that could be taken to lessen this distance in the state-based core of the international system: harnessing the potential of social media to expand consultations with and accountability to citizens; and establishing a UN consultative body for parliamentarians. These could significantly strengthen citizen participation and accountability within the system without diluting its essential governance characteristic as a framework in which decisions are made exclusively by sovereign states.

Social Media. The mass popularity of new interactive electronic media provides an opportunity for international institutions to communicate more directly and effectively with citizens. Like most established institutions, they are at an early stage of developing strategies to apply these new techniques. But the early experience of some local governments and businesses suggests that the potential utility of this communications medium is very large indeed.

The emergence of digital collaborative platforms, Web-based applications, and social networks is dramatically changing the way many organizations are operating. New innovation models and the resulting changes in social interaction are altering nearly every dimension of human and organizational behaviour. The result is an increased need to redesign the strategic approach used to deliver services, promote activities and execute advocacy campaigns in a way that integrates this technology as a fundamental part of an institution's core activities.

Many organizations make the mistake of focusing on tactics instead of strategic value and pass the responsibility of digital engagement to their younger staff members or interns as an added after-thought to existing marketing or communications departments. This results in campaigns that require great effort without delivering value for the organization's overall mission. In fact, social media represents both an opportunity for international institutions to strengthen their connection to their ultimate stakeholders and a new form of international cooperation in itself.

Based on preparations for a special Global Redesign session at the World Economic Forum Annual Meeting 2010 involving heads of international organizations and social media experts, a number of initial guidelines emerged for international organizations and partnerships wishing to develop an effective strategy in this area:[24]

- *Set strategic direction from the top*. While younger demographics seem to have a better grasp on emerging tools such as Facebook, Twitter and blogs, the digital strategy needs to come from the people who have the business experience and foresight to understand the organization's long-term objectives.

- *Think beyond marketing.* These tools have the potential to improve business practices. For example, during the Haiti crisis social networks played a critical role in providing up-to-the-minute updates of ravaged city neighbourhoods that international organizations couldn't reach and helping to locate missing family members and generate funds.

- *Use existing technologies.* Gone is the burden of needing to develop complex IT solutions in-house. Today many of these services are available for use free of charge. Organizations should identify the places where constituents are already gathering, and establish a presence to identify the best ways to interact with them.

- *Start small.* There is often a temptation to use these technologies to make broad, sweeping changes to all facets of an organization all at once. This frequently results in chaos and unnecessary stress for everyone involved. It makes more sense to identify a small pilot opportunity in which the organization can engage within a clearly defined project to gain experience without too much disruption. Successfully completing these types of initiatives builds credibility internally and generates a set of best practices that are unique to the organization.

- *Collaborate.* One of the emerging issues that is already developing in this new arena is the emergence of digital silos. Each organization is so busy promoting its own cause that it is ignoring the unprecedented opportunity offered by the Web to share information with others. When establishing a strategy, organizations should think about what they can offer to and gain from other organizations operating in this space.

UN Parliamentary Assembly. Proposals to create a United Nations parliamentary assembly have a long history and take various forms. Discussions in the Switzerland country hearing suggested that significant gains in democratic participation and accountability could be achieved without diluting the sovereign authority of national governments by establishing a purely consultative body attached to the UN.[25] The goal would be to provide a more structured process by which the principal organs of the UN system engage in discussion with directly-elected politicians holding national parliamentary office, for example in a semi-annual programme of dialogue in New York and Geneva based on a number of prescribed reports. The UN system should regard the establishment of such a body, perhaps set up in cooperation with the Interparliamentary Union, not only as a necessary means for advancing democratic participation and accountability in a more bottom-up world but also as an opportunity for building stronger political constituencies around the world for the international cooperation and governance it seeks to deliver.

The Ongoing Role of the G20 Leaders Process

The international system recently took a big step in the direction of greater legitimacy through the expansion of the Group of 8 Leaders' gathering into the Group of 20. Representing over 80% of world GDP and two-thirds of its population, this informal grouping has a much more legitimate claim to being the world economy's steering committee than its G7 and G8 predecessors. However, it is a relatively new phenomenon and remains heavily focused on near-term responses to the economic crisis. Whether and how it becomes a permanent feature of international governance will have important implications for the legitimacy and effectiveness of the international system.

This is because decisions taken by committees, even large ones, do not necessarily amount to the consent of the governed. Just because the G20 countries are the largest does not necessarily mean that they will always have the best ideas or the best interests of the entire international community at heart. Indeed, the history of international relations is replete with examples of large powers reaching agreements that advance their own national interests at the expense of smaller states. Thus, particularly at such a formative moment in international governance, it is constructive that 23 small and medium-sized states have formed the Global Governance Group for the purpose of contributing an additional intergovernmental cross-section of views to the debate.[26]

Particularly at such a formative moment in international governance, it is constructive that 23 small and medium-sized states have formed the Global Governance Group for the purpose of contributing an additional intergovernmental cross-section of views to the debate.

Now that the worst economic effects of the crisis appear to have passed, the G20 would do well to begin to consider its longer-term purpose and positioning in the international system. It enjoys considerable goodwill due to the success of its crisis-response measures and greater diversity than the G8. However, there is a risk this goodwill will dissipate among the rest of the so-called G192 if its ongoing purpose and relationship with the United Nations and specialized international organizations are not clarified soon.

Now that the worst economic effects of the crisis appear to have passed, the G20 would do well to begin to consider its longer-term purpose and positioning in the international system.

The G20 is an informal group and should remain so in order to preserve its intimacy, wherein lies much of its potential to enhance systemwide effectiveness. However, it needs to be embedded explicitly in the formal multilateral system in order to demonstrate more clearly its commitment to acting in the general interest and being accountable to the entire international community rather than simply to the national populations of its member countries. Tantamount to the role played by an important caucus or committee in a national legislature, the G20 should see its purpose as adding leadership and coherence to international economic, social and environmental cooperation, while respecting the role of the UN and specialized international organizations as the legitimately constituted vehicles for decisions affecting the entire membership.

A healthy triangular relationship with the United Nations and international organizations that enhances the legitimacy and effectiveness of the entire system could be established through the following practical reforms:

- **Anchor in the UN system.** The UN Secretary-General should be made the 21st ex officio member of the group. Each year, the troika of G20 Leaders (past, present and prospective chairs) should issue a report to the United Nations, summarizing the main outcomes of the process for the year. A group of its relevant ministers should make themselves available for annual or semi-annual hearings within the Economic and Social Council (ECOSOC) to expand upon the report and respond to questions from non-member states.

- **Rationalize participation.** One approach[27] would be to include as members the largest two economies from each region – the Americas, Europe, Asia and the Pacific, North Africa and the Middle East, and Sub-Saharan Africa – plus the 10 other largest economies in the world. Membership should be reviewed in light of these criteria every ten years, and countries subject to UN sanctions should be considered ineligible. The principal regional organizations such as the EU, ASEAN, African Union, and OAS, should be accorded observer status. The chair could continue the recent tradition of extending informal invitations to leaders of other countries depending on the agenda.

- **Inculcate a sense of systemic stewardship.** G20 meetings create an opportunity to bring greater coherence to international economic policy and institutions similar to the way in which the cabinets of prime ministers and presidents shape priorities and enforce coordination among departments within national governments.[28] Indeed, the strongest reason for making these summits a standing item on the international calendar is to fill this void in international governance – to create a mechanism capable of driving greater alignment and synergy among the various multilateral institutions and the individual portfolios of ministers that govern them.

  To cultivate a culture of systemic oversight and collective responsibility for coherence among their group, leaders should direct the IMF, World Bank, ILO and WTO to prepare each year for their review a joint annual report on the performance of the world economy.[29] This report should be signed by the heads of the organizations and be made a standing item for discussion on summit agendas. It should analyse trends in growth in economic activity, trade, capital flows, employment and living standards, and document how these multilateral institutions are working together to improve these trends. Strengthening the joint accountability of these institutions to heads of government should improve cooperation among them and help ensure that all relevant international economic policy tools are being applied in an integrated fashion to the challenge of maximizing the contribution to global growth and broad living standards of global economic integration.

  Finally, a relatively small secretariat should be established, based in a developing country and staffed principally with secondees of the current, preceding, and prospective chair countries.

5) Expanding the constituency for international cooperation by cultivating a shift in values within societies and professional cultures

Strengthened international cooperation and governance is not only a matter of institutional arrangements and incentives. It is also a matter of values. We have often placed performance before people and allowed our economic life to drift away from our political and ethical commitments. The civic culture which has grown up alongside our global economy is not robust enough to bring our commitments to bear on the decisions which structure our political and economic lives. As a result, there is often a gap between what we profess and what we do.

All good governance rests on a cultural foundation. All formal institutions – constitutions, written laws, governmental bodies – rest upon the informal institution of culture. This is more the case at the global than at the domestic level. Shared ideas and commitments matter all the more when institutions are thin, policy levers weak and enforcement uneven. A more robust ethos of international cooperation must be built on a foundation of ethics embodied in new practices. We must learn to build our commitments into our economic models and decisions, into our political and social institutions. We will need to embed our commitment to a common future in our local and national communities, in our institutional, professional and personal lives.

Globalization is shifting the ground under political leaders. The familiar iron laws of politics and international relations, symbolized by the nostrums that “all politics is local” and “nations don’t have permanent allies, only permanent interests” are weakening. In this new era of enhanced interdependence and connectivity, all politics is assuming an international dimension, and statecraft is assuming an increasingly important cooperative dimension in which interests are manifested in transnational and informal ways.

We know that multilateral agencies and intergovernmental institutions are not able to protect the global commons alone nor shoulder full responsibility for our global welfare. We must ensure that they are also not alone in *valuing* global welfare. Effective global governance requires many others: local and national governments, private individuals and corporate actors, the non-governmental organizations and social networks of civil society, our media, cultural and religious institutions, and more. Those who work in all these places must begin to think globally – to place the welfare of the global community higher among their priorities. Individuals and organizations – like cultures, religions and nations – must have and know that they have a direct stake in a properly functioning international system.

Those who inhabit the global economy are all too prone to treat matters of human dignity and security as outside their legitimate purview – matters for local political responsibility. Yet global welfare requires that we do so. For business leaders, this means understanding the place of their sector, industry or company in the broader social and political world – whether or not they are incentivized or compelled by regulation to do so. The same is true for local and national political actors, who must also understand the broad global effects of their action and inaction. It is also true for private citizens and social networks, who can no longer leave questions of global welfare and sustainability to political and economic leadership.

Individuals and organizations – like cultures, religions and nations – must have and know that they have a direct stake in a properly functioning international system.

A New Stakeholder Paradigm of International Governance

Deeper interdependence has made international cooperation and governance everybody's business. Not only do international institutions need to be updated accordingly, but social institutions require adaptation as well. Businessmen and women, university presidents, local politicians, faith leaders and scientists need to develop a keener appreciation that the health of the international system is an increasingly important, if underlying, ingredient in the vitality of their own institutions and professions. The global economic crisis, World Trade Center terrorist attacks and global warming projections are unpleasant object lessons in this feature of 21st century life.

The time has come for a new stakeholder paradigm of international governance analogous to that embodied in the stakeholder theory of corporate governance on which the World Economic Forum itself was founded. In corporate stakeholder theory, the company is considered to be responsible to not only its shareholders but also to the wider range of actors who have a clearly perceived stake in the firm's success, such as workers, suppliers, customers, communities, etc. The 1945 UN Charter has already explicitly identified people, or society at large, as the ultimate stakeholder of international governance, notwithstanding the role sovereign states play as the central actors in the international system. Indeed, this report has emphasized how the state-based core of the system should adapt to a more complex, bottom-up world in which non-governmental actors have become a more significant force. But what is also required is a corresponding sense of ownership in the health of the international system by these very non-state stakeholders, which until now have tended, with the notable exception of certain NGOs, to leave such matters entirely to their national governments.

How can greater mindfulness about the international influences on and implications of their activities be inculcated in political, business, academic, religious, media and other institutions? Most importantly, these institutions can cultivate among their leaders before they become leaders a keener awareness of how the achievement of their objectives can be heavily influenced by conditions in various areas of the international system. Those who educate and select leaders of these and other social institutions, particularly graduate education programmes and boards of directors and human resources departments, have the greatest responsibility in this respect. Their curricula and senior talent development and promotion policies must reflect that they are cultivating not only heads of functional organizations but also stewards of the international system and the contribution of their professional disciplines thereto. In support, societies should measure better what they value and use such information to stimulate ongoing dialogue among leaders about the challenge of integrating shared values into the decisions they respectively face.

In other words, the international system requires an upgrade not only in its functional institutional architecture but also in societal institutions that have the potential to inculcate values consistent with humanity's interconnectedness and interdependence within professional disciplines and communities. The Global Agenda Councils and Task Forces participating in the Global Redesign Initiative have made a number of proposals to this end. For example:

Teaching, measuring and diffusing values consistent with humanity's interconnectedness and interdependence

- The YGL Business Oath Task Force has proposed a **Global Business Oath,** which is intended to be a modern-day Hippocratic Oath for business that spells out a commitment to doing no harm through the practice of management. It commits mangers and graduates of business schools throughout the world to a common code of ethics and to raise their awareness of ethical values such as integrity, honesty, reliability and responsibility. The project is developing a series of practices that help Oath takers to live the Oath on an ongoing, lifelong basis.

- The Council on Faith has proposed the establishment of a **Moral Economy Dialogue** with three tracks: with leaders in business government and society using the World Economic Forum as a platform; at the grass roots within faith communities; and at the 2012 G20 Leaders meeting involving senior government, business, civil society and faith leaders.

- The Council on Social Entrepreneurship has proposed the creation of a formal body, the **Consultative Group for Research to Advance Social Entrepreneurship** (CGRASE), which would be analogous to the role the Consultative Group to Assist the Poor (CGAP) plays in the microfinance sector. It would have the specific mission of conducting research and promoting policies that maximize the benefits of social entrepreneurship to society.

- The Council on Benchmarking Progress in Society has proposed a multifaceted and multistakeholder initiative to develop and apply a set of agreed indicators that provide a better means of **benchmarking social progress and well-being,** building on the work of the recent Stiglitz Commission and OECD.

- The Council on Philanthropy & Social Investing has proposed the creation of a **Social Competitiveness Index**, which would benchmark countries according to the effectiveness of their legal, fiscal and cultural environment with respect to the promotion of social innovation – e.g., social enterprise, corporate social responsibility, philanthropy and social investment.

- The Council on the Gender Gap has proposed the creation of an **Institute to Close Gender Gaps** to serve as a central and trusted source of scientific evidence for what works in closing gender gaps, compiling information on successful practices in governmental, business and civil society institutions and consolidating these learnings so they can be more easily replicated and scaled.

- The Councils on the Future of Entertainment and Marketing & Branding have proposed to galvanize a **global community of marketing, media, entertainment, and technology industries,** modelled on Ad Councils that already exist in the USA and a few other nations, to expand public education and advocacy in support of initiatives and reforms that advance progress on shared, long-term objectives in the global public interest.

- The Council on the Future of Government has proposed a general mobilization of information and communications technology tools to strengthen democratic participation at all levels of government in the form of a **Global Citizen Engagement Initiative**.

The World Economic Forum is itself an institutional framework for cultivating and diffusing best practice in "**corporate global citizenship**".[30] It engages its Industry Partners and Members in dialogue and concrete collaborations in support of the Forum's mission of "improving the state of the world."[31] Its Global Redesign Initiative is one example; an estimated one-third of the 1,500 experts who participated in the Global Agenda Councils, Industry Partner initiatives and Young Global Leader Task Forces that developed the proposals included in this report are business executives.

ACHIEVING SYSTEMIC IMPROVEMENT IN INTERNATIONAL COOPERATION

Renovating the international system in these five ways would enable the international community to accelerate progress on many individual global challenges, sometimes dramatically so. Specifically, by widening our conception of the modes and means of cooperation available in our more complex, bottom-up world, and applying this expanded cooperative geometry in a pragmatic, targeted push for results, we can achieve transformational change even when an expansion of universal norms and legal obligations is not politically feasible. At the same time, by opening our international institutions to more direct interaction with citizens and their elected representatives, while cultivating a greater sense of personal and professional responsibility among them for the health of the international system, we can enlarge the political constituency for international cooperation around the globe.

It is therefore necessary but not sufficient to improve the system's capacity to boost performance on individual problems. We also need special mechanisms to spot opportunities for and mobilize systemwide progress.

But many of these individual challenges are deeply interrelated. Progress on one depends on progress on one or more of the others. It is therefore necessary but not sufficient to improve the system's capacity to boost performance on individual problems. We also need special mechanisms to spot opportunities for and mobilize systemwide progress. The following are three such potential mechanisms:

Fulfilling the G20's Potential

The Group of 20 Leader process represents the international community's best potential mechanism for mobilizing systemic leaps forward in international cooperation. Composed of the top leaders of most of the world's largest countries, it has the requisite authority to set priorities and marshal resources in order to orchestrate systemwide responses to problems. At their summits in Washington, London and Pittsburgh, G20 Leaders concentrated mainly on managing the response to the global financial and economic crisis. But by also articulating a set of aspirational principles and establishing a mutual policy assessment process, they framed for themselves an ongoing role as steward of a new model of global economic growth and integration.

Nevertheless, it will take more than principles and peer review discussions to rebalance the world economy and render global economic growth more sustainable and inclusive. It will take a new combination of policies and resources – a deeper level of political cooperation.

It will take more than principles and peer review discussions to rebalance the world economy and render global economic growth more sustainable and inclusive. It will take a new combination of policies and resources – a deeper level of political cooperation.

In fact, the best reason to continue the G20 Leader process is to create regular opportunities for political breakthroughs on issues that ministers are unable to resolve within the scope of their particular authority.[32] If leaders were to make a habit of taking a collective, structured look at progress across the full spectrum of international economic, social, and environmental challenges, then they would be more likely to spot opportunities for win-win agreements spanning different portfolios. Their summits are rare opportunities to expand the universe of political possibility on problems requiring international negotiation and cooperation. Aside from the opportunity they provide for leaders to get to know each other and build trust, this is their ultimate justification.

This kind of systemic approach to international cooperation is precisely what is now needed to transform the G20's principles and peer review discussions into concrete, lasting progress. The UNFCCC climate change, WTO Doha Development Agenda, IMF and World Bank reform, Millennium Development Goal funding, and global macroeconomic rebalancing discussions are all essentially blocked and apparently unable to progress much further within their separate ministerial processes. Yet in combination, this agenda would yield major net benefits for developing, emerging and advanced countries alike. It would also represent a major down payment on the G20's pledge in London "not only to restore growth but to lay the foundation for a fair and sustainable world economy".[33]

It is time for G20 Leaders to muster the political imagination necessary to assemble a package deal providing each with the essential victory he or she requires to justify showing additional flexibility in areas of comparable political importance for colleagues on these topics. They should dedicate themselves in 2010-11 to taking a synchronized, systemic leap forward in international cooperation in which:

- Emerging and least developed economies win voting rights in the Bretton Woods institutions approximating their weight in the world economy, as well as major, sustained increases in aid for the Millennium Development Goals and climate adaptation, and greater access to developed countries' agricultural markets, and major new public and private investment from developed countries in low-carbon energy systems as compared to the Kyoto Accord's Clean Development Mechanism.

- Advanced industrialized economies win significant additional market access in emerging economies for manufactured products and services, as well as a post-Kyoto climate accord that includes meaningful commitments from emerging economies, and a new growth model in many emerging economies relying less on exports and more on domestic demand.

- All countries reap the resulting benefits of a stronger, more inclusive and greener pattern of global economic growth and integration.

The key to achieving such a win-win-win-win package of breakthroughs in international macroeconomic, trade, climate and development cooperation lies less in finding new formulations in negotiating text and more in constructing and properly resourcing a number of crucial, related institutional building blocks that can build diplomatic confidence by showing additional progress on the ground. Many such ideas have been proposed as part of the Global Redesign process, including:

- The Low-Carbon Prosperity Task Force's proposals for a new set of enabling institutions in the areas of climate-related finance, energy efficiency, technology development, deforestation and land use, and corporate, investor and consumer metrics.

- The proposals of the Global Agenda Councils on Global Healthcare Systems & Cooperation, Education Systems, Nutrition, Humanitarian Assistance and Poverty & Development Finance as well as the Forum's Water Initiative to restructure and otherwise improve the efficiency of development cooperation.

- The ideas advanced by the Councils on Employment & Social Protection and the International Monetary System to strengthen investment climate, labour and social insurance institutions in developing countries as well as the global financial safety net in order to make it easier for such countries to include more of their populations in the benefits of economic growth and integration as well as lessen their reliance on exports for such growth.

- Other proposals in this report to rebalance voting strength in the Bretton Woods institutions in order to reflect the increased relative weight of emerging economies and to clarify the G20's relationship to the formal multilateral system in order to preserve the appropriate voice and representation of small and medium-sized countries.

An agenda of international institution building and modernization in these and other areas would go a long way towards satisfying the legitimate aspirations of developing and emerging economies for sustainable development and fair representation in global decision-making, thereby providing their leaders the additional political space necessary for them to make the meaningful additional climate and market access commitments on which the success of the UNFCCC and WTO negotiations depend.

By agreeing to a series of concrete improvements in cooperative architecture across a range of crucial economic, environmental and development challenges, G20 Leaders can transform the current political arithmetic of international cooperation and fulfil the promise of what is perhaps the most significant innovation in international governance in decades. If they deliver an early harvest of multidimensional progress along these lines, then they will have done much to justify their institutionalization and legitimization as the *de facto* steering committee of the world economy and its principal institutions.

Upgrading Global Environmental Governance

International environmental governance is often said to have gotten its formal start at the 1972 United Nations Conference on the Human Environment in Stockholm. This conference established a set of principles and an action plan of 109 recommendations. It raised environmental awareness among governments to new levels and catalysed the creation of environmental protection agencies in many countries and of the United Nations Environment Programme (UNEP).

The next major advance in global environmental governance came with the 1987 publication of the Brundtland report, *Our Common Future,* and subsequent UN Conference on Environment and Development in Rio in 1992. This report and conference galvanized international environmental consciousness and cooperation on a scale never witnessed before. Attended by 172 governments and 108 heads of state or government, the Rio conference resulted in the United Nations Framework Convention on Climate Change, the precursor to the Kyoto and Copenhagen Accords, UN Convention on Biodiversity, Statement of Principles for the Sustainable Management of Forests, Global Environment Facility and Commission on Sustainable Development.

These principles and conventions established the framework within which the world has organized progress on cross-border environmental matters for nearly 20 years. During this period, there have been numerous successes of international cooperation large and small, including the Montreal Protocol to phase out ozone-depleting chlorofluorocarbons, the stabilization of numerous species threatened with extinction and even the Kyoto Accord itself. Nevertheless, the pace of environmental degradation has accelerated, and international cooperation remains well behind the curve.

If the international community is to advance to the next major stage of international environmental governance, it will need to direct its focus beyond the "what" (principles and legal instruments) to the "how" (enabling institutions and practical but scalable initiatives). And given the linkages among the different stresses accumulating in the biosphere, it must do so on several of these problems at once.

One of the main learnings of the Global Redesign process is that there is an opportunity to achieve a step change in global environmental governance by focusing less on the traditional agenda (UN structure, new legal frameworks) and more on a new agenda to construct practical, often public-private, mechanisms that can accelerate progress even in the absence of agreement on new multilateral legal obligations. Various Global Agenda Councils, Industry Partner communities and YGL Task Forces have independently put forward significant proposals to build enabling institutions, install information systems, mobilize major coalitions and, in some cases, extend international law in such areas as marine life and coral conservation; energy efficiency; low-carbon technology development; deforestation; safe drinking water and sanitation; investor, corporate and consumer carbon metrics; sustainable consumption and energy security.

The next big opportunity for progress in global environmental governance is to create this wider global cooperation system – to construct major, new pieces of enabling architecture aimed at scaling public and private action on each of these interrelated environmental challenges.

The next big opportunity for progress in global environmental governance is to create this wider global cooperation system – to construct major, new pieces of enabling architecture aimed at scaling public and private action on each of these interrelated environmental challenges. This, rather than negotiating new principles and legal instruments, should be the main objective of the Rio+20 Summit which the United Nations will organize in 2012. Such a strategy holds the prospect of producing tangible achievements comparable in significance to those agreed in Rio. As such, it would provide a justification for world leaders to attend the Summit in numbers not seen since that conference and the UN Millennium Summit in 2000.

On 24 December 2009, the UN General Assembly passed a resolution outlining four areas of focus for the Summit:
- Review of Commitments
- Emerging Issues
- Green Economy in the context of Poverty Eradication and Sustainable Development
- Institutional Framework for Sustainable Development

This agenda provides ample scope for the recommended shift in strategy. But to succeed, the UN will need to fashion a different kind of preparatory process from that which typically precedes a Summit intended to produce agreement on principles and legal frameworks. In order to design effective enabling institutions aimed at accelerating and scaling industrial, investor and consumer action, the "Prepcom" process will need to engage relevant non-governmental actors more directly than is the usual practice. Since these building blocks would be aimed at leveraging the capacities of these actors, they should be co-designed with them, even if the formal decisions to create the resulting institutions and initiatives would still be taken by governments. In other words, the 2012 Rio+20 Summit would benefit from having an informal multistakeholder design process not unlike the Global Redesign Initiative itself.

Enabling More Proactive and Integrated Cooperation

An important structural weakness of the international system is that, even as relevant sources of expertise and capacity have multiplied and global risks and challenges have become more interconnected, our methods for assessing and responding to them remain highly fragmented among different ministries, countries, industries, professional and academic disciplines, specialized international organizations, etc. This fragmentation makes it more difficult for all of these institutions to remain confident that the information on which they base decisions is comprehensive, consistent and current. It creates a bias within the international system for partial and reactive responses to global challenges that require a more integrated and proactive approach.

A number of governments have been moving to confront this challenge by expanding their conception of national security and broadening the information they seek to integrate into risk assessment and horizon scanning. For example, the US National Security Advisor, General James L. Jones, has announced a plan to reform the President's National Security Council, stating that:

> *"Matters pertaining to national and international security are broader and more diverse than anyone thought possible just a few years ago. The United States must navigate an environment in which traditional organizations and means of response to global challenges may be inadequate or deficient. . . . To succeed, the United States must integrate its ability to employ all elements of national power in a cohesive manner. In order to deal with the world as it is, rather than how we wish it were, the National Security Council must be transformed to meet the realities of the new century."*[34]

The international system would benefit from a similar attempt to integrate information in a more structured and accessible fashion across a wide range of potential sources of expertise and cooperation. Better means of connecting insight around the world on an ongoing, self-organizing basis could enable more effective and proactive responses to global challenges. Such multidimensional, real-time connectivity of expertise has been constrained by the natural limitations of physical meetings, dedicated e-mail lists and bilateral conversations requiring advance scheduling. No network exists that is sufficiently interdisciplinary, interactive and international to overcome these barriers to collective intelligence and action. Yet this is precisely what the more complex, bottom-up international community of the 21st century requires.

Better means of connecting insight around the world on an ongoing, self-organizing basis could enable more coherent and proactive responses to global challenges.

Communications technology has recently evolved to the point where such an initiative should now be feasible. As an institutional contribution to the Global Redesign process, the World Economic Forum is assembling a new electronic platform dedicated to facilitating real-time, self-organizing interaction of networks of expertise and decision-makers across a myriad of intellectual disciplines, industries, governments and civil society institutions. This "Global Agenda Partnership" is aimed at facilitating the interaction of much of the world's best expertise and experience to serve as a basis for all stakeholders to make more timely and informed decisions.

The Forum plans to integrate into this platform its multistakeholder and interdisciplinary Global Agenda Councils, Industry Communities and Young Global Leader Task Forces, which have served as the backbone of the Global Redesign process. In addition, it will invite governments, international organizations, companies, NGOs, unions, universities, think tanks, religious organizations, media and other institutions that can contribute to a better understanding of and response to global risks to register some of their top experts and decision-makers on the platform. The goal is to develop a new piece of information infrastructure to support the kind of wider, increasingly bottom-up global cooperation system envisioned by the communities that have contributed proposals and ideas to the Global Redesign Initiative. It could be complemented by an annual physical convening of this network in the form of the interdisciplinary, multistakeholder Global Security Forum proposed by Security rapporteurs Lilia Shevtsova and Jean-Marie Guéhenno.

Conclusion

In 1944, well before the end of the war but after the tide had turned, a series of international discussions were held at Dumbarton Oaks, Washington DC and Bretton Woods, New Hampshire to design the post-war international security and economic architecture. These conferences were remarkable not only because they honed ideas that were later adopted formally by governments in the form of the United Nations system and Bretton Woods institutions, but also because of their intellectually expansive and relatively informal nature. Even as governments were busy prosecuting a world war, they assembled teams of people with governmental, academic and business backgrounds to engage in sustained discussions aimed at drawing fundamental lessons about the failures of the pre-war cooperation and designing new, more robust international security and economic institutions.

Now that the tide appears to have turned in the global economic crisis, a similar commitment to adapting the international system to our more interconnected and interdependent world is warranted. Even as governments develop their exit strategies from fiscal and monetary stimulus measures, they should engage in an effort to absorb the larger meaning of the changes that have transformed the international community during the past generation and rendered much of its cooperative architecture not fully fit for the purpose of addressing risks that are accumulating in many areas.

Even as governments develop their exit strategies from fiscal and monetary stimulus measures, they should engage in an effort to absorb the larger meaning of the changes that have transformed the international community during the past generation and rendered much of its cooperative architecture not fully fit for the purpose of addressing risks that are accumulating in many areas.

For several months in 2008-09, when the full extent of the world economy's systemic weaknesses and cooperative deficits were laid bare, there was a popular and diplomatic consensus on the need to make fundamental changes. The increasingly dire global warming projections and acute security crises of the past decade have also fed deep unease. A desire for major reform and renewal of the international system remains widespread even if governments appear to lack the vision and cooperative spirit to achieve it.

The Treaty of Versailles is an object lesson in what happens when nations fail to draw the appropriate lessons of history and rise above national interests in the aftermath of an international crisis. The League of Nations illustrates what happens when aspirations for a better world are not accompanied by the appropriate frameworks and resources. Dumbarton Oaks and Bretton Woods participants were haunted by these failures of post-World War I international cooperation and determined not to repeat them. They avoided doing so by thinking in structural rather than incremental and systemic rather than purely parochial terms.

The international system requires a sustained process of innovation and institutional deepening that capitalizes on the full range of available modes and means of cooperation to make progress where it is most needed and feasible.

The international community faces an analogous challenge today. Governments, companies and other civil society institutions must rise above their immediate, parochial interests and consider more seriously their long-term stake in a properly structured and resourced global cooperation system for the 21st century. One of the key insights of the Global Redesign process is that they are more likely to succeed in doing so if they take a practical, multidimensional approach, focusing on the "how" rather than merely the "what". The international system requires a sustained process of innovation and institutional deepening that capitalizes on the full range of available modes and means of cooperation to make progress where it is most needed and feasible.

International cooperation is now everybody's business. The efforts of all stakeholders are required to adapt the international system to our more interdependent world.

Endnotes

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1 Creating a Values Framework

Creating a Values Framework

By John DeGioia, President, Georgetown University, USA

Priority Challenges for Creating a Values Framework

The current systems of international cooperation are not compatible with our most deeply held values. We live in a world where half the population lives on less than two dollars a day, where 8.8 million children die before the age of five every year, and where women are systematically denied full participation in economic, social, and political life. Poverty, social exclusion, and environmental degradation are an affront to the most deeply held values of humanity, such as a respect for human dignity, a commitment to human flourishing and the common good, a responsibility to the next generation, and a recognition of our shared obligations to integral human development.

The global economic and financial crisis has further underscored the existence of this values gap. In a recent study of the World Economic Forum, two-thirds of 130,000 young people under the age of 30, surveyed through the social networking site Facebook, expressed the view that the current economic crisis is also a crisis of values. This calls us to question the degree to which our current systems and institutions embody those values that we hold most dear. There is clearly a gap between our values and our systems and institutions.

The work of the World Economic Forum Global Redesign Initiative's cluster on "Creating a Values Framework" is shaped by an understanding that we need to build our systems and institutions with an intentional commitment to the values that should orient any global redesign. A commitment to these values will result in concrete gains: enhanced education, economic growth, and job creation that will lead to greater individual security and increased well-being across the globe. Only systems of cooperation that embody core values will have the legitimacy and stability necessary to master the challenges of global governance in the 21st century.

What emerges through a review of the work of this cluster is a need for new institutions that respond to the needs of an ever more global and integrated economy and society. The structures that have guided international engagement for the past half-century need to be built anew, and these new structures must reflect the values identified above.

Making Our Values Explicit

We live our lives within webs of meaning that enable us to make sense of ourselves and the world in which we live. These webs are comprised of concepts that allow us to attach meaning to our experiences. These webs are shared, and it is through them that we are able to communicate with one another, understand one another, and engage with one another. These webs provide the framework through which we interpret our world. Among the most important elements of our webs are the values – those concepts that have a disproportionate role in the organization of our interpretive framework. Our values often lie hidden, but they are always present – embedded in the systems and institutions through which we engage in the world. A crucial challenge in creating a values framework is making explicit the values that are at stake in any redesign of our systems and institutions.

To build support for far-reaching global reform, we need to construct a compelling narrative that relates that values framework to the present and future challenges of globalization. The 2008-09 economic and financial crisis put an end to a familiar and comforting narrative: the story of uninterrupted growth made possible by markets, trade, and innovation on a worldwide scale. In that narrative, institutions and the values they embody

were left implicit and all but invisible. Institutions embodied the rules of the game, to be tinkered with when necessary in the name of efficiency. The crisis revealed a more complex picture – institutions grounded on values of narrow self-interest, short-term thinking, and a lack of concern with the global common good.

Individual nations and international groups have been striving for ambitious reform across the globe – particularly to healthcare, education, and the economy. But operating under the old narrative, we have fallen short of our goals. We need to construct a new narrative of globalization in which alternative values of human dignity, the common good, respect for the environment, generational justice, and integral human development provide explicit grounding for far-reaching institutional reform. These values provide a natural path to the goals we have thus far been unable to meet to eradicate poverty and enhance the well-being of all individuals.

Each of the proposals developed across the "Values cluster" combines concrete recommendations with how a new values vision can help to move us from our current predicament to an improved state of the world. Along with the World Economic Forum's Global Agenda Councils, the Forum's Young Global Leaders and Social Entrepreneurs also submitted values-driven proposals for initiatives that offer powerful opportunities for making explicit the values that should guide any redesign.

1) Values

The Global Agenda Council on Values identified the challenges and opportunities implicit in establishing a global framework of values which inform good practices for global policy-making. A careful articulation of such a global framework must be at the core of this endeavour if we are to develop structures and institutions reflective of these values. However, variation in cultural beliefs and norms can make it difficult to identify a universal set of values that are consistently interpreted across the globe.

In response to this challenge, the Council on Values aims to facilitate the recognition of core human rights as an essential component of all initiatives developed with the Global Agenda Councils and the Global Redesign Initiative. These important institutional networks will be involved in setting agendas that prioritize areas in which problems relating to the "conflict of values" require the most urgent attention. What institutions would we need to put in place to guide, safeguard, and mentor the process by which conflicting values could be negotiated on a national, transnational, and global scale? How do we ensure inclusive participation in such processes? In multicultural polities the world over, value conflicts seem to cluster around issues of education, religious practices/rituals, equitable participation in the public sphere, and the claims of citizenship. The Council on Values would set an interdisciplinary and intra-institutional agenda that would draw together other Councils to work on clusters of values conflicts that have a deep resonance and relevance across the globe.

2) Faith

Some of our most deeply held values are borne of our religious traditions, including a respect for human dignity and human flourishing, the common good of the global community and stewardship of the environment. And with more than 80% of the world's population adhering to a religion, our faith communities are well placed to lead the dialogue around principles for a moral economy. With three billion people living on less than two dollars a day, the Council on Faith rightly insists that we cannot ignore the link between our economic crisis and our values crisis.

In fact, the current economic crisis offers us a unique moment to realign our collective moral compass. To begin this process, the Global Agenda Council on Faith calls for an articulation of the values that underpin the current economic system and a moral discourse about the implications of fully applying these values. The implementation of these values would address this moral gap and lead to concrete gains in terms of education, security, health, and well-being. Such a dialogue would bring together faith, business, and government leaders in regular conversations at the regional level, in addition to a grassroots discourse, with a goal to institutionalize a high-level conversation at each summit of the G20 countries. The ultimate objective is for the G20 to make the structural changes necessary to establish a global economy based on this fundamental set of values.

3) The Welfare of Children

The Global Agenda Council on the Welfare of Children seeks to shift the perspective of children, who are disproportionately impacted by the current economic crisis, as recipients of welfare to an approach that places the direct participation of and investment in children at the centre of the global agenda. Acknowledging the central relevance of children's issues to the development of sustainable and socially responsible business models – and integrating these issues with other global agendas – will be key to achieving this shift.

To effect this change, the Council proposes engaging the corporate sector and other stakeholders by asking them to report on the progress they make on children's issues through the framework of the Global Reporting Initiative, one of the most widely recognized frameworks for reporting organizations' economic, environmental and social performance. This children-focused reporting method would incorporate employment policies, family-friendly practices, supply chain codes of conduct, the development of professional knowledge on how corporate activity can influence the lives of children and company engagement with relevant children's issues in society at large (community work). To track a company's progress in investing in children, the Council proposes developing an assessment tool and reward system that has the potential to enhance a company's brand and acknowledge significant corporate achievement in this field.

Four of the Social Entrepreneurs introduce specific initiatives to support children. Two of these are programmes to enhance financial literacy. Aflatoun advocates for a global movement of ChildFinance, which focuses on a link between children and financial systems. Currently, global financial regulation is being developed by the Basil Committee and the Bank of International Settlements. Dialogue with these and other key players has already begun to promote the inclusion of ChildFinance as a nationwide financial policy recommendation. Specific components include integrating financial education in national curricula, increasing the availability of child-friendly banking services, and expanding the use of mobile banking technologies. By focusing on these areas, ChildFinance advocates for policies that promote value-based financial knowledge for children across the world. The Kashf Foundation proposes a programme for financial literacy directed specifically towards adolescent girls, an at-risk demographic group in Pakistan and Afghanistan since they are often removed from school to become caregivers of their younger siblings. The Foundation would also work with its sister entity, the Kashf Microfinance Bank, to deliver savings services to low-income adolescent girls. Financial education and economic empowerment resonates across society and transforms the lives of families by increasing personal security, broadening job opportunities, and improving the local economy.

With an objective to bring great books to children who otherwise might not have access to literature in their native language, Reading Across Borders proposes a virtual library of inspiring children's literature, translated from and into a variety of languages, and made available through an Internet-based system. This programme would represent a paradigm shift in the way literature circulates, while also protecting the legal rights of the original publisher, author, illustrator, and translator. Fostering a love of reading in all children is an incredible tool against a poor global education system, and there may be no greater way to encourage a respect for human dignity than to offer stories and books from many different cultures to children across the world. And a group called "Global Dignity" seeks to promote dignity-centred leadership among children through an annual "Dignity Day" that offers a leadership course, ethics course, motivational seminar and an anti-bullying effort for youth.

This cross-section of initiatives aimed at children shows how teaching a core education framework (literacy, ethics, and financial literacy), when based in values, can be framed to also empower children, teach dignity, and foster a love of learning.

4) Education Systems

There is widespread consensus on the critical importance of education: it is the engine that fuels innovation and productivity gains, as well as economic and health advances. Education can be the most powerful mechanism to reduce world poverty and inequality, enhance job opportunities, and increase individual security. As many of the Social Entrepreneurs suggest, an evaluation of our current education systems will be critical to

improving children's welfare. Unfortunately, despite significant progress achieved in access, many school systems still act as mechanisms for the reproduction of social inequality and exclusion.

The Global Agenda Council on Education Systems proposes a two-pronged redesign of educational systems: 1) the framing of a new international architecture for education; and 2) the redesign of key educational building blocks. The current international development architecture is fragmented and lacks effective high-level leadership. An International Education Architecture Committee could help improve the overall design of international development cooperation and delivery on education, in part by ascertaining where in the world the most innovative advances have been achieved and by developing models and plans to disseminate best practices and replicate these successes to scale.

Simultaneously to pursuing the redesign of the international architecture, the Council has determined that four of the key elements for advancing educational goals should be pursued now. These building blocks are: 1) greater financing for education by identifying innovative funding mechanisms that span public and private sectors; 2) a renewed focus on outcomes in obtaining knowledge and skills for the 21st century; 3) a design that encourages universities to share educational resources for free with schools worldwide; and 4) a global professional resource for teacher education and training. This approach would simultaneously address both the systematic challenges facing our current education systems and several practical issues that can immediately reap concrete benefits.

Reforming our education systems ties in with every core value we have identified – respect for human dignity, a commitment to human flourishing and the common good, a responsibility to the next generation, and a recognition of our shared obligations to integral human development. It is also perhaps the most obvious issue that can contribute to closing the gender gap, ending poverty, and supporting the welfare of children through the values framework. The business sector will also benefit greatly from strengthening our educational systems, and the support of this sector could be transformative to our efforts in education.

5) The Gender Gap

Any initiative undertaken to close the gender gap must take into consideration the broad variation of beliefs across the world associated with gender roles. Women are more likely to be affected by poverty, poor healthcare, and a poor education system than men, and cultural norms and mores are often so entwined in these issues that it is challenging to find a universal stand on how to best support girls and women. However, if we approach the gender gap from the perspective of the values framework, we may find a foothold not only to address the gender gap and improve job opportunities and the security of women, but also to improve our education systems and the welfare of children, which, in turn, can have a great benefit on our business and economic systems.

The Global Agenda Council on the Gender Gap identifies the main gaps between men and women as economic participation, political opportunity, education, and health. These gaps in many circumstances constitute a violation of human rights, but there are also efficiency arguments for closing the gaps and tapping into the one-half of the world's human capital that is underutilized. The Council identifies a growing demand for mechanisms and models in many regions to close gender gaps, although information about these practices is fragmented. Essentially, some countries and companies want to change, but don't know how. It is this gap in information that the Council seeks to address with its proposal.

The Council on the Gender Gap proposes the creation of the Institute to Close Gender Gaps to serve as a central and trusted source of scientific evidence for solutions in closing gender gaps. Its mission is to accelerate change by bringing together the fragmented information in successful practices, programmes and policies, supporting new research, and consolidating these findings. This institute will be neutral and independent with a global reach to increase its effectiveness in working with a variety of cultures with differing beliefs about gender roles.

6) Philanthropy and Social Investing

The Global Agenda Council on Philanthropy & Social Investing identifies one of the greatest challenges facing the Global Redesign Initiative: how to finance this ambitious agenda. Enacting change on this scale will require partnerships between the for-profit, non-profit and government sectors. With this in mind, the Council identified two goals: 1) to increase the amount of capital dedicated to building a better world; and 2) to increase the effectiveness of how that capital is used.

The Council on Philanthropy & Social Investing recommends several measures to increase accountability and the measuring and reporting of social investing. One such suggestion is a new "Social Competitiveness Report" to rank countries according to the effectiveness of their legal, fiscal, and cultural environment in support of social innovation. Another proposal is the creation of a new social contract to clarify and delineate the responsibility of business leaders to work towards a better world, including a framework for accountability.

Philanthropic organizations are the vital hinge that connects the ideals identified by our Global Agenda Councils on Faith and Values with the practical services called for by the Councils on the Gender Gap, Education Systems, and the Welfare of Children. Social investing is pivotal because it can encourage the business sector's involvement in supporting these initiatives and actually start to change the very fabric of our social structure. In essence, philanthropic organizations can serve as a natural bridge between the "economic crisis" and the "crisis of values".

CinePop is one such entrepreneurial endeavour that uses entertainment to bridge the gap between services and underserved communities while encouraging the involvement of the business sector. The Mexican organization creates open-air movie theatres using inflatable film screens, and businesses can sponsor events by providing products and/or services that improve the quality of life of the attendants. This kind of creative engagement across sectors can incorporate values in concrete ways and give businesses an innovative opportunity to become involved with social investing.

7) Marketing and Branding

Two of the Global Agenda Councils (the Future of Entertainment and Marketing & Branding) came together with a simple idea: to educate and inspire the citizens of the world to act more in their own long-term interests – in more healthy ways, in more financially responsible ways, in more environmentally sustainable ways. There is already ample evidence that entertainment, advertising, journalism, and social communications can change attitudes and behaviours. There are positive results from the Ad Council in the United States, telenovela content in Mexico, live theatre in India, and many other places, showing that it is possible to help people find the better path for themselves and their families using the power of media and entertainment. The Councils' proposal is to organize a global movement, starting in a handful of nations, to use the Media and Entertainment industry as a means to redesigning how citizens of the world think and act.

8) The Role of Business

The recent financial crisis has made the role of business in global redesign even more crucial. Business has a set of responsibilities in society that are broader than the short-term maximization of shareholder value and that are a key to strategic development. The backing of the business sector can enable the global reshaping we discuss and provide the deliverables that these Councils seek. As the Council on Philanthropy & Social Investing found, collaboration with the for-profit sector (and governments) will be crucial to their increased effectiveness. Both the Council on the Welfare of Children and, to a lesser extent, the Council on the Gender Gap will require the support of corporations dedicated to these causes. By re-thinking the role of business from the ground up, and building on a solid base of a global values framework, a mutually-beneficial relationship can be formed. As business supports the development of children, education reform, and gender equality, more

capable citizens will in turn generate increased innovation and effectiveness within the business sector. There are also unique opportunities to create shareholder value and preserve wealth by responding to issues such as sustainability and climate change. The market-based approach to sustainable development is not solely about "doing good for society" but also provides commercial opportunities while attempting to solve global issues.

At the World Economic Forum Annual Meeting 2009, the Young Global Leaders community launched the "Global Business Oath". This oath aims to transform the value system dominant today among business leaders around the world by: 1) explicitly recognizing that the ultimate purpose of management is to serve society by bringing together people and resources to create sustainable and inclusive prosperity; 2) recognizing that the effects of managerial decisions in the welfare of society are amplified by the accumulation of resources under legal corporations; and 3) proposing a code of conduct – a modern-day "Hippocratic Oath of Business" – that spells out the commitment of "doing no harm" throughout the practice of management. This "Oath" will commit business leaders throughout the world to a common code of ethics and raise their awareness of integrity, honesty, reliability, and responsibility in their field. The "Global Business Oath" proposal draws attention to the link between the economic crisis and the values crisis, and explicitly demands a commitment to serving the greater good in the business sector.

Social Dialogue Enterprise proposes a programme that is very much in line with the goals of the "Oath" and also seeks to address the connection between the economic crisis and an absence of values in the business sector. They connect this link back to the fact that business schools have not focused sufficiently on creating a business leadership mindset that is based on a "values framework". They intend to partner with business schools and universities to encourage a new way of thinking about business education – beyond a focus on wealth creation – and incorporate a values framework into business education.

Three Innovative Strategies: Structured Dialogue, Benchmarking, and Institution-Building

The Global Agenda Councils in the Values cluster all identify pressing gaps in global governance and put forward concrete proposals to address them. They move from overarching values such as human dignity and the common good to particular values such as the dignity of children and gender equality, and show how the current patterns of global governance fail to realize those values in practice. From that diagnosis they move quickly to concrete proposals for change that fall into three categories: structured dialogue designed to raise the visibility of value concerns and forge coalitions to address them; benchmarking exercises designed to hold governments and businesses accountable to higher value standards; and the creation of new international institutions to encourage best practices and engage multiple stakeholders in building coalitions for change.

Dialogue about values and global governance takes place mainly among academics and in specialized publications. Several Council proposals seek to broaden that dialogue and raise its visibility in the media and the public sphere. The Global Agenda Council on Faith, for example, proposes to organize a series of structured dialogues around the values of human dignity, the common good, and respect for the environment – both at World Economic Forum meetings and in several key countries in the run-up to the G20 meeting in 2012. The Global Agenda Council on Marketing & Branding's suggestion to employ the media to educate and inspire more values-based attitudes and behaviour is also a form of structured dialogue – in this case among consumers, with the goal of increasing mutual awareness of the social impact of their choices.

As long as adherence to ethical values is not part of the corporate bottom line, it will be difficult to change the often short-sighted and narrow perspectives of the business community. Benchmarking exercises are one way to change expectations and apply pressure from consumer groups. The Global Agenda Council on the Welfare of Children will press for the incorporation of children's needs into business strategies and hold them accountable over time. The Council on Philanthropy & Social Investing calls for the creation of a "Social Competitiveness Report" to benchmark countries on their openness to socially responsible business practices. Along these lines, the Council also calls for a social contract that would make business leaders more socially accountable.

Structured dialogue and benchmarking have their greatest impact when combined with the creation of new institutions that monitor best practices and bring together key stakeholders concerned about values deficits and the best way to address them. The Global Agenda Council on Values proposes one such institutional innovation, a regulatory body that can mediate the value conflicts in international negotiations. The Council on Education Systems recommends the creation of a new International Education Architecture Committee to tackle a global redesign of the global education architecture. The Institute to Close Gender Gaps, proposed by the Council on the Gender Gap, would serve to gather information on best practices, raise the visibility of women's issues, and network stakeholders committed to change around the world.

Three Global Imperatives: Engaging Youth, Civil Society, and Governments

In laying out their substantive recommendations, the Global Agenda Council proposals suggest three critical challenges going forward. To reform global governance will require a broadening and deepening of coalitions for change through the engagement of youth, the mobilization of civil society, and cooperation with governments. Efforts to strengthen the value foundations of the global system will fail if they do not move from structured dialogue, benchmarking, and institutional innovation to intergovernmental action supported by a broad cross-section of citizens concerned about improving the state of the world.

Both the Council proposals and the proposals of the Young Global Leaders address the intergenerational dimension of the current global values crisis. Younger generations are naturally concerned about the sustainability and legitimacy of institutions into the future; they are natural partners in efforts to bring about long-term and transformative change.

Only proposed changes in international governance that enjoy support across civil society within and across countries will generate the necessary political momentum. Ambitious efforts to expand the practice of social entrepreneurship, and the resonance they have found, underscore the stake that citizens – and not just business and governments – have in equitable global governance that serves the common good. Critical to the formation of broad social coalitions for change is also respect for the pluralism of values that exists across societies. The proposed Institute to Close Gender Gaps, for example, will not impose a single model of gender roles but will be open to working with different societal actors in different countries with diverse approaches to the issue.

Efforts to embed values in new forms of global governance that do not engage national governments directly are bound to fail. Intergovernmental cooperation is the only way to reform international economic and financial arrangements on a new values foundation. The Council on Faith proposes to foster a structured dialogue that will involve religious leaders at G20 summits. The Council on Education Systems' proposed International Education Architecture Committee would develop concrete policy recommendations for G20 countries grappling with challenges of quality, equity, and financing.

While the realization of all of the Values cluster proposals will require close collaboration with national civil societies and governments, the ultimate goal must be a transnational social movement that can buttress new structures and institutional arrangements. Nation states remain the most critical actors in an international system that remains intergovernmental at its core – hence the importance of the G20 as an interlocutor for the Global Redesign Initiative. In the context of globalization, however, the free flow of ideas and peoples allows for transnational organization around global challenges of economic and social development. Efforts to foster structured dialogue, benchmarking exercises, and institutional innovation will be advanced most effectively through close collaboration with existing transnational NGOs, across sectors, who share the vision put forward by the Creating a Values Framework cluster and can help to carry it forward in practice.

When our values do not animate our systems and institutions, only the privileged will flourish. If we instead choose to integrate a global redesign with a values framework, our institutions will become tools in support of our key goals for human development; better healthcare and education across the globe will lead to enhanced job opportunities, economic growth, and the greater well-being of all individuals. The wider the coalition for change, within and across countries, the more likely a far-reaching global redesign will become.

WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

GLOBAL REDESIGN INITIATIVE

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Global Agenda Council on Education Systems[1]

A Redesign of the International Development Architecture for Education

Context

The Global Redesign seeks to achieve quality education for all, to usher in an era where excellent teachers are developed and supported, to inaugurate innovative finance and innovation mechanisms, and to re-engineer the international development architecture for education. These goals require expanded engagement and accountability not only by the highest levels of government but also from stakeholders across society – from civil society organizations involved in education to corporations.

A Global Call to Action: Redesign the International Development Architecture for Education and Focus on Key Building Blocks for Educational Advancement
There is widespread consensus on the critical importance of education: it is the engine that powers innovation and productivity gains, and economic and health advances. Education can be the most powerful mechanism to reduce world poverty and inequality.

There is also consensus that the Millennium Development Goals[2] for Education will not be achieved without strong leadership and heightened commitment, coupled with bold actions executed within the next five years. Urgent action is needed to strengthen international cooperation and develop new designs for multistakeholder initiatives that advance education. The case for renewing and revitalizing the global commitment to education is compelling. Education is the birthright of every citizen, enshrined in the Universal Declaration of Human Rights. Quality education for all people is a measure of social justice, equity, and a society's respect for the human rights of its citizens. National and international spending on education is not just a cost. It is an investment in poverty reduction, child survival, social mobility, democracy, and economic growth. It is an investment also in more equitable and more sustainable globalization. Today's international inequalities in education are tomorrow's inequalities in wealth and opportunity.

Proposal

Governmental leadership at the highest level is needed if education is to be boosted into the higher trajectory necessary to achieve the Millennium Development Goals. A broad spectrum of stakeholders committed to education can be re-engaged in new and novel endeavours that will be significant to the Global Redesign Initiative. The Global Agenda Council on Education Systems proposes a two-pronged approach for the redesign of educational systems to advance the goal of quality education. Delay is not an option. These ambitious efforts must be put in place this year, before the window of opportunity for achieving the 2015 Goals closes.

I. A Redesign of the International Development Architecture for Education

A) Given the impending risk of not achieving the MDG goals and the global social, economic, and humanitarian ramifications of such a failure, it is imperative that the current **international development architecture** be re-examined, streamlined where appropriate, and better funded. Despite numerous trenchant reports about facets of the educational landscape, we have been unable to identify any comprehensive assessment of the gaps in the existing patchwork of international, regional, and national organizations working to improve education, or a thorough blueprint of how their contributions and perhaps those of additional organizations should be redesigned. The goal is to design a new framework for optimal structures to increase access to, and improve the quality of, education in a way that will achieve the maximum synergies among all stakeholders – governments, the private sector, and civil society. To do so requires an immediate multistakeholder effort that will engage the most senior and talented minds from the corporate, governmental, educational, and NGO sectors as well as international and regional organizations: an **International Education Architecture Committee** should develop the blueprint for educational redesign by the end of 2011 and enlist the G20 to assess, contribute to, and hopefully endorse this blueprint through one of its major ministerial meetings in the coming year.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] In September 2000, the UN adopted the United Nations Millennium Declaration, a commitment to a new global partnership to reduce extreme poverty and a series of time-bound targets – with a deadline of 2015 – that have become known as the Millennium Development Goals. These Goals are: 1) eradicate extreme poverty and hunger; 2) achieve universal primary education; 3) promote gender equality and empower women; 4) reduce child mortality; 5) improve maternal health; 6) combat HIV/AIDS, malaria and other diseases; 7) ensure environmental sustainability; 8) develop a global partnership for development. For more information, please go to: www.un.org/millenniumgoals/.

B) The development at local, national, and international levels of an integrated ***Learning Society***[3] **will enable the delivery of high-quality formal and informal learning experiences to a lifelong learning population.** As the world becomes more interdependent and technological change accelerates, innovation and increased productivity will significantly expand the demand for learning. New 21st-century skills will continue to grow in importance and will need to be acquired in a variety of settings on a lifelong basis. These trends herald the need for systemic changes to existing education systems and significant expansion of educational opportunities though new methods of delivery.

II. A Redesign of Four Key Educational Building Blocks

In parallel to pursuing the redesign of the international development architecture, the Council on Education Systems has determined that four of the key elements for advancing educational goals can – and should – be pursued now. Each represents a substantial redesign that addresses critical needs in education that exist in many countries, and will continue to be relevant as the macro-level development architecture is redefined. These important building blocks would advance new partnerships, galvanize the support of key stakeholders, and create momentum to propel more ambitious change to achieve a Learning Society.

A) **Financing schemes:** The redesign of the **financing schemes** for education includes identifying innovative funding mechanisms that span the public and private sectors and are financed from both local and international sources. The redesign will include proposals for the delivery of funds that more effectively benefit front-line service providers.

B) **New approaches to assessment:** While many debate the approach, validity, and efficacy of current metrics, there has been a growing trend to try to measure the quality and impact of education through such initiatives as PISA (Programme for International Student Assessment). As educational systems evolve to address 21st-century skills development, evaluating outcomes will require **new approaches to assessment for a Learning Society**.

C) **Sharing educational resources:** A new design is needed to **connect universities with other tertiary institutions and schools worldwide**, and to share resources among them. The time has come for an extensive multistakeholder partnership whereby university courses, learning modules, and pedagogy can be distributed for free to enhance the success of teachers and professors around the world, particularly in countries struggling with inadequate numbers of teachers, insufficient teacher preparedness, and crushing teaching loads.

D) **Teacher professional development:** Providing a new impulse to the **education and professional development of teachers is essential to systemic success**. Just as individuals must increasingly pursue lifelong learning, teachers need to be supported through the stages of initial education, induction, and continuous professional development.[4] Knowing their role is being transformed by broader societal changes, teachers can advance their skills through worldwide access to a shared library of pedagogical and professional development resources.

Education Systems Council Members and other stakeholders enlisted by the Council are prepared to tackle the challenging redesign initiatives above. Committed and vocal leadership that insists on heightened priority for education can propel these efforts. We will be calling on **global leaders in the G20 to champion educational advancement** in much the same way global leaders rallied to boost attention – and support – for global health in the last decade.

[3] *Learning: The Treasure Within,* UNESCO 1995 (reprinted 2010). Cisco (2010), The Learning Society. San Jose: Cisco.

[4] *Creating Effective Teaching and Learning Environments: First Results from TALIS (Teaching and Learning International Survey),* OECD, June 2009.

Global Agenda Council on Education Systems

Explanation/Rationale

Significant Achievement, but Far from Enough

The past decade has seen some remarkable improvements in education. The number of children out of school has dropped by 33 million worldwide since 1999.[5] Some of the world's poorest countries have registered large gains in primary school enrolment. Sub-Saharan Africa has increased average annual net enrolment at the primary level at five times the rate of the 1990s. Gender disparities have been narrowing.[6] Primary school completion rates are rising, and all regions have seen an increase in the rate of transition from primary to secondary school.

Despite these advances, urgent challenges remain. The *Millennium Development Goals* in education are in jeopardy without a substantial scaling-up of efforts and resources, and similar challenges remain for achieving the *Education for All* goals.[7]

The following statistics from UNESCO's *Global Monitoring Report*[8] are sobering:
About 72 million children of primary school age are not currently enrolled in school, and official statistics may understate the problem by as much as 30%. "Business as usual" would leave 56 million children out of school by 2015.
Approximately 759 million adults lack literacy skills today.
Nearly 71 million adolescents were out of school in 2007, almost one in five of the total age group.
Of school-age children who enter primary school in developing countries, more than one in four drops out before being able to read and write.

Furthermore, UNESCO estimates that 10.3 million teachers are needed worldwide by 2015 to respond to demographic factors in industrialized countries (e.g., the retirement of "baby-boomers") and to enable developing countries to achieve universal primary education.[9] Just to compensate for attrition, 8.1 million teachers are required, and an additional 2.2 million teachers are needed to achieve the universal primary education goals of *Education for All*. This requires significant investment, which is particularly challenging for the economies of sub-Saharan Africa and south and west Asian countries. And many more teachers are needed to meet other goals, including the provision of early childhood education and equipping young people and adults with essential life skills in the 21st century, such as literacy, vocational/technical, and ICT skills.

More resources are needed to strengthen educational systems, but it is also clear that over time these systems will undergo transformation. To prepare people to participate fully in the economies and societies of the 21st century, new approaches to learning will be required. Moreover, to meet the global capacity challenge for secondary, tertiary, and adult learners, there must be greater focus on providing education using technology and non-traditional delivery channels. New technologies or new, low-tech approaches will provide great opportunities for expanding the reach of education – both formal and informal. Education systems must be able to innovate continually and address the different ways and places where people learn (e.g., learning styles, lifelong learning needs). And in order to prepare people for living and working in the 21st century, education must build from a focus on national needs to incorporate cultural understanding and a strong grasp of global interdependence.

Why Improving Education Systems Is So Challenging

Recent years have witnessed significant advances in global collaboration on seemingly intractable problems, particularly in the health arena. Innovative financing mechanisms like the Global Fund, and corporate sponsorship like the RED initiative, have raised both money and visibility to address health inadequacies and inequities.

[5] *Education for All Global Monitoring Report: Reaching the Marginalized*, UNESCO, January 2010.
[6] The share of females in the out-of-school population fell from 58% in 1999 to 55% in 2007. Over the same period, the Gender Parity Index for net enrolment at the primary level increased from 0.84 to 0.95 in south and west Asia, and from 0.85 to 0.90 in sub-Saharan Africa, *Global Monitoring Report*, January 2010, p. 62.
[7] UNESCO *Education for All Goals* include: 1) expand early childhood care and education; 2) provide free and compulsory education for all; 3) promote learning/skills for young people and adults; 4) increase adult literacy by 50%; 5) achieve gender parity by 2005, gender equality by 2015; and 6) improve the quality of education.
[8] *Education For All Global Monitoring Report: Reaching the Marginalized*, UNESCO, January 2010.
[9] UNESCO Institute for Statistics, technical paper No 3, 2009.

Global Agenda Council on Education Systems

One might ask why there hasn't been similar progress in education. The answer has several facets, all of which influence our recommendations:

- **Complex outcomes**: Unlike health, there is no equivalent of a drug cure or a malaria net that can ensure positive results once delivered. In addition to basic skills and knowledge, individuals need to be equipped for a set of learning activities: new ways of thinking, tools for working with others, and approaches for understanding a multifaceted world. There is ongoing debate about the metrics for assessing performance given this broader scope of education. The attributes of and pathways to a "good education" have always been the subject of debate.
- **Long time horizons and politics**: The short-term effects of education are difficult, but not impossible, to measure. This makes political accountability for documenting results more challenging, but no less necessary.
- **System size and complexity**: Education is a key activity that is embedded in virtually every community and comprises thousands of systems across and within almost 200 countries. Many of these systems lack feedback mechanisms that drive responsiveness to community needs, thus inhibiting changes that would keep education more relevant for a given population.
- **Multiple interests and opinions**: The centrality of education in society makes it important from several dimensions – political, economic, social, and personal. There is inherent tension between the approaches of "business as usual" and innovations that have the potential to make significant improvements. The challenge for a multistakeholder approach is to reconcile this diversity of interests around common themes that can be the basis for reforms and innovations that work, precisely because of the shared engagement of these stakeholders.

A Way Forward: Two-Pronged Redesign of Educational Systems

The Council on Education Systems is committed to pursuing the two concrete redesign projects enumerated. These can be achieved only by unprecedented cooperation among the chief multistakeholders – from the key international organizations to leading NGOs, the private sector, and universities. We are heartened that the new Director-General of UNESCO has endorsed the need to revise the global architecture for education and that business leaders and university presidents at the World Economic Forum Annual Meeting 2010 in Davos-Klosters signalled their support to serve as Ambassadors for Education generally. A summary of each redesign effort follows.

I. Framing of a New International Architecture for Education

A) A New International Development Architecture for Education

i. The Challenge

The current international development architecture is fragmented and lacks effective high-level leadership. The lead UN agency in the education sector – UNESCO – has for several years struggled to deliver its mandate to lead the Education for All movement due to the lack of financial resources, limited technical capacity, and the lack of support from the highest level of governments. UNESCO has unique convening power and strong support in developing countries, but it has not capitalized fully on this strength, nor has it – as yet – succeeded in leveraging the additional support offered by multistakeholder partnerships such as the Forum's Global Education Initiative. The annual *Global Monitoring Report* is evidence that with the right financial support and technical expertise, UNESCO can deliver high-quality, evidence-based analysis to support the global education movement. With the appointment of the new Director-General there has been a growing momentum of support for a revitalized UNESCO among public and private stakeholders. The redesigned global education architecture should include recommendations to build on and advance this momentum.

The second UN agency with a leading role in the education sector – particularly in conflict and emergency situations – is UNICEF, which has the largest number of field-based education experts. UNICEF has also played a leading role in promoting girls education through the UN Girls Education Initiative (UNGEI) and (with the World Bank) in advocating for the abolition of school fees at the primary school level. UNICEF's main challenge is that it has limited programme resources and is therefore constrained to small-scale pilot projects. A reformed educational development architecture should include measures to make better use of UNICEF's expertise and secure sufficient support for education programmes in conflict-affected countries and emergency situations.

The World Bank continues to be the largest provider of financial support and knowledge for education in developing countries. In 2009 it committed approximately US$ 3.4 billion in new financing for education programmes, increasing its education portfolio to US$ 10.48 billion as of 30 June 2009. The Bank generally signs its loan and credit agreements with

countries' Ministries of Finance, which usually channel funding to the Ministry of Education or its executing agencies, and which ensure coherence with government investments in other sectors such as roads, water, and health that have a positive impact on education outcomes. Perhaps even more important than the World Bank's funding is the Bank's country-specific, regional, and global policy analysis, expenditure reviews, and impact evaluation that assist governments in formulating sound policies, effective interventions, and the efficient deployment of resources. In addition to the World Bank, regional development banks (RDBs) such as the African Development Bank and the Inter-American Development Bank also play an important role in the education sector. The redesign initiative should include recommendations to strengthen the role of the World Bank and the RDBs in the education sector both in terms of increased finance and – even more importantly – the facilitation of partnerships to provide more coordinated technical assistance.

The existing incentive structure across the multilateral and UN agencies working in the education sector is geared towards competition rather than collaboration. Internal arrangements reward staff and management for developing projects that enhance the profile of the individual agencies rather than promoting the optimal working relationships across organizational boundaries. The new international development architecture should develop a networked organizational model that promotes interorganizational collaboration and rewards the achievement of outcomes at the country level.

Bilateral support for education is limited to a small number of donors, and the sector has not managed to secure significant finances from private foundation donors. The top six donors contribute more than two-thirds of all aid for basic education.[10] A significant proportion of aid for education from several major donors supports higher-education programmes in the donor country that – although valuable in themselves – make only a limited contribution to building local capacity in developing countries. Surveys of foundation staff indicate that a perceived lack of innovation was an important factor in their decision not to provide support to the sector.[11] The redesign initiative should include recommendations to broaden the base of support for the education sector – including from the private sector, foundations, and emerging economies as part of the effort to develop innovative financing for education.

The Education for All–Fast Track Initiative (FTI)[12] has provided an important platform for policy dialogue, but it has not yet succeeded in mobilizing sufficient resources to meet the financing needs of its lower-income partner countries. There is a wide-ranging reform process under way to strengthen the FTI and make it a more effective mechanism to help developing countries achieve better education outcomes. The redesign initiative should support the FTI reform as part of the broader efforts to strengthen the international development architecture.

ii. The Redesign Prospectus

The international development architecture needs substantial reform in order to make it fit for the purpose of providing effective support to achieve better education outcomes in developing countries. The redesign efforts should focus on analysing the myriad institutions and initiatives and developing a streamlined and sufficiently financed blueprint for addressing the significant educational challenges that lie ahead. Key questions to consider in this process include:

- What are the current mission, organizational structure, goals and objectives, and scope of the international and regional organizations working to improve education? How many are there? What are their individual budgets and on what basis are they allocated?
- What is each organization doing? What are their core competencies? What is the impact of their efforts? What are the barriers to their success? How do programmes and activities correlate to accepted international measures of learner performance? What standard is used to measure resource distribution? What common metrics exist or can be devised to measure effectiveness, replicability, scalability, and sustainability? How are results disseminated and lessons learned, and the positive and negative made public and usable?

10 *Education for All Global Monitoring Report: Reaching the Marginalized*, UNESCO, January 2010. Top countries include: France, Germany, Netherlands, United Kingdom, Japan, and the United States.

11 Overseas Development Institute report, *Achieving Universal Basic Education: Constraints and Opportunities in Donor Financing.*

12 In 2002, the World Bank together with development partners launched the Education for All–Fast Track Initiative (FTI). FTI is a global partnership to help low-income countries meet the education Millennium Development Goals and the EFA goal that all children complete a full cycle of primary education by 2015. For more information, go to: www.educationfasttrack.org.

- What mechanisms successfully encourage the participation of different stakeholders? How are quality policies shared or disseminated, and to what degree are they being adopted at the national and local levels? How are stakeholders engaged in the development and implementation of initiatives? How involved is the private sector, and what can drive its sustained participation? What approaches build ownership, confidence, and effective use of resources?
- How could the activities or organization of one or more of these organizations be streamlined or leveraged for systemic advancement? How can these activities be better aligned to be complementary or additive instead of duplicative or contradictory?
- What are the current funding mechanisms? What are their strengths and weaknesses? What are the role and impact of new donor countries, such as China, India, and South Korea, as compared with those of more traditional donors? How is accountability ensured and measured? How is corruption detected, interdicted, or prevented? How well are resources being allocated globally?

iii. Proposed Actions

We need to impanel and inspire an international **Education Architecture Committee** to address the preceding questions and put forth recommendations for improving the overall design of international development, cooperation, and delivery by the end of 2011. The multistakeholder Committee must include senior representatives from the governmental, corporate, education, and NGO sectors as well as the key international organizations. Potential members to be solicited include the leadership of UNESCO, USAID, the UK Department for International Development (DfID), the Dutch Ministry of Development Cooperation, UNICEF, the World Bank, relevant civil society organizations and international foundations, and corporate partners. We feel strongly that the implementation of any set of serious recommendations will require the full commitment of the leading governmental actors; to that end, we will appeal to the G20 to have one of its key ministerial meetings in the next year focus on this topic and engage with the Committee in the refinement of the tentative recommendations for the redesign of the architecture for education advancement and development.

Participation by ministerial-level education policy-makers and those responsible for the effective execution of those policies and the requisite funding is essential in order to meet the aggressive timelines mandated by the Millennium Development Goals' 2015 target date. As such, representatives of participating nations must be prepared to act on the Committee's findings and recommendations and be willing to report back on their progress.

The Committee will devise and publicize its goals and objectives, timelines and schedule for convening its meetings and the delivery of its work product. As part of the process for developing recommendations, the Committee might consider soliciting input from a broader audience of stakeholders through online efforts similar to Global Pulse 2010.[13] The impanelling of the Committee must be completed by December 2010, after the Toronto G20 Summit. Delegates must be able to commit to full participation in the process, and its meetings and timelines, in order for the Committee to succeed.

B) Creating Learning Societies

i. The Challenge

Although it is critically important to ensure that all learners acquire the basic foundation of numeracy and literacy, these skills are insufficient to prepare individuals to deal with the rapidly changing demands of the new millennium. Instead of measuring success by counting the number of classrooms built, or teachers hired, or students enrolled, we must ensure that critical thinking, creativity, and collaborative innovation are encouraged as much as the mastery of core subjects.

We must take better advantage of the knowledge we have of how people learn, and to implement fully the technologies available to enhance learning opportunities. Change is also required in our definition of learners, moving beyond the notion that education is principally for the youth of our societies towards a more expansive model that recognizes learning as an activity accessible to all people of all ages and stages of life.

Finally, learning comes in many guises, and we should find ways to capture that diversity, not force conformity with methods developed to meet different needs and challenges than those we face today. Through these adjustments, education can transform from a system of knowledge production for select members of the world's population to become instead a lifelong activity for every individual, unrestricted by considerations of place, time, or purpose.

[13] Global Pulse has already begun to use social media to facilitate broader participation in discussions about education. See http://www.globalpulse2010.gov/topic3.html.

The result is a fabric of interconnected opportunities for the creation and exchange of knowledge that we describe as a *Learning Society*.

ii. The Redesign Prospectus

Learning needs to be personal, flexible, and lifelong. We must conceive of learning as an activity, not a place. And learning systems need to spread far beyond the bricks and mortar of schools and universities to meet the growing demand for learning, to become open to new people with new ideas, and to involve learners and parents as contributors as well as customers. Although formal education systems will remain important, informal forms of learning and delivery, including especially those using new technologies, will grow in importance.

Societies need a new learning system: one that is characterized by new ways of organizing learning, new forms of assessment and credentialing, alternative models of investment and funding, and an appropriate technology infrastructure to enhance access to and uptake of quality learning. This is a global aspiration that cannot be reached by a single path. Guided by an understanding of local traditions and circumstances, the development of a Learning Society will require leadership from a new coalition of stakeholders who bring the legitimacy, innovation, and resources that can make it a reality. These stakeholders include:

- **Governments**: The Regulators of a Learning Society. Governments have perhaps the most important role in enabling the emergence of a Learning Society. The critical shift for government is one of mindset: from running education to enabling learning. This means recognizing that learning goes on beyond school walls and continues well after the end of compulsory schooling.
- **Educational institutions**: In all systems, educational institutions need to see themselves having a lifelong relationship with every learner. They need to think beyond the age-bound constraints that they currently operate within and consider the school premises as a multipurpose entity, perhaps available to children during the day and adults at night. Buildings need to be designed with this in mind, with particular attention paid to both physical and virtual identity and security systems.
- **Social innovators**: Imbued with a spirit of entrepreneurialism and often bringing a new perspective on existing educational systems, social innovators can leverage capital investment and support from governments, the private sector, and social investors to pioneer new models of formal and informal learning.
- **Private sector**: Employers should support employees who wish to take time off to engage in learning activities, and invest in the future of their employees through job-specific training. They must fund more formal and informal learning than ever before. Businesses must bring corporate universities and training into the educational mainstream, identifying the skills and jobs of tomorrow while meeting quality requirements and interfacing with national and international assessment and accreditation standards.
- **Social investors**: Investors must take the higher risks that governments will not be prepared to take to provide seed capital for educational innovation. Part of their efforts will involve the commissioning of research and evaluation that grow the collective knowledge base of what works and why. Frequently, they will function as an important broker – bringing together public, private, and other sectors.
- **Informal learning providers and cultural institutions**: These organizations must knit their offerings into an overall framework, linking to curricula and providing steps towards documented achievement. In the United Kingdom, the National Museum's Online Learning Project has linked its Creative Pathways to the National Curriculum, demonstrating a first step in this direction.
- **Teachers**: Teachers must be provided support for ongoing professional development as the pace of change of curriculum, learning methods, and new technology continues to accelerate within the Learning Society. To keep pace with these changes, teacher training programmes must also evolve their curriculum, assessment training, and practicums.
- **Learners**: Learners are at the centre of a Learning Society. It will be driven by their demand, and shaped by their priorities. Learners need to become what innovators call a "lead market" – early adopters of innovative offerings, often placing unusual and unreasonable demands on their suppliers.

iii. Proposed Actions
Building Learning Societies will require local journeys led by new coalitions guided by an understanding of local traditions and circumstances. The International Education Architecture Committee will assume responsibility (i) for ascertaining where in the world the most innovative advances towards establishing a Learning Society have been achieved and (ii) for developing models and plans to disseminate best practices and replicate these successes to scale.

Making learning easy to access is fundamental to encouraging uptake, and means providing seamless, high-quality, low-cost (and at times no-cost) connectivity at home, at work, on the move, and in public spaces. Service providers should work with existing educational institutions and community groups to develop new delivery models that help ensure access for all. This Committee will also develop a plan to engage governments, telecom providers, and the international community to prioritize investment in backbone infrastructure and intelligent regulations to drive access to low-cost, high-bandwidth Internet connectivity that will foster Learning Societies.

II. A Redesign of Four Key Educational Building Blocks
A) New Innovative Funding Mechanisms

i. The Challenge
The *Global Monitoring Report* estimates that US$ 16 billion additional aid will be needed from 2010 onward to enable developing countries to achieve the Education for All goals. Despite numerous commitments from bilateral donors, aid for basic education has stagnated, and there are even signs of a decline in aid for the poorest countries. There has also been a decline in support for basic education projects from multilateral development banks. The Fast Track Initiative (FTI) has not yet succeeded in mobilizing sufficient resources to meet the financing needs of its lower-income partner countries. Mobilizing substantially more resources for education from traditional donor sources may be even more difficult in the current economic environment, given the competition with other global priorities such as climate change. Urgent action is needed to take account of the changing international aid architecture – including the increasing role of emerging economies as aid donors and the growing importance of multistakeholder partnerships in developing countries.

Innovative financing cannot replace long-term funding from local government and donor resources. However, new approaches to raising and delivering finance at the local as well as the global levels could leverage significant improvements in the sector – in quality terms as well as increased access. The education sector has much to learn from the health and other sectors that have been more successful in promoting a culture of social entrepreneurship and in securing support from the private sector. There is also much to learn from domestic policy reforms in many developing countries that have improved the effective use of resources through measures such as decentralized financial management, targeted social protection schemes, and cost recovery programmes at the university level in order to release additional resources for basic education.

ii. The Redesign Prospectus
Several ideas for innovative financing in the education sector have been broached over the past few months. These proposals are only at the concept stage and require further analysis. Multistakeholder partnerships – including substantial involvement from the private sector – will need to support the research, development, initial implementation, and evaluation of the most promising proposals. The aim would be to demonstrate early success with a small number of promising proposals, some of which have been introduced earlier, that would move through concept development to implementation within 12-24 months.

A roster of some recently discussed concepts that could merit further consideration includes:
- **Global education bonds**: These ten-year bonds, modelled on the International Financing Facility for Immunization (IFFim), would support education investment.
- **Education futures levy**: This might be a component part of the Tobin tax. The specific case for earmarking investment in education could be linked to the need for low-income countries to maximize the potential of their youth population bulge.

- **IMF special drawing rights (SDRs)[14] for Education**: SDRs represent an extremely flexible source of potential financing to support the recurrent costs of expanding and improving the quality of national education systems, but there may be reluctance for this earmarking.[15]
- **Teachers fund for EFA (TEFA**): Teachers unions through Education International are already playing an important role in supporting efforts to increase the professionalism of teachers in developing countries and thereby improve the quality of education provision. The TEFA is a proposal to mobilize funds through a voluntary levy on all teachers' union subscriptions to support the global EFA movement.[16]
- **Cash on delivery aid**:[17] The concept is that an education system would get more aid in return for achieving an agreed benchmark (such as the increased number of children completing primary schools). This idea has been widely discussed and is ready to move to trial stage in one or two countries with a rigorous evaluation to assess impact and contribute to broader consideration on financing for development.

The success of the Global Fund and the Global Alliance for Vaccines Initiative (GAVI) in the health sector has been greatly assisted by their focus on clear and measurable outcomes and results, and by adopting "performance-based funding" to ensure accountability, efficiency, and the effectiveness of funded programmes. The innovative financing mechanisms in the education sector should learn from this and be linked to key challenges in the education sector, such as marginalized populations, student achievements in literacy and numeracy, improvements in teacher performance, and so on.

iii. Proposed Actions

Since its inception in 2006, the Leading Group on Innovative Financing for Development has been providing focus on new financing mechanisms in key sectors like climate and health.[18] We support the motion made during the recent Plenary in Santiago to create a new education task force with the goal of organizing a parallel event for this group to meet during the MDG conference in New York in September 2010. The most promising of the various initiatives under discussion should be developed into concrete proposals with explicit funding targets and execution plans.

Simultaneously, a **Global Education Innovation Venture Fund (GEIVF)** needs to be developed to implement the Learning Group's recommendations. The innovation fund could work under the aegis of the World Economic Forum and/or one of the leading multilateral agencies, but it should have sufficient organizational independence to generate new ideas and respond quickly to promising opportunities as they arise. The GEIVF would be supported in the early stages by a small number of committed governments and private-sector partners but should reach out to potential new funders, including emerging donors and foundations. The GEIVF would have the mandate to be entrepreneurial in order to find new sources of finance and find better ways of deploying funds and delivering support to raise quality in the education sector.

To ensure that the GEIVF is clearly different from the work of traditional bilateral and multilateral donors, we suggest that the fund follow the venture capitalist approach and provide long-term technical and management support as well as finance. The fund should also support ongoing monitoring and independent evaluation to ensure that lessons are gathered and shared through an **Innovation in Education Clearinghouse** to promote further innovation in the field. To enhance sustainability, the fund should explore options for providing capital or credit support (including loan or guarantee options) as well as targeted start-up grants. Options could also be explored for providing an "equity stake" – possibly in terms of mixed financial and social capital – to secure the accountability of the fund managers with the work of the implementers.

The development stage of the GEIVF should call on expertise from financial institutions and other partners within the World Economic Forum to ensure that the fund benefits from the most up-to-date thinking on legal and financial investment arrangements.

14 For more information on the general definition of SDRs, go to www.imf.org/external/np/exr/facts/sdr.htm.

15 It should be feasible to provide a "pull" factor for creating additional fiscal space in the education sector by improving the monitoring of domestic investment in the sector and strengthening the voice of civil society in the budget and planning dialogue. This could be a pivotal role for an independent and strengthened FTI to monitor all financing for the education sector (domestic, bilateral, and multilateral).

16 For example, through the EI/NOVIB collaboration in teacher education.

17 See Birdsall, Maghoub, et al., *Cash on Delivery: A New Approach to Foreign Aid with an Application to Primary Schooling*, CGDev., forthcoming.

18 For more information on The Leading Group on Innovation Financing for Development, go to www.leadinggroup.org/rubrique20.html.

B) New Approaches to Assessment in a Learning Society

i. The Challenge

Assessment in education is one of the most powerful determinants of practice in the classroom, made more so by the standards and accountability reforms of the past decade. Many previous well-meaning and well-resourced attempts to reform education have stumbled through an inability to demonstrate improvement on standardized tests that were designed for the past century's education. More often than not, such efforts have assessed what was easiest to measure rather than what was most important to measure.[19] Consequently, along with changes in other areas of the educational system, learning assessment must be transformed to be more responsive to the social and economic needs of students and society as we face the challenges of the 21st century.

Existing assessment models are typically at odds with the high-level skills, knowledge, attitudes, and characteristics of self-directed and collaborative learning that are increasingly important for our global economy and fast-changing world. New assessments are needed that engage students in the use of technology and digital resources and the application of critical thinking, problem solving, and collaboration to solve complex, real-world tasks and create new ideas, content, and knowledge.

ii. The Redesign Prospectus

Over the past 12 months, Cisco, Intel, and Microsoft have worked together with academic experts and assessment policy-makers from a set of pilot countries, and other stakeholders to develop a plan with the aim of creating new modes of assessment suitable for 21st-century skills.

The goals of this *Assessment and Teaching of 21*st-*Century Skills* (ATC21S)[20] project are:

- Mobilize the international educational, political, and business communities around the need and opportunity to transform education assessment – and hence, international practice – and make doing so a global priority
- Specify high-priority skills, competencies, and types of understanding that individuals need to be productive and creative workers and citizens of the 21st century and turn these specifications into measurable standards and an assessment framework
- Examine innovative ICT-enabled, classroom-based learning environments and formative assessments that address 21st-century skills and draw implications for ICT-based international and national summative assessments and for reformed classroom practices aligned with assessment reform
- Identify methodological and technological barriers to ICT-based assessment and support the specification of breakthrough solutions that are needed to measure 21st-century skills
- Support the implementation of newly developed standards and breakthrough methodologies, pilot test them in selected countries, and make recommendations for broader educational assessment reform

There are many international and national assessment programmes, assessment organizations, non-governmental organizations, businesses, research centres, and individual researchers working on the specification of 21st-century skills and the development of ICT-based formative and summative assessments.

The ATC21S project does not aim to duplicate these efforts, nor to develop its own assessment. Rather, the Project will add value to the efforts of the Organisation for Economic Co-operation and Development (OECD), the International Association for the Evaluation of Educational Achievement (IEA), and national assessment efforts by catalysing the international community to identify the problems, issues, and barriers that: 1) are common to all; 2) are of the highest priority; and 3) cannot be addressed by any individual project alone.

Furthermore, the Project will provide a structure by which this international community can draw on and share existing knowledge and create effective solutions to address the problems, issues, and barriers associated with the identified skills and foster wide-scalable adoption of assessment reforms.

[19] See Diane Ravitch, *The Death and Life of the Great American School System: How Testing and Choice Are Undermining Education,* New York: Basic Books, 2010.

[20] For more information, go to www.atc21s.org.

iii. Proposed Actions
The World Economic Forum should engage more of the education community and governments to engage with this Project. Furthermore, the International Education Architecture Committee that was recommended in Section I of this paper could assist in scaling up and disseminating the new models that are successfully developed.

C) A New Global EDU-NEXUS

i. The Challenge
There is an exploding need for post-secondary education. In much of the world, however, there are inadequate corps of teachers with sufficient education themselves to provide university education, even of the most basic subjects, which can be key drivers of economic advancement.

Universities must be viewed – and supported – as essential components of a country's R&D infrastructure that can fuel economic development. However, universities can be more ambitious in sharing high-quality content, pedagogical innovation, and best practices for teacher development.

A surge of educational materials is being posted online by companies and colleges, governments, and NGOs. The Open Courseware movement has been a powerful catalyst to encourage the sharing of learning materials, but the efforts have been disjointed, unleveraged, and not systematically assessed.

ii. The Redesign Prospectus
We propose the creation of a knowledge portal whereby teachers, institutions, and learners can easily discover, develop, and use educational materials. This educational hub, or "EDU-NEXUS," could be a way to:
- catalog outstanding content for traditional and new students (materials for schools and colleges as well as general citizens and preschool children)
- share successful teaching practices
- provide a hosted workbench with the best tools for teachers to create educational online products and for students/users to have handy ways to draw from the learning treasury to mash-up their own materials or to create their own "lockers" to store content

The goal would be to give users – teachers or learners – a sense of which materials are most useful and not have them sift through endless entries online. This may be able to be accomplished from having users "grade" and write reviews on the educational materials (imagine an assessment tool used by teachers only, and another one where students evaluate the quality of the entries).

EDU-NEXUS would build upon existing compilations of online learning materials like the Hewlett-funded Knowledge Hub at Monterey Tec and create a curated/edited "anthology" of the best knowledge nuggets (training modules, courses, lab experiments, problem sets) on an encyclopedic array of topics that could be mixed or remixed and also evaluated by end-users.

iii. Proposed Actions
The World Economic Forum's Global University Leaders Forum (GULF) is collaborating with Cisco and Intel to create a prototype of the EDU-NEXUS platform before the end of 2010. The platform would support the free posting of materials for primary, secondary, and tertiary education, but EDU-NEXUS would approach learning materials in a much more comprehensive sense, allowing for the build-out of children's and citizen's education channels, for instance. For example, critical public health information could be available, as well as insights about topics like infant nutrition and citizens' education on issues like transparency.

D) A Global Professional Resource for Teacher Education and Training

i. The Challenge

We need a new vision of the role of teachers. Many of the world's best-performing education systems share a commitment to professionalized teaching, in ways that imply that teachers are on a par with other professions. They often do three things well to achieve this: 1) they make entry to the teaching profession highly selective; 2) they develop teachers into effective instructors through a variety of efforts, including coaching classroom practice, developing strong school leaders, and enabling teachers to share their knowledge and spread innovation; 3) they establish incentive systems and differentiated support systems to reward and encourage good teaching. The result is that teachers in these countries are respected professionals: they often use data to evaluate the learning needs of their students, consistently expand their repertoire of pedagogic strategies to address the diversity in students' interests and abilities, and proactively share methods and best practice with colleagues.

While efforts to increase the number of teachers to meet global education needs continue, it is also imperative to equip those teachers with the competencies necessary to be effective. Widespread employment of unqualified teachers may improve statistics on educational access, but fails to improve educational outcomes. There is a great need for programmes that enable unqualified personnel to become qualified, and that enable qualified teachers to improve their practice continually as new pedagogy, subject matter, and technology become available.[21] Gaps in supportive resources and the numbers of teacher candidates – particularly in many of the more challenged regions and states – remain a constant problem, as do deficiencies in the capacity to train teachers to teach well. Moreover, many of the best-qualified teachers in these areas are induced to move towards more stable environments, exacerbating local deficiencies.

ii. The Redesign Prospectus

Ideally, every teacher should have strong subject matter knowledge, a familiarity with 21st-century skills, and a keen understanding of the methods and equipment through which to develop students with diverse sets of learning needs. Frameworks and training for professional development hold the potential to 1) assist less-qualified teachers to improve their teaching skills; and 2) motivate both the teachers and students by enriching the learning process. The opportunity exists to create a body of generally applicable norms that can be referenced as standards to certify professional competence, and which could provide stakeholders with a tangible framework upon which to premise future decision-making about effective educational initiatives.

Countries need to develop clear profiles of teacher competencies, derived from objectives for student learning and based on professional standards and a shared understanding of accomplished teaching. Standards developed by UNESCO can be used as models for individual countries, with resources provided to enable the necessary stakeholder engagement for their local application. This should be accompanied by continuous evaluation by third parties, similar to the multistakeholder approach being used in the ATC21S project.[22]

Improved instruction results from quality guidance and mentoring of teachers, from their use of collective learning methodologies, and from their making the best use of various learning environments (classroom, home, or virtual). Teachers need to be active in analysing their own practice, their professional objectives, and their progress towards attaining these objectives. Similar to "360-style" human resource practices in other sectors, the norm for teacher assessment should include feedback from self-evaluations, peer assessment, and student assessment.

[21] ILO/UNESCO CEART Report, March 2010. A toolkit entitled, *Human Resource Toolkit on Good Practices for the Teaching Profession,* being developed by the ILO for release in 2010, will be a valuable aid for ministries and other public employers as well as private education employers and education unions.
[22] Undertaken by 60 international researchers, advised by UNESCO, OECD with PISA, IEA (International Association for the Evaluation of Educational Achievement), and sponsored by CISCO, Intel, and Microsoft.

Where teacher shortages are chronic and needs are great, alternate models of teacher preparation and development may be required. Such programmes should aim to enable teachers so recruited to grow professionally over time, and to achieve full qualifications. Public authorities can set up training programmes, particularly for unqualified primary school teachers, in both formal and informal education. This effort could be fertile ground for a multistakeholder collaboration, involving foundations, Forum partners, education ministries, and education unions, among others. As many good programmes already exist, it would be worthwhile to combine some of the more effective practices into a coherent programme that could scale up the number of teachers and upgrade teaching quality.

iii. Proposed Actions

Additional resources – financial and human – are required to increase the number of teachers and to upgrade the quality of teaching. We need a fresh approach to the mobilization of resources, as well as a reprioritizing of resource allocations (from capital to operations). These approaches should include:

1. The launch of a **Global Partnership for Teacher Education**, designed to mobilize financial, human, and intellectual resources in support of national initiatives to train qualified teachers
   As part of the advocacy for greater political commitment and leadership on education, the importance of teacher education and professional development programmes should be highlighted as key pathways for achieving quality education for all.
2. The development of an **Educators Professional Development Portal**, building on existing instruments, such as the Global Learning Portal,[23]Teachers Without Borders,[24] and other teacher training programmes to provide online aggregation of successful pedagogical techniques and education policies, enabling a collaborative community of practice among educators
   The portal would aggregate existing resources on best practices in pedagogy, assessment, and other teacher development resources, including websites with quality materials. By providing stakeholders with commenting and editorial curation capabilities (e.g., ranking, tags, etc.), this initiative would greatly facilitate the discovery, selection, and adoption of successful professional development tools and techniques by teachers, administrators, and governments.
   An **Educator's Development Exchange** capability also should be developed to enable institutions that cannot operate their own training programmes to locate and engage providers who offer training programmes that meet international standards. To further promote teacher training, international donors might consider prepaying "credits" on this exchange and making other funding contingent on their use.
3. Widespread dissemination and localization of UNESCO's **"Framework on ICT Competency for Teachers**,**"** which was developed in collaboration with Cisco, Intel, Microsoft, and the International Society for Technology in Education (ISTE)
   This training would aid teachers to engage students using technology, as well as give teachers greater facility to use the Internet as a mechanism to further their own professional development.
4. Multistakeholder support for **subsidized or free broadband access** in schools and for teachers in their homes, which would diminish the barriers of cost and workday responsibilities that could limit the usage of these materials

Several archetypes of an aggregation portal for teaching materials already exist or are in development. A small working group of education and technology experts should be convened to determine whether linkages to these other sites are possible, and assess the best way to aggregate the relevant materials. It may prove that this capability is most effectively achieved as an extension of UNESCO's Partnerships for Education website (www.pfore.org) or the EDU-NEXUS platform.

Apart from the technological challenges of creating a portal, additional work will be required to address a variety of complicated issues such as intellectual property rights, vendor responsibilities, and how best to facilitate local access to the portal (at a minimum, access at all levels will require electricity, Internet access, and computer capacity). The working group could examine these questions in parallel with the technology evaluation, presumably taking advantage of how these questions may already have been addressed by other sites already functioning or under development.

[23] Global Learning Portal, *"Connecting and Inspiring Educators Worldwide*," www.glp.net.

[24] teacherswithoutborders.org/pages/twb-toolset.

Global Agenda Council on Education Systems

Conclusion

Every international development summit reaffirms the need to accelerate progress in education; governments regularly restate commitments to high-quality education for all of their citizens. We all agree that something needs to happen – and happen fast. Urgent action is needed to strengthen international cooperation in education.

The Global Agenda Council on Education Systems is committed to pursuing the concrete redesign projects enumerated above. The recommended two-pronged approach establishes a process and timeline to identify and address long-standing inefficiencies and misalignments in the international development architecture for education, while advancing concrete initiatives that can scale globally to address critical needs in education. These initiatives include: 1) redesigning financing schemes for education; 2) devising new approaches to assessment for a Learning Society; 3) sharing free educational resources; and 4) advancing the education and professional development of teachers. All of these efforts are achievable and represent important building blocks that would advance new partnerships, galvanize support of key stakeholders, and create momentum to propel more ambitious change to achieve a Learning Society.

These Global Redesign recommendations can be achieved only by unprecedented cooperation among the chief multistakeholders – from the key international organizations to leading NGOs, the private sector, and universities. Foremost and most influential among these stakeholders are the global leaders of the G20, whom we will be engaging to champion educational advancement and allocate resources in much the same way they rallied to boost attention – and support – for global health in the past decade.[25]

[25] Special thanks to David Schiffman, Digital Strategist at Yale University, for his valuable support in developing this proposal.

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Global Agenda Council on Faith[1]

A Moral Economy Dialogue

Context

Need for a Moral Economy

There are 3 billion people on this planet who live on less than 2 dollars a day. These people do not have a stake or a voice in the global economic system – either before or after the current global economic crisis. It is primarily among this half of humanity that the lack of the most basic of resources and rights leads to untold suffering. Every month, 30,000 children die due to hunger or disease. Half a million women die every year during childbirth due to lack of skilled healthcare.

Before the crisis, the global economic system was failing half of humanity. In addition, many people living on much more than 2 dollars a day faced poverty and insecurity even in "rich" countries. After the crisis, many more people are at risk of joining these groups.

The world is already living well beyond our planet's capacity to regenerate itself and faces the real prospect of catastrophic climate change. Not only is global inequality in income and wealth untenable – the richest 1% of people earns as much as the poorest 57% – but trying to grow the world out of poverty by raising everybody's incomes is ecologically impossible. The Earth just can't provide the resources that intensity of growth would need. Our economic system is highly unstable as the banking collapse of last year has shown all too clearly. And for many people on earth, 'more' and 'better' have parted company and more wealth is not translating into greater well-being.

In addition to the massive poverty gap in the world, we identified a second major gap, a moral gap. This gap includes the failure to articulate and make explicit the values that currently drive our economic systems and which therefore lie behind the set of systemic problems we have identified. We therefore need an articulation of the values that underpin the current economic system and to engender a moral discourse about them.

This is a vital task because the problems the world faces are systemic and interlinked. We therefore need systemic solutions based on agreed moral principles. For the first time in human history, we are coming up against planetary limits, not just atmospherically, but for water, top soil, fish and many other planetary life support systems. This changes everything – even if our individual choices are ethical, the collective outcomes of these choices may not be – we are consuming scarce resources at the expense of others on the planet and future generations. Thus an ethics based on individual freedom and rights-based choices is no longer sufficient (many would argue that it never was) – we need to develop or rediscover principles which will help guide humanity towards better collective outcomes.

The unique opinion poll on values and ethics conducted by the World Economics Forum last year, involving 130,000 respondents, demonstrated clearly that the majority of people across the globe believe the current economic crisis is related to values and ethics. Most respondents do not believe that the same values are applied in private and professional life (the implied deficit in the latter). People believe that business should be more values-driven and find that small-to-medium sized businesses are currently more likely to apply this approach. Almost half of all respondents believe that businesses should be accountable to their shareholders, their employees and their clients and customers equally. In the wake of the economic crisis, this survey reveals a perceived deficit of values in the economy and a need to fundamentally rethink the development of the morals and ethical norms that underpin our global economic systems.

It is time for a new, moral economy. The current economic crisis – a crisis of values – presents an opportunity to realign our collective moral compass, in part by tapping into faith traditions, which serve as sources of identity and ethical orientation for individuals, families, communities and societies. To do so the Council on Faith is proposing principles for a moral economy. The faith groups are well placed to trigger and lead the dialogue around these principles. With over 80% of the world's population adhering to a religion, faith leaders and communities have a massive potential for impact in creating the shifts in mindset needed to create a moral economy.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on Faith

When there is no moral values framework, the market ends up devouring everything including itself.

Proposal

The faith community has two critical and unique contributions to make. Firstly it is a depository and promoter of values in society and secondly it has the potential to convene a large proportion of humanity.

To create a more moral economy requires three key steps:

- Firstly, to articulate the values that will underlie such a moral economy
- Secondly, to foster dialogue on two tracks: a) with leaders in government, business and civil society using the World Economic Forum infrastructure, and b) at the grass roots in our faith communities within G20 countries
- Thirdly, to use the above dialogues to inform and help structure a dialogue at the G20 meeting 2012 with senior government, business, civil society and faith leaders

Values for a moral economy: we believe our faith traditions are carriers of widely held basic human values, which if implemented would close the moral gap. Three such values are:
- Dignity and human flourishing
- Common good of the global community
- Stewardship of the environment

These values lead to three simple questions which decision-makers in all spheres should ask themselves before taking any decision:
- Does this promote or harm human dignity and flourishing?
- Does this promote the common good?
- Does this enhance or harm the environment?

There is a need to develop these principles further, including being clear how to define and measure the common good (i.e. what degree and type of inequality is acceptable), but more important is to start a dialogue on the implications of fully applying them. Hence, our proposal for convening a two-track dialogue. This dialogue will critically focus on change.

Resetting values is crucial, but unless this also leads to rethinking choices and changed decisions, there will be good discussions that do not lead anywhere.

Two track dialogue: building on our convening capacity and informed by our values we can explore through dialogue the key structural changes needed to strengthen our economy:

Track one: at the World Economic Forum's regional meetings, Young Global Leaders meetings and the World Economic Forum Annual Meetings, conduct dialogues between faith leaders and leaders from government, business and civil society. These dialogues will focus on what each of the constituent groups plans to do to bring about a moral economy and to promote the values listed above. This would include the necessary structural changes and the metrics for assessing whether a shift towards a new moral economy has been achieved.

With business the dialogue will focus on how the role of business might change in the light of these values; what each business leader plans to do to help make them a reality and what help they might need from the faith groups. This dialogue might focus initially on one business sector e.g. finance, and will be very practical. It will recognise the moral agency of many existing businesses; the progress already made and will tap into existing networks.

We would also explore how business and faith groups could work together to persuade governments of the necessary changes. Fundamental is the need to shift towards the situation where "doing business" and "doing good" are as synonymous as possible. Some businesses already operate this way; others see it as the goal, but are constrained by short-term and competitive pressure; while others still operate to a different value set. Such a shift requires internalising externalities; switching from short-term to long-term decision-making (this in turn requires measures such as not allowing shares to have ownership rights until they have been held for, say, two years, and taxing short-term gains on stock transactions much higher); and changing governance models from a shareholder to a stakeholder model of governance. All of these require governments to change the "rules of the game". The accompanying values-shift has to be from the purpose of a company being to make profits to the necessity of making profits to achieve some wider purpose serving the common good.

With government leaders the focus would be on what structural changes are needed in the "rules of the game".

With civil society leaders the focus would be on how faith groups and civil society can work together. In all cases the approach will be one of genuine dialogue and enquiry not one of "preaching values" from a supposed moral high ground. We would be seeking real partnerships with two-way learning.

Track two: we bring convening capacity at a grass roots level for deepened reflection and mobilization on these issues. Within each of the G20 countries we would seek to trigger such engagement within the faith communities with a view to these communities coming together to participate in dialogue with business and government in their countries and to press them to bring about the necessary structural changes to transform the economy.

Such changes could include for example concerted pressure for a financial transaction tax, which would redistribute resources both within home countries and to developing countries. An alternative could be a levy on carbon quotas or carbon market trading.

Initially, we would focus on five-to-six countries to make the task manageable. We would also use web tools to ensure the dialogue was open to as many as possible.

In some countries the faith group should be able to mobilize to put significant pressure on their governments and should be able to work across countries in a coordinated way; over time this process could lead to a major worldwide social movement for change.

G20 in 2012: The aim of these two track dialogues would be to ensure that at the G20 meeting in 2012 there would be a highly informed dialogue between global faith leaders and global leaders of business, civil society and G20 governments. The aim is that the G20 would then make the structural changes necessary to put in place a global economy based on these fundamental set of values and which would lead to a transformation in the future prospects for both humanity and the planet.

Explanation/Rationale

Humility and Diversity
We recognize that the faith community has itself lost its moral authority in certain cases recently. We intend, in humility, to acknowledge such past shortfalls and the lessons learnt as a perquisite for healthy dialogue on moral issues.

We also acknowledge the crucial need for recognising diversity in all its forms – especially gender and ethnicity in undertaking these dialogues.

Next Steps

This is a bold and transformative initiative and will require considerable leadership and planning. What is needed is a planning group consisting of at least the Chair, Vice-Chair and knowledge driver of the Global Agenda Council on Faith to meet face-to-face for a minimum of three uninterrupted days, with two or three other key faith leaders (for example, Rowan Williams); two or three key business leaders; two or three civil society leaders and key staff from the World Economic Forum to plan both tracks of the dialogue in detail. Each of the people in the room need to believe in the vital nature of what is proposed; be very well connected and be prepared to play a considerable role in ensuring implementation. We would very much like Professor Klaus Schwab to join us for, say, the last day of such a meeting.

This meeting is vital because action cannot be generated across the G20 countries by telephone and e-mail alone. Furthermore, even the dialogue under the auspices of the World Economic Forum will not lead to sufficient change without this type of planning and leadership.

This planning group would then form the core of a working/steering group to manage the organising process. Building strong relationships within this group will be key to success. Again, time together is vital.

What help are we asking for?
The key help we are asking for is support from the World Economic Forum to make the type of face-to-face planning meeting we discuss above possible.

What are chances of success?
The best way to answer this question is to suggest that without an initiative like this, and with a return to “business as usual”, the outlook for humanity is very bleak. This initiative has no guarantee of success, but people are crying out for an economy with a moral compass. “Hope is a choice” people can make and it can, in itself, be transformative!

In the best scenario the dialogue we are proposing will bring major and non-linear change. In a slightly more pessimistic scenario, it will lead to supporting the birth of a major new social movement that pressurizes for, and eventually achieves, significant change. In the worst case of all, some of the answers will be ready when humanity suffers further major disasters and shocks.

This task is thus vital; it is achievable and we, with the World Economic Forum’s support, are ready and prepared to lead it.

Appendices

Proposed Timeline

When:	30-31 May 2010
Where:	World Economic Forum Global Redesign Summit in Doha, Qatar
Who:	Selected Members of the Global Agenda Council on Faith
What:	• Determine the ideal composition of the working group including: Chair, Vice-Chair and knowledge Driver of the Global Agenda Council on Faith Three key Business Leaders Three key Faith Leaders Three key Civil Society Leaders • Determine the industry (1) for the track one dialogue: finance? Also, the key players and the best way to contact them (responsible and schedule) • Determine the country (1) from the G20 countries for the track two dialogue: US? Also, the key players and the best way to contact them (responsible and schedule) • Establish the action plan • Identify those that have led successful campaigns in the past and are willing to partner or serve as a model, then choose a responsible who will contact them (Jody Williams?) • Determine the guideline for a presentation of the proposal • Set up the virtual sessions the working group will have until the next face-to-face meeting • Determine the date and place of the next face-to-face meeting (3 uninterrupted days?)
Preparatory work:	• Decide on the three key business leaders, three key faith leaders and three key civil society leaders who will be part of the working group • Members of the Council to prepare/send their suggestions (identify key players in their country, region, community, industry and those who have led successful campaigns in the past) and especially those they have access to • Members of the Council to think about business people driven by religion that can help in our proposal
Questions:	• Which audience do we wish to target first (industry/country)? • How do we make certain that consensus of our three values is achieved? • How do we make certain that consensus of our three questions is achieved? • Are we sure that the language of our proposal has meaningful implications for people who do not necessarily share the same values? • Which companies are actually doing a good work? How can we contact them? • What do we expect from the people we are going to contact? • Are we ready to answer the question: “What’s in this for me?” from all the people we will contact? • Which examples from the past can serve as successful models of creating positive pressure on governments to create a mind shift? (i.e., Jubilee Multilateral Debt Relief Initiative)

Global Agenda Council on Faith

When:	June – December 2010
Where:	World Economic Forum Regional Summits 6-7 June – World Economic Forum on East Asia (Vietnam) 13-15 September – Annual Meeting of the New Champions (Republic of China) 26-28 October – World Economic Forum on the Middle East (Morocco) 14-16 November – India Economic Summit (India) Please note the Summits that took place before the meeting in Qatar 6-8 April – World Economic Forum on Latin America (Colombia) 5-7 May – World Economic Forum on Africa (Tanzania)
Who:	Members of the Working Group of the Global Agenda Council on Faith Proposal
What:	• Bilaterals with top government representative and business, religious and civil society leaders
Preparatory work:	• Identify the top level leaders in government/politics we can invite to regional meetings • Determine which private sessions we can create and which concrete topics we can cover at regional meetings to reinforce our proposal • Identify potential partners from the business world who could champion the proposal
Questions:	TRACK ONE • What about track two? This proposal will not work without the grass roots movement

When:	June – December 2010
Where:	To be confirmed, also virtual calls using WELCOM
Who:	Members of the Working Group of the Global Agenda Council on Faith Proposal
What:	• Prepare a powerful presentation with the proposal and the action plan • Identify vibrant individuals from faith-based/religious communities to create energy and mobilize communities; Determine best way to contact and engage them • Identify partners from media, web 2.0, marketing and branding; Determine best way to contact and engage them
Preparatory work:	• Council Members to send their suggestions on vibrant individuals from faith-based/religious communities (person, organization, best way to contact them) • Council Members to send their suggestions on partners from media, web 2.0 and marketing and branding (person, organization, best way to contact them)
Questions:	TRACK TWO • Are there communities already engaged in promoting a new moral economy based on these values? • How can we shape dialogue between religious and secular institutions? • How can we engage young people? Can we organize events at high-schools, universities, religious institutions, etc., that would create high energy and enthusiasm for the proposal? • What tools will we use to spread the message of these three values? Can we organize a marketing campaign? Can we engage influential celebrities (athletes/artists) who have a large impact on society?

Global Agenda Council on Faith

When:	29 November – 1 December 2010
Where:	Summit on the Global Agenda, Dubai, United Arab Emirates
Who:	Members of the Global Agenda Council on Faith Members of the Working Group of the Council on Faith Proposal
What:	• Evaluate the progress of the work • Identify what is not working and make necessary corrections • Determine next steps • Prepare the presentation of our progress for AM11 in Davos-Klosters
Preparatory work:	
Questions:	• How can the results of the movement best be presented at AM11? Will it be crystallized in the form of statistics, campaign results, number of people in terms of engagement, etc.? • What private/public sessions can we put in the official programme at Davos-Klosters to show our progress and engage all stakeholders?

When:	26 - 30 January 2011
Where:	World Economic Forum Annual Meeting, Davos-Klosters, Switzerland
Who:	Members of the Global Agenda Council on Faith Members of the Working Group of the Global Agenda Council on Faith Proposal Business Leaders, Religious Leaders, Civil Society Leaders, Government Representatives
What:	• Pool together the collective achievements and learnings of all global, national, regional and grassroots efforts • Show the progress achieved in a year and present the findings at the AM in Davos-Klosters • Receive feedback and adopt any further suggestions from other stakeholders
Preparatory work:	
Questions:	• Who will present the proposal at the G20 meeting? • Which previous participants of G20 meetings can we approach for advice on how best to present the proposal? • Is there a possibility of attending other G20 events in advance (i.e. workshops, meetings) that are smaller in scope but set the stage for implementation of the proposal?

When:	2012
Where:	G20 Meeting
Who:	Representatives who will present the proposal Leaders of the movement? G20 leaders
What:	• The movement and its proposal brought to G20
Preparatory work:	
Questions:	

Global Agenda Council on Faith

List of Members

Global Agenda Council on Faith

Chair: **John J. DeGioia,** President, Georgetown University, USA

Hussam Bin Saud Bin Abdulaziz Al Saud, Chairman, Zain Saudi Arabia, Saudi Arabia
Wilmot Allen, Founder and Chief Executive Officer, 1 World Enterprises, USA
Karen A. Armstrong, Writer, United Kingdom
Thomas Banchoff, Director, Berkley Center for Religion, Peace and World Affairs, Georgetown University, USA
Peter Bisanz, Director, Entropy Films, USA
Tony Blair UN Middle East Quartet Envoy, United Nations
Joan Campbell, Director, Department of Religion, Chautauqua Institution, USA
Eduardo S. Elsztain Chairman, IRSA Inversiones y Representaciones, Argentina
John L. Esposito, Professor of Religion and International Affairs; Founding Director, Prince Alwaleed Bin Talal Center for Muslim-Christian Understanding, Georgetown University, USA
Pierre Gentin, Managing Director, Credit Suisse, USA
David Little, Professor of Religion, Ethnicity and International Conflict (2001 - 2009), Harvard Divinity School, USA
Diarmuid Martin, Archbishop of Dublin, Ireland
David Rosen, Director, American Jewish Committee (AJC), USA
Zainab Salbi, Founder and Chief Executive Officer, Women for Women International, USA
Mona Siddiqui, Director, Centre for the Study of Islam and Professor of Islamic Studies and Public Understanding, University of Glasgow, United Kingdom
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Yenny Zannuba A. C. Wahid, Director, Wahid Institute, Indonesia
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Stewart Wallis, Executive Director, New Economics Foundation, United Kingdom

Global Agenda Council on the Future of Entertainment[1]
Global Agenda Council on Marketing & Branding[1]

Creating a Global Citizen Engagement Council

Context

Two of the Global Agenda Councils, the Council on the Future of Entertainment and the Council on Marketing & Branding, have come together with a simple idea – to educate and inspire the citizens of the world to act more in their own long-term interests – in more healthy ways, in more financially responsible ways, in more environmentally sustainable ways, in ways that are fair and just. We already have ample evidence that entertainment, advertising, journalism, and social communications can change attitudes and behaviours. We have results from the Ad Council in the USA, telenovela content in Mexico, live theatre in India, and many other places, to tell us that we can help people find the better path for themselves and their families. So we seek to organize a global movement, starting in a handful of nations, to use our industry as a means to redesigning how citizens of the world think and act. We expect to have contributions of talent, ideas, media space, and money to fuel this movement. And since we know how powerful we can be, we also propose governance to ensure we remain in complete service to society as we engage citizens in determining a better future for themselves and their children.

Ours is a crowded, cluttered planet. As our earth shows the strain of sustaining seven billion people, it is time for accountability and transformation.

If we harbour any doubts about the innate inclination of human beings to do the right thing, history provides ample proof that they will. The recent tragedy in Haiti, and the extraordinary response of the global population, provides indisputable evidence that, armed with knowledge, inspiration and opportunity, people will respond heroically. And they will respond *en masse*.

Our Councils believes that nearly all of the challenges we face as a global community can be confronted if we encourage the right type of positive change and human behaviour in our citizens, our governments, and our business leaders. The key is consumer literacy. It alone can inspire people to act in more responsible ways for their own well-being and for the well-being of society at large.

If the purveyors of information, entertainment and persuasion could be effectively deployed, they could educate communities on health, environmental and social issues. They could also influence the formation of active partnerships across disparate stakeholder groups to act in the interest of the common good.

These industries have, in fact, created a host of products, policies and programmes that promote the values of responsibility. We propose a unification charter for the global advertising, media and entertainment industries to aggregate new and existing programmes in a way that accelerates public education and affects positive social change. With a unifying remit, we can build powerful momentum behind the education and motivation of consumer populations to change.

People are ready for this change. We are experiencing major global shifts in transparency, activism, citizenship, and behaviours of a new generation and emerging (and quickly adopted) technology. Consumers want to be understood and treated like individuals. They have become more selective. More thoughtful. The marketing industry has learned that the old model of disruption and exposure is obsolete. Shouting at people no longer wins their attention.

These shifts have also triggered a transformation in the way marketing and marketers operate. The industry has entered an era where marketing must work in service to people, not interrupt them. The marketing ecosystem is already adjusting to the fact that at the core, marketing needs to help citizens make decisions and demands that are in the long-term interest of themselves and their communities. This is not just a matter of philanthropy or moral responsibility. We firmly believe that companies that act in the long-term interests of society act in the long-term interests of their own enterprises as well.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on the Future of Entertainment
Global Agenda Council on Marketing & Branding

Proposal

We will galvanize a global community of like-minded people, from across the marketing, media, entertainment, and technology industries, to help change the world. We have strong evidence in a few countries, including notably the Ad Council in the USA, which these types of alliances can reach and affect the population of entire nations. That said, any model of collaboration needs to adapt to the local customs, media habits and government policies where we might operate. For this reason, we seek to pilot our efforts in a handful of nations with different media and entertainment structures. Our Councils have connections in India, Jordan, and Mexico, and our early discussions are focused on these countries. Another possibility is to use citizen engagement focusing on the World Economic Forum's Global Redesign Initiative sponsor countries of Qatar, Switzerland, Singapore, and Tanzania. Our goal is to launch in countries that are more likely to support this proposal and, at the same time, provide a good regional and cultural representation. Specific requirements for the Global Citizen Engagement Council include:

- a competitive media environment
- freedom of press and expression
- an active, socially responsible business community
- a local history of successful volunteerism

Representatives of the Future of Entertainment and the Marketing & Branding Councils will personally present the proposal to local trade associations, key NGOs, local governments, and leading media owners, and secure from them further guidance, a contribution of talent and/or media space, perhaps financial support for a local organization, and introductions to other critical stakeholders.

From these meetings, a planning committee will be organized, and an operating structure will be developed in each country (while also sharing ideas and experiences between countries).
In each country, we anticipate the following structure for the Citizen Engagement Council:

- **Board of Directors**: a group of industry leaders who manage and advise the business affairs of the Citizen Engagement Council. The Directors will be comprised of industry decision makers from ad agencies, media, advertisers/client companies and trade organizations.
- **Advisory Committee**: a team of leaders from research, non-profit, business, academia, and philanthropy who will contribute to the work of the Council by identifying and evaluating significant public issues and sponsors as potential new campaigns. In the US model, this committee also reviews the Ad Council campaigns to ensure that the issues addressed represent a national priority.
- **Staff**: a small, paid administrative staff to manage the day-to-day operation.

Our Councils also wish to sponsor a global Board, pulling from the pilot countries, but also Ad Councils that already exist in the USA and a few other nations, as well as government public service advertising units (e.g., the COI in the UK) in order to share experiences and prioritize global needs for citizen engagement in order to implement a redesign.

This proposal needs local and national governments to endorse the concept and the public activities. The idea pivots on a free and competitive press and media environment. Elected officials must champion the efforts. It needs citizens to weigh in with opinions and ideas and a sense of what matters most. It needs them to tell us what types of messages they prefer and where and when they would like us to connect with them.

Digital partners must offer inventory, distribution methods and content ideas. Traditional media owners must provide the space for ideas to flourish and capture people's attention. Producers, directors and programmers need to embed messages into entertainment and other content – a touch point increasingly preferred by people. Corporate chief executives need to support and invest in responsible marketing – finding new and meaningful ways to connect with people. And as the proposal evolves into action, it needs interested stakeholders to perpetually elevate, improve, extend and activate this proposal.

Global Agenda Council on the Future of Entertainment
Global Agenda Council on Marketing & Branding

Explanation/Rationale

What makes this proposal particularly unique is its simplicity and its humanity. It pivots on the natural energy, talent and potential of human beings.

The idea is based on a well-established precedent and the proven response of the advertising community to lend its talent and capabilities to issues that matter. In many markets across the globe, the advertising community and its extended circle of partners has demonstrated a powerful desire to affect meaningful change and champion responsible causes.

Like most working people, marketing people and members of the entertainment industries want to change the world. They want to know that their brilliant intellect, powerful ideas and remarkable thinking can benefit the planet and its people as well as it can build icon brands. Recent studies have indicated that business graduates are willing to sacrifice salaries to work at socially responsible companies, and employees feel more engaged when they work for a company that gives back to the community.

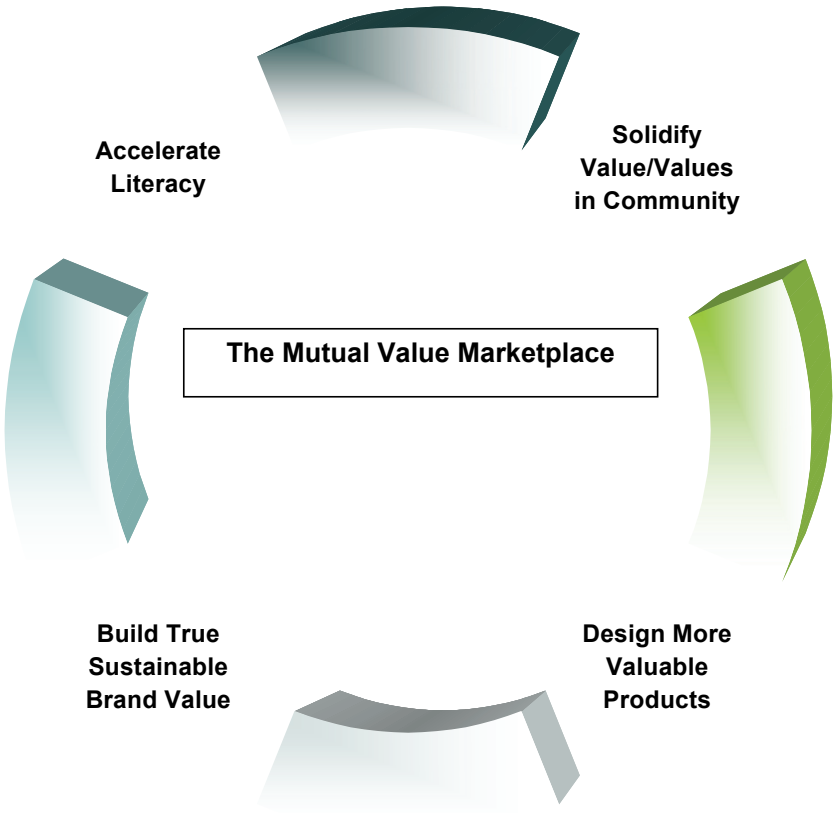
Our industry is increasingly working to create an atmosphere that encourages and rewards engagement in social issues. By creating an ecosystem that rewards hard work for clients and for the planet, there is more potential to attract the best minds (and hearts) in the world. And it is about much more than doing good deeds. It's about creating stronger economies in emerging markets, bringing better opportunities to individuals here or abroad who are waiting for that chance to soar…ensuring tomorrow's workforce, making a true difference in the world.

Finally, this idea is propelled by the organic traction and momentum of technology and digital communication. Digital has a powerful role in making a personal connection. Done well, digital is personal. It is relevant. It is waste-free. It does not scream and shout at people, but rather it has true potential to add meaning to their lives by connecting when and where people are most receptive to the content and messaging.

Creating the Mutual Value Marketplace
What this proposal ultimately seeks to secure is a more sustainable marketplace. By enlisting the help of key influencers, we can liberate this concept and give it permission to soar. In doing so, we believe we can ultimately trigger the advent of a sustainable model for product development. People will embrace new values, and as businesses listen to people and understand the new value proposition, they will innovate new products and services to satisfy the needs.

Accelerating Literacy. The model begins with accelerating literacy for consumers so that they understand the personal and societal impact of their product choices. This step requires education through a variety of communications programmes including traditional and digital strategies.
Solidifying Values in Communities. Recognizing that all values are local, this model seeks to convene communities, both physical and digital, to recognize and embrace these values.
Designing More Valuable Products. Businesses listen to citizens, understand the values they embrace and innovate products to satisfy these needs.
Building True Sustainable Brands. Products that are designed based on meeting consumer values have lasting value.

Global Agenda Council on the Future of Entertainment
Global Agenda Council on Marketing & Branding



Next Steps

- Prioritize initial countries based on the ability to secure funding, talents, and media space. Initial discussions are in India, Jordan, and Mexico. We hope to have built coalitions in these markets by June 2010.
- Decide whether the sponsor countries of the Global Redesign Initiative would be interested to explore citizen engagement. If so, decide the best way to approach the local media, entertainment, and government leaders in these markets. This will take a deeper dialogue, in order to understand the importance of Citizen Engagement to the polities.
- Set the right topics for citizen engagement, in dialogue with local advisory committees. Initial ideas include domestic violence, rights of women, sustainability, hunger, and basic health (e.g. vaccinations.)
- Align advertisers, entertainers, agencies, and media owners against early campaigns to launch by end of 2010.
- Given the scale and impact of the Ad Council in the USA, engage their support in convening a global Board of Directors to share best practices and manage certain engagement topics on a global basis.
- Build success metrics and track success. Publish results with a “franchise” model to prompt other countries to form their own Engagement Councils.

Appendices

Results from the USA Ad Council's efforts to engage US citizens:

Results/Efficacy

- Applications for Big Brothers Big Sisters mentors soared from 90,000 a year to 620,000 in nine months, a seven-fold increase in the number of inquiries to Big Brothers/Big Sisters agencies.
- Ready.gov received more than 18 million unique visitors within the first ten months of the launch of the Department of Homeland Security's preparedness campaign.
- 68% of Americans say they have personally stopped someone who had been drinking from driving. The old saying, "One more for the Road", has been replaced with "Friends Don't Let Friends Drive Drunk".
- Safety belt usage is up from 14% to 79% since the Ad Council's Safety Belt campaign launched in 1985 – saving an estimated 85,000 lives, and US$ 3.2 billion in costs to society.
- Since 1972, The United Negro College Fund campaign has helped the organization raise more than US$ 2.2 billion to graduate 350,000 minority students from college with the help of the "A Mind Is a Terrible Thing to Waste" slogan.
- 6,000 children were paired with a mentor in just the first 18 months of the Ad Council's mentoring campaign.
- Destruction of US forests by wildfires has been reduced from 22 million acres to less than 8.4 million acres per year since the Ad Council's famous "Smokey the Bear" Forest Fire Prevention campaign began.
- The amount of total waste recycled increased 24.4% from 1995 to 2000, and 385.4% from the 1980s after the launch of the Environmental Defense campaign.

Global Agenda Council on the Future of Entertainment
Global Agenda Council on Marketing & Branding

List of Members
Global Agenda Council on the Future of Entertainment

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Global Agenda Council on the Gender Gap[1]

An Institute to Close Gender Gaps

Context

Gender gaps between men and women in economic participation, political opportunity, education and health are well documented. No country has been able to close all the gaps so far, with substantial variation in the size of the gaps across countries and areas.[2] There is increasing agreement that there are equity and efficiency arguments for closing the gaps and tapping into the one half of the world's human capital that is underutilized. Unequal rights to work, political participation, education and health violate human rights, as established by the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) in 1979. In terms of efficiency, the accumulated evidence suggests that investments in women yield higher returns for development than investments in men.

The increased awareness and documentation of gender gap challenges and opportunities, when combined with tighter fiscal and administrative budgets, push for the maximum societal or organizational gains. This has led to a growing demand for mechanisms and models to close gender gaps. While certain proven policies and practices exist, this information is fragmented. Countries and companies want to change, but don't know how. Thus, there are in fact two gaps. One is the above referenced gap between men and women in the four categories noted. The second gap is the knowledge and access to information gap.

Proposal

The Global Agenda Council on the Gender Gap proposes to create an institution, the *Institute to Close Gender Gaps (ICGG)*, to serve as a central and trusted source of scientific evidence for what works in closing gender gaps. Its mission is to accelerate change by bringing together the fragmented information on successful practices, programmes and policies, stimulate and support new research, and consolidate these learnings so they can be more easily available for replicating and scaling up. The ICGG is neutral and independent with a global reach. The specific goals of the ICGG are:

- Create, collect and organize information on successful interventions
- Disseminate information about successful interventions
- Provide advocacy and advice to promote the diffusion of successful interventions

Explanation/Rationale and Next Steps

Diverse Experiments, Dispersed Knowledge: The Case for Micro-Interventions
Practices and policies to close gender gaps have a long history, longer in some countries and organizations than others. In the 20th century, progress in health, education, political and economic participation was driven by large scale macro institutional change such as legal reforms focusing on land ownership, inheritance, family and labour laws, political rights and laws addressing violence against women. They brought about substantial improvements for women (e.g., China's marriage law of 1950, land reforms in Colombia and Costa Rica in the 1980s, equal pay for equal work legislation in Australia, Canada and New Zealand, or changes in family law in Egypt in 2000). However, change is slow, implementation and enforcement are insufficient and clashes with traditional norms and cultural values are often unavoidable. Thus, macro approaches are now complemented by micro-interventions, which can be implemented locally, on a smaller scale and often allow for more entrepreneurial engagement. While not a substitute for public policies and legislation, the micro-interventions of the 21st century, often founded on principles of behavioural science, are proving effective in bottom-up change.

Micro-interventions allow more rapid implementation of programmes and practices and assessment of their effectiveness. When paired with randomized evaluations, they allow for a clean analysis of cause and effect and help identify promising strategies for change. In organizational settings, they lend themselves to benchmarking and comparative case methods. Such analyses are now being conducted by leading institutions such as Berkeley, Harvard, INSEAD, MIT and Yale, among others. They have led to new research centres and gender focused research initiatives both within and outside of academia such as Catalyst, the Closing the Global Gender Gap Initiative at the Harvard Kennedy School, the Council of Women World Leaders Ministerial Initiative, the INSEAD Gender Diversity Initiative, the International Centre for Research on Women, the Jameel Poverty Action Lab at MIT, the World Bank Gender Empowerment Programme and various programmes within corporations.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.
[2] World Economic Forum *Global Gender Gap Report*, 2009.

By necessity, the micro-interventions of the 21st century take place on a much smaller scale than the macro policies of the 20th century and are grounded in analysis that integrates local contexts and institutions. Bottom-up approaches can and do lead to top-down changes as their success becomes visible and sustaining. Micro-interventions reach their full potential through replication and scaling up. Thus, a new institution able to synthesize findings, promote new research, learn from successes and failures, and derive generalizable lessons that can be applied across countries, companies and sectors is required.

Execution: Institute Goals and Development Phases
Phase 1: Information Creation, Collection and Organization
The Institute will create and collect information on what works, how success was achieved and what the impact was. It will identify criteria for success, such as, e.g., a programme's cost effectiveness or replicability potential in other contexts and will organize the information in a simple, actionable form. It will build on insights from rigorous research spanning multiple disciplines and different methodologies, such as, e.g., randomized evaluations, surveys, and case studies of best practices.

The Institute will be organized around the existing framework of the World Economic Forum's *Global Gender Gap Report*, the Network of Global Agenda Councils and the Global and Regional Gender Parity Groups and select partner organizations with expertise on interventions decreasing gender gaps in society, organizations and politics.

We organize the information collected on successful interventions for closing gender gaps along the four areas of interest: economic participation, political participation, education and health. Examples include:

1. Economic participation
   - Introducing savings commitments products led people, and in particular women, to save more (Kenya), and increased women's household decision-making power, shifting household consumption towards durable goods preferred by women (Philippines)
   - Providing flexible work options increased the retention of women managers and professionals without widening pay disparities
   - Achieving gender parity on candidate slates and appointment committees increased the number of women appointed to corporate boards of directors without imposing quotas

2. Political participation
   - Political reservations in Indian villages substantially increased women's political participation and the quantity and quality of public goods provided (focusing on issues of particular relevance to women, such as drinking water)
   - Exposure to female political leaders decreased biases against women leaders

3. Education
   - Financial incentives such as cash transfers in Mexico, vouchers in Columbia, and scholarships in Kenya increased girls' enrolment, attendance and performance in school
   - Free school uniforms decreased girls' dropout rates, teen marriage and childbearing in Kenya

4. Health
   - Introducing cable television in rural India decreased fertility, son preference and the reported acceptance of violence against women
   - Providing information on HIV infection rates among men of different age groups substantially reduced impregnation by the highest risk men without increasing other pregnancies in Kenya
   - Eliminating user fees on bed nets in health clinics substantially increased uptake by pregnant women and mothers in Kenya

Many of these successful interventions are supported by compelling foundations of evidence, for example:

- Experimental designs in which interventions are assigned to a randomly chosen treatment group that is then compared to an otherwise identical control group to rigorously measure the impact of a new programme or practice. An overview of successful interventions paired with randomized evaluations is provided by Harvard Kennedy School's Women and Public Policy Program and attached (Appendix 1: How to Close Gender Gaps).

- Survey and database studies that employ rigorous statistical analyses using appropriate controls to test for alternative explanations and spurious correlations in explicating outcomes of interests. Examples include the World Economic Forum's recent survey of HR practices for gender diversity in OECD and BRIC countries, which can be paired with Gender Gap Report indicators to identify what organizational practices are prevalent in countries with higher proportions of women in senior management and corporate boards.
- In-depth and comparative case studies highlighting best practices that have been vetted by independent parties and/or meet qualitative and quantitative evidence standards of rigor. Examples of successful case studies include countries such as Honduras and Sri Lanka, which significantly reduced maternal mortality, or Rwanda, which significantly increased women's political involvement through quotas, and companies such as Baxter International, which has successfully achieved 50% women in their senior ranks across 14 countries in three years in their Asia-Pacific division.

Our core activity during this phase of the Institute's development is creating a catalogue of successful interventions, promoting and supporting research where more information is required, and choosing a select number of winners for maximum impact and easy replication.

Phase 2: Information Dissemination
The ICGG will provide clear, detailed and accessible information on successful strategies and showcase role models to allow for optimal cross-sector, cross-country, cross-industry diffusion and expansion of the highest impact interventions. It will develop a user-friendly website displaying clear categories, specific policies, key successful examples and the experiences during implementation to allow for easy adoption and identify potential bottlenecks to progress early on. The aim is to provide achievable guidelines, sources and solutions for those who may seek them and elaborate on what others need to do to replicate the successful practices and permit optimal learning to speed the rate of change.

The Institute will reach out to the large established market of stakeholders seeking to close gender gaps. Many of them have been convinced by the growing evidence suggesting "the girl effect" (e.g., the Nike Foundation) where investments in women yield higher returns in terms of development than equivalent investments in men, correlations between a country's gender gaps and performance in mathematics and reading (e.g., Guiso et al. published in *Science* 2008) and correlations between company performance and gender diversity (e.g., Catalyst or McKinsey's Women Matter reports. An overview of the work on the "business case" for gender equality is provided by the Council of Women World Leaders and attached (Appendix 2).

This is the Institute's quick win phase, the time to gain high visibility for the Institute through the use of digital 2.0 methods, viral marketing, presence at important conferences, traditional and social media attention and ongoing marketing. The priority here is to leverage the "gender gap brand" and network of opinion leaders to quickly make the ICGG the "go to" place for information on practices for closing gender gaps in the economic, political, health and education spheres.

While NGOs like the World Bank and the OECD have implemented web-based mechanisms for disseminating information, the ICGG will complement existing approaches as follows:
- The ICGG serves as a hub or "connector" for practices, programmes and interventions undertaken by actors from across the world, various disciplines, different organizations and sectors addressing the question of what works as broadly as possible
- The ICGG makes the standard of evidence explicit, answering the question of how we know what works and under what conditions
- The ICGG aims to be a one-stop shop for information on how to close gender gaps in the public and the private sector across our four areas of interest

Because the ICGG crosses sectors and disciplines, it can more aptly serve as a clearing house for studies, surveys and cases coming out of NGOs, business organizations like McKinsey and Ernst & Young, institutes of higher education including business, government, law and education schools, and independent research and advocacy organizations such as Catalyst, the Council of Women World Leaders, the National Center for Research on Women and the Center for Work-Life Policy. Established experts who are opinion leaders in these domains, many of whom are already participating in the World Economic Forum's gender-related activities, will be tapped to organize on-line content and connect to other opinion leaders and key influencers, eventually creating communities of practice around our four content areas (i.e., political, economic, health and education).

Our core activities during this phase of the Institute's development are showcasing and providing detailed information on winning strategies, programmes and practices through various media, events and organizations, and in parallel, expanding our network of opinion leaders and content experts and recruiting them to contribute to the ICGG and/or use its materials.

Phase 3: Advocacy and Advice
The ICGG will identify the countries, sectors and organizations that can most quickly benefit from the adoption of successful strategies and offer help with implementation. Our experience with the ongoing Global Gender Gap Report suggests that countries can be tiered according to their level of progress in closing gender gaps. Three clusters are apparent:

- Countries that have not made progress on basic gender parity in health and education
- Countries that have made great strides in achieving gender parity in health and education, but remain behind in terms of women's political and economic participation
- Countries that have made some, but still insufficient, progress in women's political and economic participation

We expect that results of the World Economic Forum's survey of HR practices for gender diversity will yield a similar tiering of companies. The Dutch "Talent to the Top" consortium for government-corporate collaboration to increase the participation of women at senior levels, for example, tiers companies according to their progress along the following developmental sequence: 1. awareness, 2. accommodation, and 3. inclusion.

Once levels of development have been identified, the ICGG will devote its attention to identifying countries (and perhaps, large multinationals) "on the verge" or susceptible to tipping towards the next tier. The ICGG's strong academic base will allow it to take advantage of the latest thinking in behavioural science to develop effective "nudges" to speed progress in closing gender gaps. Nudges move people into new directions by changing the environment in which they operate without restricting freedom of choice. Gender equality nudges currently explored at the organizational level include new choice architecture for human resource management, including hiring, that help firms overcome implicit biases and discriminatory practices.

Our core activity during this phase of the Institute's development is reaching out to select stakeholders interested in learning and programme adoption and potentially, developing a methodology for successfully moving country and corporate actors to the next tier of development. Depending on levels of staffing and funding, activities the ICGG might develop include:

- Developing methods and standards for reviewing and synthesizing research on how to close gender gaps
- Giving practitioner and policy makers the tools to make informed decisions, including information on how to introduce new programmes and how to evaluate them for maximum learning
- Providing a public and easily accessible registry of gender gap evaluation researchers to assist government, non-profit and for-profit actors with designing and carrying out rigorous evaluations
- Producing user-friendly tools, practice guides and research-based recommendations for health, education, government and business practitioners

Feasibility and Growth Scenarios
Resources and Requirements
The first phase, focused on information collection, can be achieved relatively quickly with relatively few resources, building on the information already collected by the World Economic Forum for its Gender Gap Report, Harvard's Women and Public Policy Program for its Closing the Global Gender Gap Initiative, the INSEAD Diversity Initiative and the Council of Women World Leaders Ministerial Initiative. For the second phase, dissemination, the ICGG can capitalize on existing resources such as World Economic Forum members who have already expressed strong concern about gender gaps and the expertise of other Global Agenda Councils, including the Councils on Marketing and Branding and Education. Once the ICGG is established, additional resources will be necessary to design and continuously update the repository of information (goal 2) and to reach and advise the relevant countries and organizations (goal 3). Pools of possible funding sources include the governments best placed to achieve rapid change, gender-focused foundations and corporations. Fee-based sources of revenue may also be considered to cover operating expenses.

Scenarios for Growth
Three possibilities for growth exist:

- The Institute becomes a network of ideas, bringing together the information created by the Institute with other viable networks relevant to gender
- The Institute adopts the role of consultant to corporations or governments, helping them implement successful efforts to reduce and eliminate gender gaps. This is demand-driven based on companies' and governments' exposure to the Institute and their desire to improve their rate of change and spread innovative practices

- The Institute becomes an honest broker of ideas (policies as well as the mechanisms to implement these policies), possibly charging a small fee to pair companies and/or governments with identified successful practices globally

Guiding Principles
The design and operation of the Institute will be based on five guiding principles:
- Gender balanced, in our own structures and membership
- Evidence-based, establishing criteria for the impartial evaluation of micro-interventions
- Appreciative inquiry, building on strengths and what works
- Social connection: idea spreading, capitalizing on contagion mechanisms and viral networks to disseminate ideas
- Fairness, appealing to human values of equity as well as the economic incentive inherent in the win-win approach

Global Agenda Council on the Gender Gap

Appendices

How to Close Gender Gaps:
Evidence based on randomized evaluations from across the world
ECONOMIC PARTICIPATION AND OPPORTUNITY

SOCIETAL LEVEL
Goal: Increase women's savings and productive investments and expenditures
Intervention: Introduction of an interest-free savings account in rural Kenya
Rationale: Offer a commitment device to save and spend wisely
Outcome: Worked for women but not for men
Literature: Dupas, Pascaline and Jonathan Robinson (2008). Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya. Working paper, University of California, Los Angeles.
Intervention: Introduction of savings commitment product in the Philippines
Rationale: Offer a commitment device to save and increase intra-household bargaining due to forced saving
Outcome: Take-up of savings product slightly higher for women than for men
Literature: Ashraf, Karlan and Yin (2006). Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines. *Quarterly Journal of Economics* 121(2): 635-672.

ORGANIZATIONAL LEVEL
Goal: Decrease the wage gap
Intervention: Negotiating on behalf of others in the United States
Rationale: Mitigate social backlash that can result when women negotiate for themselves
Outcome: Women who negotiated for others negotiated better deals than women who negotiated for themselves
Literature: Bowles, Hannah R., Linda Babcock and Kathleen L. McGinn (2005). Constraints and triggers: Situational Mechanics of Gender in Negotiation. *Journal of Personality and Social Psychology* 89: 951-965.

HOUSEHOLD LEVEL
Goal: Increase intra-household bargaining power and family income
Intervention: Ability to monitor spouse's earnings in the Philippines
Rationale: Wives tend to be the family financial managers in low income households, but are only able to monitor their husbands' earnings if they have access to this information
Outcome: When wives are able to monitor, husbands are more likely to turn money over rather than hide for personal consumption
Literature: Ashraf, Nava (2009). Spousal Control and Intra-Household Decision Making: An Experimental Study in the Philippines. *American Economic Review* 99(4): 1245-1277.

POLITICAL PARTICIPATION AND OPPORTUNITY
Goal: Increase women's political participation
Intervention: Constitutional amendment to mandate reservations for women for one-third of the village council head positions in India (in 2009 increased from one-third to one-half)
Rationale: Women are severely underrepresented in politics relative to their share in the population. Quotas bring about rapid change in representation and may also affect policies and attitudes of followers towards women leaders.
Outcome: In West Bengal, the reservation of a female-chief seat increased female representation at the biannual village general assembly (and doubled the likelihood of a woman filing a formal complaint with the chief and increased the provision of public goods, in particular, drinking water infrastructure). In addition, exposure to female political leaders also decreased biases against women leaders.
Literature: Chattopadhyay, Raghabendra and Esther Duflo (2004). Women as Policy Makers: Evidence from a Randomized Policy Experiment in India. *Econometrica* 72(5): 1409-1443. Beaman, Lori, Raghabendra Chattopadhyay, Esther Duflo, Rohini Pande and Petia Topalova (2009). Powerful Women: Female Leadership and Gender Bias. *Quarterly Journal of Economics* 124 (4): 1497–1540.

EDUCATION

Goal: Increase female school enrolment and performance

Intervention: Introduction of cable television in rural India

Rationale: Exposure to new, more and more diverse sets of information

Outcome: Significantly increased female enrolment at the primary level (ages 6-10)

Literature: Jensen, Robert and Emily Oster (2009). The Power of TV: Cable Television and Women's Status in India, *Quarterly Journal of Economics* 124(3): 1057–1094.

Intervention: School vouchers (covering half the cost of private secondary education) in Columbia

Rationale: Decrease the cost of school

Outcome: Worked better for girls than for boys

Literature: Angrist, Joshua, Eric Bettinger, Eric Bloom, Elizabeth King and Michael Kremer (2002). Vouchers for Private Schooling in Columbia: Evidence from a Randomized and Natural Experiment, *American Economic Review* 92(5).

Intervention: Free school uniforms in Kenya

Rationale: Decrease cost, empower children and increase motivation

Outcome: Worked slightly better for girls than for boys

Literature: Duflo, Esther, Pacaline Dupas, Michael Kremer and Samuel Sinei (2006). Education and HIV/AIDS Prevention: Evidence from a randomized evaluation in Western Kenya. World Bank Policy Research Working Paper 4024.

Intervention: Scholarships for girls in Kenya

Rationale: Decrease cost, empower children and increase motivation

Outcome: Increased girls' attendance and improved their test scores

Literature: Kremer, Michael, Edward Miguel and Rebecca Thornton (2004). Incentives to Learn. NBER Working paper 10971.

Intervention: Cash transfers conditional on child's school attendance in Mexico

Rationale: Decrease cost, empower children and increase motivation

Outcome: Largest increase in attendance for girls who had completed grade 6 and significant drop of girls' household and market work

Literature: Schultz, Paul T. (2004). "School Subsidies for the Poor: Evaluating the Mexican Progresa Poverty Programme," *Journal of Development Economics* 74(1): 199-250.

HEALTH

Goal: Decrease violence against women

Intervention: Introduction of cable television in rural India

Rationale: Expose women and men to new, more and more diverse sets of information

Outcome: Increased women's reported autonomy and decreased r*eported acceptability of beating*

Literature: *Jensen, Robert* and Emily Oster (2009). The Power of TV: Cable Television and Women's Status in India, *Quarterly Journal of Economics* 124(3): 1057–1094.

Goal: Increase girls' health

Intervention: Introduction of health camps in pre-school, deworming treatment, and iron and vitamin supplements in India

Rationale: Deworming treatment one of the cheapest and most effective health interventions for girls and boys

Outcome: Improved health scores and school participation more significantly for girls than for boys, mainly due to lower baseline for girls

Literature: Bobonis, Gustavo, Edward Miguel and Charu Puri Sharma (2006) Anemia and School Participation, *Journal of Human Resources*, 41(4): 692-721.

Goal: Decrease teenage pregnancy

Intervention: Free school uniforms in Kenya

Rationale: Boost girls' self esteem and self conception

Outcome: Girls who received free uniforms significantly less likely to become pregnant

Literature: Duflo, Esther, Pascaline Dupas, Michael Kremer and Samuel Sinei (2006) Education and HIV/AIDS Prevention: Evidence from a Randomized Evaluation in Western Kenya .World Bank Policy Research Working Paper 4024.

Intervention: Providing information on the relative risk of HIV by partner's age in Kenya

Rationale: Test whether information can change sexual behaviour among teenagers in Kenya

Outcome: Decrease in teen pregnancy by 28% (used as a proxy for incidence of unprotected sex)

Literature: Dupas, Pascaline (2009). Do Teenagers Respond to HIV Risk Information? Evidence from a Field Experiment in Kenya. NBER Working Paper Series #14707.

Goal: Increase knowledge of test results
Intervention: Monetary incentives to return for HIV and STI test results in Malawi
Rationale: Compensate people to learn about potentially negative news
Outcome: No general gender differences in effectiveness of intervention but in Balaka province where incentive closed historical gender gap in follow-up due to religious gender constraints.
Literature: Thornton, Rebecca (2008). The Demand for, and Impact of, Learning HIV Status. *American Economic Review,* 98 (5): 1829-63.
Goal: Decrease fertility
Intervention: Introduction of cable television in rural India
Rationale: Expose women and men to new, more and more diverse sets of information
Outcome: Decreased fertility (primarily via increased birth spacing) and decreased son preference
Literature: Jensen, Robert and Emily Oster (2009). The Power of TV: Cable Television and Women's Status in India, *Quarterly Journal of Economics* 124(3): 1057–1094.
Intervention: Nation-wide titling programme in Peru
Rationale: Improve women's intra-household bargaining power by including women's names on land titles
Outcome: Significantly decreased fertility
Literature: Field, Erica. (2003). Fertility Responses to Land Titling: The Roles of Ownership Security and the Distribution of Household Assets, Working paper, Harvard University.
Goal: Improve maternal health
Intervention: Elimination of small user fees on bed nets for pregnant women and mothers in health clinics
Rationale: Challenge the argument that cost-sharing for a health product is necessary to avoid wasting resources on those who will not use or do not need the product
Outcome: Women who received free bed nets were no less likely to use them than those who paid subsidized positive prices. Cost-sharing does dampen demand, and uptake drops by 60 percentage points when a fee is charged
Literature: Cohen, Jessica and Pascaline Dupas (2009). Free Distribution or Cost Sharing? Evidence from a Randomized Malaria Prevention Project. *Quarterly Journal of Economics*, forthcoming.

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Global Agenda Council on Philanthropy & Social Investing[1]

The Global Social Competitiveness Index

Context

The world has made great strides in the past half century in improving the material wellbeing of humanity – even as the global population has ballooned, the proportion of people living in poverty has declined. Economic growth has driven much of this progress and should continue to do so in the future. Yet growth is not a panacea – humanity will not thrive if our economies are not environmentally and socially sustainable and able to change to respond effectively to new challenges. Every country in the world is threatened by climate change and resource crises in areas such as agriculture, water, and fisheries; even the richest societies face challenges arising from social unrest, terrorism, and ageing populations.

For much of the 20th century the dominant paradigm has been for the private sector to create monetary wealth and government to deal with the social and environmental fallout through regulation and redistribution (aided to different degrees by charities). That model is failing. Even in the richest countries, governments are struggling to deliver on such basic services as education and healthcare, and job creation is lagging and projected to continue to do so for the near future. Public services are also going to be hit in many countries by the fiscal hangover of the current economic crisis, compounding the chronic deterioration of government budgets as the world's population ages and dependency ratios grow.

It is inevitable that private citizens, non-governmental organizations, and the private sector will have to carry more of the future burden in tackling social and environmental problems in the 21st century, and that all sectors will need to work more effectively together. The countries that succeed in meeting the needs of their populations will be those that can innovate to produce new solutions, test the effectiveness of those solutions, and, if proven, take those solutions to scale. To do this, countries will need to deploy the resources of the different actors – government, the private sector, and non-governmental organizations – better, individually and in partnership, than they do now.

New models of social innovation – social enterprise, corporate social responsibility, philanthropy, social investment – have proliferated in the past decade. The importance of these trends has been reflected in their growing prominence on the agenda of the World Economic Forum, as increasing numbers of policy-makers and leaders seek to understand how to harness innovative new models of social innovation.

Imagine if countries competed with each other to create the best environment in which social innovation can happen. The possibilities are enormous. On the other hand, imagine if countries continue to understand inadequately how to manage effectively the social and environmental challenges of our time, and that together we fall short of our collective potential.

The essence of the Global Redesign Initiative is that we find new ways to manage our future world more effectively. Our proposed Global Social Competitiveness Index (SCI) can play an important role in making that happen.

Proposal

The Social Competitiveness Index would fill an important gap in how the world measures its progress, which would in turn generate debate and knowledge that would accelerate our progress. One way to think of it is as a mechanism for helping the leadership of any country to answer the question: "how do we become the most socially innovative country in the world?"

Although the SCI would require significant new theoretical sand empirical work, it need not be an entirely green-field initiative. It would take some inspiration from established indices that have generated debate and knowledge, but do not focus on the capacity of countries to innovate.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

One obvious model is *The Global Competitiveness Report* (GCR), the most authoritative comparative assessment of countries' capacity to generate economic value. Published by the World Economic Forum since 1979, this index has helped policy-makers map out and drive change to make their economies stronger and more productive. Yet the GCR only captures the economic capacity of countries, not their ability to create social value.

Other indices, such as the UN's *Human Development Report*, provide comparative information on different aspects of human wellbeing, yet it largely reflects countries' accumulated social value rather than countries' capacities to respond to new challenges on a prospective, forward-looking basis.

The CIVICUS Civil Society Index provides a useful guide to the strength of the non-governmental sector in more than 40 countries. However, it is primarily a guide to a sector rather than an assessment of the capacity of different actors in society to create better social outcomes.

The SCI would rank countries according to the effectiveness of their legal, fiscal, and cultural environment with regard to social innovation. It would drive the creation of a systematic body of knowledge about the current structure of legal, tax, and other policies toward social innovation, and about what works best. In doing so, it would provide a meaningful tool for decision-makers in all sectors to benchmark a country's ability to tackle social and environmental problems and, through case studies, identify concrete steps on how to enhance this capacity.

The GCR has proven itself to be a powerful tool in enhancing the performance of the world economy. Increasingly, governments compete with each other to rise up the rankings, improving policy towards business around the world. As globalization moves ahead and creates new challenges, the Social Competitiveness Index has the potential to drive social innovation higher up the political agenda through a similar process of competition among national leaders, helping to make the world a better place in which to do good.

Explanation/Rationale

Our goal is for the SCI to help analysts and policy-makers to catch up with the revolution that has been taking place in the social sector for the past decade or so, chart its evolution going forward, and show countries how to make the most of this opportunity. While not every social innovation will be socially, politically, or culturally appropriate in every country, the SCI will shed light on the options and the opportunities.

The methodology for the SCI would be inspired by (but probably not closely modelled on) *The Global Competitiveness Report*. What makes an economy successful has been studied for centuries, in modern times beginning with Adam Smith's *An Inquiry into the Nature and Causes of the Wealth of Nations.* The need to understand and measure the social productivity/competitiveness of a country has received far less attention. Indeed, it is only recently that there has been a broadly settled definition of social innovation: "a novel solution to social problems that is more effective, efficient and sustainable or just than existing solutions and for which the value accrues primarily to society as a whole rather than private individuals."[2]

In trying to capture the capacity of countries to innovate in the social space, the SCI aims to drive a better understanding of what is going in this sector across the world. At present, this is poorly understood. The SCI will have to cope with weak and incomplete data. It will have to evolve over time as – thanks not least to the increased focus it will engender on social innovation – better data becomes available. We expect that surveys will play a crucial role in the SCI, to capture some of the intangibles about the attitudes of government, the private sector and the non-governmental sector, as well as to provide cross-country comparisons.

[2] Phills, Deiglmaier & Miller, Stanford Social Innovation Review 2008.

This concept note cannot set out a detailed methodology for the SCI – as this will require significant new work. However, based on initial discussions, our working hypothesis is that evaluating a country's social competitiveness will require analysis of the capacities of its government, private sector and the non-governmental sector to:

- Innovate and create new models or technologies
- Test and refine these new models based on evidence of impact
- Take proven models and technologies to scale

One of the particular strengths of the GCR is that it weights the results so that the judgments are appropriate to a country's stage of development. A similar weighting may be appropriate for the SCI, perhaps based on the UN measure of human development rather than per capita GDP (the basis of peer group selection within the GCR).

The UN Human Development Index could also provide a useful measure of social outcomes, against which the SCI could be compared over time. Adjusting for other economic and governmental trends, we might expect countries with a greater capacity for social innovation to see greater improvements in social outcomes. Over time, the SCI might therefore be a useful way to test this (currently untestable) hypothesis.

Further work will be needed to accurately assess the degree to which innovation, testing and scaling influence competitiveness in social innovation and to identify indicators of progress – "pillars of social competitiveness".

As an illustration of what might go into the SCI, based on discussions within the Global Agenda Council on Philanthropy & Social Investing rather than the more rigorous work that we expect to take place during the SCI design phase, here are some potential measures:

1) Social Innovation

A strong civic sector: countries can vary enormously in the vibrancy and dynamism of their civic sectors (e.g. the exceptional strength of this sector in Bangladesh has resulted in a high degree of social innovation compared to countries of much greater wealth, or with better-functioning political systems). This might be measured in terms of the size of the civic sector, amount of civic activism such as volunteering, remittances for migrants, legal framework (e.g. how long does it take to register an NGO?) etc. Cultural differences around the scale and reporting of religious giving may be crucial here, such as accounting for 'church taxes' in Germany, or where traditions of giving in secret are strong, for example in much of the Muslim world. The Civil Society Index would be a useful starting point for this measure.

A strong enterprise culture: countries that have strong entrepreneurial cultures may be more likely to have the infrastructure to support social enterprise. This measure might be taken from existing indices such as the Global Entrepreneurship Monitor, although none are comprehensive.

Basic freedoms of expression and association: the ability of individuals and groups to think freely is essential for a dynamic social sector that is responsive to the needs of society. This measure might be taken from existing indices and reports from groups like Human Rights Watch, Freedom House etc.

Social risk capital: much social innovation in countries like the United States is supported by philanthropy of large donors, who are able to take risks that ordinary charities supported by mass donations cannot. Rather than looking at giving as percentage of GDP, this indicator might look at the giving of the largest 100 foundations in the country as a percentage of GDP. Currently, this data is not readily available except for a few large, developed economies. Such a measure could usefully track the expansion of philanthropy that is currently taking place in countries like India and China. For poorer nations it might be useful to look at the role of foreign aid (private and public) as a source of social risk capital, as well as domestic philanthropy. This category might also include public funds, like that of the US Office of Social Innovation, although defining which government expenditure qualifies as 'risk capital' for the social sector in a way that is meaningful across countries would require careful thought.

2) Testing Social Innovations

Open government: social innovation is unlikely to be well-targeted without hard data on social problems and evidence of the impact of existing public (or private-) sector attempts to address them. This measure might look at government openness and transparency as well as media freedom, perhaps drawing on existing measures such as the Transparency International corruption indices.

Non-profit reporting standards: requirements that charities report on their contribution to the public benefit, as in the UK, may provide better market signals on which organizations and solutions are most effective. Comparative data in this area is weak and there may be different social and cultural attitudes to the responsibilities of charities to report on their actions. Hopefully, the creation of the SCI could motivate improved disclosure and data gathering on the non-profit sector around the world.

Social reporting infrastructure: it might make sense to assess the quality of the charity media and other intermediary organizations (particularly web-based) that provide feedback and analysis of the social impact of corporate social responsibility and charity programs.

3) Scale of Implementation

Proportion of government funding through non-governmental actors: if governments are willing to use non-governmental organizations to deliver services, there may be greater opportunities to scale social innovations. Some of this data may be available already. Where it is not, potentially it might be gathered by international organizations such as the World Bank or OECD. This indicator would perhaps also need to take into account the willingness of government to adopt new ideas from the social sector.

Legal infrastructure for social investment: frameworks for alternative legal forms, such as the L3C corporation, or the existence of a social stock exchange, can indicate that there are opportunities to scale by leveraging capital markets. This is not an area blessed with much existing data, in part due to the fact that these are relatively recent innovations.

Government incentives: as well as directly funding social innovations, governments can support the non-governmental sector with tax incentives and match funding, to help organizations and initiatives to get to scale quicker, such as “Home Town Associations” for investing remittances in local communities in Mexico. Comparative studies of the tax treatment of giving are currently mostly limited to more developed countries, so may need to be expanded. This measure would perhaps also need to take into account cultural differences regarding the appropriate role of giving in society.

Corporate commitment to social and environmental reporting standards: currently various different standards exist to measure corporate social responsibility and the impact of businesses on the environment and society. An assessment of the participation in these initiatives by major corporations in each country, as well as the quality of these reporting frameworks, could give an indication of private sector commitment to social value creation. Initiatives such as the UN Global Compact could offer a benchmark for this measure.

Clearly, developing the SCI, and updating it, will be a substantial piece of work. Some of the indicators on which it would be based could be harvested from other sources. Yet, for a large number of these measures of social competitiveness, there is currently little robust comparative data. Even seeking a consensus on what it means to be socially competitive would be a major undertaking. (These challenges are reflected in the implementation plan below.)

Yet, paradoxically, it is the weak condition of our current knowledge base on social innovation that provides arguably the strongest case for creating the SCI. By harnessing the forces of international competition between countries the Social Competitiveness Index could potentially drive a step change improvement in our understanding of what makes a society able to innovate and how to measure it.

Next Steps

With the high-profile afforded by the Global Redesign Initiative, the Global Agenda Council on Philanthropy & Social Investing would build on the enthusiastic embrace of the idea in Qatar by overseeing the development of the Social Competitiveness Index for annual publication, beginning in 2012.

We currently envisage this work falling into three distinct phases, according to the following provisional, but we believe realistic, timetable:

Phase 1: Conception (by end of summer 2010)

- Create the SCI Advisory Board, initially from Members of the Global Agenda Council (we would aim to expand membership to experts and funders in due course). We would also aim to have a board with representation from government, the private sector and the non-governmental sector, as well as from the major regions of the world.
- Build on the support of the World Economic Forum Global Redesign Summit in Qatar, to demonstrate that the SCI has the broad backing of governments, the private sector and the non-governmental sector.
- Recruit several leading institutions, public and private, that would commit their names and intellectual capital to the index. (There have already been several expressions of interest from governments, academia and private foundations.)
- Secure first-stage funding. The AVINA Foundation has committed US$ 50,000 to support the SCI's early stages of development. We would aim to secure several matching donations, sufficient to develop and refine the indicators to be measured in the SCI.

Phase 2: Consultation and Definition (to be completed by December 2010)

- Preparation of draft indicators: consultants will be tasked with refining the concept and identifying mechanisms for gathering the required data (cost effectiveness will be a priority) under supervision from the Advisory Board. (June-September)
- First round of consultation: we would like to use the World Economic Forum WELCOM website for the initial consultation and feedback on the indicators. (September-October)
- Second round of consultation: the main event in this period would be discussion at the Summit on the Global Agenda in Dubai, as well as focused consultations with organizations such as the OECD and through networks like the Ashoka Fellows (by end November)
- Finalization of the index methodology, for agreement by the Advisory Board, along with a fully-costed implementation plan (November-December)

Phase 3: Implementation (January 2011 onwards)

Presentation of Social Competitiveness methodology to the World Economic Forum Annual Meeting 2011 in Davos-Klosters in January. This would include a list of partner organizations from the public and private sectors and academia committed to producing the index, together with a call for funding and in-kind support, to aid in the preparation of the first Social Competitiveness Index for presentation during the World Economic Forum Annual Meeting 2012 in Davos-Klosters.

Global Agenda Council on Philanthropy & Social Investing

List of Members

Chair: **Matthew Bishop**, New York Bureau Chief, The Economist, USA

Nabil Alyousuf, Vice-Chairman of the Board of Trustees, Dubai School of Government, United Arab Emirates
Hylton Appelbaum, Chief Executive, The Liberty Foundation, South Africa
Brizio Biondi-Morra, President, AVINA Foundation, Costa Rica
Peter Blom, Chairman of the Executive Board and Chief Executive Officer, Triodos Bank, Netherlands
Steve Case, Chairman, Case Foundation, USA
Jed Emerson, Managing Director, Integrated Performance, Uhuru Capital Management, USA
Martin J. Fisher, Co-Founder and Chief Executive Officer, KickStart International, USA
Kumi Fujisawa Tsunoda, Co-Founder, Think Tank SophiaBank, Japan
Reem Al Hashimy, Minister of State of the United Arab Emirates
Christine Letts, Senior Associate Dean for Executive Education, John F. Kennedy School of Government, Harvard University, USA
Asad Mahmood, Managing Director, Global Social Investment Funds, Deutsche Bank Social Investment Funds, USA
Jacqueline Novogratz, Founder and Chief Executive Officer, Acumen Fund, USA
Alvaro Rodriguez Arregui, Co-Founder and Managing Partner, IGNIA Partners, Mexico
Adele Simmons, President, Global Philanthropy Partnership, USA
Sean Stannard-Stockton, Chief Executive Officer, Tactical Philanthropy Advisors, USA
Bettina Windau, Head, Philanthropy and Foundations, Bertelsmann Stiftung, Germany
Arthur Wood, Chairman, World Sanitation Financing Facility, Switzerland

Global Agenda Council on Values[1]

The Conflict of Values: A Crucial Element in Global Redesign

Context

Having reviewed the handbook on *The Global Agenda 2009*, it appears that the most significant contribution the Global Agenda Council on Values could make to the Global Redesign Initiative is in the area we have defined as the "conflict of values." Most other Councils have gestured in a broad and general way towards the realm of values. "Compassion, human dignity and responsibility" (VED) or "long-term sustainable recovery built on values-based decision making" (Trust in Business Leadership) are aspirational values widely shared across Global Agenda Councils. It is, however, the special role of the Council on Values to transform these well-intentioned placeholders into workable and accountable value-systems that will assist decision-makers in their efforts to positively impact the uneven and unequal conditions of global development.

The Conflict of Values: A Positive Approach
Our focus on the conflict of values must not be interpreted as having a negative connotation like the "clash" of civilizations. We emphasize "conflict" because any global process of change and transformation, be it individual or institutional, must be equipped to deal with the plurality of beliefs and the diversity of interests represented by contemporary multicultural or transnational societies.

Seriously addressing questions of values is often *uncomfortable* because there is always an element of conflict in changing mind-sets and altering value-frameworks. Moreover, a perspective based on the "conflict of values" has a useful diagnostic function for any initiative aimed at global redesign: Do our actions properly reflect the values we profess? Do we fail to live up to our best practices because our values are ossified or weak? Do we need reforms to strengthen the social and institutional practices that support values, including education and community initiatives?

The *positive* outcome of an approach based on the conflict of values is that we can distinguish between those values over which we should accept the possibility of reasonable disagreement and difference and those we should hold as non-negotiable for all persons. One concrete contribution of the Global Agenda Council on Values will be to facilitate the recognition of core human rights as an essential component of all initiatives developed with the Global Agenda Councils and the Global Redesign Initiative.

Why start with values in conflict? Shouldn't we first emphasize commonly held values as a means to identify universal values?
We start with the "conflict of values" because we are interested in ways in which values can maintain their integrity and their guiding force when they are incorporated into processes of negotiation and institutionalization. Difficult trade-offs, compromises, and accommodations must be made a part of the function of examining value conflicts. Values are crucial, motivating elements in the realms of choice, judgment, and decision-making. An awareness of the conflict of values helps us to align our enlightened self-interest with our obligations and responsibilities towards the "common good" on a global scale.

A perspective that emphasizes "conflict" in the espousal and operation of values is better able to deal with the multicultural conditions of global society for two reasons. First, such an approach explicitly acknowledges that groups and persons differ in their interpretation of values and value commitments are among the strongest and important of all human commitments. Secondly, it stresses the importance of compassion, empathy, respect, and understanding - putting oneself in the other's place - as a way of overcoming conflict and exploring the most appropriate political, institutional, and personal ways of making accommodations.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on Values

Proposal

Can the "conflict of values" approach coexist with universal values?
Our proposal suggests a dual approach.
Universal Values: Our Council proposes that the Universal Declaration of Human Rights should be part of any global institutional design. We also believe in the fundamental importance of establishing an operational threshold of universal values. We suggest that these values might be most usefully presented as a checklist that ensures any decision-making process is closely coordinated with and regulated by an appropriate and agreed framework of values. What follows are merely examples of how such a checklist might function. For instance:

- Has this decision been taken by stakeholders whose views are freely and fully represented?
- Have their interests been equitably represented?
- Do the outcomes empower them as agents and enhance their capabilities? (Agency, Dignity, and Democratic Participation)

Similar questions should constitute a checklist appropriate to specific institutions that enable them to meet the appropriate value-thresholds of Inclusion; Respect; Equality; Empathy; Ecological Sustainability; Social Accountability; the Redistribution of Economic, Social, and Cultural "Goods." These are foundational values that establish thresholds for good practices and regulatory frameworks within the nation-state and across global networks.

Values-in-Conflict enable us to understand how the "blocks that result from exclusion, from injustice and indifference" (DeGioia) are differently distributed and located on a global scale. Respect for diversity in a society with a history of slavery (US) is very different from respect for diversity in a society with a history of caste prejudice (India), although "class" differences/privileges may be a shared "block" in both societies. We could provide other examples, but the point is simple: any attempt at making values operational or accessible on a global or transnational scale must grasp the way in which values can be "the same and different" – "class" may operate in an equivalent way, but slavery and caste may have very different effects on Respect, Inclusion, Dignity, etc.

Explanation/Rationale and Next Steps

Identifying and maintaining appropriate values is a challenge quite unlike the issues addressed by many other Global Agenda Councils: It is a challenge that cuts across *all other agenda topics*. For this reason we propose that the Global Agenda Council on Values play a coordinating role to facilitate the examination and development of appropriate values across the Global Agenda Council network (perhaps in partnership with those looking at religion/faith?).

This will be achieved through the establishment of a Standing Committee on Values, which would include the membership of select Members of other Global Agenda Councils. It will provide a dynamic environment for shared learning and comparison across the domains of different Councils. We could explicitly engage with four to six Councils in a year and develop a methodology for the analysis and development of values around the conflict of values idea that can be rolled out over time across the Global Agenda Council network.

These important institutional networks will be involved in setting agendas that prioritize areas in which problems relating to the "conflict of values" require the most urgent attention.

- What institutions would we need to put in place to guide, safeguard, and mentor the process by which conflicting values could be negotiated on a national, transnational, and global scale?
- How do we ensure inclusive participation in such a processes? For example, in multicultural polities the world over, value conflicts seem to cluster around issues of education, religious practices/rituals, equitable participation in the public sphere, and the claims of citizenship.

The Global Agenda Council on Values would set an interdisciplinary and intra-institutional agenda that would draw together others to work on *clusters* of the conflict of values that have a deep resonance and relevance across the globe.

List of Members

Chair: **Pekka Himanen**, Professor, Helsinki Institute of Information Technology (HIIT), Finland

Jacques Attali, President, PlaNet Finance, France
Homi K. Bhabha, Anne F. Rothenberg Professor of the Humanities, Department of English and American Literature, Harvard University, USA; Vice-Chair of the Global Agenda Council on Values
Paulo Coelho, Author, Sant Jordi Asociados, Spain
Conor Gearty, Professor of Human Rights Law, London School of Economics and Political Science, United Kingdom
Dru C. Gladney, President, Pacific Basin Institute, Pomona College, USA
Pumla Gobodo-Madikizela, Associate Professor of Psychology, University of Cape Town, South Africa
Amy Gutmann, President, University of Pennsylvania, USA
H.R.H. Haakon of Norway, Crown Prince of Norway
Amin Maalouf, Author, Éditions Grasset, France
Richard Meier, Architect, Richard Meier & Partners, USA
Vasuki Nesiah, Director, Office of International Affairs, Brown University, USA
Ben Okri, Author, United Kingdom
Thomas Pogge, Leitner Professor, Philosophy and International Affairs, Yale University, USA
David Rodin, Senior Research Fellow and Co-Director, Oxford Institute for Ethics, Law and Armed Conflict, Oxford University, United Kingdom
Anant Singh, Film Producer, Videovision Entertainment, South Africa
Tukufu Zuberi, Professor and Chair, Department of Sociology and Associate Faculty Director, Center for Africana Studies, University of Pennsylvania, USA

Global Agenda Council on the Welfare of Children[1]

Raising Awareness on Issues Related to Children

Context

Defined by the Convention on the Rights of the Child as all humans under the age of 18, children are the world's most precious resource. They account for 2.2 billion (or 32%) of the globe's 6.8 billion population (2009) and are the largest cohort of adolescents ever. Yet this population does not have a political voice. Partly due to this fact, the current economic crisis has hit the poorest children hardest, putting even more children's lives at risk. A particularly vulnerable group are girls who constitute half the relevant population.[2]

In 2008, 8.8 million children under five died worldwide. The importance of ensuring children everywhere have access to essential services and to a voice in matters concerning them was recognized 20 years ago when the Convention on the Rights of the Child (CRC) was signed. This Convention remains the most highly ratified of all international human rights treaties. And yet, meeting children's best interests 20 years on still poses a significant challenge to global governance. Inadequate attention and the lack of resources are part of the problem. Now required is a shift from a perspective of children as mere recipients of welfare (necessary though that is) to a dynamic approach that places the direct participation of and investment in children at the centre of the global agenda.

To reflect this shift in emphasis, the Global Agenda Council on the Welfare of Children has identified the widespread tendency to consider children's issues as soft agenda items not integrated with other global agendas as a key gap in international cooperation.

Many states and some private actors focus on problems of children and youth only when there is a fear factor (juvenile delinquency, recruitment to armed groups, drug abuse). But an opportunity for more positive engagement exists by acknowledging the central relevance of children's issues to the development of sustainable and socially responsible business models.

Proposal and Explanation/Rationale

This Council recognizes that many in government, non-governmental organizations and the business community are committed to supporting children in various ways. However, the Council calls for them all to enhance their efforts related to investment in children, in collaboration with one another, toward a common goal of improving the condition of children worldwide.

There is a need to recognize that educational achievements (including early childhood development), and reduction in the gender gap, are crucial tools for achieving sustainable growth. They are also outcomes that, with careful international deliberation and cooperation, can and should be measured. As an additional urgent improvement, children need to participate much more fully in these processes.

The World Economic Forum is well placed to stimulate innovation in the corporate sector. This Council considers investing in children to be an overarching goal for new alliances between the business sector, governments and NGOs in this 20th anniversary year of the CRC. Given the unprecedented number of adolescents coming onto the job market (and the untapped potential they represent), failure to invest in children would be a missed opportunity.

Integrating Children's Issues into Reporting in the Framework of the Global Reporting Initiative (GRI)
The first step is to build on the existing standards of responsible behaviour of organizations. The Global Reporting Initiative (GRI) is the most widely recognized framework for reporting organizations' economic, environmental and social performance.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] Investing in adolescent girls is important to break the cycle of poverty. Only 0.5% of overseas direct investment is invested in adolescent girls. If girls and women earn an income, they spend up to 90% on their families, versus men who spend only 30-40%.

Global Agenda Council on the Welfare of Children

The Council's recommendation is that organizations report on the progress they make on children's issues using the Global Reporting Initiative's framework.

The Council proposes a three-pronged strategy for corporate actors: an assessment of policies and practices over which the company has complete control; activity of indirect influence; and, a wider engagement with children in the local community.

This children-focused reporting method would incorporate:

Actions over which the company has complete control:
- Employment policies
- Family-friendly practices

Actions over which it has indirect but significant influence:
A supply chain code of conduct
Development of professional knowledge on how corporate activity can influence the lives of children

Company engagement with relevant children's issues in society at large (community work):
- Supplying talent to inspire talent: (conducting seminars in schools, providing equipment to community groups, sponsoring innovative projects and competitions in schools) incentives for girls' educational advancement
- Promoting skills transfers to help organizations serving children to improve their performance and productivity
- Encouraging and providing incentives that support employee voluntarism and engagement with organizations that serve children
- Matching employee contributions to organizations working for the welfare of children and their families

Extending the Corporate Sector Duty of Care
Furthermore, the Council wishes to challenge the corporate sector to examine how far their influence can reach. At the World Economic Forum Annual Meeting in January 2010, the Council aimed to discuss with business participants the most viable ways in which the corporate sector can audit their performance as actors who influence the lives of children. In addition, Council Members aim to discover the ways businesses can extend their intended 'duty of care' for children - not only through the immediate environment of their business operations, but to their suppliers and subsidiaries also.

To track a company's progress in investing in children, the Council proposes developing an assessment tool and a reward scheme that has the potential to enhance a company's brand and acknowledge significant corporate achievement in this field. The Council advocates that all strategies adopted need to be transparent, inspiring, transformational and participatory.

The reward scheme could involve the award of a kitemark (seal of approval) that would enable the company to project its achievements in investing in children. This is an example of how companies can meet the challenge of supplying radical thinking, creative solutions and collaborative action in support of children in the context of the Global Redesign Initiative.

Next Steps

The Council on the Welfare of Children proposes a process to:
- Develop a pilot assessment system on children-related reporting within the framework of Global Reporting Initiative. The Council aims to engage international audit companies and other organizations experienced in reviewing company performance to develop criteria and a review structure on a pro bono basis
- Invite a small group of companies to volunteer to take part in the pilot process
- Attract further momentum and support at the World Economic Forum Global Redesign Summit in Doha, Qatar, May 2010
- Report back on progress to the Global Agenda Councils in Autumn 2010 and plan for a comprehensive launch of this initiative at the World Economic Forum Annual Meeting 2011
- Announce the top performing companies in the assessments who thus qualify for the Global Bronze, Silver and Gold awards at the World Economic Forum Annual Meeting 2012

List of Members

Chair: **Charlotte Petri Gornitzka,** Secretary-General (2008-2010), International Save the Children Alliance, United Kingdom

Anu Aga, Member of the Board of Directors, Thermax, India
Ishmael Beah, Author, USA
Carol Bellamy, Adjunct Assistant Professor of Public Administration, New York University, USA; Vice-Chair of the Global Agenda Council on the Welfare of Children
Jacqueline Bhabha, Director, University Committee on Human Rights Studies, John F. Kennedy School of Government, Harvard University, USA
Nigel Chapman, Chief Executive Officer, Plan International, United Kingdom
Jaap E. Doek, Emeritus Professor of Law, Vrije University Amsterdam, Netherlands
Rifat Odeh Kassis, President, Defence for Children International, Switzerland
Andy Knight, Chair, Department of Political Science, and Professor of International Relations, University of Alberta, Canada
Stanley Litow, Vice-President, Corporate Citizenship and Corporate Affairs, IBM Corporation, USA
Elizabeth Mason, Director, Department of Child and Adolescent Health and Development, World Health Organization (WHO), Geneva
Furio Camillo Rosati, Professor of Public Finance, University of Rome Tor Vergata, Italy
Kim Samuel-Johnson, Director, Samuel Group of Companies, Canada
Geraldine Van Bueren, Professor of International Human Rights Law, Queen Mary University of London, United Kingdom
Ann M. Veneman, Executive Director, United Nations Children's Fund (UNICEF), New York
Kimmie Weeks, Founder and Executive Director, Youth Action International, USA

The Forum of Young Global Leaders[1]

Global Business Oath

Context

The global financial crisis of 2008 and the ensuing economic recession has called into question the character and trustworthiness of business managers around the world. Unlike other professions such as medicine or law, which explicitly recognize a commitment to serving the greater good and formally espouse a strict code of conduct, management is yet to do either. Widespread views of management often subordinate business contributions to the greater good to the maximization of short-term financial returns, and emphasize a narrow view of managerial responsibilities as serving the interest of shareholders over clients, employees, or society at large. These views misrepresent the full complexity of the management profession and its role in driving global prosperity and, as we have painfully learned, can have disastrous economic consequences when taken to the extreme.

On the occasion of the World Economic Forum Annual Meeting 2009 in Davos-Klosters, the *Young Global Leaders* community launched the "*Global Business Oath*". The YGL Global Business Oath aims to transform the value system dominant today among business leaders around the world by (a) explicitly recognizing that the ultimate purpose of management is to serve society by bringing together people and resources to create sustainable and inclusive prosperity that no single individual can create alone, (b) recognizing that the effects (good and bad) of managerial decisions in the welfare of society are amplified by the accumulation of resources under legal corporations, and (c) proposing a code of conduct – a modern day "*Hippocratic Oath of Business*" – that spells out a commitment to "doing no harm" throughout the practice of management. Hence, the "Hippocratic Oath" for managers is to commit managers and graduates of business schools throughout the world to a common *Code of Ethics* and to raise their awareness of ethical values such as integrity, honesty, reliability, and responsibility.

Recent Developments
The idea of creating an oath for business managers is an old one, and has been discussed for many years. In fact, MBA programs were first created in the United States, in part, from a desire to "professionalize" the practice of management. Several MBA programs have experimented with Oaths at various points. For example, in 2005 the *Thunderbird School of Global Management* adopted a "Professional Oath of Honor" that has since been taken by students upon their graduation.

Recently, the concept has been given new life in several venues. In a November 2008 article in the *Harvard Business Review*, Professors Rakesh Khurana and Nitin Nohria argued for an increased professionalization of management and suggested a draft oath. World Economic Forum Executive Chairman Klaus Schwab has also spoken extensively about the need for an oath. In November 2008, he too argued for a "Hippocratic Oath" for managers in an op-ed piece published by The Times and other newspapers around the world.

In January 2009, the World Economic Forum hosted a special session at it Annual Meeting on an oath for business leaders that inspired a group of Young Global Leaders from around the world to begin the process of creating a "global business oath".

In parallel, an enterprising grass-roots movement led by *Harvard Business School* (HBS) students created the "*MBA Oath*", which was signed by more than half the HBS graduating class of 2009, and later by 1,000 other business school students from MBA programs across the globe. Additionally, as many as a dozen other individuals and groups have made their own modifications and translations of the oath.

[1] The views expressed here do not necessarily reflect those of all the Young Global Leaders or those involved in this proposal's task force, nor do they represent an institutional position of the World Economic Forum or its Members.

The Forum of Young Global Leaders

Proposal

Currently Under Way: The Oath Project – Clustering of Oath Initiatives
A foundation has been created, "*The Oath Project*" (www.oathproject.org), to bring together the various above-mentioned initiatives and to support future ones. The goal is to create a global movement by enlisting the support of platforms and organizations that can influence the attitudes of current and future business leaders. To that effect the foundation has established a global council with YGL members, MBA student leaders, and leaders of influential international organizations to provide guidance around content and implementation.

In addition to the World Economic Forum YGL and the MBA Oath, the foundations has secured the support of other influential international organizations such as the *Aspen Institute*, the *United Nations Global Compact*, the *Principles for Responsible Management Education*, the *Association of Professionals in Business Management*, and *Net Impact*. The objective of this growing world movement is to create a professional ideology of service to the public good among managers of business corporations. The following sections provide further information on this foundation with respect to its purpose, mission, founding partners, and governance structure.

Explanation / Rationale

Purpose and Mission
The Oath Project is an independent non-profit organization, founded in 2009. Within the early stages, the Aspen Institute is providing staff, website, and other infrastructure support. It is the intent of The Oath Project to serve as a platform or "hub" that supports and enhances the work of the many individuals and organizations who have committed themselves to advancing the concept of the Oath. The mission of The Oath Project is stated as:

"*One day, all business leaders will hold themselves to the higher standard of integrity and service to society that is the hallmark of a true professional. The Oath Project supports and enhances the efforts of the individuals and organizations who are pursuing this mission.*"

Founding Partners
The founding Partners of The Oath Project include the World Economic Forum's Young Global Leaders, the MBA Oath, the Aspen Institute, the Principles for Responsible Management Education, the UN Global Compact, the Association of Professionals in Business Management, and Net Impact. A short register and description of the founding partners can be depicted as follows:

World Economic Forum Young Global Leaders
The Forum of Young Global Leaders is a unique, multi-stakeholder community of exceptional young leaders who share a commitment to shaping the global future. Each year the World Economic Forum identifies 200-300 extraordinary individuals, drawn from every region of the world. Together, they form a powerful international community that can dramatically impact the global future.

MBA Oath
The MBA oath is a voluntary pledge for graduating MBAs and current MBAs to "create value responsibly and ethically". The MBA oath mission is to facilitate a widespread movement of MBAs who aim to lead in the interests of the greater good and who have committed to living out the principles articulated in the oath.

Aspen Institute Business and Society Program
The Business and Society Program (BSP) is dedicated to developing leaders for a sustainable global society. Through dialogues and path-breaking research, the Aspen Institute creates opportunities for executives and educators to explore new pathways to sustainability and values-based leadership.

Principles for Responsible Management Education (PRME)
The Principles for Responsible Management Education (PRME) provide an engagement framework to inspire and champion responsible management education, research and thought leadership globally. The Principles are inspired by internationally accepted values such as the principles of the United Nations Global Compact and seek to establish a process of continuous improvement among institutions of management education in order to develop a new generation of business leaders capable of managing the complex challenges faced by business and society in the 21st century.

UN Global Compact
Launched in 2000, the United Nations Global Compact is a both a policy platform and a practical framework for companies that are committed to sustainability and responsible business practices. As a multi-stakeholder leadership initiative, it seeks to align business operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption and to catalyze actions in support of broader UN goals. With over 7,000 signatories in more than 135 countries, it is the world's largest voluntary corporate responsibility initiative.

Association of Professionals in Business Management (APBM)
APBM is a non-profit higher-educational organization whose mission is to make business management a profession – similar to law, medicine, engineering, and accounting – through Certification, Continuing Education, Code of Professional Ethics, and Professional Standards through Best Practices Research. As part of its mission, APBM administers two certifications: The Certified Associate Business Manager (CABM) and The Certified Business Manager (CBM).

Net Impact
Net Impact is an international non-profit organization with a mission to inspire, educate, and equip individuals to use the power of business to create a more socially and environmentally sustainable world. Spanning six continents, the Net Impact membership makes up one of the most influential networks of professionals and students in existence today. Net Impact members are current and emerging leaders in CSR, social entrepreneurship, non-profit management, international development, and environmental sustainability who are actively improving the world.

Governance Structure
The Oath Project is led and advised by a board of directors and *Global Advisory Council*. The initial members are listed below. They include leaders from academia, business and international organizations, from different regions of the world. An effort is under way to further expand the Council to increase representation, diversity and influence.

Current members:
- Max Anderson, MBA Oath
- Angel Cabrera, Thunderbird School of Global Management (Oath Project Board Member)
- Teal Carlock, MBA Oath
- Arturo Condo, World Economic Forum - Young Global Leaders
- Peter Escher, MBA Oath
- Katherine Garrett-Cox, World Economic Forum - Young Global Leaders
- Suhas Gopinath, World Economic Forum - Young Global Leaders
- Christopher Jahns, World Economic Forum - Young Global Leaders
- Robert Kaplan, Harvard Business School (Oath Project Board Member)
- Georg Kell, United Nations Global Compact
- Rakesh Khurana, Harvard Business School (Oath Project Board Member)
- Penny Low, World Economic Forum - Young Global Leaders
- Nitin Nohria, Harvard Business School (Oath Project Board Member)
- Whitney Petersmeyer, MBA Oath
- Judith Samuelson, The Aspen Institute
- Devi Vallabhaneni, Association of Professionals in Business Management

Next Steps

Unified Oath
In order to offer a single, well-researched, and rigorously tested starting point, The Oath Project is working to arrive at consensus around a single, shared Oath that all parties are comfortable endorsing and supporting. The leaders of The Oath Project agree that for the broader project to succeed, it is necessary to come to consensus around a single oath, though constantly improving, for all to share. The Oath Project is currently at the "final draft" stage of this oath, and is seeking feedback before finalizing the oath for 2010. The following *Unified Oath* draft is currently under review by The Oath Project's Board of Advisors:

"As a business leader I recognize my role in society.
- *My purpose is to lead people and manage resources to create value that no single individual can create alone,*
- *My decisions affect the well-being of individuals inside and outside my enterprise, today and tomorrow,*

Therefore, I promise that:
- *I will manage my enterprise with loyalty and care, and will not advance my personal interests at the expense of my enterprise or society.*
- *I will understand and uphold, in letter and spirit, the laws and contracts governing my conduct and that of my enterprise.*
- *I will refrain from corruption, unfair competition, or business practices harmful to society.*
- *I will respect and protect the human rights and dignity of all people affected by my enterprise, and I will oppose discrimination and exploitation.*
- *I will protect the right of future generations to advance their standard of living and enjoy a healthy, resource-rich planet.*
- *I will report the performance and risks of my enterprise transparently and honestly.*
- *I will strive to create sustainable and inclusive economic, social and environmental prosperity.*
- *I will invest in developing myself and others, helping my profession continue to grow and contribute to society.*
- *In exercising my professional duties according to these principles, I recognize that my behaviour must set an example of integrity, eliciting trust and esteem from those I serve. I will remain accountable to my peers for my actions and for upholding these standards.*

This oath I take freely, and upon my honour."

Implementing and Living the Oath
The Oath Project believes that taking the Oath, by itself, is insufficient. The Oath must be accompanied by habits of practice that allows individuals to live the Oath. Hence, the oath, and importantly, the habits and practices it embodies, must be personally meaningful at the point of commitment, and over time. It cannot be taken lightly; it must embody meaning through usage. In other words, the oath must maintain credibility to business people and to the wider public. This means that the oath must not be a superficial, one-time-only commitment.

To make the oath personally meaningful and maintain credibility to business people and the wider public, the oath itself must be concrete and clear, and The Oath Project needs to align the words of the oath with habits or practices that facilitate commitment and life-long meaning. The Oath Project is actively developing a series of these habits that will allow oath takers to truly live the oath. Such practices may include:

Personal Reflection on Commitment
When signing the oath, one is prompted to write and submit a brief statement of professional purpose to personalize and concretize the experience. The personal statement is electronically delivered to the individual on an annual or periodic basis, as a reminder, or touchstone of commitment. The web could enable these reflections to be shared, anonymously.

Use Existing Starting Points to Ground Your Work
Many individuals and organizations have already done made substantial efforts to identify ways for business to play a responsible role. For example, the United Nations Global Compact offers resources based on a set of universal human rights principles.

Designate a Lifeline
The signer identifies a colleague, partner or friend who shares the commitment and agrees to be available in moments of reflection or confusion. This personal lifeline is an investment in continuing personal and professional growth. It recognizes that support from others and the opportunity to practice giving voice to values is important in face of counterproductive pressures.

The Power of Groups
Individuals will encounter and have the opportunity to sign the oath in the course of education, at the workplace or through networks, both real and virtual. Formal or self-organizing groups that provide structured opportunity to revisit the oath on a periodic basis are another bulwark against counter veiling pressures and groupthink. Five year class reunions, annual employee meetings, web-based forums are all venues for on-going dialogue and reflection.

Forum of YGLs Involvement and Objective
Since the outset of 2009, the YGL Community has provided a pivotal role in the direction of this movement, however as the dust settles on the World Economic Forum's Annual Meeting 2010, the partner Oath Initiatives have exhibited clear strengths that should be considered: 1) The Oath Project has taken a holistic perspective and has aligned text and other important aspects of the movement (Living the Oath, learning about the Oath, etc). Its members represent the diversity of thought and backgrounds that will lead the movement into the future. .2) The MBA Oath initiative, Rakesh and Nitin, and the YGLs leading Business Schools (Arturo, Christopher, and Angel) are heading in the right direction. They have been, and will continue to influence their colleagues around the world to integrate the Oath into curricula and to pass ownership to the student bodies of each university. The YGL Community will continue to support them, but in a less strategic manner. Having considered these strengths, the YGL Community will focus its strategic energy in the following manner:

- Continue to leverage www.globalbusinessoath.org as the repository of the non-MBA signatories of the Oath
- Facilitate the translation of the Oath into other languages – once the new version has reached its final draft, we will reach out to our partners to have the subtleties changed in each case
- Leverage the network of the YGL Community to influence more individuals to sign the oath and to use their platforms of influence such as business leaders associations, e.g. Mongolia, or boards of directors and senior management teams, e.g. Banco Compartamos in Mexico, to encourage other acting business professionals to join the movement. In this regard, the Oath can be signed at www.globalbusinessoath.org
- Coordinate with an external company to put together a short, online course (20-30 minutes) that individuals can use to enhance their application of the Oath and companies can use as a tool for their leaders/managers

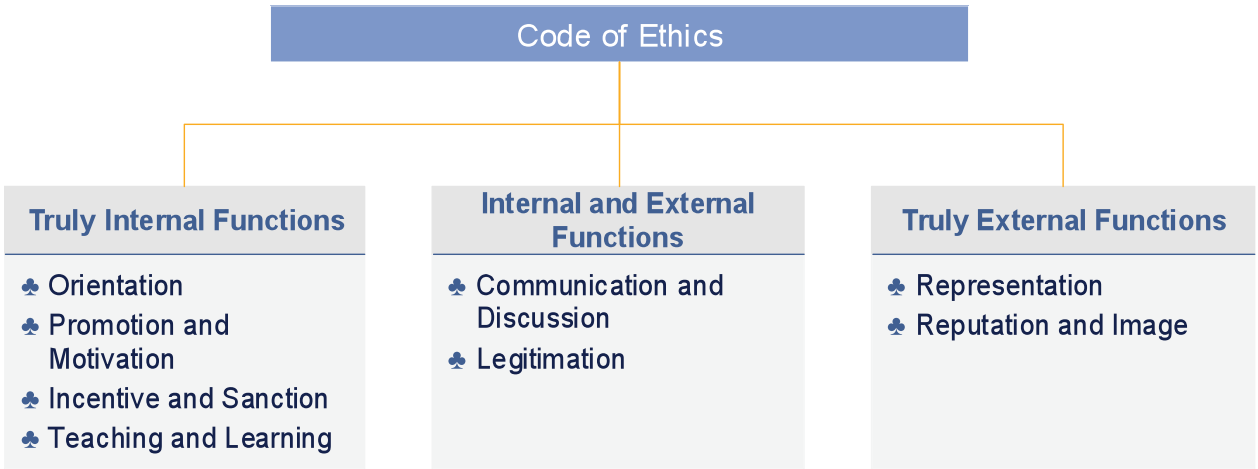
**These objectives are subject to the modification and approval of the YGL Oath Working Group.*

This YGL Initiative will continue to work with the following individuals who have provided leadership, guidance and resources to make the oath a reality. These include Ángel Cabrera, Samer I. Asfour, Tewodros Ashenafi, Elena Barmakova, Gustavo Cardoso, François-Philippe Champagne, Adrian D. Cheok, Andrew L. Cohen, Arturo Condo, Jennifer Corriero, Jitesh Gadhia, Suhas Gopinath, Haakon of Norway, Lars Hinrichs, Christopher Jahns, Georges Kern, Penny Low, Leslie W. Maasdorp, Aaron McCormack, Patricia Menendez-Cambo, David Munro, Henrik Naujoks, Efrat Peled, Paolo Ribotta, Alvaro Rodriguez Arregui, Ganhuyag Ch. Hutagt, Daniel Sachs, Dan Shine, and Jens Martin Skibsted. Furthermore, Rakesh Khurana, Nitin Nohria, and Manfred Reichl formally support this initiative as non-YGL members.

Appendices

Abstract
On the occasion of the World Economic Forum Annual Meeting 2009 in Davos-Klosters, the *Young Global Leader* community launched the "*Global Business Oath*". The YGL Global Business Oath aims to transform the value system dominant today among business leaders around the world by (a) explicitly recognizing that the ultimate purpose of management is to serve society by bringing together people and resources to create sustainable and inclusive prosperity that no single individual can create alone, (b) recognizing that the effects (good and bad) of managerial decisions in the welfare of society are amplified by the accumulation of resources under legal corporations, and (c) proposing a code of conduct – a modern day "*Hippocratic Oath of Business*" – that spells out a commitment to "doing no harm" throughout the practice of management. Hence, the "Hippocratic Oath" for managers is to commit managers and graduates of business schools throughout the world to a common *Code of Ethics* and to raise their awareness of ethical values such as integrity, honesty, reliability, and responsibility.

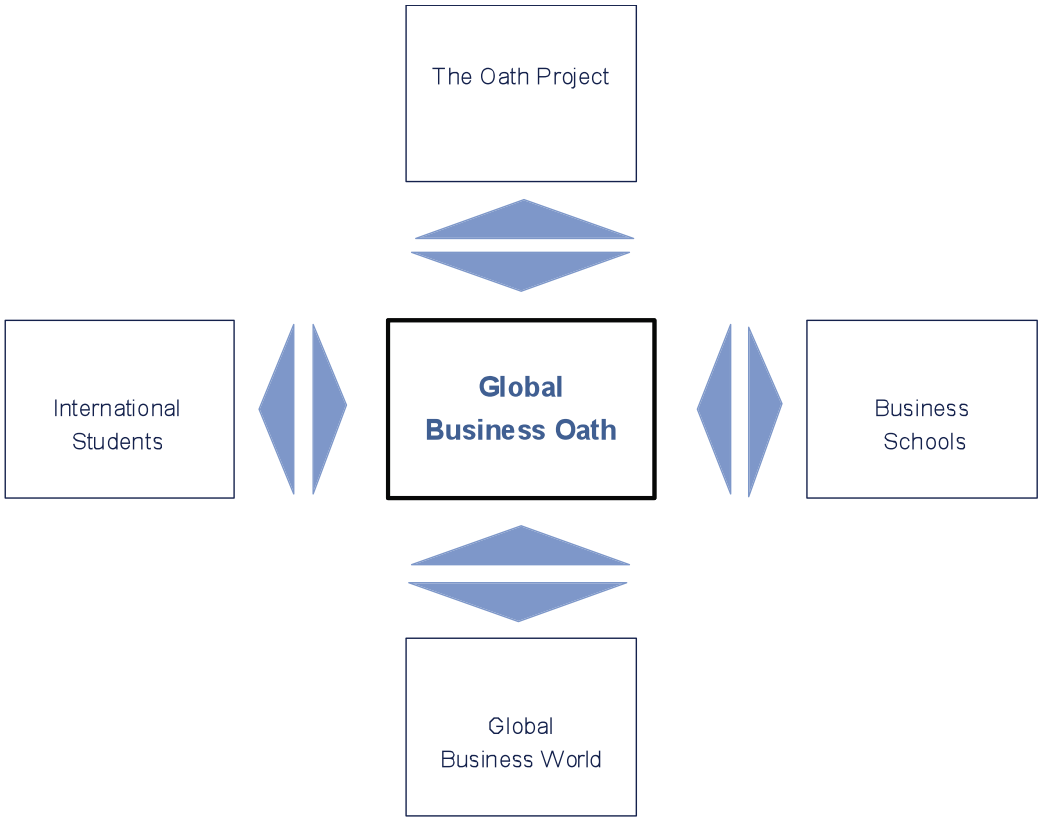
Code of Ethics Functions
According to an ethical management and code theory by Brink and Tiberius, a code for managers can be categorised within eight essential functions (Brink & Tiberius, 2005). Furthermore, the functions are segmented in four truly internal functions, two internal and external functions, and two truly external functions. The following figure illustrates these functions and their respective purposes:



Source: Brink & Tiberius, 2005

Global Business Oath Interaction

The Oath Project can be considered as a fundamental element supplementing, developing and shaping the Oath initiative:



The Forum of Young Global Leaders

YGL Oath Project Task Force

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2 Building Sustained Economic Growth

Prescriptions for Sustained Economic Growth

By Robert Lawrence, Albert L. Williams Professor of Trade and Investment, John F. Kennedy School of Government, Harvard University, USA

Economic growth is vital for meeting almost every global challenge. Without it the world's poor have little hope of overcoming their destitution, the ability of all nations to meet the needs of their citizens cannot be fulfilled, and the world has little hope of developing and deploying the technologies required to sustain the planet. Yet in the aftermath of the global financial crisis, the capacity of the world's economies to sustain their growth is highly uncertain.

There have been some positive developments. At both the international and national levels the catastrophic failures of the 1930s have been avoided. Banking systems and financial markets have not been allowed to fail, fiscal and monetary stimuli have been applied in unprecedented magnitudes, global cooperation under the G20 has been strengthened and for the most part protectionism has been kept in check.

To be sure, some poor countries have fallen on extremely hard times but many developing economies have actually done better than was feared. The crisis began in the advanced economies, and because they had enjoyed a period of strong growth, the more fortunate developing countries were in a position to respond more favourably than has typically been the case where their problems originated domestically or regionally. With relatively low inflation, high levels of foreign exchange reserves, and adequate fiscal positions, these countries have been able to stabilize their economies and avoid deep recessions.

But at the national and international levels major questions still remain about the sustainability of recovery. Stimulus packages, government aid and enhanced international liquidity are necessary palliatives, but ultimately sustainable recovery must rest on the basic growth foundations that are the concern of this chapter.

The elements that determine sustained economic growth are numerous, often interact, and are often highly contingent on particular national circumstances. This suggests an important role for unique domestic policies and strategies. But it does not mean that the global economic environment is not important or that countries cannot be assisted with their growth policies. Several Global Agenda Councils and other World Economic Forum constituents have devoted themselves to proposing how this assistance can be provided. Before presenting some of their specific proposals, this chapter offers a general perspective on policies that promote long-run growth.

Economic growth is achieved through 1) an improved allocation of existing resources; 2) the accumulation of additional factors of production, (plant, equipment and human capital); and 3) innovations in technology and management. Each of these activities requires an appropriate institutional setting that defines and enforces the rules under which economic actors engage both domestically and internationally.

Building the institutions for an economy that can allocate, accumulate and innovate effectively is like attaining good health. What is the secret to good health? One glib answer is to be born with good genes. This helps, of course, but behaviour counts too. There are general principles: "Get enough sleep", "exercise regularly", "don't smoke". In many cases, however, such advice has limited use (or could even be counterproductive) for specific conditions like cancer, heart attacks or broken legs. Moreover, even the best individual treatments do not suffice when poor health results from environmental rather than individual factors. Given the multiplicity of relevant considerations, we expect doctors to provide treatments based on particular symptoms. These should be holistic and pay attention to the way individual measures interact. Moreover, individual treatments may be inadequate; to control some diseases we need public health policies.

Building Sustained Economic Growth

It is remarkable that most people would take these comments about health as self-evident. Yet when it comes to the question of economic growth – a phenomenon easily as complex – the debate has been characterized by extreme positions that are often ideologically based. As with health, some have favoured a single catalyst that will ignite growth: free markets, state planning and intervention, investment in physical capital and infrastructure, education and training, technological innovation, and entrepreneurship. But while all these can contribute, it is time to move beyond these simplistic views and establish a more sophisticated synthesis. As suggested by the titles of comprehensive analyses of the literature, such as "The Elusive Quest for Growth" and the "Mystery of Growth", the determinants of growth are complex and often contingent on specific circumstances.

As with good genes, basic endowments can help. Climate, geographic location and natural resources all play important roles. But the relationship between endowments and growth is also complex. Sometimes rich natural resources are a curse that leads to rent-seeking, corruption and stagnation. And geography is not always destiny. Countries have succeeded despite land-locked locations (Switzerland) and poor natural endowments (Japan).

Again, as with health, the environment is important. The global economy exercises a powerful influence. This can be seen by the number of countries that have used exports to generate growth and the way in which national experiences are frequently correlated: if we needed reminding of interdependence, the pervasive global financial crisis has underscored it.

Behaviour also counts. In almost all cases, successful countries implement disciplined macroeconomic policies, enforce property rights and effectively integrate into the world economy. Focusing on these three pillars are a good starting point for growth strategies. It is difficult to sustain growth in the presence of inflation or large budget deficits; it is difficult for economic actors to compete, invest, and innovate without secure property rights and the rule of law; and especially for smaller economies, it is more difficult to grow if the economy is unable to 1) enhance resource allocation through international trade, 2) supplement domestic saving and investment through international capital markets, and 3) augment domestic innovation with foreign technologies.

Clear prescriptions seem to follow from these principles. "Balance the budget", "enforce contracts", "eliminate trade barriers". These are sometimes helpful, but may not suffice, for example, if macroeconomic instability is itself a reflection of deeper social conflicts, or if there is no judiciary to enforce contracts, or if domestic markets are too rigid to re-employ the resources displaced by trade. Like suddenly starting to exercise with a weak heart, taking a few steps in some cases actually makes matters worse. For example, opening up to international capital flows without adequate regulatory systems could increase the chance of crisis rather than improved growth.

Thus policy generally needs to be based on far more than general principles. There are no single silver bullets for stimulating economic growth. Generalizations may help but there are exceptions to every rule. Specific contexts matter. Binding constraints need to be identified and policies need to be tailored to individual circumstances. In addition, priorities need to be established. Long reform agendas based on getting everything right often lead to diluted efforts. And prescriptions are of little use unless there is buy-in by domestic actors. As the Paris Declaration on Aid Effectiveness appropriately stresses, country ownership, multistakeholder partnerships and strong accountability mechanisms are vital. Nonetheless, as we now explore in greater detail, countries can be helped to improve the institutional frameworks through which they grow. In addition, the international system and institutions through which they interact need reconstruction.

Good Rules

Sustained growth requires rules of the game that align private and social incentives to undertake actions that enhance welfare. This involves both the effective enforcement of formal rules and regulations and informal internalization of cultural norms and values. The Council on Economic Growth & Development is devoted to discovering deficiencies in existing rules and considering how they can best be overcome.

Rules can be improved through data gathering that permits benchmarking and experimentation, increased diffusion through conditional aid and technical assistance, and international agreements and institutions.

Better international data on performance that can stimulate healthy competition among nations to improve their economic environments is needed. Internationally funded tests of national educational achievement such as the Programme for International Student Assessment (PISA) are an excellent example. Performance indicators that relate to economic competitiveness (including the World Economic Forum's benchmarking work on global competitiveness, enabling trade and networked readiness, or the World Bank's *Doing Business* reports) and quality of governance (including Transparency International's Corruption Perceptions Index) can be useful. In each case, the release of such data brings media attention, calls for accountability and provides the opportunity for substantive reform. To be sure, these data need to be interpreted carefully and read with an awareness of their biases, but they can help countries identify strengths and weaknesses and assist in diagnosis and prioritization.

Interpreting such data should be made more systematic, however. Economists need to think more like doctors. The science of identifying binding constraints to growth is in its infancy, and more research should be funded in this area.

Aid can be useful not only for what is achieved but also for what is learned. Programme evaluations should be forward looking and focus not only on whether projects were a success, but also what has been learned. There is a growing base of evidence from rigorous evaluations about what constitute good rules and policies. The evidence provides important lessons on a wide range of policy issues, ranging from how to improve the functioning of government services in a context of weak accountability, to the design of better rules for microfinance lending. There is increasing evidence on how to improve the accountability of politicians, civil servants, and those working in the private sector – a fundamental element of strengthening a rules-based society. Many of the policy recommendations coming from this evidence base are highly practical, providing the opportunity for governments, businesses, and NGOs to integrate the findings into the design of their rules and policies, which sharply increases their effectiveness.

Given that the biggest shapers of development are developing country governments, the key audience for efforts to generate evidence should be seen as policy-makers in developing country governments and their citizens. While conducting rigorous impact evaluations of aid programmes is useful in improving the performance of aid agencies, the ultimate aim should be to empower developing country decision-makers by providing them and their constituents with evidence. Since evidence on the impact of alternative rules and policies is a global public good, the costs of this research should be funded internationally and the results widely publicized.

Like goods and services, rules and institutional arrangements can be imported and exported. Sometimes membership in international agreements can anchor domestic reforms, spur the adoption of new rules and make them more credible. Countries can also share rule-making in varied and complex ways. "Mutual recognition" of national standards is an interesting example that can simplify the task of agreeing on common standards although it may also require more trust. Some governments can compensate for domestic weaknesses by importing foreign rule-makers. For example, the Solomon Islands use Australian police officers to enforce the law. Others could import entire rules-making systems. Paul Romer, pointing to the success of enclaves such as Hong Kong, has suggested that some nations outsource the rule-making to foreigners and attract newcomers to charter cities.

It should be stressed, however, that there may not be just one correct approach to rules, and harmonization on the wrong rule can actually impair growth. Colonialism may have achieved deeper international integration, but not the political systems required for legitimate governance. Countries need adequate scope to determine what will work best in their circumstances. But rules also need to be adapted to local conditions. They cannot simply be imported or even imposed in a top-down fashion by government leaders. Systems that allow for continuous responsiveness and feedback between policy-makers and domestic firms and other social partners are critically important for successful national strategies.

Some of the national rules need to be coordinated. The global financial system currently provides two examples that are critical for sustainable global growth: 1) the reconstruction of a global financial system that can reconcile the macroeconomic interactions between major economies and avoid imbalances that can threaten growth; and 2) the provision of more effective regulatory frameworks for international finance.

Bad Rules

Just as good rules can aid growth, bad rules can thwart it. Corruption – "the use of entrusted power for private gain" – is a prime example. When corruption is widespread, economic actors incur excessive transaction costs and risks. Corruption siphons off the returns to domestic and international investment. Scare resources are wasted when efforts are devoted to rent-seeking and influence-peddling rather than productive activity. Government policies are rendered ineffective when corrupt officials subvert them for personal gain.

That damage, too, is not confined within national borders. Corruption undermines weak states and becomes a recipe for terrorism and the spread of weapons of mass destruction; it facilitates illicit international traffic in humans, guns, drugs and money laundering. It also thwarts international efforts to improve health, educational attainment, welfare, prosperity and human rights.

Collective action across the public and private sectors is needed to transform zero tolerance for bribery from best practice into common practice in both business and government. Action has to be collective, because incentives need to be changed. When corruption is pervasive, individuals who refuse to pay bribes simply suffer for their virtue and lose competitive advantage. Resistance and exposure of corruption needs to rewarded.

The approaches to reduce corruption need to be multidimensional. As discussed by the Global Agenda Council on Corruption, all levels of governance need to be employed, and all stakeholders need to participate, both individually and cooperatively. Governments and firms should join and implement the international anti-corruption conventions that have been negotiated and work to strengthen them and make them more effective (e.g. the UN Convention Against Corruption and the Partnering Against Corruption Initiative). These need to be supported by governments with national strategies reflecting local capacities. National governments can also contribute internationally by inducing national law enforcement to pursue transnational cases and by imposing anti-corruption disciplines on their multinational firms. Firms should develop ethical cultures and compliance programmes reinforced by zero tolerance. Citizens also need to be mobilized, because pervasive corrupt practices can only be detected and eliminated by grass-roots actions. Governments need to educate citizens on the destructive nature of corruption, to create ethical norms.

A bottom-up approach is critical for reinforcing such top-down initiatives. To this end, the Global Agenda Council on the Future of India proposes a novel multistakeholder plan to empower citizens to battle corruption. The empowerment of citizens can be enabled by Internet and mobile-phone technology, among other innovative means. This is a critical pillar of redesigning and rebuilding India, and the approach could be very helpful in many other parts of the world.

Yet the battle against corruption also needs be waged with sensitivity to the weak governmental institutions in some developing countries. In addition there are real dangers that the desire to reduce policy-maker discretion and second guess individual policy decisions could also result in policies that are costly and ineffective.

Trade Rules

Nations can benefit from trade by unilaterally reducing their trade barriers and finding foreign customers for their exports. But the benefits are even greater if others reciprocate. In addition to providing a forum for negotiating freer trade, the World Trade Organization (WTO) plays a key role in providing and enforcing a non-discriminatory system based on rules achieved through consensus. Firms sinking investments to service or buy from foreign markets need to believe they will remain open to their sales and purchases. Political support for open trade also rests on the belief that the system is fair and its benefits widespread. This requires that nations agree to some degree to constrain their policies.

The trading system therefore needs effective and complementary governance at several levels. Over the past decade, regional and bilateral agreements have flourished and many countries have unilaterally opened their markets. This suggests a widespread appreciation of the benefits of trade and trade agreements. These agreements may be valuable but they cannot replace effective progress at the multilateral level. Unfortunately, however, the Doha Round of negotiations has lingered on interminably. There is much on the table and a successful conclusion is imperative.

There are steps that can be taken even before the Round is concluded. Enhanced Aid for Trade merits attention. In the least developed countries, it is increasingly evident that trade policies need to be complemented by administrative and regulatory reforms and investments in telecommunications and infrastructure that facilitate trade. *The Global Enabling Trade Report* of the World Economic Forum provides comparative data that can be used to prioritize responses. At the national levels, as the Global Agenda Councils on Trade and on Emerging Multinationals have both emphasized, there is scope for enhanced trade adjustment assistance for displaced workers and trade-impacted communities. In addition, the relationship between the WTO and other intergovernmental and non-governmental institutions needs to be improved.

Work should also begin in thinking about how the system can be made even more effective in the future. One particular problem is dealing with the proliferation of regional agreements. The Council on Trade has proposed in the year to come to work on how the rules for and practices of these agreements can be improved. The greatest challenge is ensuring that the WTO plays a central role in a system that meets the needs of its diverse group of members.

The trading system needs to be more open but an open system is not an end in itself. Ultimately, it must be judged by the results it delivers. Countries also need to be able to tailor their policies to local political and economic circumstances. Some still require tariff revenues. Others may benefit from temporary protection to limit domestic displacement or provide for the nurturing of infant industries. While international rules may help, local conditions may also require different regulatory responses. Thus the key is constructing a system that achieves the right balance between integration and the preservation of policy space.

The tariff regime in the WTO allows such differentiation, and while countries bind their maximum tariffs, they can do so at different rates. In addition, throughout the agreement there are provisions for special and differential treatment. But most of the rules are part of a single undertaking, which must be adhered to by developed and developing countries alike. A majority of members of the Global Agenda Council on Trade have argued that the WTO would be better served in the future with a more variable geometry.

The diversity among developing countries has implications for the rules they should be asked to accept. Increased enforcement of intellectual property rules, for example, could benefit those developing countries with the potential to innovate and use them to induce transfers of technologies, but it could hurt those that have simply copied foreign technologies in the past. Likewise agreements on competition policies and/or investment might not be suitable for all, but would certainly be attractive to some. Again the correct approach seems not to avoid all obligations that cannot be assumed by all members, but to ensure the rules can accommodate differences in interests in areas that could promote trade.

In the negotiations after Doha, all WTO members would subscribe to a core set of agreements, but there would be some additional agreements to which only some members would commit. The WTO should have a general protocol governing the negotiation, adoption and rules of operation of these additional agreements. The protocol would lay out guidelines for acceptable issues. All WTO members would participate in negotiating rules, but developing country members in particular would be free not to join. Members in an agreement might later decide to extend benefits to developing countries on a non-reciprocal basis but would not be required to do so. The protocol would also make clear that membership in such agreements would be voluntary and could not be a condition for participation in other WTO agreements and activities.

The protocol would not prejudge which issues should be covered, but one candidate could be the proposal of the Global Agenda Council on Sustainable Energy for an agreement they call a "Sustainable Energy Free Trade Area" that would address barriers to trade in sustainable energy due to subsidies to fossil fuels, tariffs and discriminatory standards.

Foreign Investment rules could be another candidate for such plurilateral agreements, as proposed by the Global Agenda Council on Emerging Multinationals. Some developing countries were resistant to the negotiation of such an accord in the Doha Round on the grounds that it could be too constraining, but many others were favourably disposed. There is no reason both groups could not be accommodated through the plurilateral mechanism. Indeed, such an agreement should be attractive to both developed and developing countries because firms in emerging markets are increasingly becoming multinational.

The direction of foreign direct investment (FDI) often mirrors the diffusion of technology, and the emergence of multinationals from developing countries heralds an important development in patterns of globalization. The diffusion of innovation is now moving from south to north and south to south in addition to the traditional movement from north to south. But innovations in emerging markets have distinctive characteristics. The most successful emerging market multinationals owe their existence to a novel business model or product that is the outcome of an innovative process, often developed in response to their environmental constraints. For example, companies operating in environments of scarcity have learned to develop particularly lean and sustainable business models.

Capital

Capital is another key ingredient in growth and many developing countries require immense investments in long-term capital projects to: 1) exploit their natural resources; 2) build infrastructure to integrate into internal markets and link their economies to the rest of the world; and 3) provide their citizens with adequate power and water. Though they generate positive social returns over the long run, many public investments are not undertaken because they require capital commitments that are beyond the capacity of individual national governments.

Large long-term investors can in principle meet these needs and bring additional benefits to borrowers because they have incentives to be concerned about corporate governance and management quality. But long-term money remains in short supply. Some financial institutions, such as pension funds and insurance companies that could provide the resources, are constrained by their governance rules, a limited tolerance for short-term volatility and compensation models that are based on short-term profits. Others with large pools of capital, such as Sovereign Wealth Funds, face suspicions they will manage their investments for political purposes. Supplies of capital are also limited because investors are concerned that once their money is committed, they are vulnerable to changes in the rules of the game. These might not involve explicit expropriation that can be insured against, but rather more subtle measures, such as increases in government-set costs of key inputs or taxes that prevent investors from receiving returns that were originally agreed to.

The Global Agenda Council on the Future of Long-term Investing advocates the creation of a set of principles subscribed to by regions and countries that would govern large-scale infrastructure projects, which would address this issue head on. The idea would be to develop a new legal framework (Foreign investment Charter) focused on illiquid investments, providing protection from expropriation.

Innovation

Innovation becomes the key driver of productivity growth and rising prosperity especially for advanced economies as there is no limit to new ideas and ways of doing things. Yet like other growth drivers discussed above, the manner in which innovation can be catalysed in different industries and areas will differ. What is required is a holistic approach that encompasses rewards (incentives and financing), capabilities (analytic and scientific skills), attitudes (acceptance of change and risk), and access to information (dispersing knowledge and widespread tinkering).

Non-commercial knowledge should be open and free. To achieve this, the Global Agenda Council on Innovation proposes a worldwide platform for open knowledge: beginning in 2010 all non-military publicly-funded scientific research should be free and open to the world online. They would also like to see a World Bank of experiments; experimentation is fundamental to acquiring new knowledge. Performing small experiments, making small innovations and engaging the end-users of potential new products and services should be encouraged. The Council recommends creating a global online platform for sharing the results of small experimentation. Finally they advocate a new pedagogy of innovation. Education needs to provide scientific and design skills and information and visualization literacy. Coupled with improved access to data, this should create universal participation in innovation.

Patents for the Poor. The global patent regime legitimately gives a temporary monopoly over intellectual property (IP) to reward the inventor. However, the poor do not have the means to pay for access to this IP. The World Economic Forum's Young Global Leaders (YGLs) group proposes a "Global Responsibility License" that would differentiate between commercial and non-commercial use. Public and not-for-profit use would be permitted without fee, whereas normal IP rights would apply for commercial users.

A second proposal from the YGLs is that the United States Patent Office, where many of the world's most significant innovations are patented, should develop in collaboration with national Patent and Trademark Offices a new business model to facilitate efficient processes and low-cost patent filing. A low-cost marketplace for access to pools of existing intellectual property should also be created.

Entrepreneurship

Entrepreneurship is a phenomenon that ties together much of the other growth drivers and facilitators discussed above. Indeed, entrepreneurs assemble resources, including innovations, finance and business acumen, in an effort to transform innovations into economic goods, thus contributing to sustained economic growth.

High-growth small and medium-sized enterprises (SMEs) are important drivers of wealth, innovation, and high-value jobs in emerging market countries. Ultimately, these enterprises catalyse a chain reaction in the larger economy: venture capitalists and angel investors recognize compelling opportunities in entrepreneurs and an equity capital investor community takes root; local governments come to understand the macroeconomic requirements for new venture creation; and entrepreneurs, spurred on by their success, invest in new ventures, give back to the community, and inspire a new generation of innovators. A virtuous cycle is formed.

In developed countries, SMEs represent more than half of GDP and account for nearly two-thirds of employment. But in emerging market countries, SMEs are largely missing from the formal economy. By effectively supporting these businesses, it is possible to generate significant economic benefits. As the world recognizes with rising urgency, entrepreneurship is not an independent discipline but a powerful catalyst behind a wide range of global solutions.

An idea from Endeavor of the Social Entrepreneurs group proposes ways to promote high-impact entrepreneurship and bring small businesses to scale. Around the world, a growing field of organizations, funds, governments, and other stakeholders have valuable insight into this question – but no central mechanism to share and collaborate. They therefore propose to mobilize key stakeholders through: 1) spotlighting success stories and case studies; 2) assembling a set of best practices on fostering entrepreneurship; and 3) assisting efforts to create a High-Impact Entrepreneurship Index and mapping exercise. These resources will give greater legitimacy and definition to this next major development sector, benefiting current stakeholders and newcomers alike.

Concluding Comments

Like the temporary rushes that come from caffeine and other drugs, growth based on increased consumption spending financed by short-term borrowing or temporary spikes in commodity prices will be followed by the hangovers of debt crises and recession. Sustainable growth by contrast in based on improved productivity that reflects investments, innovation and institutional improvements.

Good public health also requires community-based medicine. And what is striking are the common elements in many of these proposals. These include an emphasis on: 1) needing improved access to information (on the performance of the drivers of growth, on new knowledge and discoveries); 2) using public-private partnerships, not only to change policies and regulations but also to change attitudes (towards corruption and innovation); 3) encouraging experimentation and continuous discovery; and 4) aligning private incentives to achieve public purposes.

Finally, this chapter stresses the complexity of stimulating economic growth. But the task should not be viewed as impossible. Relatively small steps, such as improving diet, giving up smoking and avoiding excessive drinking, can in some cases make all the difference. Many countries have experienced growth accelerations, based not on getting everything right, but on taking measures that happen to fit their particular circumstances particularly well. The developed world has experienced centuries of remarkable achievements in this area, and over the past decade a large number of emerging economies have been able to significantly close some of the gap between their incomes and those in the advanced economies. The proposals offered here can build on these successes.

WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

GLOBAL REDESIGN INITIATIVE

Proposals

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World Economic Forum Partnering Against Corruption Initiative (PACI)[1]

Global Multistakeholder Partnership to Scale the Supply-Side Response to Corruption

Context

Companies increasingly acknowledge the business case for fighting corruption[2]; for financial, legal, ethical and for social and economic development reasons.

The Financial Case for Fighting Corruption
Corruption is a cost to doing business. It is currently found to add up to 10% to the total cost of doing business globally, and up to 25% to the cost of procurement contracts in developing countries. Moving business from a country with a low level of corruption to a country with medium or high levels of corruption is found to be equivalent to a 20% tax on foreign business.

Companies having an anti-corruption programme in place are likely to attract investments from ethically-oriented investors and obtain a competitive advantage by becoming the preferred choice of ethically concerned customers / consumers. Such companies also qualify for reduced legal sanctions in jurisdictions in certain countries, such as the US and Italy.

In contrast, recent corruption cases show companies involved in corruption having to pay hundreds of millions of US dollars in fines and penalties and being barred from public bidding.

The Legal Case for Fighting Corruption
Due to the strengthened international legal framework and more effective enforcement in certain jurisdictions, companies increasingly find themselves liable for employees engaging in corruption. Recent cases demonstrate that corruption is increasingly becoming a *liability risk* to companies and their top executives personally.

The Ethical Case for Fighting Corruption
Doing business with integrity is increasingly seen as the only right way of doing business. Companies seen to be doing business with integrity are more likely to attract and retain highly principled and motivated employees, as well as ethically-oriented investors. In contrast, companies that have faced corruption cases have faced huge reputation damage.

The Social and Economic Development Case for Fighting Corruption
Corruption forms the greatest obstacle to social and economic development, with an estimated USD 1 trillion being paid in bribes annually. Corruption distorts markets, stifles economic growth, debases democracy, and undermines the rule of law.

International Anti-Corruption Legal Instruments
There are two major official intergovernmental anti-corruption norms (multi-industry, multi-region):

OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions (1997)[3]
- Adopted by governments that are members of the Organisation for Economic Co-Operation and Development (OECD)
- Addresses bribery of public officials and aims at ensuring that corruption does not distort fair competitiveness in international business transactions
- Entered into force in 1999 and is implemented in 38 OECD member states – The OECD Working Group on Bribery monitors the implementation and application of the convention. The working group evaluates whether national legislation and its enforcement are adequate enough to implement the convention. Evaluations are prepared through country visits to government officials, private sector and civil society representatives, and self and mutual evaluations

[1] The views expressed here do not necessarily reflect those of all the signatories to the World Economic Forum Partnering Against Corruption Initiative (PACI) or the Members of the Global Agenda Council on Corruption, nor do they represent an institutional position of the World Economic Forum or its Members.
[2] Clean Business Is Good Business: http://www.weforum.org/pdf/paci/BusinessCaseAgainstCorruption.pdf
[3] OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions http://www.oecd.org/document/21/0,3343,en_2649_34859_2017813_1_1_1_1,00.html

World Economic Forum Partnering Against Corruption Initiative (PACI)

United Nations Convention against Corruption (2003)[4]
- Only truly global legal instrument to combat corruption, entering into force at the end of 2005
- Currently 140 parties out of a possible 163
- Broad definition of corruption
- Discretionary provisions regarding the private sector
- No review mechanism available
- Provisions recognize the need for shared responsibilities between law enforcement agencies of countries in the case of cross-border corruption activities

International, Self-Regulatory Private Sector Anti-Corruption Initiatives
There are currently four major international, self-regulatory private sector anti-corruption initiatives (multi-industry, multi-region):

International Chamber of Commerce (ICC)[5]
ICC speaks with authority on behalf of enterprises from all sectors around the world. In 2005, it issued a revised version of its Rules and Recommendations to Combat Extortion and Bribery, first published in 1977. The ICC Commission on Anti-Corruption brings together experts from a wide range of business sectors and national backgrounds. It promotes self-regulation by enterprises in confronting extortion and bribery and provides business input into international initiatives to fight corruption.

ICC Rules of Conduct and Recommendations for Combating Extortion and Bribery (1977, followed by revisions)[6]
- Detailed, voluntary business principles outlining the nature of bribery and the kind of management systems and processes companies should put in place to prevent, detect and sanction bribery in their organizations
- Broad definition of bribery, i.e. bribes and extortion
- Developed by the International Chamber of Commerce (ICC) Anti-Corruption Commission

United Nations Global Compact (GC)[7]
In 2004, a 10th Principle was added to the United Nations Global Compact, a multistakeholder initiative, sending a strong signal that the private sector shares responsibility for eliminating corruption. The principle states: “Businesses should work against corruption in all its forms, including extortion and bribery.” The adoption of the 10th Principle commits the almost 4,000 Global Compact participants not only to avoid bribery, extortion and other forms of corruption, but also to develop policies and concrete programmes to address it. The United Nations Global Compact is a voluntary initiative with a mandatory requirement for business participants to disclose, on an annual basis, performance changes in the issue areas.

United Nations Global Compact (UNGC), Principle 10 (2004)[8]
“Businesses should work against corruption in all its forms, including extortion and bribery.”
- Voluntary principle within the framework of the United Nations Global Compact (UNGC), which has mandatory requirements for business participants to disclose annually performance changes in the issue areas, including corruption
- Principle derived from the United Nations Convention against Corruption
- UNGC requires explicit company commitment by means of CEO signature
- UNGC has more than 6,000 signatories
- UNGC has a large number of country-specific networks

[4] United Nations Convention against Corruption: http://www.unodc.org/unodc/en/treaties/CAC/index.html

[5] For more information, visit www.iccwbo.org

[6] Combating Extortion and Bribery: ICC Rules of Conduct and Recommendations: http://www.iccwbo.org/uploadedFiles/ICC/policy/anticorruption/Statements/ICC_Rules_of_Conduct_and_Recommendations%20_2005%20Revision.pdf

[7] For more information, visit www.unglobalcompact.org

[8] United Nations Global Compact; Principle 10: "Businesses should work against corruption in all its forms, including extortion and bribery." http://www.unglobalcompact.org/AbouttheGC/TheTENPrinciples/principle10.html

World Economic Forum Partnering Against Corruption Initiative (PACI)

Transparency International (TI)[9]

TI, the global coalition against corruption, addresses corruption through a wide range of tools and over 90 national chapters. In 2002, it worked with a multistakeholder and international steering committee of companies, business associations, academics, union representatives and civil society organizations to publish an anti-corruption code entitled Business Principles for Countering Bribery. This code formed the basis for the PACI Principles, developed with the World Economic Forum. Since then, insights gained from workshops held around the world have led to the development of a suite of tools to support companies in developing and implementing anti-corruption policies, monitoring their effectiveness and publicly reporting their results.

Transparency International (TI): Business Principles for Countering Bribery (2003 followed by revisions)[10]

- Detailed, voluntary business principles outlining the nature of bribery and what kind of management systems and processes companies should put in place to prevent, detect and sanction bribery in their organizations
- Developed by Transparency International (TI) and a multistakeholder and international steering committee of companies, business associations, academics, union representatives and civil society organizations – Broad definition of bribery, i.e. bribes, political contributions, charitable contributions and sponsorships, facilitation payments as well as gifts, hospitality and expenses
- The principles were originally published in 2003 and were revised in 2009. The new version emphasizes the importance of public reporting, among other things – Transparency International is a global coalition against corruption, addressing corruption through a wide range of tools and over 90 national chapters.

World Economic Forum Partnering Against Corruption Initiative (PACI)[11]

PACI is a platform for companies to commit themselves to develop, implement and monitor their anti-corruption programmes through peer network meetings and provision of private sector-driven support tools. Driven by the private sector, the initiative helps to consolidate industry efforts in fighting corruption and shape the evolving regulatory framework. PACI was initiated by World Economic Forum Member company chief executives at the World Economic Forum Annual Meeting 2004 in Davos-Klosters. Since then, the PACI Principles for Countering Bribery have been developed, and the nature of the initiative has become multi-industry and multinational. The Principles have received CEO commitment from almost 150 companies, representing an annual turnover of more than US$ 800 billion.

World Economic Forum Partnering Against Corruption Initiatives (PACI) Principles for Countering Bribery (2004)[12]

- Detailed, voluntary business principles outlining the nature of bribery and what kind of management systems and processes companies should put in place to prevent, detect and sanction bribery in their organizations
- Developed by a group of companies under the umbrella of the World Economic Forum in collaboration with Transparency International and the Basel Institute on Governance. Derived from Transparency International Business Principles for Countering Bribery
- Broad definition of bribery, i.e. bribes, political contributions, charitable contributions and sponsorships, facilitation payments as well as gifts, hospitality and expenses
- PACI currently has 144 signatories from across industries and regions. Engagement in the initiative requires explicit company commitment by means of CEO signature
- PACI signatory companies are invited to self-assess implementation of the PACI Principles once a year in a Highlighting Achievers Survey
- As a risk-mitigation platform developed by the private sector for the private, PACI offers companies tools and activities at three levels: 1) company specific; 2) within and across industries; and 3) public-private sector collaboration

9 For more information, visit www.transparency.org

10 Transparency International: Business Principles for Countering Bribery: http://www.transparency.org/global_priorities/private_sector/business_principles

11 For more information, visit www.weforum.org/paci

12 World Economic Forum Partnering Against Corruption Initiative: http://www.weforum.org/en/initiatives/paci/index.htm

World Economic Forum Partnering Against Corruption Initiative (PACI)

In recent years, these four organizations and initiatives have made considerable progress and begun to work together more closely to decrease the "supply" of corruption, i.e., the act of paying a bribe, whether to a government official or another firm. In particular, voluntary business principles on bribery have been created and promoted by Transparency International, International Chamber of Commerce and World Economic Forum Partnering Against Corruption Initiative. The United Nations Global Compact has added a 10th principle on anti-corruption. And a set of implementation frameworks and tools have been developed by PACI, in partnership with TI and Basel Institute of Governance, to provide clearer guidance and assistance for companies that wish to drive throughout the behavior of their organizations the voluntary principles they have committed to observe.

The four organizations and initiatives have begun to collaborate more intensively by coordinating their outreach to companies around the world in order to mobilize a much larger response from the private sector to fight corruption. They have done so in the firm belief that their efforts are complementary to and reinforcing the international norms that have been established by intergovernmental institutions, notably the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions and the United Nations Convention against Corruption.

In one concrete step, a few months, ago TI, ICC, UNGC and PACI organized a collective message to the United Nations Secretary-General from 24 CEOs, which called on governments to implement UNCAC more effectively and robustly. The four initiatives have also developed and are developing joint tools such as the business case for fighting corruption.

But despite this significant progress, only a minor proportion of the international business community has thus far formally committed to a zero tolerance policy with respect to bribery and implemented a corporate-wide policy to drive such a standard of behavior throughout their workforces. In many countries where corruption is endemic and a major impediment to entrepreneurial activity and economic growth, there remain neither the effective public institutions needed to drive a change in business culture (e.g., independent and empowered public anti-corruption commissions) nor the critical mass of voluntary leadership from the business community necessary to overcome the prisoner's dilemma problem of corruption in competitive markets.

For the most part, the constraints are practical and logistical. These business and civil society institutions have neither the mission nor the resources necessary to conduct the sustained outreach within industry sectors and national business communities necessary for their frameworks to be implemented at scale. Scale is essential, because corruption is at root a collective action problem. Companies are much more likely to commit to implement strong anti-corruption policies if they have confidence that their key competitors will play by the same new set of rules. In this sense, establishing an ethical business culture is similar to creating other public goods in which government plays a crucial role, such as clean air, safe streets or universal education.

For this reason, the Global Agenda Council on Corruption has reached the conclusion that supply-side best practices are not likely to become common practice as long as a much closer degree of cooperation between the business and civil society groups responsible for establishing them and public sector institutions having the capacity to help propagate them in a growing number of geographies and industrial sectors is absent. In our view, the intergovernmental community should add a public-private, supply-side dimension to the normative "demand-side" international strategy that has been the focus of its work on corruption thus far. This would pay dividends for everyone interested in fighting corruption by creating a virtuous circle of mutually reinforcing, increasingly ethical behavior across governmental and business organizations around the world.

Proposal

Specifically, the Council proposes the creation of a global multistakeholder alliance or partnership whose mission would be to pool public and private capacity to promote these supply-side norms and management systems to an expanding web of business networks around the world. The partnership would be aimed at scaling the application of these existing frameworks, leveraging their impact. One possible way it could be structured would be:

World Economic Forum Partnering Against Corruption Initiative (PACI)

A) Mission

The mission of the partnership would be to scale the application of best anti-corruption practices, tools and management systems throughout the international business community as a means of complementing and supporting the intergovernmental community's ongoing efforts to strengthen the legal regime pertaining to bribery.

B) Activity

The partnership would pursue its mission through communications and outreach activities on several levels, including potentially:

- **Countries:** In countries where the government has issued a formal invitation to the partnership, the partnership would develop and execute a strategy in cooperation with local partners to: a) educate companies about best practice anti-corruption practices, tools and managements systems, working where possible with national and local business associations; and b) shift public perceptions and expectations over time through a highly visible, sustained public communications campaign articulated by a multistakeholder coalition of prominent citizens and supported by local media, religious, business and other relevant institutions.
- **Business Communities:** The partnership would organize outreach activities intended to educate and support the uptake of best anti-corruption practices, tools and management systems with respect to the companies in their existing networks as well as those belonging to various global and national industry associations.
- **Governments and International Institutions:** The partnership would work with governments and international organizations to identify opportunities to embed best practice supply-side anti-corruption frameworks in their commercial and financial relations with the private sector.

The partnership could also provide a global platform for multistakeholder consultation on the evolution of the key official norms, including the United Nations Convention against Corruption and the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions.

C) Governance

The partnership could either be structured as an alliance with a committee of senior programme staff that coordinates and develops the alliance's activities or as a separate non-profit, multistakeholder organization with a more formal governance structure – a board – potentially composed of:

- Transparency International
- International Chamber of Commerce
- United Nations Global Compact
- World Economic Forum Partnering Against Corruption Initiative (PACI)
- Basel Institute on Governance
- Five business or civil society leaders chosen by each of the foregoing organizations
- Donor agencies
- Developing country governments
- OECD
- United Nations Office on Drugs and Crime (UNODC)
- World Bank Group, AsDB, IaDB, AfDB

The board would be advised by a corporate advisory committee consisting of:

- Three companies nominated by each of TI, ICC, United Nations Global Compact, PACI and OECD/Basel Institute, including the five business leaders that serve on the board.

The partnership's activity would be coordinated by a secretariat of staff members drawn in part from board member organizations. The secretariat would be based at a location of the board's choosing, potentially on the premises of one of those organizations.

World Economic Forum Partnering Against Corruption Initiative (PACI)

D) Resourcing

The partnership would be resourced through a public-private combination of financial contributions and commitments of staff mobilized by board member organizations. It is envisioned that the staffing model would be a combination of:

- a core team of permanent hires
- secondees to the secretariat from board or other organizations
- a set of virtual working relationships with staff of many of the board organizations, particularly the private sector and civil society board members supplying the primary best practice materials, tools and management systems

Explanation/Rationale

Collective action across the public and private sectors is what is needed to transform zero tolerance for bribery from best practice into common practice in business and society. Only by taking deliberate steps to scale action on both the supply (business) and demand (governmental) sides of the issue is the international community likely to achieve the wholesale transformation of ethical cultures in the business and governmental communities around the world.

The international community has taken important strides in the past decade to build a deeper consensus around the need to intensify the fight against corruption. However, there remains a huge implementation gap, which the international community has not yet organized itself adequately to close.

Part of the gap relates to the implementation of the United Nations Convention against Corruption and the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, and governments are working on useful initiatives to create and refine monitoring mechanisms for each. However, an equally large gap exists on the supply, or business, side of the problem. By definition, the piece of international cooperative architecture that needs to be built to close this gap must be a public-private one, particularly in developing and emerging market countries where public institutional capacity is limited.

The time is ripe for the creation of such a partnership. In the past decade, private sector and civil society groups have created and validated a set of effective guidelines and management frameworks for companies prepared to join the fight against corruption. A significant number of early mover firms has embraced them. A logical next step is for a coalition of public and private actors to be built to scale these frameworks around the world in an expanding constellation of business networks.

By combining the competencies and capacities of public, private and civil society actors in a properly resourced global partnership, the world would place itself in a much better position to catalyse a snowball effect of peer pressure and moral suasion in many countries and industry sectors – i.e., the positive societal dynamic that is ultimately what is needed to break the Gordian knot of endemic corruption.

Next Steps

Starting at the World Economic Forum Global Redesign Summit, the proposal will be tested with governments, international organizations and business leaders with a view to refining and readying it for implementation by 2011-12.

World Economic Forum Partnering Against Corruption Initiative (PACI)

This proposal is put forward by the signatories to the World Economic Forum Partnering Against Corruption Initiative (PACI) and the Members of the Global Agenda Council on Corruption.

Global Agenda Council on Economic Growth & Development[1]

Innovations to Increase Incentives for Improving Development

Context

The world's countries are at vastly different stages of economic development and prosperity levels. Some countries have been able to grow rapidly, providing rising living standards for their citizens over time, others have achieved economic success more slowly, and yet others have seen their economies stagnate for decades. In this context, it is critically important to identify the factors that enable national economies to achieve sustained economic growth and long-term prosperity.

Great minds have devoted their lives to understanding economic development and growth. Many potential solutions have been put forth: investment in physical capital and infrastructure, education and training, technological progress, innovation, macroeconomic stability, good governance, market orientation, and many others. Despite the strong consensus on these issues, many countries remain constrained by rules that hold back improvements. For example, investment in human capital (e.g. good schools) is widely seen as an important growth driver, yet the decision-making processes in many countries keep them from improving their educational systems.

Many of the world's most important development problems can best be addressed by better rules in the broad sense of both legal rules and cultural norms and values.

Even in the most developed and most admired nations, existing political processes are often very slow to adopt new rules. Many poor countries are now stuck in a trap of bad rules that lead to even more bad rules. The challenge across all domains and all levels of development is to find new ways to change rules to better fit local circumstances and serve local goals.

In rich countries, the challenge is to come up with new rules that address pressing social challenges such as limiting emissions of greenhouse gases and new rules that let us take full advantage of such new technologies as mobile telephony. In developing countries, the challenge is to figure out how to take full advantage of all the ideas that already exist around the world. These ideas include both the absorption of technologies from advanced economies and the rules in use elsewhere that have enabled progress and prosperity.

A challenge in redesigning global institutions is one of how to generate and adopt these rules. In this context, the Council on Economic Growth & Development is discussing the present gaps with regard to existing rules related to economic development at the international level, and how they could best be filled.

The Importance of Good Rules for Development

Rules are the laws and social conventions that define how people interact. Bad rules – ineffective contract enforcement, bribe-taking, civil service rules that do not reward performance, onerous labour taxes and regulations that many firms ignore, to name a few – are a key bottleneck holding back economic development.

Unfortunately, rules are slow to change, even in well-functioning democracies. A key challenge in redesigning global governance is figuring out how to improve or streamline rules in all countries, particularly those in the developing world.

New rules will only be implemented if there are incentives to do so. Many mechanisms already exist for changing rules:

- Conditionality provides an incentive to aid recipients to improve their business environments.
- Transparency and competition – metrics like *The Global Competitiveness Report*, the *Doing Business Report* and the *Corruption Perceptions Index* provide clear benchmarks for countries to compete for better rules.
- Multilateral agreements, such as through joining the World Trade Organization, promote change in support of economic gains.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

The preceding set of incentives for rule-change has proved to be inadequate for implementing rules that promote development. In this context, **the Council proposes the following innovations to increase incentives for improving rules at the national level**:

1. Promoting better rules through data and information
2. Using evidence-based rules and policies
3. Encouraging international partnerships and sharing of rules

Each of these proposals is treated in turn in the sections below.

Proposals and Explanation/Rationale

(1) Promoting Better Rules through Data and Information

Information on outcomes of government policies can serve as a catalyst of reforms aimed at furthering economic growth and development. High quality and comparable data can drive effective policy-making, when used as evidence on which policy-making is based. Indeed well-collected and well-publicized information can serve as a productive force for governments – national and local – to compete for capital, labour, and popular support in an effort to encourage positive social and economic changes. Further, a data literate civil society is very useful for putting pressure on governments to make efforts in specific areas.

The idea of using data to create pressure for change certainly is not new. Many governance "rating" organizations that push for better national rules exist; some notable successes include Transparency International's annual *Corruption Perceptions Index* (and also their index ranking nations that pay bribes abroad); the World Economic Forum's rankings on global competitiveness; the World Bank's two separate rankings of business environments in their yearly *Governance Matters and Doing Business* reports. As a measure of educational attainment, the OECD, through its Programme for International Student Assessment (PISA), provides standardized scores on scholastic achievement for 15-year-olds in member nations. UNESCO provides a complement to this data with its data on educational attainment.

In each case, the release of these reports brings media attention, calls for accountability, and provides the opportunity for substantive reform. What are the salient features of data collection for encouraging change? What data specifically should be produced and publicized? And what incentives and resources are necessary for such efforts to take place?

Data to Spur Reform

- Keep it simple – The data needs to be easily understood by the public. One reason for the PISA ranking's notable success may be that it simply reflects student achievement on a standardized test that people can understand.
- Use standardized, comparable high-quality data_– Efforts must be made to ensure that an important message is not hindered by a lack of credibility or comparability of the data presented to the public. This leads to discussions on what is wrong with the measurement, rather than the intended consequence of spurring positive change. This is the focus of the proposal by the Global Agenda Council on Benchmarking Progress in Society discussed elsewhere in this report.
- Focus on outcomes, not inputs – The United States very famously spends a great deal of its income on healthcare, yet attains relatively weak ratings in global health rankings. So dollars spent – an input – is a weak reflection of the overall effectiveness of health treatment in the US leading to present discussions on how to improve the system. More generally, it may not be desirable to take a strong stand on how societies achieve desired outcomes – bribes may be reduced through economic carrots and sticks, or cultural reform – but rather focus on the outcome itself.[2]

Data Priorities

In a previous position statement, the Council on Economic Growth & Development spelled out what we believe to be the critical lessons from the past half-century of economic history in what matters for growth. These include international economic engagement; human capital investment; infrastructure; and competitive markets. For each of these, we may develop a simple, relatively objective, and comparable measure for gauging countries' performances. These need not be comprehensive, but rather should serve as indicators that likely reflect performance across a wider set of domains. Given

[2] Some Members of the Council have pointed out that it is important to have a sense of the inputs as well as the outcomes as it is important to know where a country's resources are being deployed both as a measure of the priorities as well as for analysing efficiencies and effectiveness.

that "what we measure is what we do", efforts must also be made to ensure that there is a commitment to forward-thinking data priorities to enable countries to drive long-term sustainable economic growth in a rapidly changing global economic environment.

Implementation
We begin with a pair of examples to illustrate feasible metrics that satisfy the above priorities:
Measuring petty corruption – A proposal has been made within the World Bank to develop a measure of petty corruption. Rather than rely on self-reports, the measure would be constructed by having, for example, World Bank consultants drive around capital cities, obeying all traffic laws, and calculating the bribes they are required to pay in the course of a week of travel. Similarly comparable indices could be constructed by having standardized visits to government authorities to obtain, for example, driver's licenses. This example shows how, even in cases where objective data are hard to obtain, it may be possible to develop a well-focused index.
Infrastructure quality – A similar on-the-ground approach could be taken to assessing the quality of roads or telecommunications networks. Rather than listing kilometres of paved roads, a ranking might list average travel speed between two major cities by car or train, or the fraction of cell phone calls dropped by the network.

There are three barriers to the effective implementation of such measures. First, those that are targeted for pressure would naturally be resistant to collaboration. Second, part of the benefit of global data collection is to exert "externalities" through competition on other countries. That is, even high achieving countries may not be fully incentivized to participate, since the benefit accrues to other nations for whom they serve as a benchmark or aspiration. Third, data collection can be a very expensive endeavour, out of reach for many developing countries, and this funding shortfall needs to be met to ensure data collection for all countries.

For these reasons, we propose that some of these efforts in the most critical areas be funded and managed by an external body. In the case of the PISA tests, the collection of the data is paid for through contributions from OECD member nations' education ministries. For the proposed petty corruption index, the cost will be covered by the World Bank, if it is implemented. Agencies of the United Nations and regional development banks could also play a key role in the effort, and collaboration between international organizations with different mandates (e.g. WHO, UNESCO, FAO) should also be encouraged.

In parallel, financing through development aid among other sources could be provided to countries to carry out data collection along specific guidelines, as developed by the OECD, for example, in its project on Benchmarking Progress.

Finally, there may be some potential for the use of technology and decentralized social networks in compiling data as well as monitoring or implementation. Much as thousands of consumers generate consensus views on product quality on sites like Amazon and Netflix, it may be possible to "democratize" the collection of data. We recognize that this is not without its complications – any rating system is vulnerable to gaming and manipulation (one probably would not, for example, want to have consumer ratings of judges in criminal court cases), and such a decentralized system could be effective only for countries with widespread and open access to technology. Nonetheless, opening government offices and ministries to "consumer" scrutiny may be the most direct means of holding bureaucrats accountable.

(2) Using Evidence-Based Rules and Policies
There is a growing base of evidence from rigorous evaluations about what constitutes good rules and policies. The evidence provides important lessons on a wide range of policy issues ranging from how to improve the functioning of government services in a context of weak accountability, to the design of better rules for microfinance lending. There is increasing evidence on how to improve the accountability of politicians, civil servants, and those working in the private sector – a fundamental element of strengthening a rules-based society. Many of the policy recommendations coming from this evidence base are highly practical, providing the opportunity for governments, businesses, and NGOs to integrate the findings into the design of their rules and policies, which sharply increases their effectiveness.

Global Agenda Council on Economic Growth & Development

Here we briefly discuss how evidence built up from rigorous evaluations can feed into the process of designing good rules and policies. It also suggests how the World Economic Forum's Global Redesign Initiative (GRI) can encourage rigorous evaluation of policy and empower its Members to incorporate rigorous evidence in rules and policies.

The Importance of Rigorous Policy Evaluations
To rigorously evaluate the impact of a policy or programme, we must be able to answer what would have happened to an individual or community in the absence of the policy. But it is impossible to observe an individual or community both with and without a programme at the same time. So instead, rigorous evaluations compare outcomes for those who have benefited from a policy or rule change with those who have not. The most rigorous and reliable evidence comes when it is possible to find a "comparison group" that is as close as possible to those who benefited from the programme.

One rigorous evaluation may not be sufficient to tell us what the most effective strategies for building rules-based societies are or for designing the most effective rules to achieve a given outcome but, as the evidence base builds up more and more, common lessons are emerging about what is effective (and cost effective) in different contexts to solve specific problems.

Examples
Rigorous evidence is already having an important impact on how policy and rules get made and the GRI has an important role to play. A series of rigorous impact evaluations have tested the effectiveness of different strategies for reaching the Millennium Development Goal (MDG) of universal access to primary education in different countries. These studies showed that, across the world, families are very sensitive to the cost of education and that school enrolment can be increased sharply by providing poor families financial support or other incentives that are conditional on sending their children to school (and having regular health check-ups).The first rigorous study of this approach looked at the "Progresa" programme which clearly demonstrated its benefits and has been copied throughout Latin America and beyond so that now millions of children are in school as a result of conditional cash transfer programmes.

But the growing evidence also showed that the most cost-effective way to get children in school was to treat them in areas where parasitic worms are prevalent with a simple pill once or twice a year that killed these worms. Children could be mass treated at school for less than 50 cents a year which over six years would add an entire additional year of education due to fewer days skipped for ill health. The Young Global Leaders of the World Economic Forum were one group that responded to this evidence by establishing an initiative called "Deworm the World," which works with policy-makers around the world to expand deworming programmes in areas of high worm prevalence. Together with its partner organizations, Deworm the World has helped establish programmes that have dewormed 3.6 million children in Kenya, and over a million in Andhra Pradesh, India. This is expected to have a strong impact on their educational attainment as a consequence. Another similar effort has been the "Nothing But Nets" campaign encouraging the purchase of bed nets to combat malaria.

In addition to this evidence on more general policy issues, rigorous evidence is already helping us understand how best to improve accountability and governance. For example, a number of studies have assessed alternative ways of improving the accountability of teachers and health workers. This is a critical problem in many developing societies where weak rules implementation means that teachers and nurses are absent on average 20-40% of the time.

A number of studies have shown that rules that tie attendance at work to salary result in increased attendance, and that increased attendance translates into better outcomes such as higher test scores and better health.

There are also encouraging results showing that the accountability of politicians can be strengthened through voter information campaigns. Providing information about what politicians have done in office and how they have spent discretionary funds can have a big influence on voting – with voters rewarding incumbents who have been more diligent and punishing incumbents who have not.

Concrete Steps

Moving towards Evidence-Based Policy
Several steps have been taken to generate more evidence for policy and more could be done. First, countries can rigorously examine the impact of policy. Mexico has been a leader in this area, with its evaluations of conditional cash transfers paving the way for a much broader commitment to rigorous evaluation. NGOs can also contribute: in India, Pratham and Seva Mandir have been leaders, and in so doing they have been able to leverage not only their own resources but also shape policy much more broadly.

However, since the benefits of generating solid evidence go well beyond any one organization, or even any one country, it is appropriate for evidence gathering to be supported by organizations that have a regional or global mandate.

The World Bank has done this through its Development IMpact Evaluation (*DIME*) initiative, and with the assistance of the Spanish and Dutch governments has created the Spanish Impact Evaluation Fund and the Bank-Netherlands Partnership Programme, each of which have played important roles in spurring the collection of evidence. Further work has been done by the International Initiative for Impact Evaluation. All these efforts could be expanded and deserve further support.

Bilateral aid donors could leverage their impact by establishing similar rigorous evaluation programmes. In so doing a few lessons of previous experience are worth bearing in mind. First, insofar as the biggest shapers of development are developing country governments, the key audience for efforts to generate evidence should be seen as citizens and policy-makers in developing country governments. While conducting rigorous impact evaluations of aid programmes is useful in improving the performance of aid agencies, the ultimate aim should be to empower developing country decision-makers by providing them with evidence. Since evidence on the impact of alternative rules and policies is a global public good, the development of this evidence may be appropriate for institutions with a global scope to fund it but they should be doing so with a broader view than their own operations.

Second, while every project needs basic monitoring for accountability purposes, it is not necessary to subject every programme to a rigorous randomized impact. Rather, this approach should be focused in areas where evidence is most needed because it is genuinely unclear as to which approaches to pursue. Rigorous evaluations can be used to test innovative new approaches before they are rolled out in scale or, alternatively, to test approaches that have been used on a wide scale but have never been adequately tested. They can be used to see whether approaches that were successful in one context are also useful in others. Randomized evaluations require a high level of cooperation between the implementing organization and the evaluation team. The best way to encourage randomized evaluations is not through mandates, but rather by establishing competitive grant programmes to fund proposals for evaluations with criteria based on the importance of the question being evaluated and the technical rigour of the proposed evaluations. Typically, the best evaluations involve collaborations between policy-makers or NGOs on the one hand and academics on the other.

From Evidence Summits to Evidence-Based Policy
The lessons learned from individual evaluation need to be shared. To help disseminate general lessons and comparative cost-effectiveness estimates of alternative rules and policies, it would be useful for international organizations and governments to set up an ongoing series of events at which those familiar with the latest findings from rigorous research on what works could share their expertise. These should be followed by efforts to help try approaches that have proved successful on a larger scale, while carefully monitoring their impact.

Payoff
The potential payoff of encouraging rigorous evaluations and their incorporation into rules and policies is large. By credibly establishing which rules and policies work and which do not, rigorous evaluations can extend our knowledge of rules and policies that effectively encourage economic growth and development. The resulting evidence base can provide guidance to governments, businesses, and NGOs alike. Rules and policies that have been shown to be successful can be adapted for use in other countries and scaled up within countries, while unsuccessful rules and policies can be abandoned.

(3) Encouraging International Partnerships and Sharing of Rules
Most of what it takes to provide a high standard of living for everyone on earth is already known. Developing countries can grow rapidly if they copy existing ideas that are known to work well.

Two important classes of ideas exist: technologies and rules. When Chinese government officials allowed imports of aircraft from the United States, the rules of free trade gave the Chinese access to aviation technologies. When the Chinese civil aviation authority worked with Boeing and the Federal Aviation Administration to change is regulations to improve safety, it was copying rules that were valuable in their own right. These new rules could be imposed on the entire country because they affected a relatively small community of pilots and airline employees. When it created Special Administrative Regions like the one where the new city of Shenzhen grew up, the central government made it possible for some Chinese citizens to live and work under new market rules without forcing them on everyone.[3]

When rules apply to everyone, change comes slowly because both coercion and consensus-building take time. To change rules more quickly and on a more realistic scale, developing countries can charter new cities like Shenzhen where new rules prevail and then give people the option to move there.

If the governance of a new city is structured in a way that lets its government leverage the credibility of established governments, they can also reduce the political risk that keeps foreign direct investment out of the poor countries where the returns from investment would be highest.

The creation of a charter city requires three basic elements that work together to preserve choice and establish legitimacy:
1. An uninhabited piece of city-sized land, provided voluntarily by a host government
2. A charter that specifies the rules that will apply in the new city
3. The freedom for would-be charter city residents to move into or out of the city

In the establishment of a new charter city, governments of existing nations can assume one or more of these three roles:
4. Land comes from a **host** country
5. People come from a **source** country
6. The guarantee that the charter will be respected comes from a **guarantor** country

A credible government must ultimately act as the guarantor of any charter and any laws and regulations adopted under the terms of the charter. It must ensure that contracts signed by long-term investors will be protected. An effective guarantor eliminates the political risk of long-term investment in the city. Many governments of countries at various levels of economic development are capable of providing credible guarantees.

In many cases, the role of guarantor will be temporary. In a build-operate-transfer model, one government could assume administrative control over the land in the host country, run the city for some period of time, and then return administrative control to the host.

A nation can play more than one role, and a source nation need not be party to the agreement setting up the charter city. This flexibility allows many potential charter city arrangements.

- One country could assume all three roles, much as China did in the zone where Shenzhen grew up. For example, India might charter comparable new cities. The central government could pass legislation specifying the charter that would apply in the centrally administered cities. It could let different states compete to create such a zone. To be eligible, states would assemble city-sized tracts of uninhabited land and pass legislation removing all local control of the special zone. The state government would then collect a portion of the fiscal surplus generated by the new city.

[3] Another example of how adopting rules can change economies radically can be found in India, which after adopting strong intellectual protection for IT saw the development of a vibrant and competitive IT sector. Similarly, there have been numerous successful experiments such as R&D parks, economic zones and free trade zones, and other ideas such as the development of “green zones”, which hold much potential.

- One country could act as both the host and primary source with the role of guarantor filled by a consortium of countries. For example, a developing country that wants to establish a new charter city for its residents might be able to attract higher amounts of external infrastructure investment if it asked the European Union to act as the guarantor. The EU could respond by making a special panel of the European Court of Justice the court of final appeal for legal disputes arising from within the city.

- One country could serve as both the host and the guarantor and enter into an agreement with a specific source country. For example, Australia could use some of its land to create a charter city that attracts residents from Indonesia. It could enter into a formal treaty with Indonesia which could specify that residents of the charter city retain their citizenship in Indonesia and do not become residents or citizens of Australia. As just one illustration of the flexibility that a charter allows, it might further stipulate that Indonesians who move to the charter city have to pay some modest tax on their income in the city back to the Indonesian government as repayment for the education they received.

- One country could serve as both the host and the guarantor and could target a specific source country without signing an agreement. For example, if Brazil is concerned that elites in Haiti are holding back reforms there, it could unilaterally set up a special zone on its territory where Haitians would be free to come live.

Charter cities allow developing countries to quickly adopt new systems of rules. For a country like India, newly chartered cities are a complement to the slow and sporadic process of nationwide reform. Changing the rules on a piece of uninhabited land is a much less contentious process. A new city could adopt rules that offer significant efficiency gains – rules like congestion pricing, bus express lanes, or private utility provision – but that tend to run into considerable resistance in existing cities. Working at the city-scale allows millions of people who want to live under the new rules to come together to work together. The success of such cities could encourage faster nationwide reforms in the surrounding region, much as the successes in Hong Kong and Shenzhen encouraged reform throughout the rest of China.

By using an established nation or group of nations as guarantor, charter city partnerships can give developing countries a realistic way to enter into very long-run agreements with infrastructure investors. In this way, charter cities could solve the largest structural problem in the world economy. Rich nations face insufficient investment demand. Poor countries lack the infrastructure that would let them take full advantage of the benefits from urbanization. Charter cities can offer large gains for residents from both types of countries.

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Global Agenda Council on Emerging Multinationals[1]

Resisting Protectionism and Reinforcing Economic Openness in the G20 and Innovation Democracies

Background

Economic openness is a two-way street that enables economies - both emerging and established (viz., OECD) - to become interdependent in a reciprocally beneficial manner. For instance, economic openness in the established economies supports the good performance and growth of multinationals from emerging economies (hereafter emerging multinationals). The good performance and growth of emerging multinationals is an important contributor to the long term growth and durable development of markets in emerging economies. In turn, these large new emerging markets have already and will continue to develop into significant sources of revenue for exporters of goods and services that are developed and produced in the established OECD economies. Also, emerging multinationals have incentives to upgrade soft institutions (e.g., property rights, transparency, and corporate governance) in their home countries. In turn, emerging economies will become more secure and attractive host countries for multinational firms from established economies. Accordingly, beyond political stability, demographic developments, and technological transformation, the vitality of our world economy, in the coming decades and century, will be influenced markedly by the extent to which national policy-makers in the G20 countries resist protectionism and sustain and promote economic openness in foreign trade and direct investment.

This established and generally accepted logic notwithstanding, in several OECD economies openness is at risk of becoming a casualty in the battle to address the abrupt rise in unemployment that is a part of the great economic slowdown. The severe slowdown has brought tremendous pressure on politicians and policy-makers in those countries. Indirect and implicit protectionism is on the rise in a number of G20 countries (including those that traditionally have been open). Unchecked and unaddressed, this tendency can cascade into an *apparently micro rational-actually macro irrational* policy response to the crisis. This is a systemic risk that merits urgent and more thoughtful policy attention. During the 1930s, our world economy experienced devastating consequences of such non-cooperative policy action. If the G20 leaders do not resist protectionist temptations and address the underlying problem in a coordinated and credible manner, the world economy could unintentionally be set back again for a long time to come.

This document outlines three proposals to address the systemic risk of global protectionism. Two of these are oriented to openness in the OECD established economies, and a third is oriented to openness and other institutional changes in emerging economies. Before outlining the proposals however, it will be useful to more clearly specify the problems.

The Benefits of Openness and Its Problems

Economic openness (i.e., openness to foreign trade and direct investment) contributes to global efficiency and gains in national standards of living. Economic openness is correlated positively with productivity growth and prosperity. During the past decades, as world trade and direct investment have risen, so too has world economic growth and employment. Closed economies that opened up have seen their economic performance improve markedly. Openness is an ally to economic growth, and robust economic growth is an ally to job creation and employment.

Yet, outside of business leaders and economists, among the broader public, economic openness is not perceived as so benign and beneficial. Survey data indicate that the broader public is sceptical about the net merits of openness. The benefits of increased international trade tend to be dispersed and less perceptible than the relocation or concentrated loss of jobs in a specific sector. *Openness is seldom pareto optimal.* Technological advances and rise in off-shoring make the issue more publicly and politically salient. In fact, technological advances trigger complementary shifts in internal labour markets in terms of the talent and competencies that are sought and valued by firms. Within each nation such shifts can create winners and losers. Yet, gross employment losses associated with openness and international exchange remain a politically charged issue. Empirical evidence notwithstanding, wage pressure and wage stagnation in the OECD are viewed as correlates of openness. Monetary policy aside, politicians find it challenging to stimulate domestic investment, entrepreneurship, and job creation. Despite WTO pledges, protectionism appeals as a readily feasible, concerned, and legitimate action.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

As numerous studies have well established, protectionism is a costly tax on the consumer. It is an implicit tax in one part in terms of unrealized savings foregone by consumers and in another part in terms of actual higher prices paid. Labour in the relevant sector is a modest beneficiary of this implicit internal transfer.

The high cost of protectionism notwithstanding, and although professional and academic studies routinely establish the net benefits of openness, the stories that make the popular press and papers typically (and understandably) dwell on the gross costs of openness. One problem then lies in incomplete and asymmetric information shared with and understood by the broader public, and by industry bodies, trade unions, policy-makers, and decision makers in the government at large. In popular political terms, there is no compelling openness narrative. *Openness has "poor press."*

A second and more root problem lies in time-compressed structural adjustment. While financial capital is mobile both sectorally and geographically, human capital tends to be less mobile both sectorally and geographically. Further, labour markets tend to upward flexible but downward rigid in terms of prices (i.e., wages). If we are to resist protectionism and support openness, then despite unequivocal efficiency and net job gains, sectoral job losses and wage gains and preservation must be addressed much more effectively than have been in the past. Typical trade-related transfer payments have been woefully small and "decorative."

A third problem with economic openness is that politicians and businesses in OECD economies (often rightly) perceive and protest that the playing field is not level. Weaker environmental and labour standards and preferential host government policies in emerging economies can make competition seem unfair. Add to these the rising woes on the issue of state managed low exchange rates. If, on their part, emerging multinationals and economies do not agree and act to address these and related issues, economic openness will remain an ideal that remains politically vulnerable in the OECD countries. Trade diverting regional agreements may spawn, but global efficiency and growth may be held at bay.

It is against the three above problems that we advance three broad proposals below. These proposals are stated briefly to convey their spirit. Greater concreteness will of course be necessary for implementation. Such concreteness is beyond the scope of the current document.

Proposals

(1): A set of suitable entities must be brought together to articulate the compelling narrative for economic openness. These entities would ideally include credible, informed, and neutral organizations such as the OECD, the US based National Bureau of Economic Research (NBER), and respected academic institutions in various G20 countries. The OECD routinely generates research-based policy briefs. The NBER already participates in calling recessions. The OECD has undertaken meta-studies on the issue of openness and employment, wages, and adjustment.

While these latter expert organizations may furnish the evidence on the net benefits of openness (in terms of standards of living and net employment), the costs of protectionism, and other relevant "facts" (e.g., on the weak correlation between openness and wage growth), it is imperative to involve professional media experts to help articulate the narrative. If the facts are so clearly in favour, openness should have good press. The public deserves to know and has the right to be educated on the facts - just as we expect in the case of health and safety issues. (Policies on product safety, smoking and drunk driving all benefited from better information.)

If openness has a compelling narrative (supported by publicly accessible and comprehensible facts), then G20 leaders may be expected to demonstrate greater political courage to coordinate their stance and actions to resist protectionism and reinforce openness. The sociology of transparency and the legitimacy of rational, appropriate action should not be underestimated. This first proposal addresses a glaring gap at the system level and it should be addressed at the system level (with benefits for all countries).

(2): Since economic openness correlates with growth, and growth with rise in employment, OECD policy-makers should contemplate issuing "growth bonds," the proceeds of which would be used to aggressively improve labour adjustment. A lot more creativity than currently on display will no doubt be called for in how and to whom exactly funds and new education vouchers are disbursed, but the emphasis should be on full employment with openness (rather than without).

If human capital is to become more flexible, then we must focus on bridging talent gaps (a supply side initiative) and enact a vision whereby people may become part of a "global talent pool" (a demand side initiative). This calls for greater industry-academy cooperation so that we may develop competencies that are relevant to current industrial and business needs. This also calls for better data collection and reporting on the actual numbers of people affected by sectoral and competency shifts. Understanding the scale and incidence will help efforts be more targeted and more effective.

Leading strategy and policy consulting firms can be invited to study and submit concrete proposals. The experiences of open economies with low unemployment, like Sweden and Switzerland, should inform the policy. Vocational retraining, technical upskilling, continuous adult education, entrepreneurship incentives, relocation packages, should all be part of the menu. Incentives should be strengthened for private enterprises that develop new industries and that train and staff from the youth and the unemployed.

The thrust of this proposal is that the openness debate cannot be seriously addressed without making human capital more mobile and flexible in the established economies. If OECD countries cannot sustain something close to full employment, the protectionism temptation will always remain strong.

The point here is that the world economy has not experienced such time-compressed structural adjustment. Policy measures that were adopted in the 1980s to address labour mobility are inadequate. Labour feels abandoned and the rising income gap (Gini coefficient) heightens the suspicion that openness benefits those at the top and hurts those at the bottom. A policy of high marginal taxes and transfers would be a poor response.

Perhaps the market for financial capital has had too much innovation, but the market for human capital clearly has had too little. Unemployment benefits are a salve but not intended as a solution for labour adjustment. In the labour market there are few early signals and for most individuals there is little ability to diversify human capital (as was previously the case in financial markets). This is a structural and systemic problem and should be addressed at that level. Such innovation can lay the grounds for the 21st century to really be the century of human (as opposed to financial or physical) capital.

(3): This set of proposals is addressed to emerging multinationals and policy-makers in emerging economies. Leaders of emerging multinationals must demonstrate that they are pushing for greater transparency and better corporate governance in their own organizations and in their industries and home countries. They must work with their home governments to upgrade the institutions of property rights, investor protection, and judicial enforcement. Emerging multinationals should be at the forefront of the fight against corruption in their home countries. Otherwise their calls for openness in established economies would appear strictly self-serving (rather than legitimate and high minded concerns about efficiency and value creation). The more emerging multinationals act in this manner, the better the prospects that political leaders in OECD countries will have the courage to keep their home markets open to such firms.

Policy-makers in emerging economies will, on their part, have to propose credible if narrow sunset schedules on environmental and labour practices that are often bases of cost advantages for home firms. These should not be regarded or offered as concessions; rather these should be designed and regarded as the benefits of greater economic development. Brazil, China, Egypt, India, South Africa, and like-minded others must come together to propose some areas of concrete action that can resonate with OECD members. Last but not least, if concerned countries do not address the currency issue more thoughtfully and in a more globally cooperative manner, they are themselves nourishing the legitimacy and tendencies of protectionism in the OECD countries.

The above three proposals are no doubt broad and ambitious. But they each address systemic risks that threaten the future state and stability of the world economy. If we are committed to improving the state and stability of the world, then global coordination and redesign along the lines proposed would seem necessary. Resisting protectionism and reinforcing economic openness ought to be foundational principles in any purposeful and coordinated approach to economic growth and shared prosperity in the G20.

The Global Agenda Council on Emerging Multinationals also submitted a proposal related to Innovation Democracies.

Global Agenda Council on Emerging Multinationals

Context

Ultimately, most successful corporations that have made an imprint on the world stage, emanating from emerging markets, have been built on a specific insight, an innovation. This might be a method of organization of production (as in production of software know-how by the Indian software industry's global delivery model for offshored services), unique sector-specific know-how (e.g. Brazil's sugar-based biofuels), deep expertise developed by catering to a particularly demanding ecosystem (as in Korea's heavily wired and mobile society), socially oriented but commercially viable microfinance (Bolivia, Indonesia, India, among others), and so on.

It follows that finding ways to promote innovation from emerging markets should be squarely within the charter of the Global Agenda Council on Emerging Multinationals. Were this group of experts to catalyse innovation, it would eventually increase the number of emerging multinationals.

The Global Agenda Council therefore proposes two sets of actions toward so-called Innnovation Democracies – that is social systems where the prospect that someone with an idea can see it through to fruition is enhanced – one targeted to particular private actors, and one that governments of willing nations might collectively achieve.

Proposals and Explanation/Rationale

(1): Actions by the Private Sector – Using Crowdsourcing
Several companies, recognizing the value of insights emerging from different parts of the world, have moved their innovation beyond conventional laboratory setups. For example, many companies tap into their user bases so as to be conscious of emerging needs, and of the innovative ideas that emerge from immersing themselves in the use of their products. An example might be the US retail giant, Target, that consults online groups of customers to get their views on a range of issues. Think of this as cost-effective input into refining multiple aspects of the business model (in Target's case, this might well include the range of offerings, the ambience in the store, the link between physical pick-up and other mechanisms of order fulfilment, etc.).

In a practice that some now call crowd-sourcing, several companies have thrown open problems needing solutions to open networks of potential innovators, in return for a monetary consideration, share of royalties, or just recognition. For example, a spinoff from one of the big pharma companies, Innocentive, allows the pharmaceutical industry to post problems on a website on which anyone can work. Firms like P&G, Eli Lilly and Dow Agrisciences benefit from this portal.

Crowd-sourcing, of course, is taking to an extreme what innovative companies have always done, that is, constantly been on the lookout for pockets of expertise that are underappreciated. See for example General Electric in the early 1990s, 'discovering' India's National Chemical Laboratories (NCL); the latter provided research into novel molecules in a way that opened up the CSIR (Centre for Scientific and Industrial Research in India, of which NCL is a part) to scientists to multinationals worldwide.

Nor is it the case that innovations from the developing world are applicable primarily to that part of the world. Mobile phones are an area where there is plenty of technological leapfrogging underway. Pan-African telephone company, MTC (now called Zain) launched One Network, in 2006, the world's first borderless mobile phone network offering 160 million people in six countries across East, West, and Central Africa (specifically, Kenya, Tanzania, Uganda, the Democratic Republic of Congo, the Republic of Congo and Gabon) the opportunity to move freely across geographical borders without roaming call surcharges and without having to pay to receive incoming calls. *The Economist* newsmagazine pointed out that this outdid Europe's regulators. The reason that this innovation emanated form Sub-Saharan Africa rather than elsewhere is important: The historical mobility of African societies meant that many modern national boundaries defined by colonial powers hold little relevance for much of the local population. This, of course, is the point. Innovations are spawned by contextual necessity and, as such, emerging markets might plausibly produce some that are less likely to originate in the developed world.

As another example, phones are spawning innovations in financial services. Consider Istanbul-headquartered Garanti bank's CepBank service, launched in mid-2005, combining mobile money transfer with cardless ATM withdrawal. CepBank includes the ability to send money even to non-Garanti account holders in a way that is not easily executed in most countries, including in developed ones.

So, the Council's concrete proposal is to further the move towards crowdsourcing. That is, companies that are World Economic Forum Members, that are used to tapping into innovative and collaborative networks, should publicize their efforts. This in turn will increase the stock of willing inventors who can participate as 'suppliers' to the target companies. Finally, this will benefit the very companies who initiate this catalytic process. The thicker the innovative ecosystem, the better for all concerned.

(2): Actions by the World's Patent Offices – Increasing Patent Office Coordination
Patents are an important societal mechanism to provide incentives to innovators to dedicate time to risky research and development. Though not all innovations are patented, a significant number are, so it behoves policy-makers to think of making it more feasible for an innovator to reap the fruits of her innovative activity beyond the country in which the innovation was carried out. This, in turn, requires some degree of coordination across patent systems around the world.

It is worth noting that, from the standpoint of the developed world, patented innovations are increasingly being sourced worldwide. For example, the United States' share of patents (issued by just the USPTO to inventors from anywhere in the world) has fallen steadily from 80% in the mid 1960s to just under 50% in 2008. China and India are among the countries patenting aggressively, with other large emerging markets also showing promising signs.

Of course, policy-makers are well aware of the need for coordination, so several attempts have already been made. For example, when a patent is granted in a location, some other countries have proved willing to accept that date of filing as the proof that is needed to establish credentials as "first to invent." The Paris Convention, for example, affords inventors some rights in this regard.

Similarly, inventors' filings can often be coordinated across locations, for example, through central filings with the European Patent office or worldwide through WIPO, even though individual patent offices still have to grant the rights for each country.

But this alphabet soup of acronyms probably overstates the reality of coordination, that is, much capacity building, and precedent setting still has to happen to streamline this process. For a start, developing countries' patent offices often do not have the requisite expertise, delaying issuance of patents. The so-called Patent Cooperation Treaty (PCT) and the Patent Prosecution Highway (PPH) are laudable attempts but they have not reached maturity yet.

World Economic Forum Members that patent extensively can work with developing country patenting authorities to make it easier for would-be inventors to protect the rights to their innovations. This will, as with the initiative above regarding crowd-sourcing, deepen the pool of potential innovators are benefit the catalysers once again.

Through both the private actions taken by individual companies, and the coordinated actions across the world's patent offices, in concert with World Economic Forum Member companies already used to interacting with multiple patent offices, the Council on Emerging Multinationals can encourage a (further) move toward Innovation Democracies.

Global Agenda Council on Emerging Multinationals

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Global Agenda Council on Trade[1]

A Plurilateral "Club-of-Clubs" Approach to World Trade Organization Reform and New Issues

Context

Clubs are voluntary associations of willing members who combine to achieve shared objectives. Clubs establish rights and duties of their members based on shared values and benefits, not coercion. They reduce free rider problems by excluding non-members from club benefits. The United Nations, the Organisation for Economic Co-operation and Development (OECD), and the World Trade Organization (WTO) all embody elements of a "club-of-clubs" approach. In fact, the multilateral trading system has in its past actually been closer to a club-of-clubs by having separate codes to which its members could subscribe. While it still contains several plurilateral agreements, because the Uruguay Round was a single undertaking all members now adhere to an extensive core of common agreements.

Partly as a result of the single undertaking formula, the WTO has become an increasingly controversial institution. On the one hand, the WTO has been assailed for having gone too far. Some critics, typically reflecting the concerns of developing countries, claim that by making all of its members adopt agreements such as those relating to Trade Related Intellectual Property and Investment Measures (TRIPs and TRIMs), the WTO strayed beyond its basic trade mission and forced many members to accept obligations that are not in their interests, intrusive of their sovereignty and beyond their implementation capacities. On the other hand, the WTO has also been assailed for not going far enough. Other critics, typically reflecting the concerns of developed countries, have sought to broaden and deepen WTO coverage within the context of a single undertaking by negotiating new disciplines on issues such as investment, labour standards, competition and the environment.

At the Cancun ministerial meeting in 2003, these conflicts came to a head when the meeting ended in an impasse in part over efforts to launch negotiations on the Singapore Issues. In Geneva, in August 2004, the WTO members reached agreement to drop investment, competition policy and transparency in government procurement from the Doha Round agenda. These concessions were preceded by other unsuccessful efforts such as the negotiations for a Multilateral Agreement on Investment at the OECD, and the US attempt to introduce labour standards into the WTO at Marrakech and Seattle.

One conclusion from those experiences might be that WTO rules should not be expanded beyond topics already covered. But this could be costly in terms of opportunities foregone. There are strong reasons to believe that additional rules could aid in the integration required for fully exploiting the potential of the global economy. Ample evidence indicates that, even when tariffs are removed, border effects continue to impede the free flow of goods and services. This was the experience of Europeans who concluded in the early 1980s that, despite the virtual elimination of internal tariffs, their markets remained fragmented. The considerable extent of fragmentation, even among developed countries, is documented by Bradford and Lawrence, as are the large welfare benefits that could be enjoyed from price convergence.[2]

These differing interests at the WTO reflect the tensions that result from the challenge of deeper international economic integration. There are strong political pressures at work for the WTO to expand its mission. There is also evidence that deeper integration could yield significant economic benefits. But there are dangers that such an expansion could exceed the willingness and implementation capacities of many countries among its 153 members.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] Bradford, Scott and Robert Z Lawrence (2003*) Has Globalization Gone Far Enough? The Costs of Fragmented Markets,* Washington DC: Institute for International Economics.

Global Agenda Council on Trade

Proposal

Since it appears difficult to obtain agreement by all members to accept obligations on a range of new issue areas, an alternative approach entailing a more variable set of commitments merits exploration. **After the successful completion of the Doha Development Agenda negotiations**, a majority of the Members of the Global Agenda Council on Trade believe that more new clubs, if properly structured under the aegis of the WTO, could enable the organization to better meet the challenges of the 21st century. What they advocate is a future agenda that would supplement the core WTO commitments to which all members subscribe – as embodied both in the Uruguay Round Agreement and the Doha Development Round Agreement (once concluded) – with additional agreements to which only some members would subscribe if meaningful groups are willing to do so.

Explanation/Rationale

Protocol for Club Formation
Once efforts had been made to make the ill-fated Singapore Issues part of the single undertaking in the Doha Round, it made it difficult to allow them to remain on the agenda as separate plurilateral agreements. Opponents of these issues were suspicious that, even if the topics were initially introduced as plurilateral agreements, members that did not originally sign the new agreements would later be pressured to join them. Opponents pointed to the precedent of Tokyo Round codes being incorporated into the Uruguay Round Agreement as part of the single undertaking. The fears actually run deeper: If a critical mass of WTO members were to adopt certain standards, they could become *de facto* global standards (for example, Wi/Fi standards that are adopted by all OECD countries and China). Accordingly, and partly to allay such fears, it would be important for the WTO to contain an agreement for club formation, a protocol that would define the rules for forming clubs that would make it clear that membership was strictly voluntary and would also make it clear and explicit that absent consensus, these clubs could not be made part of the single undertaking. In addition, it would also be important to lay out a set of rules to apply to all clubs, before considering each in particular. What might these rules be?

Selecting the Issues
The Council believes that the WTO should only host clubs that are (a) related to its mission; (b) enforceable by the means available to the organization and the members who join the club; (c) compatible with maintaining and enhancing legitimacy; and, (d) composed of some minimum threshold of members, be it measured in volume of trade represented, number of jurisdictions or some other criteria.

Mission
The Preamble of the WTO Agreement indicates that the WTO is an organization that seeks to enhance welfare by: a) reducing barriers to trade (such as tariffs and quotas); b) reducing discrimination in trade (requirements for most favoured nation (MFN) and national treatment); and c) enhancing development through trade. Accordingly, the issues that are chosen should be trade related in at least one of these respects. In this context, trade should be interpreted broadly to include international exchanges of goods and services and the related movement of capital and people. The coverage should relate either to policies that directly affect market access (e.g., border barriers, discriminatory internal regulations) or to of the indirect effect of other policies that materially hinder access. The aim is to a facilitate trade in both goods and services while at the same time preserving adequate scope for national policy differentiation. While many issues are important subjects for international cooperation and while many policies contribute to economic development, trade-relatedness should be the *sine qua non* for coverage in a WTO club.

In addition, to the maximum extent possible, agreements should allow room for international clubs created under other auspices to implement non-trade related international agreements and for WTO members to enjoy considerable scope for differentiating their domestic policies to match their conditions and requirements. The issues subject to club agreements would not normally overlap with issues that are already part of the WTO's present single undertaking. However if, for example, a group of countries wanted to eliminate all tariffs on garments among themselves, the fact that garments are part of the single undertaking should not constitute an insuperable obstacle.

Means
The WTO itself and members of the clubs must have adequate means to carry out their missions**.** For example, a WTO competition policy agreement which envisaged that the club would evaluate cartel enforcement in some fashion would need to be equipped with adequate expertise, resources, and authority such as that currently at the disposal of the US Justice Department, the European Commission, or the South African Competition Commission. However, a weaker WTO agreement that simply called for the club to render advisory opinions would need similar expertise but less power. In addition, since most clubs would rely heavily on national implementation, club members should possess the necessary capacity for this task. Only the able should be encouraged to join – but less able countries may join with the provision of additional support and more lenient implementation requirements.

Legitimacy
To be suitable for inclusion in the WTO club framework, the subject should enjoy widespread acceptance by the membership. Each club's members should their obligations as serving their national interests. Even among WTO members who are not ready to accept binding obligations and club membership, a substantial majority should agree that the WTO is the appropriate institutional setting. Finally, "subsidiarity" should be a key element, as between club rules and national regulation, so as to minimize inhibitions on national autonomy.

Operating Rules
How would the clubs operate? Who would negotiate and determine their rules? When would these negotiations take place? What rights would WTO members that are not club members have? What would be the relationship between the clubs and the WTO dispute settlement process? What is the minimum number of countries or volume of trade represented thereby that would necessary in order to conclude a binding agreement? These are some of the questions that need to be answered before the approach can be fully evaluated. Fortunately, the WTO rules themselves provide initial answers. As noted, the WTO already operates as "a club of clubs" because it contains several plurilateral agreements. In this respect, the most interesting is the Agreement on Government Procurement (AGP), one of the plurilateral codes created in the Tokyo Round. The AGP provides useful guidance for how future clubs might operate.

Negotiations
All the contracting parties participated in the negotiations in the AGP (and the other codes in the Tokyo Round.) Even though all members did not sign the agreement and all codes, they all had the ability to craft the agreement in a manner that reflected their interests. Arising as it did in the context of a broader negotiation, cross-issue trades undoubtedly played some part in obtaining the agreement. Once agreements have been concluded, unless explicit exceptions are provided, only those countries who agree to adhere to them would enjoy their benefits.

Dispute Settlement
Originally, the AGP and other Tokyo Round codes had their own dispute settlement procedures. However, after the Uruguay Round, these procedures were replaced by those of the Dispute Settlement Understanding (DSU). By and large disputes under the AGP follow the general procedures laid out in the DSU (such as consultations, panel hearings, appeals etc). An important difference, however, is that only parties to the agreement can participate in dispute settlement proceedings: "Only members of the WTO Party to this agreement shall participate in decisions or actions taken with respect to disputes under this agreement."[3]

Retaliation
If a party to the agreement is found to have violated the agreement and fails to come into compliance, other parties can be authorized to suspend concessions. These authorizations are made by the panel that heard the dispute. *However, only obligations from the GPA itself can be used for these suspensions.* No cross-agreement retaliation is allowed. "Suspensions of concessions or other obligations under the Agreement on Government Procurement cannot result from any dispute arising from other agreements and any dispute arising under the AGP agreement shall not result in the suspension of concessions or other obligations under any other Agreement".[4]

Should these rules of the AGP be emulated by other clubs? Let us consider them in turn.

[3] Agreement on Government Procurement (AGP) Art XXII, 3.
[4] AGP Art XXII, 7.

Participation
Should all members be allowed to participate in the negotiations as they were in the case of the AGP? The answer is yes. Regardless of whether they currently wish to join, all WTO members have an interest in the nature of the rules determined by the institution. Indeed, the ability to participate in deliberations should be a fundamental feature of membership in the overarching club-of-clubs. Currently, any sub-group of WTO members could negotiate a plurilateral agreement relating to issues not covered by the WTO outside the WTO. (This would have been the case, for example, had the ill-fated Multilateral Agreement on Investment actually been concluded.) In practice, large trading nations are reluctant to conduct major plurilateral trade negotiations outside the WTO for fear of undermining the institution's prized "acquis". But forming a club outside the WTO could be the fallback position if recalcitrant members that had no intention of joining a club chose nonetheless to use the consensus rule to block other members from forming a club under the auspices of the WTO "club-of-clubs." However, important benefits could result from conducting the negotiations under the WTO aegis: Namely, the legitimacy conferred by the stamp of approval of a substantial majority of the organization's members, access to WTO resources and dispute settlement facilities, the ability for other members in the future to join a club with rules that they had previously endorsed, and the ability to integrate club formation into other negotiations to allow for cross-issue trades.

Launching
New clubs and amendments to club rules could certainly be part of new WTO Rounds as were the plurilateral codes negotiated in the Tokyo Round. Under these circumstances, if combined with the consensus requirement for establishing a club, there could be some cross-issue trading. However, one of the benefits of a club-of-clubs approach is that it could also allow for agreements to be negotiated outside the confines of Rounds. The club-of-clubs approach would thereby facilitate early harvests and could help make future Rounds less complex and time-consuming.

Treatment of Non-Members
Provision of benefits to non-members should not be required (the AGP model), but benefits could be allowed. Requiring benefits would clearly reduce the incentives to join. For example, as part of a competition-policy club, members might agree to extend "comity" to each other, meaning more extensive cooperation in anti-trust enforcement. They might be willing to do the same for the least developed WTO members but not for developed members or successful emerging countries (exemplified by Brazil, India and China) that refused to reciprocate. Thus least developed WTO members might enjoy some benefits without assuming obligations. In addition, even when they are not part of the club, outsiders may derive benefits. For example, if a group of countries agree to implement a set of standards on an MFN basis, all WTO members may benefit, regardless of whether or not they are part of the agreement.

Dispute Settlement
Clubs should be required to use the WTO system for settling disputes. In particular, using a common Appellate Body would help assure cross-club consistency in the interpretation of the rules. This would represent an improvement over the approach adopted in the Tokyo Round in which each code had a separate dispute settlement system and there was no overall Appellate Body. However, only Club members should be allowed to participate in disputes, and there is some logic to the AGP provision that panellists should be drawn from neutral members of the Club and not more broadly from the WTO membership (provided that qualified panellists can be found within the Club membership). Again these provisions might create a small additional incentive to join the Club and it could be argued that countries actually implementing codes would have a better understanding of their operation. When disputing jurisdictions are unable to agree on panellists, the Director General should be able to appoint panellists, an approach which has proven increasingly necessary in WTO dispute settlement.

Cross-Retaliation
The great attraction of the WTO for many proponents of new issues is the ability to use the enforcement mechanism and in particular the suspension of tariff concessions and even intellectual property rules as enforcement measures. For example, advocates of TRIPs were particularly eager to have it made part of the single undertaking and enforced via the DSU. To be sure the DSU has provisions which call for retaliation generally to take place under the same sector and agreement in which the violations occur,[5] but adherence to these provisions are not obligatory and countries are given considerable scope to engage in cross-sectoral retaliation. In the recent *Cotton* case, Brazil was authorized to suspend its intellectual property obligations if the United States does not comply with the Appellate Body rulings.

[5] WTO Dispute Settlement Understanding, Art 22,3

This possibility runs the risk of attracting new issues to the WTO, not because they are highly germane to its mission, but rather because of the desire to have them enforced through the DSU. To minimize this development, it seems preferable to confine the ability to suspend concessions to obligations in the same club where the violations have occurred, as is done with the AGP. For example, in the first instance, only suspensions of concessions in Competition policy could be used to respond to violations by members of the Competition Club. However, in exceptional cases where the Appellate Body determines that retaliation confined in this manner does not provide an adequate remedy, the Appellate Body could authorize cross-retaliation with respect to other WTO obligations.

To be sure this approach might mean that club rules would be enforced by a somewhat weaker process than in the core WTO agreements. But this is not necessarily a bad outcome. It could help encourage members to join since there would be fewer risks associated with default. It would also re-enforce the idea of reciprocity that is fundamental to the retaliation process.[6] Since they represent independent agreements, in principle, countries made concessions *in a particular club* to obtain the adherence of other members to that club's rules. Thus, suspension would entail restoring the *status quo ante* the agreement until compliance is obtained. Members would not feel that by joining a club they could lose benefits they currently enjoy from core WTO agreements.

As part of the overall WTO agreement a set of common provisions should be required of all clubs. In addition to the rules already mentioned, these could include provisions for:

- **Capacity-building**: Clubs should be required to explore possibilities of providing special and differential treatment and to make provisions for capacity building. One approach could entail a basic set of commitments for the least developed members and more extensive obligations for other members. In addition, clubs should be required to offer non-members appropriate technical assistance and capacity building opportunities to allow them to become fully-fledged members.
- **Binding obligations**: A central purpose of the WTO is to establish the rule of law in the trading system. This is not going to be achieved if agreements are not mandatory. Thus, in all cases, adherence to club rules should be binding on all club members, and all clubs should be required to use the enforcement provisions described above. In addition, clubs should be open to all WTO members that are willing accept their rules.
- **Minimum coverage**: To avoid the establishment of clubs with a limited number of members, each club would need to meet a baseline membership requirement, be it volume of trade represented, number of countries, or some other agreed criteria.

Pluses and Minuses

The club-of-clubs approach has much to recommend it. It could facilitate the expansion of trade-related issues that the WTO could cover yet also accommodate countries that felt their interests were not served by a particular set of rules. Those members that wish to pursue deeper international integration through a multilateral route could do so within the framework and under the aegis of the WTO while others who viewed such obligations as ill-suited to their needs or capabilities would not be obliged to join. In some cases, non-members would automatically benefit if countries make their domestic markets more contestable, or improve their environment (for example, by reducing greenhouse gas emissions), or raise their labour standards.

All of these features could bolster the WTO's legitimacy. No country could be forced to join a club it did not feel served its interest. At the same time, the WTO would provide a framework in which those interested in implementing an agenda of deeper international integration would be able to do so. Simultaneously the club of clubs would address the concerns of those who believe the organization should do more to promote economic integration and those who believe that countries should not all be subject to the same rules and obligations.

This club-of-clubs approach also gives rise to several concerns and objections.

- The **first concern** is that the approach might create a WTO with two classes of citizens, the first class nations that are members of the clubs, and the second class nations that are not. However, proponents argue that the division between members is unlikely to be so sharp. One of the great strengths of the WTO is that there are already multiple distinctions among the obligations assumed by members. These range from different tariff rates, different proportions of bindings, special and differential treatment and different speeds with which agreements have to be phased in.

[6] See Robert Z Lawrence *Crimes and Punishments? Retaliation Under the WTO*. Institute for International Economics Washington DC 2003.

This answer to the first concern provides the basis for a strong objection registered by several Council Members. They argue that, since flexible obligations are already a feature of the WTO system, there is no need for a club-of-clubs approach to tackle new problems. And they ask why those WTO signatories, who do not envisage themselves as belonging to many clubs, would waive their existing WTO rights (under Article X.9) and enable other WTO signatories to draft new agreements without knowledge in advance of the exact content. In response to this objection, the Council Members who agree with this proposal argue that the present system gives too much blocking power to dissenting WTO signatories and that unless those signatories are willing to concede some of their existing rights, the WTO can no longer thrive as a negotiating forum.

- A **second concern** over the club-of-clubs approach is that a few developed country club members will establish a template and set the bar too high and later force others to join. The fact that the Uruguay Round induced many members to accept and implement most of the Tokyo Round codes is seen as a troubling precedent. But proponents believe that if clubs are made an intrinsic part of the WTO architecture, this would be less likely. The lesson of Cancun is that many developing countries have learnt the pitfalls of accepting obligations that they would have difficulties in implementing. They are unlikely to repeat the same mistakes. Moreover, the rule that permits all members to engage in the negotiations over the club rules will limit of the scope for agreements which do not command widespread support among WTO members.

- A **third worry** is that the approach could limit the ability of members to obtain agreements in which they are particularly interested. A similar logic applies to legislation that can pass only when measures are combined (or log-rolled) into a single package. Each party supports the package, because it comes out ahead on balance, but many parties would prefer to drop some items from the package. Following this logic, a single undertaking can achieve results that cannot be attained through the club-of-clubs. But proponents argue the single undertaking formula means that members will accept obligations not because they view them as beneficial but simply because they are willing to trade them for something else. In the long run, both the institution and its members will be better off if members subscribe to rules they believe are in their own interest. At the end of the day there may be fewer universal rules, but those that are applied will command more support.

- A **fourth and strong objection** registered by several Council Members is that the club-of-clubs approach could well lead to “organizational overstretch”. These members believe that an important cause of the failure to conclude the Doha Development Round is that the WTO has wandered far from its core competence – tariff and non-tariff barriers to market access. As illustrative examples, they cite the heated controversy over the Agreement on Trade-Related Intellectual Property Rights (TRIPs), and the failure to launch WTO negotiations over Competition rules. They argue that a WTO club on appropriate trade measures to curtail greenhouse gas emissions, or a club on financial regulation would badly weaken the multilateral trading system, and that most of the new issues would be better handled by other institutions, such as the OECD, the UNFCCC, or the IMF. In response to this objection, Council Members who agree with this paper argue that the WTO system will atrophy or be bypassed, unless it squarely faces the challenges raised by new and controversial trade-related issues.

Next Steps

Regional Trading Arrangements (RTAs)
As the next step in its deliberations, the Council intends to examine RTAs and their relationship to the WTO. RTAs are in a sense orthogonal to plurilateral agreements, as RTAs are agreements between two or more parties covering trade between them, while plurilaterals are agreements among a large group of countries covering one specific sector. Both, however, respond to specific needs of the parties and a desire to achieve reciprocal trade liberalization in a context that is deeper and faster than what can presently be achieved in a multilateral negotiation.

While many RTAs are badly designed and implemented (some exist only on paper), others – e.g. the EU and Europe agreements, NAFTA, and some South-South agreements, such as the Pan-Arab Free Trade Area, the Gulf Cooperation Council and the Southern Africa Customs Union – have been more or less successful in removing barriers, increasing the certainty of access, and creating trade. RTAs can also more easily deal with difficult behind-the-border impediments to trade, and they provide room for experimentation and advancing disciplines that can be adopted more broadly. The

essential characteristics of welfare-enhancing regional agreements are understood – including a low external tariff; simple rules of origin; and coverage of all forms of trade (broad and deep integration).

The Council intends to address the following issues: how can the WTO promote and even encourage the formation of well-designed, welfare-enhancing regional and bilateral agreements among its members that minimize discrimination and create trade? For example, how can it facilitate the harmonization of their rules of origin, encourage reduction of their external tariff, and how can it foster accession to them of smaller and poorer countries that might otherwise be excluded? In order to establish effective rules to govern RTAs, the WTO has first to establish a constructive engagement with them. Recognizing the vastly different nature of RTAs and plurilaterals, the Council will explore a process to distil best policy practice with respect to RTAs and potentially propose ways to strengthen governance of them under the WTO umbrella.

For all of the talk of globalization, the world economy remains highly fragmented as the economic effects of borders inhibit the realization of more global economic integration. The WTO has a key role to play in helping nations reap the full benefits of deeper integration but as its mission and means have expanded it has become more controversial. Some Council Members perceive that the organization's legitimacy has been attacked from many quarters and efforts to add new issues to the rules have foundered, as many members have refused to accept new obligations on a variety of grounds that include problems in implementation, fears of future trade retaliation, and apprehension that domestic policy space will be lost.

Reform of the WTO system critically depends on the enlightened self-interest of major players – essentially countries that belong to the G20. Assuming that key ingredient exists, then supplementing the core WTO obligations with a club-of-clubs approach could help to promote deeper global integration while at the same time alleviate the WTO's institutional tensions. The club-of-clubs offers a compromise in which diversity can co-exist with more extensive commitments among willing members. Clubs would be chosen were they could help promote the central missions: Lowering barriers to trade; reducing the discriminatory effects of domestic policies; and, enhancing economic development through trade. All WTO members would participate in negotiating club rules, but members would be free not to join. Clubs would use the DSU to deal with disputes, but suspension of concessions in the event of violations would be confined to the provisions of the same club in which the violation occurred.

The club-of-clubs approach might reduce the ability of some members to obtain agreements by packaging them in a single undertaking. It could also reduce the power of retaliation as an enforcement mechanism for certain obligations. The approach could also enhance the legitimacy of the WTO by helping members to avoid undertaking obligations they did not view as in their best interest. It would, thereby, ensure a better alignment between mission, means and legitimacy, the keys to a more effective international organization.

In order to disseminate its findings and advocate the adoption of a club approach, the Council intends to deploy a number of instruments available to its members in the coming months. In addition to the upcoming dialogue with policy-makers at Doha these include: publication of summary findings in newsletters such as Carnegie's International Economic Bulletin, Peterson Institute Newsletter and ICTSD Bridges, op-eds, and the organization of events dedicated to WTO reforms, including at the Carnegie Endowment and the Evian Group. The Council also intends to reach out to experts and policy-makers to prepare its work programme on Regional Trade Agreements.

Global Agenda Council on Trade

Appendices

Abstract

The diverse nature of WTO membership makes it unlikely that all members will always wish to sign on to the full range of additional agreements that many members find desirable. The Global Agenda Council on Trade proposes an approach in which, **after successful completion of the Doha Development Agenda negotiations**, the WTO would supplement its core agreements with additional "clubs"[7] to which only some interested WTO members would subscribe. The approach is a compromise in which increased diversity can co-exist with a more extensive set of commitments for willing members.

This paper provides suggestions for how the clubs would be selected and how they would operate. Clubs would be chosen where they could help promote the WTO's central missions: lowering barriers to trade; reducing the discriminatory effects of domestic policies; and enhancing economic development through trade. All WTO members would be able to participate in negotiating club rules, but members would be free not to join or to join at a later date, if they are willing to do so. Clubs would use the Dispute Settlement Understanding (DSU) Agreement to deal with disputes but suspension of concessions in the event of violations would preferably be confined to the provisions of the same club in which the violation occurred. While a majority of Council Members endorse this proposal, some dissent from it.

The Council also proposes to examine how the WTO can promote and even encourage the formation of well-designed, welfare-enhancing regional and bilateral agreements among its members that minimize discrimination and create trade. For example, how can it facilitate the harmonization of their rules of origin, encourage reduction of their external tariff, and how can it foster accession to them of smaller and poorer countries that might otherwise be excluded? The Council will explore a process to distil best policy practice with respect to RTAs and potentially propose ways to strengthen their governance under the WTO umbrella.

[7] The concept of "clubs" is used as developed in economic theory starting with J. M. Buchanan. (1965) *An Economic Theory of Clubs*, Economica, vol. 32, pp. 1-14.

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Global Responsibility Licensing: Unlocking Global Knowledge for Development, Disaster Recovery and Humanitarian Uses

Context

In 2009, the number of chronically hungry people in the world passed the 1 billion mark – nearly one-sixth of humanity. Despite life-changing advances in technology enjoyed by developed countries, real progress towards food security, clean water, and health among the very poor continues to elude us. At the core of this challenge lies our failure to sufficiently leverage global capacity to design, develop, and deploy technologies that will improve the lives of the poor.

A few companies, universities, and non-profits have the expertise and resources to broker successful deals that make a difference to the poor in developing countries but many do not. Global Responsibility Licensing seeks to address this gap.

Proposal

The Global Responsibility Licensing (GRL) initiative is designed to make intellectual property (IP) available for development uses while preserving protection for commercial uses and managing institutional risk. Unlocking IP across multiple technology sectors will foster innovation and kick-start the design, development and deployment of technologies for the 1 billion poorest people in the world. Combined with technical and legal support to ensure the licenses' terms are tailored to the technologies and organizations involved, the GRL has the potential to bring down barriers faced by current patent commons initiatives and foster new partnerships on a previously unachievable scale.

	Commercial Uses	Uses in commercial domains, such as braded products in developed markets
	Emerging Market Uses	Uses in emerging markets such as in generic products for developing countries
GRL	Humanitarian Uses	Uses in humanitarian or aid applications (e.g. subsistence uses or for users whose income is less than one dollar per day)

The GRL initiative will:

- **Share tools and best practices** around the application of intellectual property for humanitarian uses
- **Identify existing technologies** that can address critical problems among the very poor and provide practical tools that support companies, research institutes, governments, and foundations in using their technologies to impact poverty and support disaster recovery
- **Target key gaps** where critical technologies do not yet exist and support partners seeking to catalyse new design, research, development, and deployment to impact poverty

The development community has seen many efforts over the years – from patent commons to public-private partnerships –

[1] The views expressed here do not necessarily reflect those of all the Young Global Leaders or those involved in this proposal's task force, nor do they represent an institutional position of the World Economic Forum or its Members.

GOALS	1 Year	3 Years	5 Years
Impact projects	3 projects	30 projects	300 projects
GRL alliance members	10 companies	100 companies	1,000 companies
Patents available under GRL uses	5,000 patents	50,000 patents	500,000 patents
GRL tools	Basic precedents, case studies, gap analysis	Collaboration tools to share ideas, gaps and solutions	Innovation ecosystem built around GRL

seeking to give the poor better access to technology. But the institutional memory is lost and we reinvent the wheel at the expense of those least able to wait for change. The GRL initiative offers a global platform to synthesize our knowledge and coordinate resources to support a comprehensive shift in this field.

The GRL team is focusing its efforts in three core domains, where it believes that new partnerships and access to knowledge can make the greatest difference:

- **Low-cost food distribution**: Low-cost distribution and packaging of food may be the next green revolution. This area may include things such as no refrigeration packaging, shippable amino acids and long-life storage technologies.
- **Low-cost healthcare**: This may include low-cost diagnostics and point of care technologies, building on existing work in epidemiology and healthcare in impoverished communities.
- **Low-cost communications**: This will look at issues of the digital divide and may include low-cost Internet access in Africa, a project such as the five-dollar phone, enhanced and robust 4G communications and regional broadband technologies.

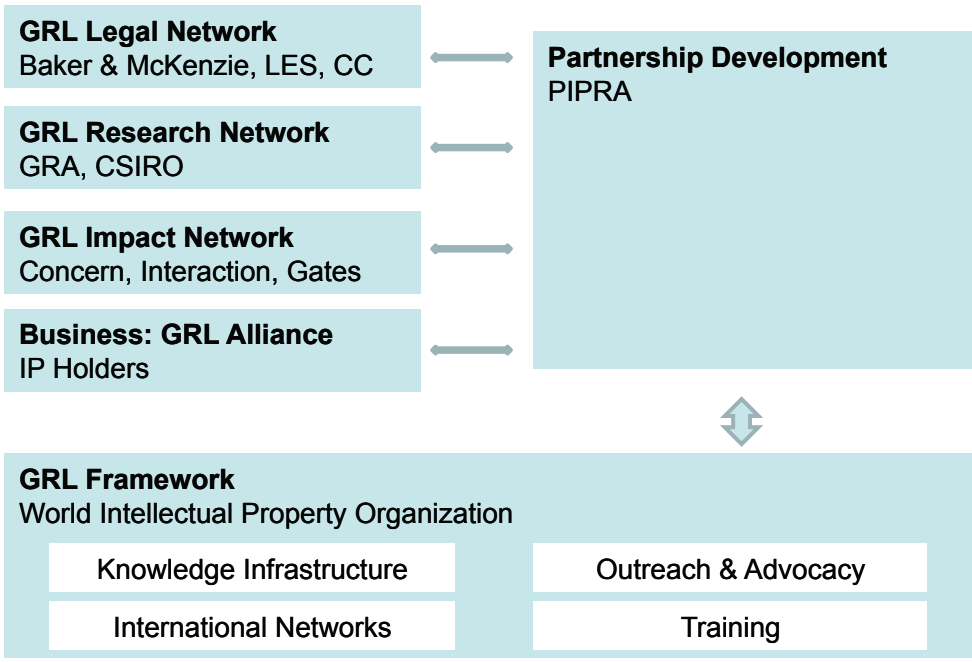
The GRL team seeks to work with commercial IP holders in these domains to apply their knowledge to humanitarian endeavours, and its network of research, legal and development organizations help these companies to assert their global responsibility and leadership without compromising their global market potential.

Implementation/Next Steps

The team is working towards the formal launch of the initiative at the World Economic Forum Annual Meeting 2011.

This project is being championed by the World Economic Forum Young Global Leaders and the Global Agenda Council on the Intellectual Property System, working in partnership with PIPRA, and has already received interest from a number of large companies and universities. Baker & McKenzie (the global law firm) is providing pro bono legal support engaging with other organizations such as the Licensing Executives Society and Creative Commons. The Global Research Alliance made up of nine of the largest applied research organizations in the world and employing in excess of 60,000 researchers is also a partner.

Steering Committee: Incubated by the Global Agenda Council on the Intellectual Property System



Appendices

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3 Strengthening the International Monetary and Financial System

Strengthening the International Monetary and Financial System

By David Daokui Li, Director and Mansfield Freeman Professor of Economics, Center for China in the World Economy (CCWE), Tsinghua University, People's Republic of China, and Suzanne Nora Johnson, Trustee, Carnegie Institution for Science, USA

Of all the clusters in the World Economic Forum's Global Redesign Initiative (GRI), this one has generated intense interest given the extensive economic damage resulting from the recent financial crisis and the significant impact that proposed responses to the crisis might have on economic recovery, stability and growth. Many positions (at times conflicting) have been advanced as to the primary causes of the crisis and the relative culpabilities of various governments, financial regulators and private market participants. Most of the reform proposals that have been offered have particular frames of reference on the issues of causation and culpability, which often colour the proposals. We the authors consider it indisputable that the most recent financial crisis has laid bare the interconnected nature of the global financial system, and the difficulty in completely immunizing the broader real economy and indeed the world trading system from such connectivity. We also believe that while some proposals are too parochial or short term in their nature, other broad ranging proposals are also doomed to failure because of political feasibility. We believe that, ultimately, reform will need to be led at the highest levels of government – where the strategic benefits and political burdens of reform will be borne. Partnership will also be critical with the regulatory agencies and central banks that will have to implement such reforms and with the market participants who will need to adopt the new regulations and evolve their ways of doing business accordingly.

We believe that a multistakeholder approach is critical to addressing the many fault lines that still exist in our global financial system. We have co-authored this article in the hope that we can evaluate proposals through two very different lenses – that of a Chinese economist and that of an American private financial practitioner and investor – with a common goal of a more safe and beneficial financial system from which to ensure stable and robust economic growth. While most of the current work of the Global Agenda Councils has been focused on responses to the current crisis, we have also identified an area of risk that merits immediate attention and will require a multinational approach – namely that of sovereign debt.

The following pages elaborate our thinking in more detail. We will give an overview of where the international monetary and financial system still shows weaknesses, discuss major proposals that have been made to date (by the World Economic Forum and others) and, in conclusion, prioritize those that seem most promising to us. In doing so, and honouring the need for brevity, we do not endeavour to give a comprehensive overview of the monetary and financial system and related reform initiatives but rather to confine ourselves to those aspects that are pertinent to the current state of reform discussions and thus merit focus now.

What Went (and Still Is) Wrong

One cannot discuss the state of the international monetary and financial system without making reference to the recent crisis that brought the financial system to the brink of collapse, and much of the world economic and global trading system to a virtual standstill. In doing so, we structure our discussion along six widely recognized thematic issues surrounding this crisis.

1) Economic imbalances created vast amounts of investment capital searching for yield in the world's most advanced economies and financial markets, which helped to fuel enormous asset bubbles. Financial innovation typified by the securitization of credit and contingent contracts (derivatives) radically transformed the financial system and helped turbo-charge these capital investments. Central bankers and financial regulators did not feel compelled to tighten monetary policy and financial regulation given the seemingly low inflation and high growth world that existed.
2) High levels of institutional and consumer leverage exacerbated the contagion once certain asset classes started losing value.
3) As in many asset bubbles, risk management was found wanting during the boom years.

4) Transparency, particularly around market interconnectedness, complex financial products, and actual risk exposures, was very weak.
5) Financial market participants were not as strong as previously believed (by measures of capital or funding), and some could not survive the market down draft – leading to a crucial loss of confidence in the markets.
6) Liquidity dried up, depriving the "real economy" of funds and creating a strong negative feedback loop.

Many of these themes have been studiously analysed by Reinhart and Rogoff as common to historical systemic crises.[1]

Governments and regulators initially responded to these six themes with a high degree of urgency primarily through the G20 process. As the economy has started to recover, we observe a very diluted imperative for global cooperation and standard setting, in favour of more technical and nationalistic proposals. In some quarters, this has been cynically viewed as merely the impracticality of multinational agreements and the success of banks' lobbying prowess. In our view, structural problems do continue to persist, and real solutions compel a global multistakeholder approach. We hope to support that approach through this discussion.

Economic Imbalances

This was a major theme in the run-up to the crisis, repeatedly picked up by many independent observers (e.g., the Bank for International Settlements (BIS), the International Monetary Fund (IMF)). Since the crisis, none of the underlying fundamentals seem to have changed. China's economic growth is still strong and US gross debt remains high as a percentage of GDP, although there are some recent signs that the US trade deficit is shrinking and the Chinese trade surplus might be turning into deficit.

We also note that some very crowded trading strategies exist in the market based on these perceived economic imbalances (e.g., US$ based carry trades), which have the potential to destabilize the system again should they unwind over a short period of time.

High Levels of Leverage

In the years before the crisis, high levels of institutional and consumer leverage were rampant throughout many major economies. Household indebtedness stood at a record high of 95% of GDP (128% of disposable income)[2] in the US, leveraged buyouts regularly traded at 7-8 times earnings, and credit extension to the financial sector had doubled or tripled from a decade before (e.g., in the UK to over 200% of GDP). Some of these excesses have now been reduced. US consumer debt is starting to gradually decline, buyout multiples are back in a more sustainable range and credit extension is sharply down. However, due to the large amount of economic stimuli, the deleveraging of the private sector is now turning into the significant leveraging of the public sector (much of the OECD is now more indebted than going into the crisis – e.g., 67% of GDP for the US[3], up from 37% pre-crisis). This is likely to cause challenges in the future with sovereign and quasi-sovereign credit quality. We have seen the initial rounds of this phenomenon with Greece and Dubai, and in our opinion more is likely to follow on that front. Some of the major economies will find it very difficult to grow or tax their way out of the debt they have assumed. These challenges will adversely impact the global economy and geopolitical relationships.

Risk Management

Weak risk management was also central to the crisis and has been discussed at length in many fora. Issues included homogeneity of risk models, over-reliance on ratings agencies, and skewed incentives among others. However, risk management was not similarly flawed across the whole financial system, varying significantly from industry to industry and region to region. Risk management was also better in certain places, due to experiences with relatively recent financial crises in Latin American and Asia.

[1] Carmen M. Reinhart and Kenneth S. Rogoff, *This Time Is Different, Eight Centuries of Financial Folly*, Princeton University Press, 2009.
[2] McKinsey Global Institute "Debt and Deleveraging", Jan. 2010.
[3] 2010 US Federal Budget.

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This, combined with the intensive attention that the recently exposed parts of the financial system (e.g., investment banking) have been getting, leads us to believe that risk management at an institutional level is in a better place now than two years ago. Our views are supplied by changes that have been effected in the financial services industry since the crisis. However, we believe significant gaps in risk management still exist at a systemic level, particularly when national boundaries are crossed. Regulation is still mostly a national matter. Systemic surveillance (e.g., by the International Monetary Fund's Financial Sector Assessment Programme) still has gaps around systemic private sector market participants, such as the shadow banking system, as well as issues relating to its independence from host countries' political interference.

Transparency

A lack of transparency was a key problem in the crisis. Financial products reached a degree of complexity that was not understood by many of their users. Counterparties were connected in ways that were opaque for other market participants, indeed, sometimes even between the parties themselves. As a result, the performance and strength of market participants were difficult to evaluate, leading to a loss of confidence in the overall system.

Since the onset of the crisis, opaqueness and complexity in financial products have been significantly reduced, largely due to market forces. Investors have generally shunned products they do not understand.

Counterparty connectedness, particularly in the over-the-counter (OTC) derivatives markets, is still not fully mapped, and various regulatory proposals are under way. In addition, many institutions have improved their business intelligence on the issue (particularly around collateral management), as the crisis has highlighted the speed with which positions and counterparties can potentially deteriorate.

Transparency around market participants has improved through much more detailed disclosures – but differences in accounting regimes and methodologies still continue to introduce distortions and make comparability difficult.

The Strength of Financial Market Participants

During the crisis, many institutions thought to be "safe" proved to be weaker than anticipated, with some ultimately failing or requiring government rescue.

To improve matters and restore confidence in the markets, regulators have since mandated several measures, particularly around capital requirements and institutional leverage. Several bodies, including the Financial Stability Board (FSB) and the G20, are working on a framework that should be finalized during 2010. In the meantime, capital buffers for banks have already been significantly increased (e.g., in the US and UK to a (Core Tier One/RWA) ratio of 10-11%, roughly double that before the crisis[4]). Financial institutions have also raised significant equity and debt capital to achieve these much needed capital increases.

Leverage ratios are already mandated in some national regulatory regimes and are being considered by others. In addition, market pressures have already forced most financial institutions to dramatically reduce their leverage – from an average of 38 times for US broker dealers pre-crisis, to 22 times now (against a 1993-2007 average of 30 times). However, regulator vigilance will be required to monitor leverage between reporting periods.

While much improvement has been made on strengthening the surviving financial institutions, the issue of the orderly resolution of systemic institutions ("too big to fail") remains. Another outstanding issue is the reform of the Basel accord – which according to some contributed significantly to the crisis, as its capital rules invited arbitrage and the homogeneity of strategies.

[4] IMF *Global Financial Stability* Report, October 2009.

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Liquidity and the Availability of Financing

As the crisis unfolded, short-term financing markets seized up, which led to the collapse of several firms due to liquidity issues. Consequently, banks in particular started holding all available cash and the supply of financing to the "real economy" was seriously impaired.

Post-crisis, regulators have now enforced stricter liquidity requirements for banks, and the industry has also improved its own liquidity monitoring. On an operational basis, significant progress has been made, and a final liquidity framework is expected by the BIS and G20 during 2010. In addition, the public sector has injected vast amounts of support into the banking system (and the "real economy") during the crisis via a variety of instruments.

Financing for the "real economy" is a more nuanced story. Currently, large investment-grade issuers find it relatively easy to access financing, whereas small and mid-size enterprises are still struggling to access capital in many markets. A related concern is that sovereign debt might currently be "crowding out" private sector investment.

Proposals to Improve the State of Affairs (by the World Economic Forum and Others)

Economic Imbalances

Of the six themes, this is the most subject to debate and most difficult to address. To the extent reform proposals recognize the issue, the proposed remedies have included strong political rhetoric along the lines of urging one country to revalue its currency or, on another variant, urging another country to change the collective behaviour of its consumers. Neither extreme is particularly constructive. Fundamental economic imbalances will take a long time to change.

We argue strongly that the global economic imbalance can only be rebalanced effectively with strong global economic growth. More importantly, the global imbalance is an outcome of the existing pattern of global division of labour, which has been driving strong global economic growth for the past decade. A sole focus on reducing trade imbalance by calling for drastic currency revaluation is not only ineffective as evidenced by the Japanese experience but also disruptive for the ongoing process of global recovery.

We propose that the world's largest economies collaborate and coordinate closely on the issue of global imbalances. For the US, this means encouraging and supporting China's ongoing efforts to boost domestic consumption and imports. Note that in such a process, a gradual and continuous RMB revaluation will be a natural and well received policy instrument. For China, this means committing firmly to holding much of its accumulated currency reserves in US sovereign debt in order to support US economic recovery. We strongly believe that these actions will be effective, whereas pushing for drastic currency revaluation threatens trade wars that slow down the healthy recovery of the global economy.

Regarding currency valuations resulting from economic imbalances, we are unconvinced of any approach to solve by edict what some perceive as "unfair" exchange rates. This includes both the singling out of individual countries or currencies for revaluation, and the calls for a "new Bretton Woods".

Certain proposals have suggested a pooling of surplus countries' funds as a way of using economic "imbalances" to mitigate crises. This will be difficult to implement, particularly as Asian economies have weathered the recent crisis rather well largely because of their large reserves – and it will take compelling arguments to convince sovereigns to part with their national insurance funds. The proposal made by the IMF and the Forum's Global Agenda Council on the International Monetary System to increase the issuance of Special Drawing Rights might be a promising start. However, a number of practical issues need to be resolved.

First, the incentives for depositing funds with the IMF (i.e., generating above-market yields for large sums) will not be trivial, and more creative thinking is needed to create the right "pull". Second, a question exists as to where such funds might be invested while not drawn. As they will be needed rapidly in a crisis, they must be

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invested in liquid assets – when in fact their best societal use might well be in illiquid assets such as infrastructure finance. If government debt is the only liquid asset class that could absorb such volumes, this would further depress returns on such debt, and might lead to a similar market distortion that materially contributed to the recent crisis, as investors search for "higher safe" yields elsewhere.

Finally, and more generally, there is the question of the legitimacy of the IMF as a neutral safe haven for monies, particularly from the vantage points of emerging countries that are still under-represented in its governance structure. Proposals have been made by the G20 to shift 5% of the IMF quota share to developing countries, and the Council on the International Monetary System has argued for an even greater increase. We concur that 5% might not be enough to address the legitimacy issues around the IMF. The recent proposals of two regional funds (the "East Asian Monetary Fund" coming out of the Chiang Mai Initiative, and the "European Monetary Fund") reflect that issue. While they might be more readily implemented in the short term than a wholesale governance reform of the IMF, they would *de facto* undermine the IMF's standing. In the long run, this would lead to the IMF being an umbrella organization of regional funds. Such an outcome would potentially mean more fragmentation of standards and resources and less power against strong regional political forces. Until these issues are addressed, the IMF (properly reformed) may be the preferable choice.

We also support the establishment of a "global systemic watchdog" in line with the Global Agenda Councils on Global Investment Flows and Systemic Financial Risk. Such a body must have an independent analysis capability and credibility that can support public debate on identified weaknesses via an "open letter" process – thus allowing market forces to take corrective action where deemed appropriate. The mandate of such a watchdog should cover the public sector (e.g., economic policies) and private sector (e.g., financial product innovation) alike. The Global Agenda Council proposal suggests the FSB as the most likely institution to fulfil this mandate. We offer some thoughts of caution – while a relatively new creation, the FSB's mandate is currently very closely interlinked with the IMF (and its resources are pooled with the BIS). It is therefore not clear to us whether this will position the FSB as sufficiently independent from the existing institutional framework to confer true neutrality. An alternative might be a "college" of various bodies that each have the authority to invoke an "open letter" – which would allow for a more diversified view of issues, and potentially more independence.

High Levels of Leverage

With some of the major excesses reduced, and financial institutions moving to more appropriate historical leverage ratios, the major focus should be on ways to mitigate asset bubbles. We consider a recent proposal by Lord Turner of the UK Financial Services Authority (FSA) very interesting. The Turner proposal suggests monitoring the growth of credit extension by asset class at a national level. National regulators would then take counter-cyclical measures should that growth significantly exceed historic norms. This proposal has the advantage that regulators and central banks do not need to take a view on asset prices (which is difficult to do), but only against the credit extension that fuels them. We think this deserves serious attention.

Regarding public sector debt levels, the coming years will be difficult for policy-makers and central bankers, and no proposal we are aware of offers a "silver bullet". The formidable challenge will be to not starve economic recovery by switching the stimulus off too early, and to manage societal sentiment in the inevitable years of fiscal austerity while still maintaining sustainable public finances for future generations. A multistakeholder dialogue will be necessary to resolve this most important issue to the best benefit of all affected parties.

Risk Management

Many of the reform initiatives coming out of the recent crisis have been focused on improved regulation and the governance of risk management, authorities giving particular focus to the relationship between compensation and risk. The G20 and FSB guidelines in particular will form a good baseline going forward. Board supervision on risk matters and risk management capabilities have been strengthened in many organizations. Stress tests will be an effective tool for both regulators and private market participants.

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Heterogeneity in both business and risk models is paramount for systemic stability overall. While risk models have been strengthened to take account of the recent crisis, many of the risk metrics used by regulators and market participants are comparatively unchanged. Therefore there is still a large degree of homogeneity in approach that might make the system vulnerable to a new crisis. Many risk models even now are likely to underestimate tail events.

In order to increase the heterogeneity of business models, barriers to entry need to be adequately low to allow competition – always a challenge in a heavily regulated sector. This point has already seen much prominence in public debate. In our opinion, and borrowing from other industries' experience (e.g., telecoms), this will not be enough – innovation is often the best way to challenge large incumbents and enhance competition. This point is currently somewhat underappreciated, as innovation in the financial sector is often demonized, deemed useless, and held responsible per se for the recent crisis. Transparent and smart innovation, in our mind, holds much bigger benefits for systemic stability than the "dirigiste" proposals focused on absolute size (size, for certain activities in financial markets and when combined with sound management, might even increase systemic stability). While it is paramount that regulation create a level playing field, it should also not overshoot and homogenize business models too far, otherwise systemic stability could be compromised.

We are in principle sympathetic towards recent statements that regulatory reform should provide a level playing field, regardless of geographical location or economic system.

Taking risk is at the core of many financial activities, which promote economic security and growth. Given its centrality to global economic well-being, the financial sector could benefit from other sectors' insights. The recent work entitled "Rethinking Risk Management in Financial Services" by the Forum is a promising area for further study.

Transparency

Several initiatives are in place to move OTC derivatives trading onto central clearing counterparties (CCPs), with particular focus on the large credit derivatives market. In our view these initiatives are to be welcomed, although it would be good to harmonize the regional differences that today still exist in the proposals.

On accounting standards, the Financial Accounting Standards Board and International Accounting Standards Board have accelerated their efforts to achieve progress on convergence in major areas by 2011, and the G20 is monitoring this effort. We consider this a very desirable goal in itself – although, in reality, we do not expect all the differences (e.g., in valuation approaches for financial firms' portfolios) to be resolved. Even with harmonized accounting standards, much work still needs to be done by audit firms and regulators to achieve full transparency and the comparability of financial firms' accounts.

The financial sector operates with vast amounts of data and already generates large-scale data submissions to regulators, market-makers and other bodies (e.g., the BIS). Currently, those submissions and data repository are fragmented by country and organization, which makes the build-up of a full picture of systemic connectivity and risk concentrations very difficult. We think that harmonizing these data repositories does have merit, as outlined in the "Aggregate systemwide data" section of the Forum's "Rethinking Risk Management in Financial Services" report. Of course this is a non-trivial task, and in particular structuring such a repository in a way that avoids creating a "black hole for data" is a real challenge. However, if done right, the benefits of such a tool would be significant in both monitoring risk concentrations and, most crucially, improving reaction capability during crises.

Regulators have already stepped up their efforts in demanding more transparency from the institutions they supervise. This has sometimes taken strong forms, such as installing significant surveillance teams on the premises of a firm. Such measures are understandable in the immediate wake of a crisis, when the need to restore confidence is large. We are less convinced that such heavy-handed intervention is a sustainable model in the long run, due to the substantial costs it imposes and the very unclear benefits.

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Despite all that can be done to improve transparency, it is worth noting that some information asymmetry and difference in viewpoint will always persist in financial markets (one person's hedge is another person's speculation). Key will be to achieve sufficient transparency to mitigate the potentially catastrophic build-up of risk, while protecting "intellectual property" to still allow market participants to have an economic incentive to be active in the markets.

The Strength of Financial Market Participants

In this area quite extreme proposals have been suggested (e.g., the mandated break-up of "big banks", no proprietary trading). We would generally observe that no single business model was completely susceptible to failure during the crisis (with the possible exception of the US broker dealers, which had inadequate funding structures). Rather, weak risk management or inadequate capital and funding structures separated the winners from the losers in the most recent crisis.

We support higher capital requirements, as outlined by the FSB and national regulators – and point out that the definition of capital should be globally harmonized (as envisaged by the G20 and the EU). In the spirit of a level playing field, any restrictions on leverage as well as capital should be internationally harmonized. We note that there is a trade-off between stability and efficiency – extremely high capital requirements or low leverage will create a very stable financial system, but at the same time increase the cost of capital for the "real economy" significantly, perhaps undesirably. Contingent capital is in our view a good instrument to increase crisis resilience. Dynamic provisioning and other counter-cyclical measures should also be considered.

On the resolution of systemic institutions, we believe increased transparency (as described earlier) will be very important. We also suggest that without the inside knowledge of such an institution, no orderly resolution will be possible – and therefore we support the concept of "living wills". Correct incentives will need to be in place to ensure they are indeed maintained properly. We, however, draw comfort from the fact that in the area of business continuity, the private sector has put in place workable solutions of its own accord – and therefore we believe that with the right incentives, similar progress can be made for "living wills" (which need to be complemented by appropriate simulation exercises at regular intervals).

In addition, a collective insurance fund for wholesale markets is a promising idea – similar to the Federal Deposit Insurance Corporation scheme in the US and analogous schemes in other countries for retail depositors. Such schemes would have to be pre-funded to some degree, which can be an issue – but collective insurance should be more economically efficient than every institution self-insuring. The pre-funding contributions should reflect the two major tenets of systemic relevance: size and connectedness. The former could be addressed via a balance sheet levy, the latter via a transaction tax (although neither is a perfect solution).

Liquidity and the Availability of Financing

With much of the work done on liquidity, the major outstanding issue is when and how to withdraw some of the government measures introduced during the crisis. This is not trivial, as tightening money too early risks triggering another recession – with much less ability to then re-intervene (as public finances are already strained). We agree with the current consensus to be extremely cautious in this regard.

Regarding securitization markets, we believe they can be a useful economic vehicle to distribute risk/exposure and therefore they have a useful purpose. However, we believe proposals that require the originator to retain at least some credit risk are preferable. We support those proposals that suggest a reopening of these markets via "soft" government signalling and incentives, with the public sector withdrawing its involvement as soon as normal trading resumes.

Strengthening the International Monetary and Financial System

Conclusion – The Most Promising Initiatives to Take Forward

Having provided an overview of where the system stands, we propose a prioritization of initiatives that could be considered. In doing so, we use a framework that is in line with the mission of the Global Redesign Initiative, scoring along the following dimensions:

- Is the initiative likely to have impact in the short- to medium-term?
- Is the impact systemic (rather than just focusing on one sub-sector of the industry or sub-aspect of regulation)?
- Does the initiative improve multistakeholder governance? (Given the complexity of the financial system, it is unlikely that a single stakeholder will have the answer.)

We would point out that, naturally, there are some very good ideas and proposals that do not score under this framework (e.g., because they are too technical or only involve one stakeholder). While those therefore do not fall under the Global Redesign Initiative, it does not mean that they should not be implemented or that we do not endorse them.

The initiatives we believe merit serious consideration include:

1) Providing the groundwork for strengthening of the financial system through
   a) *A practical taxonomy of the financial system*
      This joint effort between the private sector, policy-makers and academia should identify the most important areas of overlap as well as the divergence of financial system models around the world. It will be an important foundation (and should run in parallel) with

   b) *A strengthening and acceleration of the existing process to define key parameters of the financial system (leverage, capital, accounting standards) in a globally consistent way*
      This would involve widening the debate from the current national and technocratic circles in which it mostly takes places. It would have tremendous benefits for transparency, while creating a level playing field and avoiding destabilizing flavours of arbitrage. The G20 could take ownership of this, by demanding a schedule of milestones over the next year from an empowered agency (e.g., the FSB).

2) *The empowerment of a global systemic watchdog,* as outlined in more detail by the Global Agenda Councils on Global Investment Flows and Systemic Financial Risk
   That watchdog could either be a single body (e.g., the FSB, as the Council proposal suggests) or a college of independent bodies. Either way, independence and the moral authority to invoke a public response (in an "open letter" framework) are crucial. This would address a gap in the way financial stability is addressed at the global level (i.e., too many opinions perceived as biased and too much focus on academic/macroeconomic considerations). It would also increase public confidence in the financial system, as an organization is seen to be empowered and competent to monitor it. Of paramount importance is for the initiative to bring those who have historically worked on this issue (e.g., the IMF, World Bank, and others) together with other stakeholders (e.g., the private sector, national regulators).

3) *The aggregation of systemically relevant data across the global financial system, and its smart analysis by a dedicated team*, as outlined in the Forum's "Rethinking Risk Management in Financial Services" report
   This would ideally run alongside the previous initiative, but even in isolation would have many benefits for transparency and the ability to handle crisis events. We propose in the first instance to form a working group of all stakeholders to agree scope and procedures (while this is an important initiative, it also could backfire if implemented badly). The FSB with the "super-regulator" aspect of its mandate would be a good owner for this initiative.

4) *The creation of a "wholesale insurance scheme" for the financial sector*
This would in effect replicate the proven success of retail depositor insurance schemes for the institutional market. While we strongly believe such a scheme would have tremendous impact in mitigating the next crisis and making the "moral hazard" debate less poisonous, we leave the details for further discussion – in particular whether it should take the form of the proposal on Special Drawing Rights by the IMF, or the proposal to raise levies for this purpose on the industry (a variation on the recent "Obama tax"), a pooling of existing Central Bank reserves, or a combination of these and other measures. Of particular relevance will be the determination of the right agency to manage the insurance funds. While a supranational entity would be conceptually optimal, the body must be chosen with care and sensitivity to representation and governance if the proposal is to be workable. Consideration must also be paid to where the funds can be invested without further market distortion while providing acceptable yields.

5) *In the short term, the creation of a framework to monitor credit extension at a national level*
In this spirit, we support the considerations put forward by Lord Turner of the UK FSA to date, and watch with interest his announced refinements to come. This is less far-reaching than the other proposed initiatives. However, in our view it provides an important immediate step to combat the localized asset bubbles that already seem prevalent in the wake of stimulus efforts, which if left unchecked could prove systemically destabilizing as governments start to tighten monetary policy.

6) *Also in the short term, a new direction for the discussion on rebalancing the global economy*
Much emphasis should be put on collaboration and coordination between the world's largest economies. The US needs to better understand and support Chinese efforts to restructure and reorient China's economic growth, especially boosting its domestic consumption and imports. China, in turn, can commit more clearly to holding its tremendous currency reserves in US sovereign bonds. The RMB exchange rate discussion needs to be depoliticized. The exchange rate issue can be resolved effectively as a by-product of a mutually beneficial and cooperative diplomatic process.

In sum, many of the needed financial reforms are relatively clear. They include higher capital and liquidity requirements that are linked to economic and credit cycles and the size of institutions. Proposals that focus on contingent capital (bonds convertible into equity in times of stress) are particularly important. Resolution arrangements that provide for the orderly wind-down of financial institutions (both banks and non-banks) are critical in times of crisis. However, the most important reforms will recognize the global interconnectedness of financial groups (both sizeable and not), which were over-leveraged and exposed to risks that no one really understood. At the height of the crisis, there was a clarion call around the world for common standards to help solve the issues of collateral damage, opacity, forum shopping and regulatory arbitrage. But this drive for harmonization has been undercut by provincial politics, resulting in more fragmentation and lost commonality. Our hope is that such one-sidedness will be put in its proper context and that mutually beneficial solutions will be sought through a multistakeholder approach.

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GLOBAL REDESIGN INITIATIVE

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Global Agenda Council on Global Investment Flows[1]

Global Watchdog for Systemic Financial Risk and Imbalances

Context

One of the earliest calls in the recent crisis was for a "global financial watchdog" that could monitor aggregate risk to prevent a repeat of a similar crisis. For such a proposal to work, the following would be required:
1) Appropriate data collection and analysis
2) A clear line of accountability
3) An authoritative voice that is allowed to "sound alarm bells" even when unpalatable to policy-makers

Since then, the Financial Stability Board (FSB) and the International Monetary Fund (IMF) have been mandated to assume some of that role and issued a split of duties in 2008[2] – but other organizations (e.g., the World Bank, the Bank for International Settlements) also have a seat at the table, raising issues of accountability. In addition, even within one organization several programmes along these lines exist.[3] Some of the organizations involved also have history that will make legitimacy, particularly in emerging markets, difficult for them (such as the IMF, unless significant changes in governance take place).

Proposals have been formed to address the practicalities of systemic data collection.[4] The Council on Global Investment Flows notes that there is good debate on which indicators for systemic risk should be relevant going forward, and that many of the existing indicators are of a macroeconomic nature that is of limited use to spot a crisis emanating in a subset of the private sector (e.g., indicators will be smoothed by aggregating across industry sectors). Less has been said about which analyses would be done from the data.

We also note that historic efforts of this kind took a very long time to even reach pilot stage, let alone get meaningful traction. The IMF exercise on Financial Soundness Indicators was ratified in June 2001, piloted in 2005, with the first results available in 2007. Since then, it does not seem to have stepped up in urgency, at least judging by participating countries' submission patterns (c.f. Figure 1 and Table 1 in the Appendix). This is not surprising, given the IMF's statement that it would dedicate five statistical staff to the global effort. If such efforts are to succeed in the future, they need much shorter time frames in both implementation and reporting.

Very little to date has been said about how "alarm bells" could be sounded (and thereby corrective action in the markets stimulated) in a credible fashion. Early on, it looked like this could be done through the G20, but lately it has become clear that this forum will be too political (judged from the debate around recent bank compensation).

Therefore, the Global Agenda Council on Global Investment Flows proposes:
Replacing today's fragmented efforts with an institutional framework that can warn of financial instability (globally or locally) in a meaningful way, beyond ideological or political influences, with the intellectual and moral authority to counterbalance the voices of "this time is different" that will undoubtedly be present in the run-up to the next crisis.

The scope of this goes beyond our Council (which would be more narrowly focused on issues of investment flows and related imbalances), but we feel that solving the bigger problem is the way to address our smaller issue. It also aligns with the similar thinking of the Global Agenda Council on Systemic Financial Risk.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] http://www.financialstabilityboard.org/publications/r_081113.pdf.

[3] In the case of the IMF, for example, the FSAP (Financial Stability Assessment Programme), the FSI CCE (Financial Soundness Indicator Coordinated Compilation Exercise), the SDDS (Special Data Dissemination Standard, which does not yet include the FSI although it might in the future).

[4] See, for example: http://www.financialstabilityboard.org/publications/r_091107e.pdf and http://www.imf.org/external/np/sta/fsi/eng/fsi.htm.

Proposal

In keeping with the argument in the previous section, we split our proposal into three sections:
1) What should be monitored?
2) What is the best "transmission mechanism" for the results of the monitoring (including the "sounding of alarm bells")?
3) What is the right organizational and governance set-up to facilitate such a "transmission mechanism" (and how would existing bodies fit)?

What should be monitored?
As with any ultimately data-driven exercise, "getting the questions right" is key – data collection for its own sake (or to satisfy economists' appetite) will not get traction in the real world. In collecting the relevant data, we propose to leverage existing efforts, but we also point out that a lot of market-based data is available through market data aggregators (e.g., Bloomberg, Reuters, Dealogic, IHS, etc.) – which should be a crucial component in any effort to measure stability.

"Getting the questions right" should be the subject of further debate, and cannot be solved by the Council alone – we propose that a working group be formed under the chairmanship of the FSB, consisting of representatives of the IMF, World Bank, BIS, national regulators, "systemic" private-sector financial institutions and market data aggregators.

Here, we propose three criteria for indicators:
1) Trivially, they should have relevance for financial stability (locally or globally)
2) They should be easily understood by an interested public (as opposed to only by monetary experts)
3) The collection of their underlying data should not be excessively costly or onerous (ideally leveraging off already existing collection mechanisms)

In looking at the indicators, the watchdog should be particularly attentive to incentives (e.g., around currency, interest rates) that might be set up for short-term political goals but encourage longer-term systemic imbalances and instability, particularly where they attract large "hot money" inflows.

The indicators are likely to need tweaking/adjusting over time, to avoid their effectiveness being thwarted by Goodhart's law (i.e., "gaming" by the monitored players). A monitoring of changes in incentive systems can help with this. To do the task justice, a mixture of quantitative and qualitative indicators will be necessary.

An initial high-level framework could be envisaged along the following dimensions, reported globally, regionally and locally:

Indicator Category	Rationale
Leverage	Key ingredient in most financial crises
Liquidity	Expression of viability of systemic nodes
Significant changes in transaction volumes or capital flows	Potentially linked to "mutations" of financial products and crowded trading strategies
Balance of payments	Imbalances are often precursors for inflationary episodes or other local financial crises
Connectedness of counterparties	Measure of potential for contagion – with particular focus on, but not confined to, intermediaries and market-makers
Concentration of exposures (FX or other asset classes)	Monitoring the knock-on effects from price or valuation volatility

We note that the last two categories in particular, while compelling, will be very hard to monitor in practice. We would expect much of the working group's debate to centre around this.

Credit extension (leverage) is a key component to stability. After the recent crisis we expect this not only to be monitored much more than previously but also to be regulated more aggressively at a national level. We note with interest comments from Lord Turner, the Chairman of the UK's Financial Services Authority (FSA), on the topic at the World Economic Forum's Annual Meeting in Davos-Klosters.[5]

What is the best "transmission mechanism"?
The monitoring of these indicators should be conducted on an ongoing basis by a dedicated team, at least quarterly – crises and imbalances can build up in weeks and months, not years. Ongoing tracking of the indicators should be possible for the public (at the proposed level, they would not compromise commercial or national confidentiality). The team should publish a quarterly statement about the global state of financial stability – similar to the IMF's Global Financial Stability Report, but less detailed and more accessible.

When an indicator shows a problem, a task force should be established to investigate it more closely – if concerning a national economy, in collaboration with, but not under the supervision of, the nation concerned. The task force would be expected to make suggestions within one quarter on how to remedy the problem (implementation might of course take longer). The task force's report should be made public, with the possibility of dissenting views (Federal Open Market Committee minutes in the US might be a good model). The report would then be considered at the next meeting of the G20 and, if concerning a national economy, its representatives would be asked to explain which action they are taking (or not) and why. A good blueprint for this is the "open letter" the Governor of the Bank of England must send to the Chancellor when inflation targets are breached.[6]

We note explicitly that this process would not only apply to state-level economic imbalances and public policy, but very pertinently also to private sector developments (e.g., around new financial products, or growth in a certain part of the banking sector that has systemic implications). This is crucial, as the task force needs to be neutral not only towards national interests, but also between the public and the private sector – plus most financial crises have a significant private sector component to them. As for who should reply to the "open letter" on behalf of the private sector, the working group should refine this further – but as a start, trade associations such as the Institute of International Finance (or at a national level, for example, the British Bankers' Association) would be well positioned. Even more credible would be a joint response from industry and regulators, although this might not be immediately achievable.

We feel that only a transparent public debate about indicators that are widely understood has the potential to "ring alarm bells" effectively, driving a market response, without the message being hijacked by groups pressing for their own agenda.

What is the right organizational and governance set-up?
Firstly, the institution "ringing alarm bells" must be seen to be without an agenda of its own – we propose that, of the existing institutions, the FSB fits this requirement best. The team monitoring financial stability should therefore report to the FSB (while of course leveraging input from all the other institutions working on financial stability such as the IMF, World Bank, BIS, etc.). We leave open for debate whether an independent body should be formed by the private sector to help the FSB with this mandate.

Secondly, if necessary, the public debate needs to be enforced by a strong supranational body. The G20 fits this requirement best. In economic terms, it accounts for over 85% of world GDP and 40% of world merchandise trade, and encompasses nearly all systemically relevant economies. However, the G20 as a collection of political representatives can only be an enforcing body – the separation of duties with the body doing the analysis is very important to give markets an intellectually uncompromised signal.

[5] See http://www.ft.com/cms/s/0/d2bf7a9c-0b4c-11df-9109-00144feabdc0.html.
[6] See http://www.bankofengland.co.uk/publications/news/2007/044.htm for an example.

We would envisage the G20 signing up to a code of conduct at their next meeting that commits each member country to an "open letter" framework should the FSB note a systemic issue in its financial system. Leading by example, the G20 leaders would then try to forge a similar consensus in their regional political organizations (e.g., China, India, Indonesia, Japan and South Korea for ASEAN).

We believe that a market response to that open debate (via effectively having "speculators" act on the signals) will achieve most of the benefit. The point remains open on whether the G20 might wish to have a more stringent backup mechanism (e.g., sanctions) should this not be sufficient and the flagged economy ignores the "open letter" – but our feeling is that this would do more harm than good and probably would never be enacted in practice.

The foundations for our proposal are already set in the mandate/charter of the FSB.[7] In particular, Article 2 includes the overall remit, and the Standing Committee on the Assessment of Vulnerabilities would ideally be placed to pursue the process we suggest (although its resources likely need strengthening). Politically, the Chair of the FSB should carry enough independence to be heard in light of the G20 mandate. The commitment to peer review (noting the IMF Financial Stability Assessment Programme process, but also other means) is also already enshrined in the FSB charter, and therefore applicable to its member countries.

We acknowledge that the FSB does not carry perfect legitimacy, nor does the G20 – but their role in dealing with the recent crisis positions them better than others to spearhead this task initially. We suggest that questions of legitimacy and representation – such as creating the Council provided for in the IMF's Articles of Agreement and aligning the membership of the G20 and FSB with it – should be explored further by the working group in the roll-out phase of this proposal.[8]

Rationale

What should be monitored?
Our proposal operates at a higher level of abstraction than existing efforts. As an example, see the list of Financial Soundness Indicators in Table 2 of the Appendix. The indicators are meaningful from a stability perspective but many are only accessible to expert economists. Similarly, the IMF's Global Financial Stability Report is a 250-page effort – far too involved to have an impact on anyone but the most dedicated and technical reader (which is why it was so easily dismissed when it tried to ring alarm bells going into the most recent crisis).

We think that a suitable set of indicators could be constructed from the data collection exercises that are already ongoing. An example would be liquidity data in the UK, for which there is an initiative by the FSA to aggregate in a near-live fashion from institutions it deems systemically relevant. In addition, market data providers offer a plethora of data that is much easier and more quickly accessible than via an official collection effort. Similarly, recent initiatives on derivatives (e.g., credit default swaps) will result in data repositories that can be leveraged – as can the considerable existing repositories at the BIS, IMF, World Bank, among others.

In proposing a prominent role for market data, we acknowledge that this can be flawed at times and therefore requires oversight by sensible human analysts – we are not proposing a "magic risk formula" that automatically raises a flag driven by a Bloomberg terminal! It argues the case for a dedicated watchdog team, some members of which should have a background in forensic analysis.

In convening the working group, we aim for the broadest possible participation but also clear accountability – hence chairmanship by the FSB (which, among those listed, is the organization with the least problematic legacy and the least bias towards its own agenda). Questions remain on whether the major accountancy firms should be enlisted in the effort also and what other private sector groups should be formed to assist.

[7] http://www.pittsburghsummit.gov/resources/125091.htm and http://www.financialstabilityboard.org/publications/r_090925d.pdf?noframes=1.
[8] See http://www.imf.org/external/np/pp/eng/2009/100309.pdf, paragraph 6, for the IMF's recent position on this issue.

What is the best "transmission mechanism"?
We believe that by sending the right signals and encouraging arbitrageurs to take positions, *irrational imbalances* can be levelled by the markets themselves. Effective signalling can only occur when two conditions are met:

- The indicators are analytically sound yet easy to understand by a broad group of market participants (ideally even down to retail investors) – hence our drive for simple indicators in the previous section
- The signalling occurs by a body with no affiliations or agenda other than intellectual rigour – hence our call for a new governance framework led by the FSB in the next section. (We are in no way against the IMF, which has an ever more important role to play in crisis insurance and which without doubt will be a key contributor to this effort also. However, we feel that both its historic past and its current governance do not make it independent enough from "old-style capitalism" to fulfil this particular signalling role effectively on its own.)

The latter point is particularly important, as there will be voices suggesting that "this time is different" whenever the signalling of an imbalance will occur. Whichever body does the signalling must be seen to be of moral superiority and independence to those who give contrarian signals. (The recent crisis is a good example – all the bodies that warned of unsustainable activity in the US's (and other economies') housing sector were easily "out-signalled" when national governments (for whom they were not seen as sufficiently independent) asserted their own agenda and assured the world that everything was fine.)

We disagree with the point of view that the world is so complex that only a report of several hundred pages can capture all the relevant stability information – most financial crises in the last century had at their heart a relatively simple imbalance or bubble (at least with the benefit of hindsight). While the complexity of the issues needs to be understood and captured, a report for wider distribution must absolutely be synthesized for effective signalling to markets as well as for constructive debate among policy-makers.

We feel it is particularly important that an independent task force engage in reviewing a problem and make suggestions on how to remedy it – the publication of those suggestions first by a national economy risks immediate inflammation if an independent review then says "not good enough". Goodhart's law is a real danger to this – and in our view attempts to "game" the metrics will likely be visible through incentive systems. Incentive systems can also be a consideration in systemic stability, and should not be narrowly understood as linked to compensation.[9]

Increased use of market data is, encouragingly, already on the IMF's radar screen.[10] This will help make the monitoring effort more timely and in synch with markets, and therefore more credible.

We are aware that flagging some of the imbalances (e.g., around currency) mentioned in the section on indicators might not be palatable to the nations at the centre of the issue, as it could remove money flows that in the short term seem attractive. This problem of moral hazard and short-term national protectionism is difficult, and there exists no formal mechanism to combat it. While what we propose cannot technically solve this, no other suggestion that maintains respect for national sovereignty will solve it either. We believe our proposal is still better than the status quo, as it should at least engender public debate (and related proposals for a solution) to a greater extent than currently.

What is the right organizational and governance set-up?
We are aware that by proposing this set-up, we are entering quite a political space. But we feel that not taking a position here would limit the proposal's chances of being credibly debated, as implementation will appear to not have been thought out. Our proposal is a suggestion for debate made only to the best of our (limited) efforts, not a statement of "the truth".

[9] By way of example, preferential incentives for home ownership are considered to have been a contributing factor in the most recent crisis.
[10] See http://www.imf.org/external/np/pp/eng/2009/082809A.pdf, p. 19.

Firstly, the desired attributes for the organization doing the analysis and systemic monitoring are the following:

Attribute	IMF	World Bank	BIS	FSB	Basel Cttee	Academic think tank
Academic rigour and analytical capability	++	++	++	+	+	++
Broad view across all areas of financial stability, not just private sector	++	++	-	++	-	-
Not burdened by legacy experiences, particularly with regard to emerging markets or recent crises	--	--	-	++	-	+
Well connected in the public sector	++	++	++	++	--	+
Well connected in the private sector	+	+	+	+	++	-
Availability of resources to do the work	++	++	++	-	+	+
Reputation for independence, from politics and industry lobby	=	=	+	(new)	-	+

- Balancing all the required attributes, the FSB comes out ahead – with the one shortcoming that it is relatively thinly resourced, currently supported only by a small secretariat at the BIS. This can be addressed to some degree via collaboration (particularly with the IMF), but dedicated extra resource will likely need to be hired.
- Given the "crowdedness" of the space, and the relatively good fit of the FSB across most dimensions, it does not seem sensible to argue for the creation of a new body.

Secondly, the desired attributes for the organization enforcing compliance with public debate are the following:

Attribute	UN	G20	WTO	Regional organizations (e.g. EU)
All economically relevant nations from all regions have a voice	++	+	++	-
Track record of enforcing consensus in times of crisis	-	++	-	+
Not seen as dominated by one or few large powers	-	++	+	+
Powerful image in public opinion	-	++	=	=
Respects opinion and recommendations made by monitoring team	=	+	+	-

- Given that enforcing political compliance is a key mission, creating a dedicated new body is a non-starter. (Note that politicians are willing to cede independence on some economic measures, as witnessed by the rise of independent central banks – but to ask to cede wide-ranging policy powers with clear impact on national economies to a newly created global body would be far too much.)
- The G20 is the clear winner on the attributes considered. It should also work well with the FSB, given that the G20 gave the FSB its mandate in the first instance.

We draw our scepticism of a formal back-up mechanism and sanctions from the observation that, even in very flagrant cases of conduct violation (e.g., human rights, nuclear proliferation), the international community historically struggles with enforcing a robust sanctions regime.

An interesting question is whether G20 members would pursue a unilateral sanctions regime – for example, what would have happened if the UK had violated EU passporting rules for reasons of systemic stability and not accepted branches of Icelandic banks without a ring-fenced local capital base (if it had been transparent at the time that Iceland could not afford a bail-out of its banking sector in case of a run).

Next Steps/Implementation

Aware that this is a very far-reaching proposal that involves the buy-in of many institutions (with relevant views and experiences of their own), the Council on Global Investment Flows emphasizes that any steps suggested here are for discussion only, and might significantly change in dialogue with the institutions ultimately involved. As they stand, our suggestions are part of a thought exercise on how this could credibly be implemented. They are not an attempt at telling the G20/FSB how to do their job!

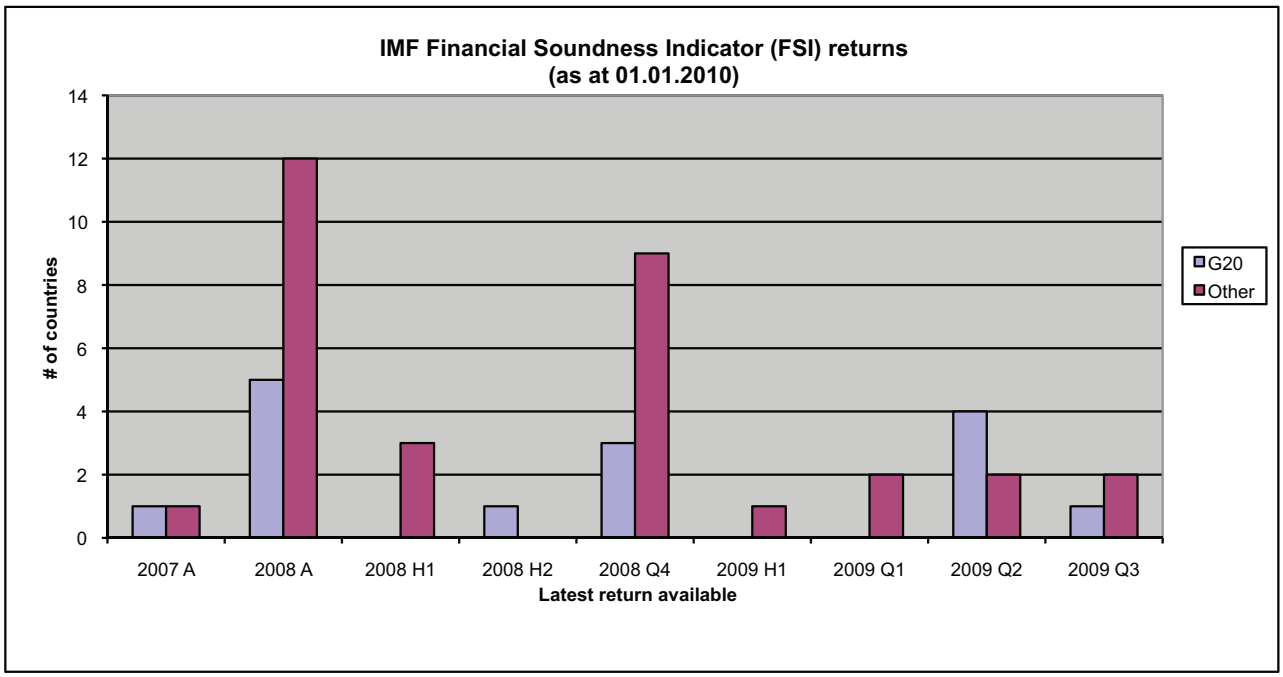
In this spirit, the next steps for implementation would be:

1) Syndicate the proposal with representatives of the G20 and the FSB to gauge appetite
2) If positive, call for the formation of a working group to meet on “getting the questions right”; this would ideally be done in conference/workshop format, and might happen alongside the World Economic Forum Global Redesign Summit in Doha
3) With the recommendations of the working group, develop an action plan for when the first report on systemic stability indicators can be ready – ideally in 2010 – and share with the G20 to get support where necessary
4) For the FSB, start hiring a dedicated team that would set up its systems during 2010 (and conduct back-tests on the proposed indicators to at least partially validate their usefulness and create momentum), and start its reporting and analytical duties in 2011. The back-testing could leverage the work that the IMF has already done for its Financial Soundness Indicators
5) At the next G20 meeting, have member countries sign a code of conduct that commits each of them to an “open letter” framework should the FSB note a systemic issue in a the country’s financial system
6) For G20 leaders, try to forge a similar consensus in their regional political organizations (e.g., China, India, Indonesia, Japan and South Korea for ASEAN)

From 2011 onwards, this framework should then be “business as usual”, with quarterly public reports from the FSB and appropriate discussion/action facilitated by the G20.

Appendices

Figure 1: Latest return data of the IMF Financial Soundness Indicators (47 publicly reporting countries, of which 15 are G20)



Global Agenda Council on Global Investment Flows

Table 1: Return data of IMF Financial Soundness indicators by country

Country	G20	Last FSI return
Armenia, Republic of	Other	2008 A
Australia	G20	2008 Q4
Austria	Other	2008 A
Belgium	Other	2008 H1
Brazil	G20	2009 Q2
Bulgaria	Other	2008 A
Canada	G20	2008 Q4
Chile	Other	2009 Q1
China, P.R.: Hong	Other	2009 Q2
Colombia	Other	2009 H1
Czech Republic	Other	2008 Q4
Denmark	Other	2008 Q4
El Salvador	Other	2009 Q3
Estonia	Other	2008 Q4
France	G20	2008 A
Germany	G20	2009 Q2
Greece	Other	2009 Q2
Hungary	Other	2008 A
India	G20	2008 A
Indonesia	G20	2008 A
Italy	G20	2007 A
Kazakhstan	Other	2008 H1
Korea, Republic of	G20	2009 Q2
Latvia	Other	2008 A

Country	G20	Last FSI return
Lithuania	Other	2008 Q4
Luxembourg	Other	2008 A
Malaysia	Other	2008 Q4
Malta	Other	2008 Q4
Mexico	G20	2008 Q4
Netherlands	Other	2008 A
Norway	Other	2008 Q4
Philippines	Other	2008 H1
Poland	Other	2008 Q4
Portugal	Other	2009 Q1
Romania	Other	2008 A
Russian Federation	G20	2008 A
Singapore	Other	2008 Q4
Slovak Republic	Other	2008 A
Slovenia	Other	2008 A
South Africa	G20	2008 A
Spain	Other	2008 A
Sweden	Other	2007 A
Turkey		2009 Q3
Ukraine	Other	2009 Q3
United Kingdom	G20	2008 H2
United States	G20	2009 Q2
Uruguay	Other	2008 A

Note: “A” denotes annual reporting frequency, “H” biannual, and “Q” quarterly reporting frequency. Reporting lag is encouraged no beyond one period, but the IMF allows for flexibility on this.
G20 countries not publicly reporting FSI are: Argentina, China (mainland), Japan, Saudi Arabia

Table 2: List of IMF Financial Soundness Indicators

Core Set	
Deposit-takers	
Capital adequacy	-Regulatory capital to risk-weighted assets -Regulatory Tier 1 capital to risk-weighted assets -Nonperforming loans net of provisions to capital
Asset quality	-Nonperforming loans to total gross loans -Sectoral distribution of loans to total loans
Earnings and profitability	-Return on assets -Return on equity -Interest margin to gross income -Noninterest expenses to gross income
Liquidity	-Liquid assets to total assets (liquid asset ratio) -Liquid assets to short-term liabilities
Sensitivity to market risk	-Net open position in foreign exchange to capital
Encouraged Set	
Deposit-takers	-Capital to assets -Large exposures to capital -Geographical distribution of loans to total loans -Gross asset position in financial derivatives to capital -Gross liability position in financial derivatives to capital -Trading income to total income -Personnel expenses to noninterest expenses -Spread between reference lending and deposit rates -Spread between highest and lowest interbank rate -Customer deposits to total (noninterbank) loans -Foreign-currency-denominated loans to total loans -Foreign-currency-denominated liabilities to total liabilities -Net open position in equities to capital
Other financial corporations	Assets to total financial system assets -Assets to Gross Domestic Product (GDP)
Nonfinancial corporation sector	-Total debt to equity -Return on equity -Earnings to interest and principal expenses -Net foreign exchange exposure to equity -Number of applications for protection from creditors
Households	-Household debt to GDP -Household debt service and principal payments to income
Market liquidity	-Average bid-ask spread in the securities market -Average daily turnover ratio in the securities market[1]
Real estate markets	-Real estate prices -Residential real estate loans to total loans -Commercial real estate loans to total loans

[1] Or in other markets that are most relevant to bank liquidity, such as foreign exchange markets.

Source: International Monetary Fund, *Financial Soundness Indicators: Experience with the Coordinated Compilation Exercise and Next Steps*, International Monetary Fund, October 18, 2007

Global Agenda Council on Global Investment Flows

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Global Agenda Council on the International Monetary System[1]

Addressing Governance Gaps in the International Monetary System

Context

Any assessment of an International Monetary System must at least include two broad headings: how and how well it provides liquidity to support a growing and interdependent world economy; and how and how well it will facilitate adjustment to emerging imbalances in payments among countries.

The current international monetary system has relied overwhelmingly on the private and official accumulation of national currencies, mainly the US dollar, to satisfy its need for international liquidity. By 2009, official holdings of foreign currencies exceeded US$ 6 trillion. These national holdings of foreign currencies grew significantly over the past decade, provided by earning or borrowing them from the issuing economies through running surpluses in international payments. Foreign exchange reserves were supplemented by the International Monetary Fund which issued claims on itself and its members of a synthetic official asset called Special Drawing Rights (SDR) outstanding amounts of which were US$ 35 billion at the end of 2008, augmented by a further US$ 283 billion during 2009; and by ability in periods of need to borrow at the IMF, outstanding amounts of which were US$ 57 billion at the end of October 2009. Private need for international liquidity – acceptable means of international payments – were satisfied also through earnings and borrowings. While exact amounts are not known and indeed not even well defined, broadly speaking, they probably exceeded official holdings by a factor of six.

This mechanism for providing liquidity has supported a vast increase in foreign trade and other international transactions over recent decades, but its availability and even its viability has been questioned particularly since the financial crisis of 2008, on grounds that too many countries are obliged to run payments surpluses to augment their reserves; that the issuing countries, most notably the United States, have to supply this growing demand; and that switches among reserve currencies could play havoc both with financial markets and with foreign trade. A challenge for the international community is therefore to find ways to improve the provision of international liquidity.

The adjustment mechanism today relies for correction of payments imbalances[2] on appropriate change in the macroeconomic policies of countries, including changes in exchange rates, supplemented by private and official borrowing in private capital markets or from official institutions such as the World Bank. Current arrangements are left to individual countries and characterized by a marked asymmetry, in that countries in deficit (to a lesser extent the United States and perhaps the issuers of other currencies held as official reserves) are under much stronger pressure to adjust than are countries in payments surplus, regardless of the consequences for the world economy as a whole. A second challenge for the world community is therefore to improve the adjustment mechanism to assure lower cost, greater reliability, enhanced symmetry, and consistency with the needs of the world economy.

Proposals

Our Global Agenda Council was enjoined to make concrete suggestions for improvements in the International Monetary System. The international monetary system is complex, with many parts, and we have not taken on all aspects of it, especially with respect to what interpretation these days should be put on the process of international adjustment. Our Council's proposals therefore are partial, addressing only some aspects of the system. But we feel these proposals would represent improvements in current arrangements and would set the stage for further evolution of the monetary system.

(1) Make SDR allocations on a regular basis in amounts sufficient to satisfy the on-going demand for official reserves, say US$ 200 billion per year

In recent years the world has experienced each year a large increase in the holdings of reserves, primarily by emerging market countries. Over the 5-year period end-2003 to end-2008, total reserves minus gold increased from SDR 2123 billion to SDR 4359 billion, a total increase of SDR 2236 billion or an average annual increase of SDR 447 billion. China accounted

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] By "payments balance" we are thinking of something akin to the old official settlements concept for the United States, which for non-reserve-currency countries means a zero reserve change. For reserve currency countries, a deficit is the decline in reserves plus the increase in short-term liabilities to official holders. It is important to understand that we do NOT mean current account balance: net capital movements may be consistent with a sustained equilibrium.

for just over half this increase (at least SDR 225 billion per year), and one assumes that its demand for reserves is now satiated, though there may be other reasons why its reserves will continue to increase in the future. But even excluding China reserve holdings increased by over SDR 200 billion per year. Since the SDR is now valued at more than US$ 1.50, a figure of US$ 200 billion per year as an estimate of the increase in demand for official reserves might be considered conservative. It is nevertheless large enough to recognize the large increase in the demand for reserves over the past 10 years and the fact that the figures formerly in play were too small to address current needs.

If countries demand a given reserve increase and do not obtain it by allocation, then they will either have to earn the reserves on current account or they will have to have a net inflow of capital. However, since the East Asian crisis in 1997 many countries, Asian countries and other emerging market economies in particular, have been reluctant to borrow extensively. This implies that the bulk of any shortfall in reserve supply below reserve demand will ultimately be reflected by an increased current account deficit in passive reserve suppliers, which in practice means primarily the United States. It is largely for this reason that a substantial SDR allocation could be helpful to an adjustment of the US current account deficit. In addition there is a more direct effect, in that illiquid countries can be expected to spend more if their reserves are augmented, and a part of the increased demand would benefit the US current account.

(2) Make permanent the Flexible Credit Line and in addition create a short-term IMF lending facility to lend in appropriate circumstances for up to 6 months (renewable once) to countries that do not qualify for the FCL
The Flexible Credit Line represents a widely-welcomed innovation in IMF lending, in that it permits the Fund to supply members with strong economic policies with substantial funds to counter any speculative attack on their currencies caused, for example, by contagion. It thus permits the Fund to help members whose external financial positions are vulnerable *despite* their policies as well as its traditional clients, those whose positions are weak *because* of their own policies. For this reason we welcome the advent of the Flexible Credit line, and we would like to see it made permanent. But the creation of the FCL does nothing for the Fund's other members, and we believe it to be important also to be able to help them to weather any future crises. A short-term lending facility with low conditionality which they could use as a bridge to obtaining traditional IMF assistance would be a useful step.

(3) Change the IMF's Articles of Agreement to permit temporary SDR creation in periods of financial emergency, when proposed by the Managing Director and approved (if necessary by teleconference) by the International Monetary and Finance Committee
There are two elements to this proposal. The first is to allow the Fund to finance itself by SDR creation in periods of financial emergency, instead of the clumsy procedure that is at present in use (involving borrowing from its members under the General and New Arrangements to Borrow). This would enable the Fund to make loans as large as it felt was expedient in view of the situation without any fear of illiquidity. The second is procedural. A major step like this should only be taken after due process, but it should also be potentially rapid in view of the danger of a crisis exploding unexpectedly. A proposal of the Fund's Managing Director requiring approval by a ministerial-level Committee of the whole Fund would ensure widespread agreement that the step was only taken when seen to be necessary.

(4) Implement as soon as possible a re-alignment of IMF quotas and voting rights as agreed by the G20 – at least an additional five percentage points (beyond the 2% already agreed) to go to under-represented countries
The case for shifting IMF quotas and voting rights, largely from Europe to newly-ascendant Asian countries, has been extensively argued, and now that it has been accepted by the G20 it should be implemented promptly.

(5) Implement the G20 agreement on the selection of heads of the international financial institutions without regard to nationality
The G20 agreed that the selection procedure should be "open, transparent and merit-based". It implied but did not state explicitly that existing nationality conditions for the heads of these institutions should be dropped, which they should be.

(6) Take seriously the Mutual Assessment Programme agreed by the G20 for assessing the impact on the world

economy of projected policies of the G20 economies
The world needs effective multilateral surveillance to cover all aspects of economic policies, including the inherently international decision of choosing an exchange-rate policy. It is not clear whether it will get it through the mechanism created by the G20, but there is at least a reasonable chance that countries that have agreed to their own programme for multilateral surveillance will take it more seriously than if they regard it as imposed on them by the Fund.

(7) Encourage discussion about regional monetary arrangements provided they are consistent with global arrangements
We sympathize with such proposals as those for closer monetary cooperation in Asia, but we also believe there to be a strong case for making monetary arrangement s global. We therefore believe it would be a deception to give an impression that any and all regional arrangements should be regarded as progress.

Global Agenda Council on the International Monetary System

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Global Agenda Council on Systemic Financial Risk[1]

Controlling Systemic Risk in a Global Economy

Context

The financial crisis and the world recession that it has engendered have been met by exceptional measures from governments and central banks both to shore up the banking system and to stabilize the economy. Alongside that, the G20 has agreed on a substantial programme of longer-term regulatory reform. This is generally "more of the same", building on existing regulatory regimes (including Basel II) but requiring bigger capital and liquidity buffers, more transparency, and more challenging supervision.

The crisis revealed how the financial sectors of the major economies have developed into a complex global network in which a shock in one sub-system or market (excessive sub-prime lending in some US States, for example) can lead rapidly to stress on institutions and markets with few direct links to the origin of the disturbance (e.g. Northern Rock through the impact on wider bank funding markets). Making that network more resilient to shocks requires not just building stronger defences in each institution individually and particularly the key nodes, including the biggest international banks, but also strengthening key market infrastructures creating "fire breaks" which prevent a crisis spreading through the system. It requires also more effective international coordination to limit regulatory arbitrage and to identify and mitigate international vulnerabilities.

The Global Agenda Council on Systemic Financial Risk has focused on potential gaps in the international response. It welcomes the progress made by the G20, the new Financial Stability Board (FSB) and the International Monetary Fund (IMF) and has not sought to second guess or undermine the important policy changes they have agreed. Indeed the decision to use the G20, rather than the G7/8 or G10, itself is a welcome response to the changing balance of the world economy. We particularly welcome the commitments:

- to introduce counter cyclicality in bank capital requirements which will dampen the cycles of exuberance and gloom to which financial markets are prone
- to bring more trading of credit default swaps (CDS) and other derivatives on exchanges and through central counterparties; by reducing bilateral counterparty risk it makes less likely the freezing up of markets at times of stress and uncertainty; it will therefore make the network of wholesale financial markets more resilient
- to agree international contingency plans (based on "living wills") to enable the orderly break up and wind down of big and complex international groups facing failure; if credible plans are known to be in place, that will both strengthen market disciplines on these key institutions and make it less likely that stress in one institution will lead to a contagious loss of confidence; making such plans credible and practical is likely to require simplification of the legal structure of these groups

Proposals

The Global Agenda Council on Systemic Financial Risk believes there remain three key gaps in the G20 proposals and suggests ways to address these gaps:

- **Global macro-economic policy:** excessive imbalances were allowed to develop both within and between economies and were a major source of instability in the world's financial system. While macro-prudential policy has a part to play in dampening the cycle, monetary policy also needs to give greater weight to preventing the build-up of asset bubbles. In addition, the G20 should build on their Pittsburgh communiqué to develop a stronger policy framework and process to discourage the build-up of unsustainable imbalances between economies.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

- **Regulatory policy:** the Council is concerned by signs that international consensus is fraying with both the US and EU announcing unilateral initiatives; the Council is concerned that this should not lead to a loss of momentum in implementing the agreed programme of reforms on a coordinated basis; it welcomes the recognition by the FSB that making the global financial system more resilient requires not just strengthening the resilience of individual institutions but building protections in the network to limit contagion from failure in one market or firm; in particular, it encourages the FSB to promote higher transparency in market positions, a greater use of exchanges with central counterparties in place of over the counter (OTC) markets, and the development of fuller measures of risk than the value at risk (VaR)-based measures which have been so prominent in the past.

- **Regulatory institutions:** the crisis revealed flaws in the current system of relying on voluntary coordination of national authorities to regulate an increasingly international industry; Iceland, Fortis, and the closure of Lehman Brothers in different ways showed home authorities giving inadequate weight to the spillovers of decisions on other countries; if the advantages of competitive and open international markets are to be retained, we need to agree on a global basis to assess emerging global risks, agree common policies, and implement them to common standards. While the strengthening of the FSB's and IMF's roles is a major step forward, better coordination of policy and peer review on a voluntary basis is unlikely to be enough.

Explanation/Rationale

Global Imbalances

The Council agreed that the financial crisis of 2007-09 had its roots not just in inadequate management and regulation of the financial sectors in (much of) the West but also in macroeconomic conditions. In particular, the rapid growth of credit which underlay the property boom in the US and elsewhere was supported by a long period of low interest rates and that in turn reflected the global pattern of growth in a number of ways:

- The Federal Reserve Bank and some other Central Banks were encouraged to keep interest rates low by low consumer good inflation which reflected cheap imports especially from Asia and by signs of spare capacity in their own labour markets.
- They were able to do that despite growing current account deficits because continuing capital inflows from the reserves of surplus countries; the inflows also encouraged domestic investors to switch from government bonds into other assets with higher yields.
- These developments led to a fall in the dollar against Asian and Middle Eastern currencies, which exerted some upward pressure on inflation and interest rates in the US, but this pressure was limited by the policy within China and several other surplus countries of pegging their exchange rates against the dollar, and their willingness to build up their foreign exchange reserves without limit.

The Council debated how significant the constraints on exchange rate movements had been. While all agreed it was one factor and that some further appreciation of the RMB would be appropriate, it was strongly argued that it should not be exaggerated. Leaving aside the policy and regulatory failures in the West, it was argued that the current account surpluses in China reflected a number of structural factors in their domestic economy which led to an imbalance between savings and investment. In particular, policies which held down factor prices – for energy, labour and raw materials – contributed to increase corporate savings and to hold down consumption. We should encourage the Chinese government to pursue structural reforms to correct market distortions and transfer savings from the corporate sector to households, perhaps indirectly through the government in the form of higher spending on education, health, and social welfare.

Members of the Council also debated the direction of causality: namely, were the internal imbalances that built up in the US a cause of the external imbalances or were they the consequence of the external imbalances which reflected "mercantilist" policies leading to excessive savings in the surplus countries? A number of people concluded that the imbalances reflected decisions on both sides.

Given the constraints on market adjustments, it was argued that the US authorities should have decided to run a tighter

policy than they did anyway to dampen the growth in borrowing. With hindsight, the simple "Taylor rule" approach to monetary policy which links it to consumer inflation and the level of spare capacity in the domestic economy gave insufficient weight to the growth of money, credit and asset prices. If interest rates had been higher, growth of US demand would have been lower. Exports and economic growth would have been slower too in Asia and the rest of the world. Unemployment in both East and West would have been higher and inflation even lower than it was.

One must not blame the surplus countries for the excesses of Western banking to ask whether that response, which might have prevented the worst of the asset boom in the West, would have produced the best outcome for the world economy. For example, in a less buoyant world economy, the transfer of manufacturing from West to East might have been less acceptable in the West and the risks of increasing barriers to trade would have been higher. Could a better coordination of policies have led to a better outcome for all?

Next Steps

Looking forward, the case for better coordination seems strong. It is easy to forget how extraordinary are the fiscal and monetary measures that have been taken to prevent the financial crisis leading to a true depression. If anyone had suggested in June 2007, that within two years the fiscal deficit in the UK would rise to 12% of GDP and would be covered by the Bank of England printing money they would have been ridiculed. Higher household saving has been compensated for by huge fiscal deficits in the US and in many countries in Europe, which are testing market confidence. In China the monetary loosening is leading to growing worries about asset prices. The Council was concerned by the growth of protectionist pressures in the US, Europe and elsewhere in the face of high unemployment. A controlled normalization of policy looks very difficult in any one economy. Do we also need better coordination between economies in order to succeed? The potential risk is that without it we will see either 1) a return to the trade imbalances of 2005-06 followed by renewed instability, or 2) a substantial rise in unemployment in both the West and East as overall growth is held down by modest growth in US demand.

In sum (a majority of) the Council concluded that

- The experience of the last two years has important lessons for macroeconomic policy as well as regulation.

- In each currency area, monetary policy needs to be related not just to levels of activity and consumer prices, but to the control of imbalances between sectors, the growth of credit, and asset price bubbles. This will require the use of macro prudential instruments and fiscal policy as well as interest rates. The crisis has demonstrated the powerful impacts of policies in one nation on others. The current debate about the risk that very low interest rates in the West may lead to destabilizing capital flows elsewhere illustrates the point again. This is a wake-up call to strengthen the world's economic governance framework.

- The Council recommends two specific actions to address global macroeconomic imbalances:
  1. The G20 should build on the Pittsburgh communiqué to establish a more effective framework and process to restrain global imbalances based on global annual reports on systemic imbalances on the basis of independent and candid assessments which highlight high ('red') and emerging ("yellow") issues.

  2. In each currency area, monetary policies as well as fiscal and macro-prudential policies should be used to preserve financial stability and prevent the emergence of dangerous asset price bubbles.

Regulatory Policies

There was broad support for the G20/FSB programme for more exacting minimum regulatory requirements for banks and other systemic financial institutions. There was, however, growing concern about recent unilateral policy announcements and the risk that the unity and determination needed to implement effective measures to reduce systemic risks on a coordinated basis was weakening.

- The Council welcomes the work of the FSB to strengthen measures that might limit damage to the wider global economy.

- The Council recommends that the FSB focus on the following three actions:
  1. Greater transparency and market discipline should be re-established over large and complex financial institutions including through the preparation on an international basis of effective resolution and recovery plan.
  2. Systemic risk at the national and global levels need to be better measured and quantified, and the FSB should promote the development of improved systemic risk assessment tools at institution, national, and global levels going beyond the VaR "value at risk" measures which have been so prominent in recent years.
  3. More effective network protections to limit contagion are required that build on recent proposals such as centralized counter-parties for derivative trading.

Members of the Council did not reach firm conclusions on the case for a new Glass Steagall division between investment and commercial banking or other structural changes (now refined in the US into the Volcker Amendment). Most Members felt that a crisis that had required the rescue of pure investment banks, insurance companies and pure commercial banks had shown that such measures were unlikely to limit the "too-big-to-fail" problem to commercial banking. It has also underscored the limits of the prevailing institutional approach to regulation. A better approach could be to focus more prominently on activities in all financial institutions that could potentially lead to systemic risk. Many doubted that it would be possible to draw a clear line between speculative/proprietary trading and market making and legitimate hedging of banking and trading exposures. It was noted too that higher capital requirements on banks' trading books might lead to the transfer of more trading outside the banking sector.

Regulatory Institutions
Finally, we discussed the case for stronger measures to ensure coordination of regulation between the major countries.

On one side there was concern that full harmonization of regulation internationally was undesirable and might perversely increase the international financial system's vulnerability to failure. In particular:
- The right requirements cannot be established with any certainty and are likely to become outdated quickly even if optimal at a point in time; locking the whole world into sub-optimal regulation will have a substantial cost.
- Pressure to produce and sustain international consensus will promote groupthink and risks collective myopia (as revealed in regulatory and market blindness over the risks in securitised credit markets).
- There is a risk that forcing convergence in business models in different economies will make the global financial system more vulnerable because all will be affected by shocks in the same way and so amplifying market moves.
- Regulatory divergence and competition need not lead to a race to the bottom; regulation can bring benefits to the regulated and the extent of regulatory arbitrage can be exaggerated.

On the other side, some Council Members felt:
- The diversity in financial systems, which was a defence against systemic risk, did not require diversity in regulatory standards and regimes. HSBC and Santander for example have very different business models to both national commercial banks and the big investment/universal banks. They have weathered the crisis better than most.
- Experience in recent decades had shown substantial regulatory arbitrage; for some countries tax and regulatory concessions were an important strategy to build up financial sectors and even among the biggest countries fears of loss of business to other countries had been a major consideration in their approach in negotiation and implementation even of agreed standards.
- Experience in the EU had shown that a single international market required a foundation in common rules and standards; the EU's response to this crisis was to strengthen not only the standards but their enforcement throughout the Union and to take measures to prevent "free riders" like Iceland, which had signed up to the directives and claimed the passports for their banks to do business throughout the EU but had not actually implemented the agreed standards or contingency arrangements.
- The recent experience has shown that requirements for banks had been too low and insufficiently counter cyclical; the priority was to put that right and in practice that required international agreement to reassure each country that it would not be disadvantaging its own industry.
- The crisis has revealed the significance of externalities which would not be reflected in market behaviour (e.g. trading OTC rather than through CCPs).

A majority of the Council concluded that:
- The crisis revealed flaws in the current system of relying on voluntary coordination of national authorities to regulate an

increasingly international industry. If the advantages of competitive and open international markets are to be retained, we need on a global basis to assess emerging risks, agree on common policies, and implement them to common standards based on sound principles. In the absence of wide confidence that such a level playing field is in place, there is a risk of arbitrage undermining the tightening of requirements and of individual countries then imposing barriers to capital movement that protect their own economies. The Council believes that the coordination of policy and assessment on a voluntary basis without authority to require implementation of agreed standards in regional or national regulatory regimes is unlikely to be effective.

- The Council recommends that the G20 work towards a new institutional framework with greater authority over individual members, drawing on experience and current proposals in the EU and experience with the World Trade Organization (WTO).

Global Agenda Council on Systemic Financial Risk

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4 Creating Employment, Eradicating Poverty and Improving Social Welfare

Creating Employment, Eradicating Poverty and Improving Social Welfare

By John McArthur, Chief Executive Officer, Millennium Promise, USA, and
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Introduction

The recent global economic crisis has underscored the fact that poverty, employment creation, and inequality of opportunity are challenges faced in all parts of the world. The problems differ widely in nature and severity by economy and society, but these variations do not render the challenges any less significant nor stubborn to the individuals that face them. Nor do they lessen the social strains wherever they are present. Many difficulties are the product of global forces. Many are the result of specific local challenges and particular local choices.

Concurrently, the benefits of globalization are remarkable for those who have the opportunity to enjoy them. But they often bypass the world's poorest countries. They also tend to fall much more generously on skilled workers than unskilled ones, even in the richest countries. The economic interconnectedness among countries implies that employment and poverty-reduction programmes are not isolated national issues. International cooperation is essential.

Importantly, the developing world has experienced tremendous progress over the past decade. The emerging economies of Asia have seen sustained economic gains alongside major improvements in human development, as measured by the Millennium Development Goals (MDGs) and other key international targets. Latin America and the Middle East have seen significant progress, even if more gradual. Sub-Saharan Africa still faces the most trenchant poverty, but it has enjoyed several years of sustained average economic growth, alongside many broader development breakthroughs. Much of this has been underpinned by sound economic management strategies. Much has also been underpinned by innovations in expanding services to previously underserved populations.

This chapter segments basic challenges across two main categories of countries: 1) the advanced and emerging economies that must coordinate their national and international efforts; and 2) the low-income and fragile economies where international decisions on policy and resource allocation have a greater proportionate role on domestic programmes. It aims to identify elements of a global strategy that will advance employment, human development, and social stability in all corners of the global community.

Advanced and Emerging Economies

Problems to Be Addressed

The following deep-seated problems need to be addressed with regard to employment, poverty and welfare in advanced and emerging economies:

- Finding a socially acceptable growth path will involve creating high quality, secure and inclusive jobs in environmentally sustainable sectors. The policy instruments and institutions are not yet in place to foster international cooperation in this domain.

- We do not have sufficient international cooperation to ensure that the world community responds flexibly and efficiently to future demands for skill.

- Employment policies are often not based on best practice and frequently give rise to poverty traps, while unemployment support often gives rise to unemployment traps.

- Migration policies often are not based on balanced appraisals of the host and receiving countries' needs.

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- The international dimension of education reform, geared to the skill requirement of the 21st century, is largely missing.

- Social inclusion is often overlooked in poverty, employment, migration and education policies.

Principles

The actionable proposals in this section are based on a few simple principles.

- Since productive employment – particularly skilled employment – is the main route out of poverty, policy incentives for employment creation and skill acquisition are crucial instruments for poverty eradication.

- The inequality of earnings is commonly generated by the inequality of human capital. Consequently, economic equality can usually be achieved by compressing the distribution of human capital. Failure to accumulate sufficient human capital is a dominant cause of social exclusion. So an effective way of avoiding social fragmentation is to provide equal opportunities of access to education and training.

- Sustainable employment creation cannot be achieved primarily top-down through government employment programmes. Rather, employers and employees need to be incentivized to enter into productive relationships. The same holds for skills: skill acquisition must be driven by incentives that make education and training worthwhile for individuals and businesses. Nor can earnings equalization be reliably enforced through central edict, such as through minimum wage laws or constraints on executive pay. Over the long term, equal access to education and training incentives is the sustainable and effective means towards economic equality. Policies must be designed, both nationally and internationally, with a view to creating such incentives.

- Stable employment growth and poverty reduction will require the development of policies that promote labour adaptability. The reason is that – divergent growth rates among the advanced and emerging countries, advances in information and telecommunications technologies, the geographic decomposition of business value chains, and changes in the global distribution of human capital and purchasing power – a massive global reallocation of labour is in progress. In this changing world, the adaptability of skills is crucial. Employment stability will not be achieved by protecting existing jobs but by giving people the capacity to find the new jobs generated by changing economic and social conditions.

- A stable macroeconomic environment is required for employment growth and poverty reduction. Due to the economic and financial interconnectedness of the world economy, macroeconomic stability will require new efforts in global governance, in particular those that encourage the unwinding of global imbalances, combat protectionism and promote financial stability.

The following concrete proposals aim to put these principles into practice to create employment, mitigate poverty and improve social welfare.

Recommendations

The main Global Redesign Initiative (GRI) recommendations – addressing the above problems and following the above principles – can be grouped under a few key categories.

Acquiring Skills

In our globalized world, in which countries create wealth through trade and capital flows, it is generally undesirable to aim for self-sufficiency in skills. As the new information and telecommunication technologies bring individual businesses and employees into more immediate competition, it becomes increasingly important for economic decision-makers to identify their distinct comparative advantages on an increasingly microeconomic level. Doing so involves gaining information about one's skill requirements, both currently and in the future. The reason it is important to anticipate future skill needs is that it takes time – often many years – for the appropriate skills to be created. Not only is education and training often a lengthy process, but the

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establishment of the appropriate education and training facilities – along with the employment of the appropriate educators and trainers – takes even longer. Promoting skill acquisition is important not only for new entrants to the workforce, but also for older workers whose skills have become inappropriate to the available jobs. The latter issue is particularly salient in countries with ageing populations.

Recommendations by the Global Agenda Council on the Skills Gap:

- Improve access to information on national and industry supply and on demand for skills and trends in the human capital market to allow cross-border analysis
  Such databases should be fed decentrally by employers and employees, and supplemented through centralized forecasts. The results should be publicly available to employers and employees.

- Provide transparent information about all policies related to talent mobility

- Encourage the establishment of skill recognition mechanisms and their coordination in industries and occupations where talent circulation is likely to create win-win solutions between developed and developing countries

- Improve skill recognition and employability by encouraging international recognition and accreditation of teaching institutions, as well as an additional industry certification for academic diplomas

- Initiate a global effort to advance global standards for youth apprenticeship and promote the consideration of apprentice laws in emerging economies

- Promote lifelong learning and reskilling through various age-inclusive measures, including individualized skill accounts and incentives for employers to create jobs that take the needs and abilities of older workers into full account

These recommendations are aimed at helping people adjust to a changing future. In doing so, it is important for policy-makers to remain aware of the interconnections among people's skills: the greater the density of skills in a particular geographic region, the easier it becomes to acquire skills there. Thus policies related to talent mobility must be sensitive to the needs of both the source and destination countries, and agreements need to be forged with a view to sharing the benefits from talent mobility fairly between the sending and receiving locations. International coordination will be required for this purpose, drawing on the relevant international organizations (including the International Labour Organization (ILO), International Organization for Migration (IOM), Organisation for Economic Co-operation and Development (OECD), various UN agencies) for policy coordination, educational institutions for background analysis, business organizations for strategic input, development banks for funding, as well as national policy-makers and regulators.

Advancing International Mobility

Leveraging comparative advantage in a globalized world will require the international mobility of human capital. For this purpose, it is important to improve skill recognition through the international accreditation of teaching institutions, as well as additional industry certification for academic diplomas (rather than independent post-education testing). Such an international initiative will require a dialogue among the relevant international institutions (such as the ILO, IOM, UN Development Programme (UNDP), UNESCO, OECD, regional development banks, World Bank) as well as the active cooperation of national governments.

Recommendations by the Global Agenda Council on Migration:

- The international movement of workers should be made safe, legal and orderly by regulating all intermediaries and controlling recruitment fees.

- Foreign workers should be given the labour and social rights that derive from legal employment.

- Upskilling and skill portability should be promoted by encouraging foreign workers and their employers to document upskilling, so that the workers' skills can be used for occupational advancement.

- Reintegration of foreign workers should be treated as a shared responsibility of source and destination countries, enhanced through pension portability.

Benefits from international mobility should also be balanced between the needs of source and destination countries. For example, advanced economies must take care not to overreach in recruiting highly skilled workers from low-income countries, and should consider compensation packages as a countermeasure. In the course of international cooperation, it is also important to exploit synergies between the mobility of labour and the mobility of business. Specifically, the mobility of labour towards places with job opportunities often depends on the mobility of enterprises towards places with skills, and these two forms of mobility must be encouraged jointly as part of an integrated policy approach, allowing one form to supplement the other.

Promoting Inclusion

Education and training policies should be used as instruments of social inclusion. There are various ways to pursue this goal, as suggested by the Global Agenda Council on Talent & Diversity:

- Global institutions should be encouraged to become models for inclusive diversity by adopting a voluntary code of conduct, which other organizations could choose to adhere to.

- A Global Inclusion Index should be created at the country level, to incentivize countries to enact diversity-friendly policies for employment and education.

- Global institutions should cooperate in establishing a set of standards and best practices for building inclusive working environments and organizational cultures that can serve as a voluntary certification system for aspiring organizations.

- Policies and practices should be promoted to encourage minority and female entrepreneurship.

- Diversity and inclusion should be embedded as a core part of MBA curricula around the world.

Implementing these recommendations will require the involvement of international institutions (such as the OECD, ILO and UNESCO), educational institutions, and the relevant national policy-makers.

Creating Employment

In the advanced industrialized countries, it is desirable to support the unskilled through a combination of employment incentives and unemployment support. The aim should be to secure employment but not jobs.

Recommendations:

- The Global Agenda Council on Employment & Social Protection suggests that the G20 mutual assessment process of sustainable and balanced growth should include the objectives of creating quality jobs and inclusive labour markets.

- Unskilled workers who lose their jobs should be given far-reaching support to re-enter the workforce (such as hiring and retraining subsidies, payroll tax reductions, childcare support, job counselling, as well as adequate income support while unemployed); in return, they must accept the jobs they are offered, even if the new jobs require substantial readjustment. The "flexicurity" approach to employment policy is an example of this combination of job flexibility, unemployment support, and work activation.

Although developing countries clearly cannot afford to provide unemployment support and employment incentives that can be mobilized in advanced economies, these countries have an even greater need to use employment incentives to promote social cohesion. On this account, it is desirable that some aid for

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developing countries be aimed towards promoting employment and training, with aid-recipient countries encouraged to identify skill shortages that are obstacles to development. Furthermore, aid should support job-creating investment in clean energy industries in the developing countries.

Recommendations:
- A priority for development financing should be incentives for the creation of productive work.

- Climate financing and technology-sharing arrangements should be established to support job-creating investment in clean energy industries in developing economies.

Promoting Economic Security

Employment security cannot be established simply through legislation and regulation; rather, it must be supported through the skills and adaptability of the workforce.

Recommendations by the Global Agenda Council on Employment & Social Protection:
- The G20 should explore ways of providing funding for a floor of social protection in developing countries.

- The current measures of economic performance, such as GDP, should be extended to include measures of environmental sustainability, income distribution, and basic social protection.

As noted, employment security depends on a stable macroeconomic environment. The latter requires international macroeconomic policy coordination. Various Global Agenda Council proposals, including from the Council on the International Monetary System, on reforming the international monetary system with a view to reducing global imbalances are relevant here. Further Council proposals from the Council on Systemic Financial Risk on reducing systemic risk – particularly, policies to prevent the build-up of asset bubbles, regulation to promote transparency and limit financial contagion, and the global assessment of risks and policy implementation through strengthened Financial Stability Board (FSB) and International Monetary Fund (IMF) roles – are useful to ensure the stable growth of global demand and thereby the stable growth of global employment.

Since most policy instruments devoted to employment creation and poverty reduction are in the hands of national governments, while many advanced and emerging economies face employment and poverty patterns that are interdependent, the recommendations above need to be pursued on two levels simultaneously: by gathering information and analysis, establishing voluntary rules of conduct, publicizing best practice at the supranational level (through the involvement of the OECD, ILO, UN, World Bank, etc.) and through exchanges with the relevant ministries of national governments.

New Approaches to Partnership in Lower-Income Environments

In all countries, global forces play a major role in affecting trends, while national governments maintain primary responsibility for delivering outcomes. In middle-income countries, governments have greater capacity to tackle the core issues of acquiring skills, promoting inclusion, and promoting economic security, as described above, and issues of foreign aid and global public finance play much less of a role in overall development progress. In low-income countries, governments have minimal resources available and populations typically face much worse consequences when global economic headwinds prevail. In fragile countries, governments and societies are commonly teetering with few coping mechanisms, wavering on the brink of instability or worse.

Importantly, private sector actors are playing a significant and growing role in global development efforts, through many channels. On the side of pure business, the rapid proliferation of information and communications technology (ICT) has contributed enormously in opening new opportunities for service delivery

and income generation. On the side of public-private partnership, many companies have worked closely with global institutions and public procurement bodies to ensure leading technologies like medicine and long-lasting insecticide treated nets are made universally accessible to extremely poor people. Others have helped to design innovative sources of finance, ranging from Advanced Market Commitment for vaccines to voluntary airline taxes in support of global health. And several eminent business leaders have played pivotal roles in mobilizing advocacy and implementation partnership campaigns on key global issues.

The GRI process has emphasized that in the economic environments of middle-income countries and also in the more advanced parts of low-income economies, social entrepreneurship can play a major role in supporting innovation in service delivery, the improved commercialization of local enterprise, environmental protection, and employment creation. In countries ranging from Brazil to Kenya to India and Indonesia, social entrepreneurship models tend to emphasize the development of business skills through a support model made possible by subsidized capital. When social entrepreneurs are successful in helping businesses either launch or expand employment on a profitable basis, they are providing a vital public service.

Most governments do not have a legal category for social enterprises or policies on partnering with them. Most international agencies lack systems for approaching social entrepreneurs, learning from them, and helping to scale their success. Many social entrepreneurs face tax disadvantages, have difficulty raising capital, and face challenges to cooperating in partnership with governments. To expand social entrepreneurship's models and benefits, the Global Agenda Council on Social Entrepreneurship has two overarching recommendations:

- The 150 members of the Schwab Foundation for Social Entrepreneurship should launch a self-organized Global Alliance of Social Entrepreneurs that can together catalyse breakthroughs for social entrepreneurship.

- Within 24 months, a Consultative Group for Research to Advance Social Entrepreneurship (CGRASE) should be launched. The proposal is modelled on the very successful Consultative Group to Assist the Poor (CGAP), which is housed at the World Bank and has played a major role in advancing microfinance globally. The CGRASE would conduct research, develop proposals and promote policies to maximize the societal benefits of social entrepreneurship, including tax incentives, legal frameworks, and financial structures. It deserves important consideration by governments and interested private foundations over the course of 2010 and 2011.

Individual members of the Global Agenda Council on Social Entrepreneurship have also recommended a series of specific initiatives, most informed by the successes of their own organizations. These include:

- Launch a scaled funding mechanism for philanthropists and donor capital to provide time-bound "smart" subsidies for introducing new technologies to poor people, especially rural poor

- Launch a Global Social Business Fund to End Hunger, with an initial allocation of US$ 2 billion over three years, to support businesses that recycle all profits towards the goal of expanding services to address social needs

- Develop tax incentives to promote social investments and their impact for sub-median income and wealth groups in all countries, building on the Community Investment Act in the US or the incentives for sustainable investments in the Netherlands

- Create an international social stock exchange anchored in a charter to benefit populations below median income levels

- Launch a High-impact Entrepreneurship Index to map out entrepreneurial activity by organizations around the world

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- Launch a Global Innovation Portal that can highlight success stories, profile innovative entrepreneurs, outline best practices for funders, and host a pipeline of business opportunities for impact investors and philanthropists

- Launch a global network of national business plan competitions to identify an ongoing pipeline of rural entrepreneurs

- Establish a concessionary framework for corporations to license their intellectual property for unmet social needs, in line with the Young Global Leader (YGL) Task Force recommendation to open intellectual property access for development

- Create the Community of Practice to promote the equitable distribution of land rights to women and men, with programmatic pillars including an e-library of laws and materials plus systematic professional training programmes

These individual recommendations are all worthy of serious review, and several could be merged into a common agenda, including the Global Innovation Portal, the High-Impact Entrepreneurship Index, and the global network of business plan competitions. The emphasis on innovation could also link to the work of the Global Agenda Council on Philanthropy & Social Investing, which recommends that the World Economic Forum launch a Social Competitiveness Index that ranks countries based on their ability to create new models and technologies, to test and refine models based on evidence of impact, and to take proven models to scale.

The Millennium Development Goals: A Unique Priority

One of the areas of greatest international progress over the past decade has been the establishment of a common global agenda for supporting the poorest of the poor through the MDGs. This new era of conceptual coherence has bolstered many critical development breakthroughs, especially in global health. Common success factors include: 1) focused policy advocacy on the implementation of known technologies; 2) national implementation strategies, crafted by developing countries themselves and submitted to global funding bodies with multistakeholder governance; 3) independent international technical review and support for those national strategies; 4) strong emphasis on performance metrics; 5) adequate pools of public finance.

The chain of causality from the first to the fifth factors is noteworthy, since it has been the highly targeted partnership efforts – focused concurrently on advocacy, fundraising and system design – that have led to the most significant scale-up of financial resources, global delivery mechanisms, and development results. Such campaigns have dramatically altered the global health landscape, as measured in practical terms like immunizations, antiretroviral therapy, and malaria control. The same lessons show early signs of taking hold for global programmes promoting smallholder agricultural inputs.

The Gaps

Nonetheless, the international development system's support to low-income countries still faces several major gaps. Most notably, the MDGs will pose one of the most fundamental tests for the GRI and the international community over the next five years. Since there are enough lessons of success alongside basic achievement gaps, the key question is whether the world can organize itself over the coming five years to carry the momentum from the success stories forward to address the gaps, some of which include:

- Most international development institutions and processes remain inadequately goal-based, despite common rhetorical support for the MDGs. The 2005 Paris Declaration on Aid Effectiveness and 2008 Accra Agenda for Action have started to improve coordination, but much more is needed to link systems properly to development goals.

- Several critical global development priorities have been overlooked on a generational basis, including agriculture, water and economic infrastructure.

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- Global public financing commitments remain significantly short of the amount required to achieve the MDGs and other agreed development targets. High profile public finance pledges, such as the G8's Gleneagles promises for 2010, have in practice been ignored by multiple G8 economies.

- Official development assistance under-leverages private market instruments that can increase the amount, predictability and flow of resources, while decreasing the cost.

- There are no systematic international mechanisms for identifying service delivery innovations and scaling them up through public finance.

- The MDGs remain inadequately understood as being most crucial for women and girls, since they typically face the greatest burdens of extreme poverty, hunger and disease.

- Success stories are poorly understood by the general publics whose support is needed to underpin ongoing resource mobilization and to continue global development momentum.

These global system challenges face a double burden in tackling the problems of fragile states, where ground-level environments are most precarious and the world has limited information on what approaches work best. The tragic recent earthquake in Haiti has vividly illustrated the enormous costs of natural disasters in impoverished environments. The relief and recovery effort in turn underscored the challenge of coordinating and delivering international support to a dramatically weakened government that was already struggling to deliver basic services. The complex political history in and around Haiti has also exemplified the need for a flexible approach to supporting the grounding of basic governance systems.

Situations of violent conflict present some of the most difficult challenges. Evidence on the causes of conflict remains fragmented, although the poorest communities under the greatest climate stress face tremendous risks. The sequencing of how best to support progress in fragile environments remains still less concise beyond basic notions of security and economic stability as preconditions. Financial management presents major difficulties, since typically domestic accountability systems are weak and unresponsive to local needs, while international disbursement systems are slow-moving and risk averse, leading to major delays where fast action is needed. Low expectations can be self-reinforcing among key stakeholders, perpetuating the state of fragility.

Moving Forward

As a first principle, sustained progress in the poorest countries requires *both* economic growth and public service scale-up. Reductions in income poverty, for example, can only be achieved through broad-based economic growth that promotes private entrepreneurship and reaches rural and urban households at full scale. Successful service delivery meanwhile requires adequate public finance to ensure equitable access among even the poorest households, regardless of whether services are themselves delivered through government or non-government channels.

Progress also requires a new notion of partnership spanning government, business, science, philanthropy, and general publics. Leadership must be encouraged from each sector to join coalitions where their efforts can make key contributions. Advances in online social networking and mobile telephony can now connect global communities of interest, financial resources, and monitoring systems on a real-time basis. The international malaria campaign has seen a vivid demonstration of this dynamic in recent years as global business leaders have coordinated closely with African political and technical leaders, donor governments, multilateral institutions, leading scientific communities, major media outlets, high-profile celebrities, and enormous online communities to reach specific programme targets.

A recent YGL initiative underscored the new spirit of partnership by emphasizing the opportunities for non-traditional MDG leadership and action. Although government actions remain crucial, the entrepreneurialism, enthusiasm and engagement of broader constituencies are necessary for the MDGs to be achieved. At the

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World Economic Forum Annual Meeting 2010 in Davos-Klosters, the YGLs launched a new strategy in which individuals and organizations can identify and pledge practical efforts that tap into their professional or personal networks to advance the frontiers of MDG implementation, awareness, and resource mobilization. This "People's Plan of Action for the MDGs" aims to make the goals accessible to everyone while emphasizing results-based approaches at all scales. An emerging YGL initiative on Science and Technology for Sustainable Economic Development also aims to mobilize global scientific communities to support MDG achievement.

A collaborative focus on action should also guide an overarching approach to identifying and funding innovation in development partnership. Members of the Global Agenda Council on Poverty & Development Finance have suggested that the World Economic Forum support the creation of a Global Aid Partnership for Innovation (GAPI). The GAPI would focus on advancing three new initiatives, each of which deserves to be fleshed out through a detailed business plan describing incentives and financing structures. The first is Global Venture Aid Fund for Innovation (GVAFI) that would bridge government, philanthropic and business leaders to seed new initiatives and scale up early-stage successes following systematic evaluation. The second is an annual global competition for innovative solutions to key development challenges. The third is a website that would serve as an organizing platform for the GVAFI and global marketplace of ideas, aiming to promote information sharing and peer pressure among innovators. This could be merged with the Global Innovation Portal for social entrepreneurship described earlier.

Further recommendations fall under three broad categories of international development priorities: the MDGs, innovations in global public finance, and fragile states.

Action Areas for the MDGs

In September 2010 the UN will convene its last major MDG check-point summit, and President Obama has committed to presenting an MDG action plan at that event. A renewed push is required for the MDGs over the next five years, and it will not suffice for a plan simply to call on governments to do more. Overall governance systems and service delivery platforms remain critical, as is a holistic approach across the goals, but targeted advocacy-design-fundraising partnership campaigns are also needed for the goals that still face systematic gaps.

An *action plan* requires the goals to be framed around eight *action areas* that guide the organization of professional communities, institutions and delivery mechanisms – noting that any translation of the goals to action areas will be inherently imperfect. Importantly, none is a purely public sector affair. They require leadership groups and special envoys (or equivalents) that can take at least indirect responsibility for coordination, planning, fundraising, public engagement, and general problem-solving across constituencies. Importantly, these communities can also naturally extend to support emerging economies once formed.

(MDG 1 - a) Economic growth strategies. Country-led growth strategies need at least three key components: rural development, urban development, and national infrastructure, including for trade. The latter includes both energy and transport, especially roads, and forms a special priority for landlocked countries. Roads typically require major public investments while energy typically requires public-private partnerships. All growth components require careful attention to the regulatory frameworks and incentives that will boost private investment and market-based job creation.

(MDG 1 - b) Agriculture and nutrition. Food production (quantity) and quality are essential for achieving the hunger goal. Boosting agricultural productivity is also crucial for economic growth in countries where smallholder farmers form the majority of the population and labour force. Malawi, for example, has doubled its national food production since 2005, spurring rapid economic growth that has far outpaced the global downturn. The successful launch of the new G20-backed smallholder agricultural trust fund remains instrumental to helping more countries enjoy similar success.

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(MDG 2 and 3) Education. Education for boys and girls is both a critical goal and an action area. The MDG emphasizes primary education, but access to secondary education is also important for many reasons, including child health, maternal health, incentives for primary school completion, and skills to fuel economic growth. The Education for All-Fast Track Initiative should be recast as a full Global Fund for Education, as President Obama has recommended. This would require full financing, representative governance from all stakeholders, and a broad mandate around primary and secondary schooling. An imminent opportunity to advance this agenda will come at the education summit President Zuma is hosting during the 2010 World Cup in South Africa.

(MDG 3) Gender equality. All of the action areas need to include specific strategies for tackling challenges faced uniquely by girls and women. On top of this, critical actions are needed to focus on overarching priorities for gender equality, including women's political representation and the intolerable ongoing epidemic of violence against women.

(MDG 4, 5, 6) Basic health. Recognizing the integrated nature of "vertical" and "horizontal" programmes in health systems, the goals for child mortality, maternal health, HIV/AIDS, malaria and other infectious diseases merit integration into a consolidated agenda for primary health. This includes professionalized cadres of paid community health workers. In March *The Lancet* notably called for the Global Fund to Fight AIDS, TB, and Malaria to be recast as a Global Fund to support all of the health-related MDGs.[1]

(MDG 7) Water and sanitation. The MDG targets for water and sanitation have seen major worldwide progress, but the international system lacks proper institutional mechanisms for tackling the targets, forming one of the greatest gaps for MDG implementation. This major priority will need to draw significantly upon public-private partnerships.

(MDG 7) Ecosystems management. The targets for biodiversity and ecosystem merit a concrete action plan guided by ecological expertise.

(MDG 8) Information and communications technologies (ICT). Outside of the other key priorities for aid and trade, the major remaining gap of MDG 8 is in information and communications technologies, which is overwhelmingly an area for ongoing private sector leadership in the context of efficient government regulation. ICTs are also a key pillar of expanding financial services to the poor.

Innovations in Global Public Finance

Since shortfalls in global public finance remain fundamental impediments to the achievement of the MDGs and other core international targets, innovative financial structures are required to promote government accountability in instances where financing gaps reflect fundamental weaknesses in the intergovernmental commitment mechanisms. The International Financial Facility for Immunizations provides a mechanism for governments to front-load cash available to the Global Alliance for Vaccines Immunization (GAVI) under the promise of long-term bond commitments. Advance market commitments for vaccines provide up-front public purchase guarantees as an incentive pool for specific vaccine innovations. Further potential innovations include:

- Governments could consider commitments to pay aid on the condition of developing countries reaching pre-specified development targets and outcomes. Targets could range from inputs to outcomes, such as the number of safe drinking water points, completion of school exams, or reductions in child mortality. The Global Agenda Council on Poverty & Development Finance has drawn on a Center for Global Development recommendation for a "cash on delivery" (COD) mechanism whereby donors make payment by unit of result, e.g., a dollar value for each child who completes primary school. Developing countries would have significantly greater flexibility and autonomy to manage their own programmes towards agreed targets.

[1] *The Lancet*. 2010. "The Global Fund: replenishment and redefinition in 2010." March 13. Vol. 375: 865.

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- The COD idea could be linked to "social impact bonds" that help free up resources in the near term. For example, donor bodies could commit to long-term structures that have final repayment anchored in independently audited development results, while socially-minded investors provide the up-front liquidity to finance programmes. This could merit a label as a system of advance payment for audited results. Such a system would help improve joint accountability between developing and developed countries, with improved year-on-year predictability of resource flows for developing countries (contingent on results) and strong justification for donor country taxpayers that their resource transfers are linked to results.

- Developing countries can pool efforts for financial guarantees. The African Leaders Malaria Alliance has just launched a major pooled procurement mechanism for bed nets, allowing participating countries and bed net manufacturers to overcome a series of liquidity and purchase order bottlenecks that individual countries have had much more difficulty tackling on their own. Such an inter-country cooperative mechanism could be used to pool broader procurement and programme plans on a much more systematic basis.

- Governments and private philanthropists could together create an investment window that supports technology adoption among poor people, as described in the above discussion on social entrepreneurship. Such a fund would provide an important global public good, especially if tied to business plan competitions and the YGL Missing Middle Initiative[2] recommendation that would support SME venture funds and the intermediation processes for business support. It could also tie to an insight through which private foundations can make new contributions by leveraging their balance sheets on a more systematic basis, as the Bill and Melinda Gates Foundation has started to do. One recent estimate suggests that by setting aside only 1% of their balance sheets to support guarantees and related financial instruments, US foundations could directly expand resource flows by US$ 6 billion per year.[3]

New Frameworks for Fragile States

To address the challenges of fragile states, the Global Agenda Council on Fragile States has focused on developing a new approach to accountability and governance. This includes an emphasis on partnership-driven financial management systems anchored in joint accountability standards and national responsibilities for service delivery.

Recommendations by the Global Agenda Council on Fragile States:

- A framework of "National Accountability Systems" to strengthen public financial management through a series of basic tools and conventions, including the regularization of the treasury, consolidation of the budget as the central tool of policy-making, tailored procurement systems, and core audit protocols

- A framework of "National Programmes" to ensure the state systems are responsive to the evolving needs of civil society and markets. This approach hinges on unified rules, careful sequencing of programmes, and ongoing recalibration of goals and tasks. National Programmes could support government skill-building, community block grants, urban decision-making processes, sector-wide approaches for health and education, and initiatives to consolidate the rule of law. In support of this last item, the Council on Fragile States has also previously recommended the establishment of an international system to support policing, akin to the role of peacekeeping for military issues.

The Council's proposals are comprehensive in highlighting many of the key inputs to governance systems. They are complementary to broader policy debates on how best to support fragile states, including how best to promote livelihoods through industry and agriculture, how best to streamline and leverage remittance income where it is a significant macroeconomic factor, and how best to manage issues of internal and cross-border migration. Debates persist on the best ways to create positive expectations around the state's sense of legitimacy among key stakeholders. World Bank President Zoellick, for example, has underscored the importance of basic services, especially visible ones, as a pillar in this direction.

[2] The Missing Middle Initiative aims at filling the gap in capital above microfinance and below the traditional institutional financing of companies, which is very prevalent in particular in developing countries and limits the growth opportunites of local businesses. The funding would be accompanied by business support services specifically targeted at SMEs to provide them with the tools and knowledge necessary to grow.

[3] Friedman, Alexander. 2010. "How Banks Can Help the World's Poor." *Financial Times*. March 7.

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The broader issue to consider around fragile states is how to reduce stress factors such as poverty, slow growth, and negative economic and weather shocks. Related priorities include investments in water and agriculture, and sequencing issues around support for food, health, and wealth. Ultimately there is a need for broader emphasis on actions that provide an economic buffer – and a climate buffer in the predominantly rain-fed agricultural economies of Sub-Saharan Africa. Strategies to boost smallholder farm productivity on a sustained basis produce a double win by decreasing hunger and increasing economic resilience. As Burke and colleagues[4] have recommended, this implies a need for policies to support inputs, irrigation, and improved crop varieties. It also suggests the need for climate-indexed foreign aid insurance for countries exposed to the greatest risk.

Next Steps

This essay addresses a wide range of topics and activities, and many of the recommendations are accompanied by descriptions of key next steps. These all aim to inform the deliberations at major upcoming international meetings, including the World Economic Forum Global Redesign Summit in May 2010 in Qatar, the June 2010 G8 & G20 summit in Canada, the November 2010 G20 summit in Korea, and the World Economic Forum Annual Meeting 2011 in Davos-Klosters. We conclude here with some comments on the main clusters of recommendations.

Regarding Advanced and Emerging Economies

The recommendations on creating employment and promoting economic security will need to be discussed first with policy-makers in the employment and finance ministries of various countries, since most policy instruments in this area are in the hands of national governments. Discussions with such policy-makers, at the 2010 Global Redesign Summit in Qatar and elsewhere, could generate a portfolio of feasible policy strategies, which in turn could be discussed with relevant international organizations such as the OECD and the ILO.

The recommendations on acquiring skills, advancing international mobility and promoting inclusion will require cooperation across policy-makers in national governments and international organizations (including the OECD, ILO, UNDP, UNESCO, World Bank, and regional development banks), educational institutions (such as major business schools), and multinational companies. Here a multistakeholder exchange on best practice and desirable policy options is required.

Both sets of recommendations should generate international policy guidelines for the G20 meeting in November 2010 and open policy questions for the World Economic Forum Annual Meeting 2011 in Davos-Klosters.

Regarding Lower-Income Economies

Launching the recommendations around social entrepreneurship will require a coalition of governments, philanthropic leaders, and current entrepreneurs, with each initiative confirming and pursuing its respective strategies, timetables and resource requirements. These are ideal initiatives to be launched through the World Economic Forum's unique convening power, so the relevant Global Agenda Councils and task forces could target both the Forum's Annual Meeting and its regional meetings throughout the world as pertinent deadlines for launching key efforts.

The recommendations for the MDGs are of unique importance for the GRI and the broader international community. The priorities are time sensitive, and require concerted intergovernmental attention at the June G8/G20 meetings and in key regional forums, such as the African Union, in advance of the September 2010 UN MDG summit. The recommendations for fragile states require further distillation, and need to be discussed in the same venues as well as the fall Annual Meetings of the IMF and World Bank, where many key multilateral development design issues are considered in more detail.

[4] Burke, Marshall, Edward Miguel, Shanker Satyanath, John A. Dykema, and David B. Lobell. 2009. "Warming increases the risk of civil war in Africa." *Proceedings of the National Academy of Science*. December 8. Vol. 106: 49.

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Regarding the Global Community for Redesign

An overarching theme here is the need for new forms of global partnership. Leaders from government, business, non-profit organizations, and general publics will have many opportunities to mobilize key constituencies while leading by example. The June 2010 quinquennial summit of the UN Global Compact will be a major opportunity for business leaders to make concrete commitments. Worldwide coalitions of non-governmental organizations are rallying communities of interest unstintingly around key global priorities. Many social networks are leveraging online technologies to spur new global movements every day.

The World Economic Forum has a special ability to embrace and carry forward this new notion of action-oriented global partnership. Perhaps nowhere is this evinced better than in the World Economic Forum's community of Young Global Leaders, who are coordinating resources across public, private and non-profit sectors to launch an array of pioneering efforts.

These are just some of the many efforts that lead us to think breakthroughs in global redesign are feasible, much faster than many think. A global movement is under way to advance employment, human development, and social stability in all corners of the world. The challenges of recent years have been significant. The opportunities in the years ahead are much greater.

WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

GLOBAL REDESIGN INITIATIVE

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Creation of a G20 Framework of Action to Mainstream Employment and Protection

Context

The financial and economic crisis has now turned into a crisis of unemployment, with an increase of 34 million unemployed over the 2007 level and many more likely to lose their jobs unless the right policies are put in place. These numbers would have been considerably higher were it not for significant reductions in working hours in many countries (in the order of 2.2% in advanced economies), increases in involuntary part-time employment and a growing number of "discouraged workers" who have given up looking for employment and are therefore no longer registered as unemployed. Of particular concern is the upsurge in unemployment among youth, increasing by more than 10 million persons. Globally youth unemployment rates are around three times that of adults.

Estimates also indicate that 200 million workers are likely to have joined the ranks of people living on less than two dollars per day between 2007 and 2009, bringing the global total to around 1.3 billion, or more than 40% of the global workforce.

The impact of the crisis on the employment of men and women has been far greater than the differential gender impact; nevertheless women were over-represented in vulnerable groups of workers prior to the crisis and hence are also hit most in the crisis.

These levels of unemployment and poverty are factors threatening growth for 2010 and beyond. The return to global growth is also threatened by the failure of major economies to repair global imbalances, in particular the imbalance between domestic and external demand. The expansion of domestic demand is restricted by the fact that real wages and income from social protection lags behind the growth of productivity. Stronger national and international institutions and cooperation to support efficient and equitable labour markets and social protection are at the heart of remedying these imbalances. The G20 Leaders meeting at the Pittsburgh summit mandated their labour ministers to meet in early 2010 to begin addressing this employment crisis.

The leaders also stated: *"We commit to implementing recovery plans that support decent work, help preserve employment, and prioritize job growth…. We direct our ministers to assess the evolving employment situation, review reports from the International Labour Organization and other organizations on the impact of policies we have adopted, report on whether further measures are desirable…"*[2]

But the action on jobs goes beyond labour ministers and leaders must receive a clear message at the G20 Summit in Toronto, Canada in June 2010. We cannot afford a lost decade of stagnant labour markets – and with it a lost generation of youth disengaged from productive activity. Governments must now muster the same level of political will that was used to save the global banking system, and begin to reform financial markets to tackle the global jobs crisis.

Unless this happens there is a risk of returning to "business as usual" or even regression and a failure to learn the lessons of the crisis and to generate innovative thinking on employment, social protection and development, along with the funding to facilitate the transition to a new, more equitable and sustainable model of growth for all the countries of the world.

Weaknesses/Gaps
At the national level, a new model of economic development must be developed that balances growth and the fairer distribution of the fruits of that growth – economic and broader social objectives of sustainable development. That will require a new "social contract", building on the International Labour Organization's (ILO) Global Jobs Pact.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] Leaders' Statement: The Pittsburgh G20 Summit, 24-25 September 2009. http://www.pittsburghsummit.gov/mediacenter/129639.htm.

Global Agenda Council on Employment & Social Protection

At the international level, there is neither an adequate global governance structure nor a sufficient response for addressing the underlying employment and social crisis and imbalances in the medium term. These represent fundamental vulnerabilities in our economic system, which threaten to destabilize our efforts to build a new framework for growth.

The G20 action to date has limited its actions on building global governance to stabilizing the financial system. It has endorsed the Charter of the Financial Stability Board (FSB), which includes a mandate to tackle vulnerabilities in the financial systems, in the interest of global financial stability. It has also allocated substantial resources to the International Monetary Fund (IMF) to step up its efforts to monitor global and national economic and financial sectors and to strengthen its early warning system.

Yet G20 governments have not demonstrated the same political will to confront the employment crisis. They have also failed to create governance structures to manage the other equally damaging vulnerabilities in our economies – there is an urgent need to manage the risks posed by increasing levels of unemployment and inequality, and declining social protection in view of their harmful effects on global development, growth and sustainability.

While in the longer term such efforts for global governance should be focused on an Economic and Social Council with the legitimacy of the United Nations, recent experience at the climate negotiations in Copenhagen has brought into sharp relief the very real difficulties of reaching a comprehensive global agreement to which all parties are able to commit. This, however, is a governance agenda that cannot be postponed, because development and growth can no longer be postponed. People around the world living in abject poverty and losing their jobs and livelihoods – quite simply – cannot afford to wait.

Proposal

Creation of a G20 Framework of Action to Mainstream Employment and Protection
Our proposal is to establish a *G20 framework of action on employment and social protection* that would bring together G20 labour, development and finance ministers with the overarching aim of providing a governance structure focused on delivering employment and social protection policies to create jobs in the short term and produce more equitable outcomes in the medium term. Such action would remove a source of fundamental vulnerability in the economy that provides an increasing threat to global recovery, growth and development.

The framework should include a multistakeholder consultation process incorporating social partners – trade unions and employers. This challenge cannot be tackled by G20 governments alone, but must involve the ILO together with representatives of the social partners. It must also be multilateral, with developing country representation, so as to ensure that development policies are reoriented towards a new model of economic growth that places distributional and social issues at its heart.

A key challenge for the G20 employment framework will be to build policy coherence with other areas of intervention, such as climate financing and technology-sharing arrangements that aim to support job-creating investment in clean energy industries in developing and emerging economies. Adequate resources to support the necessary coordination will be required. It should also work for the establishment of a global fund for financing social safety nets in the medium term.

Short-term Goals
In the short term, the priority of the framework is to ensure that recovery translates more rapidly into employment and livelihood creation. We cannot afford a jobless recovery. This means first and foremost ensuring that G20 governments honour their commitments that there will be no exit from stimulus until there is clear improvement in the employment situation. It also requires the design of targeted and coordinated government interventions aimed at achieving employment-intensive and better balanced growth. The negative output shock has had differing impacts on employment in different countries so there needs to be a cross exchange of information on what works best in terms of labour market policies and institutions for both industrialized and developing countries.

Medium-term Goals

In the medium term, the priority is to deliver "quality employment" as a central part of the new growth model in line with the commitment made in the G20 Pittsburgh Leaders' Statement of "[P]utting quality employment at the heart of the recovery".[3] This requires tackling head on the fundamental policy question of how to redesign labour market and related social policies in such a way as to move away from the rising inequalities and imbalances of the past – in wages, skills, productivity, and the quality of labour market institutions.

This means designing policies that seize the opportunity provided by the crisis to adopt a global approach towards investment in skills and support developing and emerging countries to meet skill shortages that are holding back development, as well as to prepare for the new skills needed in a greener economy and ensure that the migration of skilled workers does not leave shortages in countries of origin. The G20 employment framework should also develop and use broader measures of economic performance and social progress than GDP per capita, including measures of social protection, income distribution and environmental sustainability.

Also in need of consideration is the financing of a social safety net globally, in particular to build a floor of basic social protection in lower income countries, thereby supporting the recovery as well as tackling global poverty.

Explanation/Rationale

The primary rationale for establishing the G20 employment framework is that the still unfolding unemployment crisis is today the key issue for economic policy. In addition to the direct costs of unemployment, there is a very real danger that high unemployment itself will slow the recovery to growth, with sustained low aggregate demand running the risk of becoming structural over the longer term.

In the Short Term
Stronger labour market institutions are urgently needed to counteract inadequate domestic demand growth with rising and more equitable living standards. Such institutions should include a social protection floor, minimum wage, strong collective bargaining frameworks, labour inspectorates, public employment services, employment guarantee schemes, etc. Greater institutional coherence and cooperation is necessary to secure sustainable growth, stability, job creation, and development and poverty reduction.[4]

In the Medium Term
Neither the consumption boom in the United States since the beginning of the 1990s nor the under-spending elsewhere were based on a sustainable model of funding. To a significant degree the consumption boom was based on the results of speculative bubbles that were inflated in the housing and stock markets. The "wealth effect" of higher housing and stock prices led the median private US household to consume beyond the real income that could be realistically expected given the productivity growth of the overall economy and the dismal trends in personal income distribution. The overall reduction in the savings rate to close to zero provided the economy with a back burner of unprecedented power but dramatically increased the fragility of the whole process because many households could only maintain their level of consumption by extensive borrowing. With open markets and increased competition in the area of manufacturing from developed and developing regions, the spending spree eventually boosted borrowing on the international markets and large current account deficits.

Overspending in the Anglo-Saxon world was countered by underspending elsewhere. Parts of continental Europe, particularly in Germany, and Japan engaged in belt-tightening exercises (real wages lagging systematically behind productivity) that produced extremely sluggish consumption but, due to increased cost competitiveness, yielded excessive export growth, resulting in huge surpluses in their current accounts, thereby piling up huge amounts of liabilities *vis-à-vis* the overspending nations.

A central lesson from the crisis is that for rising economic welfare to be sustainable, it has to be shared without altering the

[3] *Ibid.*
[4] *G20 Communiqué*, Meeting of Finance Ministers and Central Bank Governors, United Kingdom, 7 November 2009.

relative competitive positions of countries. Companies that gain market share at the expense of other companies form an essential ingredient of the market system, but nations gaining at the expense of other nations create huge and lasting conflicts. If the "winning" nations are not willing to give up their superior position and allow a full turnaround of competitive positions over the long run, they force the "loser" nations into default. If well understood, this concept would provide a reasonable guideline through the jungle of open protectionism and natural tendencies to defend what are perceived as national interests. The globalization of trade and finance calls for global cooperation and global regulation.

At the national level, new concepts for economic development need to be designed that can better balance spending excesses in deficit countries and export excesses and long-lasting underconsumption in surplus countries. The most important rule to be followed is to use domestically generated productivity increases for domestic purposes through the full participation of all economic agents in the productivity gains. In particular that is true for wages and people depending on social protection. Real wages falling behind productivity in an attempt to stimulate employment growth has not met expectations. Relatively decreasing real wages did not stimulate employment creation. It was only through the export competitiveness nexus that some economies were able to increase employment after a fall in wages at the expense of others.

But that is not possible for all countries. If all countries wish to share the potential benefits of trade and foreign direct investment, they must acknowledge that the creation of a level playing field in the competition of companies is a desirable target, whereas the competition of nations is a useless and dangerous concept. All countries can simultaneously raise productivity, wages, employment and the level of trade to improve their overall economic welfare if they follow consistent rules, but not all can increase their market share.

The events of recent months have revealed a huge misallocation of resources and the destruction of enormous values driven by financial markets. The lesson to be drawn is that macroeconomic prices are too important to be left to the vagaries of these markets. The failure of financial markets to establish the right prices should shatter the naïve belief that unfettered financial liberalization and the deliberate non-intervention of governments maximize welfare. Governments, supervisory bodies and international institutions play a vital role in allowing society at large to reap the potential benefits of a system of decentralized decision-makers. Only consistent and forceful intervention in financial markets by institutions with knowledge about systemic risk can transform a system of atomistic markets for goods and services into an efficiently functioning entity.

A Basic Level of Social Protection

The introduction of a basic social protection floor can contribute significantly to poverty reduction by providing a minimum level of access to essential services and income security for all. The focus is on two critical components:

- Services: geographical and financial access to essential services (such as water and sanitation, adequate nutrition, health and education, housing, and other services including life and asset saving information)
- Transfers: a basic set of essential social transfers, in cash and in kind, to poor and vulnerable populations to provide a minimum income, livelihood, and health security and to facilitate access to essential services. Beyond this access to pension systems, childcare must also be developed.

According to ILO costing studies relating to low-income countries, the cost of a basic set of social transfers that enable people to access or purchase essential services is estimated to be in the range of 2.3-5.7% of GDP in 2010.[5] Individual elements are even more affordable with universal basic pensions, for example, estimated at between 1-1.5% of GDP. A basic protection package thus appears affordable, provided it is given adequate policy priority and, in most cases, includes the condition that it is progressively implemented. Given a sufficient level of policy priority, phasing in a package of modest social security benefits over, perhaps, a decade, does not seem unrealistic. However, certain countries are likely to need some international support during the start-up and investment phase. The potential returns on international support in terms of the economic and social stabilization of societies would be substantial. Thus ILO studies show that an investment of around 4% of GDP in old-age, disability and child benefits could reduce poverty rates in countries like Tanzania and Senegal by about 40%.

Next Steps

[5] Excluding health services that could be financed by the reallocation of some of the present budgetary allocation to healthcare.

Members of the Council on Employment & Social Protection will seek to mobilize their respective constituencies to advance this proposal with ministers prior to the G20 Employment and Labour Ministers Meeting on 20-21 April 2010 in Washington DC and the subsequent G20 Leaders' meetings in June 2010 in Toronto, Canada.

Global Agenda Council on Employment & Social Protection

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Global Agenda Council on Fragile States[1]

National Accountability Systems, National Programmes and Dual-Oversight Mechanisms

Context and Rationale

A stable, sovereign state requires legitimacy won and sustained by the trust of its own citizens in return for economic, social, and political goods. A number of countries currently do not provide this basic social compact between government and its own citizens, and the international community. Addressing this state of affairs is one of the core challenges of the 21st century, whether from the perspective of order, poverty reduction or the economic vitality of our globalizing world. Many of the approaches attempted over the last decades in the most challenging contexts are now recognized to be flawed; billions of dollars have been spent and military forces deployed, with little improvement in economic and social well-being or political stability and security. A new approach is therefore urgently required, a systems-based approach with a focus on achieving systemic outcomes that will lead to the emergence of effective and resilient states with functional state-society interaction. Current aid efforts, as currently manifested, have not been able to overcome their project-based origins; with their panoply of external actors, no one has responsibility for overall systemic outcomes such that capacity-building efforts remain highly fragmented and accountability to donors dominates local oversight mechanisms.

These fundamental problems are now being identified and recognized, notably in the form of the Principles for Good International Engagement in Fragile States and the accompanying monitoring process conducted in association with fragile states themselves. The International Dialogue on Peacebuilding and Statebuilding has also identified these same problems as outlined in the Dili Declaration – A New Vision for Peacebuilding and Statebuilding. The participating fragile states to the Dialogue have now formed a new group, the ***g7+*** to influence donor behaviour.[2]

But there is still a considerable gap to bridge between principles and reality, where complex local elites on the one hand and complex international institutional politics on the other hand mean that the emergence of sustainable national systems for accountability and service delivery remains inherently problematic. Embodiments of this gap include the continued reliance on long-term technical assistance without clear hand-over strategies, the lack of a link between capacity development efforts and a strategy for gradually moving towards the use of country systems, the tendency by donors to decide on engagement based on the tools and mechanisms available rather than on the longer-term objectives they wish to support, and the lack of acceptance of risks associated with financial engagement in countries affected by conflict and fragility.

Proposal

The Global Agenda Council on Fragile States' initiative seeks refinement and innovation around three central concepts of governance – the effective, efficient and transparent implementation of public financial systems, inclusive developmental programmes, and coherent, joint management and oversight. The aim of ***National Accountability Systems*** (NAS) and ***National Programmes*** (NP), with accountability through ***dual-oversight mechanisms***, therefore, is to overcome blockages to reform through crafting legitimate stakeholder alliances and building contextualized, adaptive governance processes by ensuring the alignment of goals, rules and actions.[3] This idea is based on:

- ***An understanding of the architecture*** of public finance and state functions as systems and a mapping of their component parts through an analysis of both highly functional and highly dysfunctional systems (and separate components within those systems)
- ***The identification of the constraints*** faced in revenue, expenditure and delivery in fragile countries, and the successful mechanisms, pathways and approaches that have overcome these constraints in recent history

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] See Annex to the Dili Declaration: 10 April 2010, http://www.oecd.org/dataoecd/12/30/44927821.pdf. These approaches have also been incorporated in the Chairman's Statement of the Montreal Preparatory Conference on Haiti of 25 January 2010 and the subsequent International Donors Conference in New York on 31 March 2010.

[3] The Institute for State Effectiveness has developed designs and protocols for National Accountability Systems and National Programmes which can be further explained on request.

- ***Innovative approaches*** to difficult problems, which confound existing aid paradigms and thinking predicated on traditional approaches and obsolete technologies
- ***The production of a body of knowledge*** to support leaders and managers in guiding and implementing such approaches

National Accountability Systems

Weak ***public financial management is the key constraint to efficient expenditure*** of either government or donor financing in fragile states, and thus the key barrier to effective poverty-reduction policies. It is also the critical factor that often prevents donors from fully aligning with national priorities and systems. While this problem is recognized and documented, it is often perceived as the product of events, not the effect of structural deficiencies. As a result, the international community has not yet developed actionable, systemic thinking or approaches to public finance functions, in whole or in part. Moreover, international aid delivery, often through parallel and fragmented mechanisms, can undermine state functionality and legitimacy. National Accountability Systems provide a preliminary focus on government expenditures, including the independent components of and the linkages between:[4]

- ***Treasury***, to overcome the common lack of predictability, transparency, and timeliness in the settlement of payments for civil service wages, goods and services
- ***Budget***, to ensure that it becomes the central tool of policy-making for planning and managing trade-offs, goal setting and the monitoring of results
- ***Procurement***, to ensure the transparent purchase, delivery and monitoring of goods and services and overcome large-scale corruption
- ***Accounting and auditing***, to provide the basis for compliance monitoring through standardized methods that reflect the realities of informal systems in fragile contexts
- ***Preparation and management of programmes and projects***, to overcome expenditure constraints through mechanisms and frameworks prepared to adequate standards
- ***Internal and external oversight***, through ministerial and parliamentary oversight, hierarchical management, auditing, international standards and citizen monitoring[5]

National Programmes[6]

In a context of globalization, development requires a ***new appreciation of the appropriate balance between the state, market and civil society in fragile states***. Success requires government ownership of development efforts, mechanisms for the coordination of disparate assets and organizations on the ground, and a sense of trust in the duties and obligations between citizens and governments. Importantly, it also requires a realistic understanding of the transition that countries go through, as a basis for managing immediate delivery that might require parallel systems and external capacity support. National Programmes enable governments to begin to perform state functions throughout their territory in an effective and transparent manner by creating a platform to mobilize relevant forces – in the public, private and community spheres – to execute critical tasks. With the appropriate design, the process also delivers results and builds domestic capability in the medium to long term. National Programmes are based on six key principles:

- ***Unified rules***, to allocate decision rights, roles and career paths, create stakeholders and determine their relations
- ***Mobilized assets***, through the identification and harnessing of multiple resources, apparent and latent, national and international
- ***Management systems***, through the careful development of coherent goals and objectives, frameworks for action, and regular flows of information
- ***Social and institutional capital***, through ensuring that development becomes a common national endeavour that calls for civic participation, supported by creative leadership

[4] A secondary focus of NAS is on effective and transparent revenue generation. This requires the development of medium- to long-term revenue mobilization frameworks to arrive at clear priorities for economic growth and diversification. Attention to those sectors that could generate the revenue to enable the state to perform its key functions and spend large sums of revenue (both national and international) is an essential starting point.

[5] The Institute for State Effectiveness has developed a process, set of tools and analytic frameworks to operationalize National Accountability Systems.

[6] Variations of these programmes have been developed and implemented in Afghanistan, Pakistan, Indonesia, Mexico, Colombia and Brazil, among other contexts.

- ***Careful sequencing***, by ensuring that National Programmes act as platforms that weave together multiple assets to achieve common national goals
- ***Temporal calibration***, as National Programmes target institutional and social constraints, and can be recalibrated to reflect new goals and critical tasks

Programmes can be developed across a number of domains, sectors and state functions. The programmes themselves are ***not centralized or decentralized in any given form, but rather target governance across the range of state functions and levels***. For example, an NP approach could include the development of programmes for capacity building, community development,[7] urban renewal, primary health and education, and rule of law.

Oversight and Accountability

The integrity of spending through NAS in these contexts could be guaranteed through ***dual-oversight mechanisms*** where responsibility is shared between state authorities and external funders. A range of instruments could be deployed, including monitoring by the IMF/World Bank, trust funds pooling donor resources, and links to the use of the sovereign guarantee with the government's attainment of those standards. Examples that could be drawn upon and adapted might include:

- ***The Palestinian Council for Development and Reconstruction (PECDAR).*** PECDAR became the Palestinian Authority's aid management agency, supported by a "start-up costs" trust fund.[8] PECDAR became a "nucleus of efficiency" which reported regularly and could regulate and coordinate the flow of assistance; implement projects and act as an implementation services provider; and incubate the nuclei of sectoral ministries, based on a sunset clause that ensured that the agency would dissolve after three years.
- ***The Governance and Economic Management Assistance Programmes (GEMAP).*** In Liberia, the GEMAP has posted internationally-recruited advisers, with co-signing authority, in the financial offices of several key Liberian institutions. This has allowed for the establishment of transparent financial management systems, training and capacity-building of staff, and open reporting on operations, revenue and spending.
- ***The Afghanistan Reconstruction Trust Fund (ARTF).*** The ARTF was designed as the mechanism to pool donor-financing behind the government budget and a single set of policies and implementation mechanisms, creating cost-effective modalities and policy coherence. Essentially a "dual key" mechanism, the ARTF only releases donor financing to the government's budget after satisfactory audit reports are completed, and reform steps are taken by the Ministry of Finance.
- ***Haiti:*** A similar model is currently under consideration in Haiti.

Regular reporting on activities to representative organizations could also be carried out through domestic political processes (inclusive of all regions and social groups), as well as to citizens and partners from the international community. Additionally, a consortium of private businesses could be established to link investment to the achievement of accountability standards.

[7] See for example the National Solidarity Programme in Afghanistan (www.nspafghanistan.org) and the Kecamatan Development Programme (KDP) in Indonesia (http://www.worldbank.org/id/kdp).

[8] The "Holst Fund" was the first major umbrella Multi-Donor Trust Fund in a post-conflict situation and became a model for subsequent initiatives.

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Global Agenda Council on Poverty & Development Finance[1]

Proposals for Cash on Delivery Aid and for a Global Aid Partnership for Innovation

Context

Slow Progress on Making Aid More Effective
The international community has committed itself to help developing countries achieve the Millennium Development Goals through major increases in development assistance and the use of more effective approaches of providing that assistance. Yet progress is slow and ineffective practices continue to dilute the impact of development assistance. Too often, money is spent on inputs that fail to achieve the desired outcomes, while donor taxpayers and constituents are occasionally left frustrated with aid.

While many aid programmes are successful, others fail for any number of reasons. Recipients regularly criticize donors for being inflexible, unresponsive, and providing unpredictable funding, while donors criticize recipients for lack of transparency and failure to fulfil obligations. These problems are exacerbated by the involvement of multiple donors with different budget cycles and reporting requirements, which dilutes the recipient's accountability to any single donor, raises transactions costs, and increases the administrative burden.

To make progress through collective action, concrete proposals are needed that will allow donors to collaborate through means that reduce the burden on both the donors and the recipient. Cash on Delivery (COD) Aid is one such proposal, and the World Economic Forum is a critical forum through which to engage stakeholders and launch such an initiative.

(1) Proposal: Cash on Delivery Aid

The Global Agenda Council on Poverty & Development Finance proposes that donors pilot an approach that aims to overcome these problems – COD Aid. COD Aid builds on existing initiatives that strive to disburse aid against results, but it takes the idea further by linking payments more directly to a single specific outcome, giving the recipient country full authority to achieve progress however it sees fit and without interference of any kind from donors, and assuring that the recipient country's progress is transparent and visible to its own citizens. These features could rebalance accountability, reduce transaction costs, and encourage local innovation and learning.

The key steps to implementing COD Aid are to negotiate and sign a contract, ensure that the appropriate information management system and a means for measuring the outcome meet a pre-agreed standard, collect and report data, arrange for independent verification of outcomes data, and disburse payments in proportion to progress. In parallel, an independent evaluation of the effort should take place to assess whether COD Aid is, or is not, an improvement over other aid modalities.

The approach can be applied to any sector in which there is a shared, measurable outcome to which governments and donors are committed to making progress. Once an outcome indicator has been identified and the basic contract has been negotiated, any number of donors – both public and private – can pool funds without creating additional reporting requirements or changing the structure of the aid arrangement. The clarity of the disbursement against outcomes may reduce aid volatility that often results from domestic policy disputes in donor countries or changes in foreign policy priorities. Most of all, recipient countries have the opportunity to focus on what they need to do to make progress rather than to spend time documenting expenditures or guessing which strategies are most likely to please their funders.

One sector in which the approach could be applied is education. Donors could focus on the shared interest between donor and recipient countries on achieving universal primary school completion (one of the Millennium Development Goals). Under a COD Aid agreement, we propose that donors commit to pay US$ 200 for each additional child who takes a standardized competency test in the final year of primary school. A credible baseline survey would be conducted, the country would publish completion numbers and test scores, and then the donor would pay for retesting in a random sample of schools to verify the numbers. The country could then choose to use the new funds for any purpose: to build schools, train teachers,

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partner with the private sector on education, pay for conditional cash transfers, or for that matter build roads or implement early nutrition programmes. This innovative approach would reduce transactions costs for donors and would place full decision-making about the use of funds in the hands of developing country governments, letting them determine the best way to achieve the outcome recipient and donor both want: a quality education for all.

Explanation/Rationale

The key elements of a COD Aid approach are as follows:

- COD Aid **pays for outcomes and not for inputs**. The outcomes have to be closely related to an objective that is shared by the donor and recipient. The outcome also has to be measurable in a way that is continuous, making it possible to reward incremental progress.
- COD Aid **requires recipients to assume full responsibility** for the design and implementation of strategies to make progress. Donors do not specify or monitor inputs; rather they contract independent verification of progress and pay, as agreed, for improved outcomes. This aligns incentives squarely to achieving progress rather than to spending money.
- The trigger for COD Aid payments is progress and therefore requires **independent verification**. This way, both recipient and donor can have confidence in the way progress is measured. This focus on good quality information about outcomes is also a benefit of this form of financial assistance – facilitating policy-making through the provision of better data on outcomes.
- The COD Aid contract and progress measures require **transparency** and therefore should be as simple as possible and publicly disseminated. Such transparency increases the credibility of the arrangement, helps assure that the parties fulfil their commitments, improves accountability to the public, and encourages broader social engagement in aspects of progress that are not the specific object of the contract.
- COD Aid is **complementary to other aid programmes** so as not to disrupt ongoing programmes that provide other kinds of support. In this way, COD Aid acts as an incentive not only for the country to make progress but also to use existing resources – domestic and foreign – more effectively.

Although other forms of aid achieve one or more of these features to varying degrees, this COD Aid proposal combines all five of them in a way that strongly emphasizes these features and, in the process, fulfils many of the aims stated in the Paris Declaration for improving aid effectiveness.[2]

Implementation/Next Steps

Such an initiative could be undertaken as a collaboration between public and private entities, a multilateral initiative (e.g. through the Fast Track Initiative for basic education or UNESCO), or a collaboration among bilateral agencies.

The first step would be to convene potential funders and recipients to review and negotiate a contract with the assistance of technical experts. For example, if the group agrees to focus on accelerating progress on achieving universal primary completion, then it would specify an outcome indicator (e.g. the number of assessed completers); establish eligibility criteria (e.g. country income-level, criteria for assessing the quality of the primary completion exam); establish the amount (e.g. US$ 200 per additional assessed completer plus funds to implement the exam); set a procedure for contracting an independent firm or university to conduct a re-test of randomly selected schools for verifying results.

The second step would be for the funders and recipients to establish an institutional arrangement for receiving contributions and implementing the agreement. The COD Aid agreement could be implemented by a multilateral development bank that creates a special trust fund or by an independent non-profit organization created especially for the purpose. The entity would sign contracts with contributors to receive funds or guarantees. The entity would also be responsible for contracting agents to verify results, assure compliance with the contract and make payments as progress occurs. It would be empowered to sign binding credible agreements with developing countries, with the financial backing to make payments in the future in accordance with progress.

[2] More information on the approach can be found in Nancy Birdsall and William D. Savedoff, with Ayah Mahgoub and Kate Vyborny, *Cash on Delivery: A New Approach to Foreign Aid with an Application to Primary Schooling*. Washington, DC: Center for Global Development, 2010.

The third step would be to elicit interest from recipient countries. Countries that meet the basic eligibility criteria would enter discussions about the kinds and quality of information available to implement the agreement (i.e. quality of testing in the final year of primary school). If the test and ability to verify results were in place, then the country could sign the agreement, establish a baseline, and implement its strategy. If testing and verification are not acceptable, then the fund would have to work with the country to get technical assistance to implement its test, after which time it becomes eligible for the agreement.

Recruiting countries will be easier if they are involved in the first step of negotiating the general contract. An alternative would be to identify pilots and engage in country-by-country negotiations. However, offering an open contract is more attractive because it would:

- Reduce the administrative costs (negotiations would be unnecessary)
- Increase transparency through simplicity and uniformity
- Encourage the self-selection of countries for which the terms would be most attractive

Any number of donors could put funds into the agreement without creating any additional negotiations over the goal, indicators, or payment mechanisms – whether they are private foundations or public agencies. An open contract would of course require provisions to limit the donors' exposure, either by restricting the contract to a specific number of countries or establishing a maximum payout. As more donors join the arrangement, it can easily accommodate expansion to more countries.

In the case of education, businesses and philanthropists have a clear and urgent interest in raising collective human capital. Governments have a clear and urgent interest in aid that rewards real results without micromanaging the education reform path and resource allocation. And international financial institutions and other donors have a clear and urgent interest in improving aid effectiveness. Channelling new aid money into this kind of COD Aid agreement could accelerate progress towards universal primary completion and demonstrate new ways of providing aid that complement existing flows while maximizing developing country ownership, local innovation, and institutional learning.

The Council on Poverty & Development Finance suggests a second proposal, this one addressing the over-complexity of the international aid architecture. [3]

Context

Since the early 2000s, development issues have come to the fore in international forums, discussions and G8 summits. Hardly one declaration by any world leader has ignored them. Speeches and typically undelivered promises have been made, and civil society organizations have mobilized behind such objectives as poverty reduction or improving health conditions. The private sector has also increasingly been considered as a major actor and contributed through various initiatives and public-private partnerships to addressing some of the related challenges.

Our message is that the time has come for a forum like the World Economic Forum to play a more active role in shaping a more effective international aid system through sponsoring a major initiative. In this paper we first synthesize some of the changes that have characterized the international development assistance system over the last two decades. Then we discuss the approach adopted by governments in order to address the challenges of aid effectiveness. We conclude with a proposal.

A Radically Changed Landscape

Changes in the aid landscape all contributed to increased "complexity" as a defining feature of development assistance. The landscape has undergone profound changes over the last two decades. While this is not the place for an in-depth

[3] This paper benefited from comments from the Members of the Global Agenda Council on Poverty & Development Finance as well as from colleagues from the French Development Agency.

discussion of such changes, it is worthwhile to focus on four of them: politics, objectives, actors and instruments. From a very global perspective, the long-term repercussions of the end of the Cold War have been underestimated. Development cooperation was born after World War II and prospered within the "high politics" framework of the Cold War. Colonial and post-colonial history as well as the centrality of the ideological contest between the Western alliance and the Warsaw Pact subordinated development assistance flows and objectives to political and diplomatic stakes. While the definition of and criteria for Official Development Assistance (ODA) were designed to ensure the developmental focus of the interventions, these became implicit motives in development cooperation. The end of the Cold War has reshuffled the link between political and economic motives. Over the last two decades, the objective of poverty reduction has been emphasized as the ultimate shared priority for international development aid and what used to be a strictly government-to-government relation has transformed into a much more collective challenge involving public and private actors both on the donor and the beneficiary sides. Compounded by technological change, notably in the field of information and communication technologies, the evolution of the political landscape has also put local, national and global public policies under tough constraints. States are no longer in an exclusive driving-seat position. Modern public policies have to be based on the participation of a wide range of actors. While the leadership of it primarily rests with governments, the implementation requires the support and active participation of civil societies and private agents, firms and individuals.

This is a further reason why seeing development cooperation through the lens of government-to-government relationships is partial at best. One dimension that is increasingly recognized is that development cooperation policies have to focus much more on a crucial aspect of development processes, namely the role of a vibrant private sector. Proposals need to be made and discussed to more fully appreciate, draw on and leverage the private sector, through the improvement of the local investment climates, through risk mitigation, through public-private partnership, through the development of local financial systems and of instruments geared towards financing small and medium-sized enterprises. Part of the current complexity also relates to the imperative of a better understanding of how to use development cooperation both to catalyse profitable, private investment and to further engage the private sector in providing local and global public goods, most notably sustainable access to quality basic services, particularly water.

Short of an ultimate "high" political anchor of the Cold War game, the attention has naturally turned towards "aid effectiveness" as a condition for justifying the use of substantive amounts of taxpayer money for the substantial international resource transfer that development cooperation constitutes. In turn, the concern over aid effectiveness has led to a two-fold focus, on donors' methods, practices, instruments, policies, and capacity to coordinate, on the one hand, and on governance issues in developing countries, on the other, rightly perceived as major factors in the success or failure of local development policies and of the ability to use aid in an effective manner.

Regarding the objectives, however, poverty reduction has not proven the whole-encompassing, operational objective that might have been expected. After the joint adoption of the Millennium Development Goals (MDGs) in 2000, there was a tendency to take these as a blueprint for ODA allocations, rather than as a results framework, whose achievement depended on economic growth as one critical condition. The appreciation has grown of late that economic growth, even though it would not guarantee poverty reduction, is a necessary condition to provide for its sustainability over time. New terms emerged, such as "pro-poor" growth, or "inclusive growth", among others, to connect the pursuit of growth with distributional objectives aimed at poverty reduction. More recently, a new series of objectives has appeared, under the banner of "Global Public Goods "(GPG), which concern collective action to produce global common goods such as the fight against climate change, the protection of biodiversity or the fight against major pandemics. One of the characteristics of such GPGs is that developing countries are both part of the problem and of the solution, which suggests that development cooperation should also aim at reconciling their growth and poverty reduction objectives with engaging them into the kind of collective action that is necessary to provide these GPGs.

On the side of actors, the aid landscape has become more complex both on the donor and on the recipient sides. On the donor side, the impressive rise of large emerging countries such as China and their command over huge international reserves has given them much clout and capacity of intervention in developing countries. So-called "new", or rather "non-Development Assistance Committee (DAC)" donors have thus significantly expanded their activities in developing countries, with questions raised on coordination and free-riding issues. Beyond governmental actors, national and international NGOs have also raised their voice and activities, philanthropic foundations have become major development finance actors, idea providers and innovators, promising public-private partnerships have blossomed, for example in the field of health or in

reconciling profitability – and thus sustainability – with the provision of affordable goods and services to the "bottom billion". This profusion of relevant actors is linked to the evolution of objectives. Poverty reduction, economic growth and the quest for environmentally friendly growth indeed involve political guidance and public policies, but their major actors will have to be civil societies (as changes of consumer and producer behaviour are needed) and private firms and non-firm actors.

On the recipient side, while development assistance used in a not-too-distant past to be a government-to-government relationship, it has been substantially broadened to involve more directly so-called "sub-sovereign" (namely state-owned enterprises, municipalities) and non-state entities (private firms, local NGOs). This relates to a two-fold dynamic. On the one hand, there has been a widespread trend towards decentralization almost everywhere in developing countries, so that local actors, notably municipalities, are gradually emerging as a locus of decision-making and operational management. On the other hand, concerns about sustainability, effectiveness and good governance have led donors to try and reach out to ultimate beneficiaries both to involve them in shaping their interventions and to make sure that they benefit.

There is a further dimension to complexity, related to the nature and the use of external sources of development finance. Where ODA remains the major source of external development finance for low-income countries, development finance is no longer primarily the preserve of grants (including technical assistance) and concessional loans as captured in the ODA statistics, nor a sheer question of volumes of public resources – although volumes do matter and need to increase if the relevance of development finance as an ingredient of an effective "global public policy" is recognized. It is, much more, a question of how best to use limited taxpayers' resources – from donor countries, but also from within developing countries themselves – to maximize development and poverty reduction impacts through a variety of financial instruments, many of which will and should be based on market conditions and innovations. A central idea is that the way to use public finance for development is not neutral: the nature of financial instruments and of the mix between public resources and private market instruments has an influence on development results and impacts, notably through the incentives embodied in the various financial instruments. This is why, beyond the essential availability of aid, its delivery crucially matters for aid effectiveness. Much analytical and empirical work is still needed to develop ways of delivering aid that uses taxpayers' resources to catalyse development finance in a way that distributes risks to agents willing and able to carry it and that promotes incentives towards reaching development and poverty reduction results.

This overall complexity should be welcomed, although there are some caveats: the value of complexity depends on a contribution of truly additional funds, and of innovative ideas for tackling development bottlenecks; where complexity signifies simply more and more actors competing for the same sources of funds, and dividing and splitting them into ever smaller interventions, complexity may add additional layers to the aid industry, but actually reduce the actual resources to tackle development challenges. Still, complexity is at the core of a modern understanding of development cooperation as an instrument of collective action towards various common goods: global poverty reduction, effective global governance, the correction of global and local market failures, etc. One of the characteristics of globalization is that it somehow replicates at a global level the early challenges of organizing nation states: there is a need for some sort of a global public policy, even though there is no world government. This is not totally new: through its assistance and structural policies, the European Union has experienced similar challenges.

Development assistance is highly relevant for the three traditional aspects of such global public policy, following the typology famously introduced by Mugrave: distribution, allocation and stabilization. Redistribution between rich and poor across countries remains a worthwhile public objective, and should be thought of as an incipient "global social policy", which can be implemented either through income transfers or through producing essential services for the poor. International market failures also point to a role of official development assistance in the global allocation of resources. There may be good reasons (for example ineffective governance, corruption, or an unfriendly investment climate) why private resources do not spontaneously flow towards the poorest countries, but there is also a role to play for foreign aid, not only to build capacity and deal with these reasons, but also to correct information asymmetries or invest in the kind of physical and human capital infrastructures that are also essential for private investment profitability. Finally, as was amply demonstrated through this current crisis, global official assistance can play a countercyclical role helping stabilize the access of developing countries to needed external resources when markets dry up.

The ODA Approach Today: the Aid-Effectiveness Momentum

Substantial energy has been devoted since the early 2000s to make development aid more effective. First, the adoption of the Millennium Development Goals (MDG) by the United Nations General Assembly has marked a turning point in defining a universally shared set of objectives for development and signalled a common approach towards results-based objectives between donors and recipients. This has meant a very substantial departure from a situation in which development assistance was too often assessed by its inputs, namely the volume of ODA, towards a welcome focus on results and impacts. Surely, much progress is still needed to better grasp the complexity of measuring development results and to scale up impact evaluations. At least, though, the "how much" question, however still relevant, is systematically complemented by, and tightly interacts with, the "how" and "to what end" ones.

Second, both developed and developing countries have agreed on a set of principles embodied in the 2005 Paris Declaration and in the 2008 Accra Agenda for Action (AAA). There are five major such principles: "ownership" by developing countries (i.e. their own control over their policies and development paths); alignment on their systems, rules and procedures; harmonization between donors, notably through the use of instruments such as budget and program support; a shared focus on development results; and mutual accountability. This agreement on a set of objectives and principles of action as well as on monitoring has been a very significant contribution to global collective action towards development results.

Yet, and notwithstanding its usefulness, donor coordination also faces several sets of limitations. We discussed above the dramatic increase in the number of relevant actors in the field of development finance, beyond participating donor and beneficiary governments. "New donors" such as China, have endorsed the Paris Declaration but, beyond a relatively loose commitment to the principles, in most cases they do not show many signs of a deliberate effort to operationalize this in their development cooperation programmes. At best, therefore, coordination is partial and thus likely not to be fully effective, and to be harder to implement due to lesser principled interventions by actors who do not feel bound by it. Beyond this deeper collective action and coordination problem, two further limitations apply. These limitations should not be seen as diminishing in any way the progress that has been accomplished in structuring collective action, but as a basis on which to build on the earlier initiatives to improve the global aid system. First, the principles as such make a lot of sense, but their implementation is often complex and problematic – not least because by their very definition they do not function as clear-cut, centrally administered policies, but need to be applied to local situations and context, so that by definition there can be no one-size-fits-all. Therefore, the ownership principle remains both crucial and quite elusive, most notably in poorly governed countries. Second, the whole approach aims at improving the existing framework in which official development assistance has evolved over time. In view of the deep, structural changes that characterize the current situation, the time may have come for a significant renewal of the official development assistance approach. This is about a shift from "aid" to "development". It is also fundamentally linked to the debate on "aid architecture". This paper makes the point that rather than directing efforts at creating a new "architecture", we need to better understand how to promote innovation for development results through various initiatives and partnerships, while ensuring that these remain truly demand driven, and focus on the needs and realities of recipient countries rather than institutional interests and turf fights within the aid, or broader development cooperation, industry.

The Ownership Question

Self-determination is at the core of the ownership principle and can be considered as the fundamental tenet of successful development. There are a number of caveats, though. First, it is both an individual aspiration and an objective for any legitimate representation of various social groups. As such, its implementation involves domestic politics: who is "self", who should devise and own a country's economic and social paths? While a democratic government is the ultimate response, it is a construct that requires time and institutional maturity to be effective. Meanwhile, the ownership principle cannot be dissociated from the legitimacy of social and political representation structures or from the notion of "good governance", of local leadership and of the local distribution of power. According to the 2007 report of the Growth Commission, growth-oriented leadership has been crucial to successful growth experiences. Clearly, however, the quality and legitimacy of leadership is open to interpretation and judgment, including on the donor side, so that the implementation of the ownership principle does not come easily. As such, it is more a guiding objective and quest than a perfectly clear and fully operational principle.

Second, in the same line, when there is a strong and capable government, ownership (by the local government) is not an issue. The difficulty with ownership is therefore concentrated on poorly governed countries. In these countries, many donors are not willing to take the risk of alignment on their systems and harmonization through budget aid as they fear the risk of mismanagement. Legal and fiduciary systems are often very weak. In such situations, which actually cover a great number of poor countries, translating the Paris Declaration principles into operational guidance is a particular challenge, and necessarily a longer-term effort – but at the same time these are the situations where following through on this challenge offers the greatest returns. It is clear, however, that a key component of donor action, besides providing resources and financing useful operations, has to be systematic support to capacity development. Again, this comes back to the complexity of development cooperation, and financial assistance alone would hold little promise without being set in a development cooperation partnership that covers a broad range of operational modes and instruments with a view to maximizing the impact on capacity development.

Third, successful ownership has typically been related to donor agencies' capacity to build dialogue and trust and to invest in field knowledge so that their advice can be tailored to partner countries' needs and inform the local policy-making processes. Such investments by donors are complementary to the provision of financial resources and are crucial ingredients of aid effectiveness. This is an area in which bilateral donors, whose objective function also includes building a bilateral framework conducive to dialogue, have a full role to play in complement to action by multilateral institutions. However, one of the shortcomings of donor approaches, not unrelated to their being accountable for the use of taxpayers' resources, has often been their limited willingness to tolerate mistakes and errors. Yet, there can be ownership and learning by aid recipients only if there is a trial-and-error process that helps build the recipient countries' knowledge base and policy convictions. However discomforting, there may thus be a tension, sometimes even a contradiction, between the focus on results and the principle of ownership: donors' experience and certainties may be questioned as unconvincing (for example, the recent financial crisis has spread doubt on the value of industrial countries' recommendations with respect to financial market organization) as long as other routes have not been tried. When donors are so confident about the nature of instruments and policies that may deliver results that they introduce explicit or implicit conditionality based on such instruments and policies, no space is left for the process of ownership to take place. The Accra Agenda for Action has made progress towards addressing such tension by recommending that conditionality be based not on ex ante principles but on mutually agreed objectives and ex post monitoring, which opens the possibility of choosing alternative courses of action and learning from them.

Continuity or Turning Point? Beyond Aid Architecture

As mentioned above, from a historical perspective, official development assistance has developed mainly as a government responsibility and a government-to-government relationship. It has come to be a highly visible, and often criticized, segment of public policies, notably because its international aspect compounded the challenge of being accountable to the domestic taxpayer and made it necessary to justify resource transfers beyond nation states' boundaries by actual development results, however measured. Responses have naturally and usefully focused on "aid effectiveness", an issue that has become over the last 10 years an overwhelming concern by DAC donors and aid critiques alike. The Paris Declaration, the Accra Agenda for Action and the ongoing work conducted by the working party on aid effectiveness (hosted by the DAC) have sanctioned a welcome progress in a common understanding and in collective action in an approach of aid effectiveness. This naturally started with a focus on such government-to-government perspectives, as the source of ODA funds on the donor side, and those with the political responsibility for creating and fostering capacity development and an enabling environment for a country's development on the recipient side. Acknowledging the key role of other stakeholders for development, however, the effort has increasingly brought in civil society, the non-executive branches and sub-national level of government, as well as private sources of development cooperation. Being a specific aspect of public policies, the focus has largely been on how to make the relationship underpinning North-South transfers more effective.

This was done acknowledging that, within an improved enabling environment provided by the government side, the private sector and other stakeholders beyond government are essential for bringing about actual development results. However, the success to involve the private sector in particular and to use the potential of ODA through various innovative instruments and practices to act as a catalyst leveraging public with other resources and initiatives has so far been limited. Effectiveness issues and potential problems have been addressed within the broader development cooperation apparatus,

by trying to analyse and improve the chain of policy implementation from taxpayer inputs to development results. National bureaucracies have invested substantial time and resources discussing the changes and reforms necessary so that public spending by donor countries in developing countries produce more "development", devising principles and good practices and monitoring their implementation. While the relevance of other actors, most notably firms and the private sector, have been amply recognized and discussed, donors and officials from developing countries invested in the aid effectiveness work have struggled – and mostly not succeeded – to involve the private sector in these discussions and efforts. While the private sector has not shown an overwhelming interest in taking part in the exercise, a key challenge remains an aid business that is in many ways still largely "top-down", supply driven and self-referential.

This focus is restrictive because development is not primarily to be "caused" by public money. While "good practices", if respected by donors, can contribute to an enabling environment that enhances the scope for development results, they cannot create results as in a plan or command economy. This is not possible without the central role of the interaction between public and private actions, and of understanding the conditions in which private initiatives will contribute to the public good. Such interaction is not "caused" by one of the parties, and is not likely to take place in systematically reproducible ways. But it may be facilitated by either party. Development effectiveness, thus, should be portrayed more as a joint public-private discovery process, in which innovation, evaluation and scaling-up are interdependent keystones of success and should receive much more attention.

If we accept that the multitude of actors, as well as the multitude of development challenges and needs make complexity an inevitable feature of development assistance, it follows that the aid "architecture" should not try either to hide it or ignore it. Naturally, different actors have different approaches and objectives. What is important is that all actors need to understand their efforts not only in isolation, but take the context of this complexity into account, and always remain conscious that their efforts need to fit into the development context, and the reality and capacity of the recipient country – because it is within the country and the interplay of its people and development stakeholders where the development needs to, and can only, take place. But a dogmatic focus on simplicity or standardized, uniform approaches would stifle the essential competition of approaches and ideas that are key to producing better aid effectiveness.

This points to two desirable characteristics with a view to better capturing the contribution and innovation offered by actors not engaged as yet in the aid effectiveness work:

1) a principle of *mutual recognition* of approaches and practices among aid actors, based both on:
   - *a degree, in the sense of a certain minimum level of* harmonization[4] through a set of behavioural principles, in the spirit of the Paris Declaration
   - an explicit acceptation of differences through competitive behaviours and ideas, with a commitment to mutual learning
2) an "overlapping networks" approach, rather than a silo-type or a hierarchical institutional perspective. This vision is akin to the "network of networks" approach undertaken in the context of this exercise. More than "architecture", one should rather speak of a global *system* of development cooperation.

Insofar as mutual recognition is concerned, the DAC has accumulated considerable experience through its role in bilateral donor coordination. However, the kind of consensus that has been achieved over the years within DAC through long negotiations is not going to be easily extended to all non-DAC sources of development finance, with challenges especially in terms of transferring it to private actors. Extending the approach will require a pragmatic debate on how the principles, which generally enjoy broad acceptation, can be pragmatically and flexibly applied, with a view to gradually constructing the basis for collective action involving these new actors. While the DAC pursues an increasingly intensive engagement with other countries, notably big emerging economies, on these issues, it is obvious that deep cultural and institutional differences and visions between DAC donors and this group, as well as within this group, leave a long way to cover. Similarly, civil society representatives are an active party in the aid effectiveness effort. But this and other forms of dialogue between DAC donors and other providers of development cooperation should be expanded, with a particular need to strengthen the private sector dimension.

[4] to ensure a degree of harmonization that prevents transaction costs from becoming too costly and counterproductive for aid effectiveness. It therefore represents a lower threshold to at least achieve.

More than a global architecture, it would be useful to think of development assistance and development finance as a set of "overlapping networks". Each of them may well develop its own collective action principles, provided there is mutual recognition between networks. The guiding principles of all, however, should be the quest for development impacts. However, this should be recognized as an unending quest, as measuring development will remain partial and somewhat elusive. It should again be seen as a cumulative learning process made of trial and errors, where asking questions, defining objectives, sharing information and monitoring and evaluating actions are fundamental. The measurement of "development results" should thus be seen as a process and an instrument for delivering aid more effectively and for promoting innovative public and private approaches.

It would be futile to specify a full-fledged "architecture" of these overlapping networks, since their added value stems from the additional resources they bring, the diversity of their identities, objectives, practices and operational modes. As part of such an "overlapping networks" approach, a new conception of multilateralism is called for, one that does not consider that multilateral action should be left to multilateral institutions alone, but that a whole range of "non-multilateral" actors can also effectively contribute to it by working together on joint objectives through a networking approach. For example, a flawed and misleading conception of multilateralism would tend to allocate global common interests to multilateral institutions and more local and national interests to bilateral ones. A more promising approach consists in recognizing the different interests and practices of these various actors and in mobilizing them in the joint pursuit of development results and global public goods. In the area of climate change, for instance, it is particularly important especially after the shortcomings of Copenhagen to focus not only on the multilateral negotiation but to encourage and document national policies that are developing in many places and to build the premises of successful collective action on such decentralized premises. The two approaches are obviously not mutually exclusive.

What can be done to promote this vision of overlapping networks (without proposing a grand architecture that would miss the point)? Beyond institutional and governance reform, already well under discussion, aiming at improving developing country representation, two evolutions of the *global aid system* should be promoted, namely larger networking and mutual accountability:

- Extension of the current "architecture" to promote systematic dialogue and interaction between DAC and non-DAC donors, as well as between public and private donors, and also systematically involve aid recipients
  While recipient countries and increasingly countries outside the DAC with development programmes are constituent parts of the aid effectiveness work, the World Economic Forum could promote in particular a stronger and inclusive public-private dialogue. A key focus of this series of dialogues should be to document and question the development impacts of international and local actions through a series of instruments: case and field studies, scientific impact evaluations, shared evaluations. Another focus should be to progressively build consensus on the state of knowledge, the identification of problems, the methods and modalities to adopt. There should also be a group specifically made in charge of innovation and the monitoring of innovation.

- Independent monitoring of volumes, activities, results and impacts
  Documenting, possibly on a selected country basis, the nature and consequences of international development finance activities undertaken by various development actors, both public and private, would be an essential component of a successful regulation of the global aid system towards development results. An alternative could be also discussed, namely the extension of the DAC peer review system to non-DAC actors and initiatives. These two proposals are not mutually exclusive. Their role would be to create a framework of disciplines and incentives on which to base the quest for development results.

As a partial conclusion, improving on the current aid system should hinge on two distinct but complementary dimensions. The first one is on how to improve existing approaches and practices, and this is what the discussion above has addressed, through the suggestion of opening the dialogue and interaction and disseminating further relevant information. The second one is how to innovate and provide additional ideas and resources from "out-of-the system". This is what our last section recommends, through an initiative based on promoting innovation that might usefully be taken up by the World Economic Forum.

(2) Proposal: A Global Aid Partnership for Innovation

As a unique forum for public-private interaction, the World Economic Forum is well placed to take up the challenge, although its focus on actionable ideas and quick fixes may not be the essential value added that ought to be expected. It is doubtful that ideas directly emerge during and out of discussions, however innovative and high-level, or from trying in short sessions to harness joint, "out-of-the-box" thinking to produce recommendations for specific actions. Where it could make the difference is in shaping processes that lead to results rather than in results per se. Results pop out from individual and collective actions, not from a top-down approach, be it shared between private and public representatives. Most of the time, ideas come on a random and not pre-determined basis. They are only – if essentially – informed by earlier discussions. A key question for the Forum, thus, is how to generate the incentives that may promote innovative thinking and behaviour. We need a framework to promote innovation at all stages: decentralized initiatives, "venture aid" capital funding and development, a place to "air" existing innovations, discuss them through proposals and examples and disseminate their lessons, a constant monitoring of existing innovative approaches, a systematic evaluation of decisions to support such or such innovation. This lies miles away from an attempt at defining a well thought-out "aid architecture". Promoting and exploiting chaos might be a more promising approach. Tough call for international bureaucracies!

What are the suggestions that the World Economic Forum might consider to help promote innovations for development? In our proposal below, we build on two aspects that have had promising results:

- The creation of the Consultative Group to Assist the Poor (CGAP - www.cgap.org), an independent policy and research centre established in partnership between development agencies and private foundations that share the common objective of reducing poverty through improving poor people's access to financial services. CGAP has developed as a forum for discussion and information sharing as well as a platform for peer pressure towards improved microfinance effectiveness.
- The recent marketplace on financial innovations for development jointly organized in Paris on 4-6 March 2010 in partnership between the Agence Française de Développement (AFD), the Bill and Melinda Gates Foundation, and the World Bank. This forum, which received 1,500 confirmed applications and hosted in permanence about 900 participants over its three days, confirmed the considerable interest in all segments of development activities for innovative solutions in which finance would play the supporting role of reaching for well identified development results.

Building on these experiences, **we suggest that the World Economic Forum support the creation of a "GAPI" (Global Aid Partnership for Innovation)**, with four missions:

1) Promote a yearly marketplace for innovative solutions, open to large and small, public and private organizations, and organized through a call for proposals to consider in two segments of the marketplace: conferences and panel discussions, and a global competition for innovative solutions to be judged on their innovative value as well as on their feasibility, organizational requirements and scaling-up potential; the global competition would recognize and encourage the most promising innovations so that they might be taken up directly by some donor organizations keen on innovation. An example of such promising innovation is the proposal on Cash on Delivery Aid suggested above.

2) Promote a global venture aid fund for innovation (GVAFI), as a partnership between donor organizations, philanthropic organizations and visionary business leaders
   Funding organizations would be members of the governing board, which would also comprise independent qualified persons. The GVAFI might function a bit like philanthropic foundations and look at proposals for funding innovative schemes that are proposed to it. It would generally grant partial funding so that other parties would also signal their interest in supporting the proposed scheme. Its board would approve and review funding decisions. GVAFI would intervene both as supplier of venture capital to launch new initiatives, but also as development capital to help scale-up schemes that have been successfully tried as pilot projects. GVAFI might have subsidy, loans and equity windows.

3) Promote systematic evaluations of innovations that it has encouraged (and possibly others as well), so as to disseminate ideas with potential, and highlight reasons for success and failure, so that later proposals and judgments on theses proposals can be better informed.

4) Promote the creation of a website of innovative solutions for development (ISD)
Such a website would at least pursue three objectives: 1) announce and document the earlier two points (organization of the yearly marketplace and the nature, role, function and decisions of the GVAF); 2) disseminate knowledge and information on all innovations that have been considered for the competition; and importantly, 3) get inspiration from the existing CGAP (a platform that notably organizes peer-pressure towards better microfinance effectiveness) – and organize a platform of peer pressure for change and innovative solutions between willingly participating public and private donors and philanthropic institutions.

Global Agenda Council on Poverty & Development Finance

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Global Agenda Council on the Skills Gap[1]

A Multistakeholder Dialogue Process to Redesign Talent Mobility Policies

Context

This proposal addresses the talent and jobs crises.
Talent Crisis. Ageing societies in developed countries, insufficient employability in developing regions and global economic challenges make the talent crisis today's danger – it is no longer tomorrow's concern. After factoring in forecasted productivity growth, the United States will need to add 26 million workers to its talent pool by 2030 to sustain economic growth. Already today highly skilled migrants are involved in generating approximately 10% of total US GDP. Western Europe will need to add 46 million workers by 2030. In 20 years, the workforces of India and Brazil will grow by more than 200 million but, because of low employability, developing countries will also face huge challenges to find the right skills. The human capital challenge is not simply one of quantity, but also quality. The green revolution, technological progress and other innovations will require new skills, new bases of knowledge – and new professions.

Jobs Crisis. At the same time, with 45 million new entrants to the global job market annually, according to the International Labour Organization some 300 million new jobs will need to be created from now to 2015 just to keep pace with the growth in the labour force.

An awareness of the severity of the upcoming talent/jobs crisis is needed before it strikes in less than a decade from now, so that comprehensive preventive actions can be taken.
Moreover,

- **Retraining** is an imperative and is critical to creating the millions of new jobs needed
- Changing the perception of **vocational education and careers is key**, so they are considered attractive
- **Redesigning talent mobility policies is needed** so they can stimulate innovation, contribute to economic recovery and combat unemployment

The corresponding weaknesses or gaps in international cooperation exacerbating the problem include:
Lack of awareness: There is no international recognition of the skills gaps and talent mobility challenges and their severity.
Access to information: Data on labour demand and supply across countries and industries are not systematically analysed.
Global regulation: No global mechanism regulates talent mobility except bilateral agreements and a few regional agreements that address the issue on a fragmentary basis. Best standards are not universally applied.
Education: There is insufficient feedback on the effectiveness of education systems and a lack of effective communication between business and education. Business maintains a short-term perspective; education maintains a long-term perspective; governments focus on the next election.
Employability: Large segments of the workforce are not directly employable, particularly in developing countries where many graduates do not possess the skills necessary to be employed. There is too much general education and not enough skills training; vocational skills are needed but people do not perceive them as attractive._
Disconnect between education institutions, business and government: This divide is reflected in the mismatch between what people learn at school (from early education to university) and what the market requires.
Brain drain and brain circulation: Some developing countries are affected by brain drain, which reflects, among other things, people's drive to move to where they will find greater opportunity and a better lifestyle. At the same time developing countries need their best talent to grow their economies. Therefore brain circulation through the return of experienced talent to their countries, whether temporary or for the long term, should be encouraged and fostered.
Inclusion and diversity: Talent shortages can be a function of insufficient access to talent pools and the insufficient integration of women and minorities into the mobile workforce. Organizations need to understand how to effectively manage multinational, multicultural workforces with differing beliefs, norms and behaviours.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

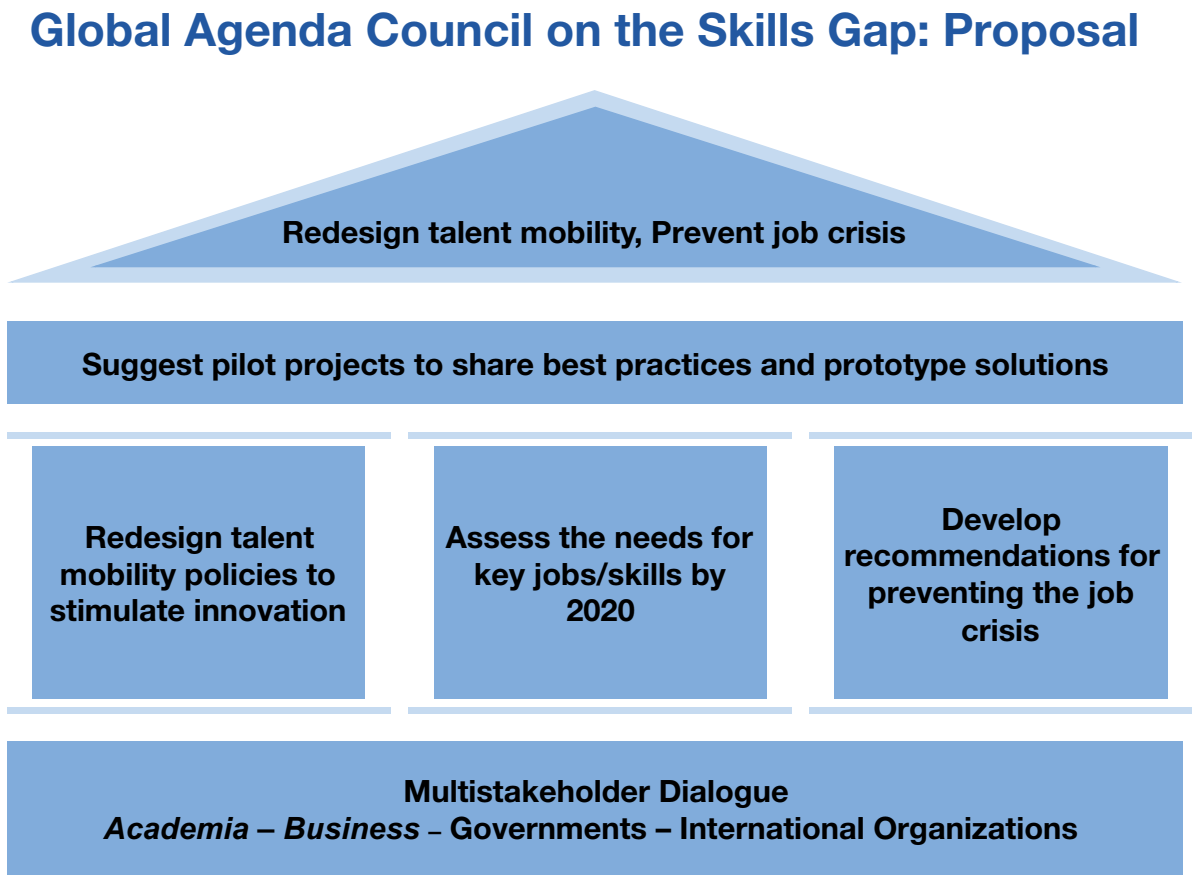
Global Agenda Council on the Skills Gap

Proposal

The current crisis has highlighted imbalances in human capital markets, with talent shortages challenging business growth, on the one hand, and raising unemployment retarding economic recovery on the other. National regulations are not being adjusted to the global economy and to the needs of developing countries in particular.

The objectives of this proposal are to:

- **Establish a concerted, multistakeholder, systematic process of cooperation and dialogue** among relevant international institutions, governments, businesses and academia
- **Suggest pilot projects** in recommended areas to share best practices and prototype solutions
- **Redesign talent mobility policies to prevent the job crisis**
  Talent and labour issues need to be better integrated and viewed in the context of:
  - Innovation – talent mobility driving innovation will lead to faster and more sustainable recovery
  - Broader economic policies focused on sustainable recovery and growth
  - Education – as an enabler



Global Agenda Council on the Skills Gap

Explanation/Rationale

The growing disconnect between employers experiencing significant talent shortages and employment institutions promoting job creation requires immediate attention and interdisciplinary action.

The need to stimulate innovation and restore growth by providing talent and creating jobs requires designing comprehensive global workforce solutions adjusted to the interconnected global economy. **International talent mobility can positively stimulate both developed and developing economies**. We are at the dawn of an unparalleled skills crisis and a significant transformation of the workforce, which is becoming more mobile and more diverse than ever before, as globalization removes many barriers to migration while simultaneously highlighting inequalities. **A danger of potentially increasing protectionism needs to be collectively addressed**. A relatively underemployed electorate may demonstrate populist sentiments leading governing bodies to increase protectionism, which may slow down the economic recovery.

Job creation is necessary for lifting people out of poverty, fuelling economic demand and building the foundation for sustainable, long-term economic development. However, the **creation of jobs requires addressing numerous skills, regulatory and business-related barriers**. Job creation should go hand in hand with business growth and providing the right skills. It is the responsibility of today's leaders to **ensure that employment, migration and diversity policies are advantageous to all** participating countries and cities, to people, to businesses and to the global, interconnected economy. Leaders of companies and governments must work together to include all society's members in the creation and distribution of benefits from prosperity and wealth.

In an ideal world market forces would address most imbalances from migration flows. However, when it comes to regulating human behaviours, market forces cannot always solve problems. Moreover, industries that need people and governments that may be inclined to protectionist actions often do not communicate well enough, even within their country. The cross-border aspect of talent mobility adds yet another level of complexity. Therefore the **dialogue proposed by this Council will enable the actors to take concrete actions** that are different from those taken today, leading to better human and migrant rights compliance, the selective dismantling of the largest barriers to migration and improvement in the human conditions associated with migration.

This topic is most relevant and urgent. Both talent mobility and unemployment/job creation issues increasingly pique the interest of the Forum's Partners and other constituents. This is demonstrated, for example, in the outcomes of the Summit on the Global Agenda in Dubai and in a record number of World Economic Forum Annual Meeting programme sessions related to the above-mentioned human capital challenges. The Forum can serve as a unique platform for addressing these issues in an interdisciplinary, cross-industry, neutral and socially positive way.

Deliverables

A) Establish a multistakeholder process of cooperation and dialogue among relevant international institutions, governments, businesses and academia

The dialogue will involve participants from all areas of society, from both developed and developing countries. Relevant Global Agenda Councils also need to be integrated in the dialogue. The dialogue shall generate trust among participants and create an understanding of mutual interests. The effective collaboration mechanism will be designed in consultation with key stakeholders. The current vision for the dialogue implies that the core group of contributors gather four times a year, including a face-to-face meeting once a year. A larger group meets once a year, ideally around a relevant event. A small secretariat facilitates the dialogue and collects best practices. The dialogue is designed to create a virtuous circle that will:

- Discuss existing best practices and successful, innovative projects of governments/companies
- Draft recommendations and undertake research to initiate new pilot projects and improve existing ones
- Continue the work of key actors, based on the output from the dialogue
- Gather further information and make action-oriented proposals that in turn lead to further actions

In this way the dialogue helps generate actions, prevents the duplication of work and serves as a feedback loop. Participants can see progress as each dialogue cycle generates new actions.

The Council on the Skills Gap agrees that the dialogue should be convened by the World Economic Forum as it offers a neutral platform that is recognized for bridging public and private sectors to improve the state of the world. Once the dialogue matures, the Forum may step back from the convening role to that of observer.

B) Suggest pilot projects in recommended areas to exemplify what is possible
- Share best practices (i.e. skills needs assessment in Shanghai, skills restructuring in Vietnam)
- Test/prototype recommendations coming out of the dialogue

C) Redesign talent mobility policies to prevent the jobs crisis and stimulate innovation
Rethink talent mobility policies
- Incorporate recommendations from the Global Agenda Councils on Migration, Talent & Diversity and others, i.e. the Councils on the Gender Gap, Ageing Society, Education Systems
- Rethink antidiscrimination, diversity, education, employment, migration and other relevant policies in the context of stimulating innovation; Suggest the integration of these policies with broader economic policies to foster sustainable recovery and growth
- Identify best practices in international talent circulation standards that can be applied and replicated globally to foster the free flow of ideas. This may include an analysis of select bilateral and multilateral agreements

Assess the needs for key jobs/skills by 2020
- Identify the jobs in biggest demand – and in biggest surplus – by 2020
- Assess the needs of select group of countries/areas for the jobs in key demand
- Develop recommendations to prevent the job crisis in these countries through retraining and talent mobility policies that match supply and demand better, and through addressing job creation barriers
- Based on the outcomes of the above, **agree on a set of general recommendations** for redesigning talent mobility policies to prevent the job crisis and stimulate innovations.
- Summarize the knowledge gathered and the recommendations into a report

Definition of Success
- Dialogue, as a process of working out recommendations, needs to bring valuable insights to participants and create opportunities for impact. The dialogue's success will be reached and measured by its ability to:
- Engage a credible group of key stakeholders and generate trust among them
- Integrate inputs from relevant Global Agenda Councils
- Gather a compelling set of data allowing the redesign of talent mobility policies to prevent the job crisis and stimulate innovations
- Develop a number of pilot project proposals for areas of recommendation
- Develop sustainable solutions beneficial for developing and developed countries

Who Would Be Involved?
International Organizations, Policy-makers, Regulators
In general, engaged institutions and policy-makers should collectively cover the talent mobility landscape in a comprehensive way. Therefore it is necessary to involve the EC, ILO, IOM, UNDP, UNESCO, OECD, regional development banks, the World Bank and others, i.e. civil society. Among the policy-makers, strong representation from both the developing and developed world is needed, although developed countries tend to be represented through international organizations.

To date, the following policy-makers have engaged in the dialogue: Jean Charest, Premier of Québec, Canada; Cheng Siwei, Chairman, International Finance Forum (IFF), People's Republic of China; Angel Gurría, Secretary-General, Organisation for Economic Co-operation and Development (OECD), Paris; Jamal Rhmani, Minister of Employment and Vocational Training of Morocco; and Nguyen Thien Nhan, Deputy Prime Minister and Minister of Education and Training of Vietnam.

Global Agenda Council on the Skills Gap

Education Institutions
Engaged institutions should reflect the geographical and curricula diversity of education systems. At the moment, representatives of the following institutions have been involved in the dialogue: Georgetown University, Harvard Business School, Hitotsubashi University, INSEAD, The Kiel Institute for the World Economy, the Thunderbird School of Global Management, the University of Oxford.

Business Organizations
Engaged companies should reflect the geographical and industrial diversity of business. Moreover, not only big multinational corporations but also fast growing – yet smaller – companies shall be involved, as well as social entrepreneurs.

To date, the following companies, among others, have participated in the dialogue: British Columbia Hydro and Power Authority, Boston Consulting Group, CA, Carlson, Citi, Clifford Chance, Credit Suisse, Deloitte, Eskom Holdings, HCL Technologies, Heidrick & Struggles, Infosys, KPMG, Kudelski Group, Manpower, Merck & Co., Microsoft, Nestle, PricewaterhouseCoopers, Sears Holdings Corporation, Standard Chartered, Zurich Financial Services, Yum! Brands.

Next Steps

Preliminary Implementation Plan

Brainstorm the Proposal and Kick Off (Now – May)
- Share the proposal with the Global Agenda Councils on Migration, Talent & Diversity and others
- Develop a list of potential pilot projects
- Identify key stakeholders to be included in the process at policy, strategy and working levels
- Finalize the scope of the proposal and develop a clear implementation plan with key contributors
- Brainstorm the proposal at the World Economic Forum on Europe, Brussels, in May
- Discuss the proposal with policy-makers and other Councils (Education Systems, Gender Gap, Innovation, Migration, Skills Gap, Talent & Diversity), reveal pilot projects at the Global Redesign Summit, in Doha, 30-31 May

Prepare Content, Design the Dialogue Mechanism (May – October)
- Conduct consultations and research
  - Rethink talent mobility policies, gather input from relevant Global Agenda Councils
  - Assess the needs for key jobs/skills by 2020
  - Develop recommendations for redesigning talent mobility to prevent the job crisis and stimulate innovation
- Finalize the list of preliminary pilot projects (existing ones and ideas for new projects)
- Design a dialogue mechanism
  - Analyse previous attempts of inter-institutional collaboration and identify success barriers
  - Design effective dialogue in collaboration with key stakeholders, apply project- and process- management best practices from business and the Forum's know how on building trust based, protocol free interactions

Agree on the Final Recommendations and Pilot Project Ideas (September – December)
- Approve the recommendations and summarize them in a report
- Discuss the outcomes at the Annual Meeting of the New Champions 2010, Tianjin, China, 13-15 September, and at the Summit on the Global Agenda 2010, Dubai, 29 November - 1 December

Share Recommendations, Raise Awareness (December 2010 – January 2011)
- Publish a report
- Arrange appropriate media coverage
- Share the recommendations at the World Economic Forum Annual Meeting 2011 and beyond Davos as appropriate

Define Next Steps (February – March 2011)
- Assess the outcomes and decide if the dialogue should continue
- Decide on dialogue governance as it matures
- Agree to objectives for the longer-term perspective

Global Agenda Council on the Skills Gap

Appendices

Executive Summary

It's not just a talent crisis – it is also a jobs crisis. The growing disconnect facing the private sector between the skills gap and talent mobility challenges, on the one hand, and the need for job creation, on the other, requires immediate attention and interdisciplinary action. Companies need access to the right talent to innovate and grow; economies need new jobs to stimulate demand and foster economic development. The creation of new jobs must be inextricably linked with filling these jobs with the right skills, or the economy does not benefit from the expected boost. Solutions should be sustainable in the long term and beneficial for both developing and developed countries.

The Global Agenda Council on the Skills Gap proposes a **concerted, multistakeholder, systematic process of cooperation and dialogue among relevant international institutions, governments and businesses to redesign talent mobility policies and prevent the jobs crisis.**
The proposal focuses on three main aspects:

- Establish an effective dialogue mechanism
- Suggest pilot projects in recommended areas to share best practices and prototype solutions
- Redesign talent mobility policies to prevent the job crisis and stimulate innovation

This proposal builds on the deliberations of the Global Agenda Council on the Skills Gap at the Summit on the Global Agenda 2009 in Dubai and at the World Economic Forum Annual Meeting 2010 in Davos-Klosters, as well as on the achievements of the "Stimulating Economies through Fostering Talent Mobility" project (http://www.weforum.org/en/ip/ProfessionalServices/index.htm)

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Global Agenda Council on Social Entrepreneurship[1]

Maximizing the Value of the Social Innovation and Enterprise

Context

Social enterprises are living R&D laboratories for society. They pioneer new organizational models to address social inequity and environmental challenges with market-based methods and can, with limited resources, have transformative effects – not just on marginalized communities and populations where they often work, but on entire sectors and economies. We're all familiar with microfinance, which has served over 150 million clients worldwide. But less well known are examples such as First Book, a social enterprise that provides books to low-income school systems and in the process identified a US$ 150 million annual market for the publishing industry in the US. KickStart, a social enterprise that develops affordable technologies for small African businesses, has created over 800 businesses that together generate revenues equal to 0.5% of Kenya's GDP.

Social enterprises can do this because they have developed unrivalled know-how at bringing cost-effective products and services to market and are often more efficient than governments at social service provision. Because many include cost-recovery in their business models and build capacity among the local workforce, their solutions are also more sustainable than fully donor-dependent programmes.

Their contributions to society and the private sector are significant – and their potential is unlimited. Social enterprises generate employment, increase the tax base and reduce governments' social service expenditures (and thus their fiscal deficit). Moreover, they can open up entirely new markets for corporations by tapping into their social infrastructure and providing the brand equity and trust critical for connecting with new customers.

Indeed, a number of social entrepreneurs have major innovations that have scaled significantly. Scores of others could join their ranks if the right infrastructure and incentive systems are put in place. For example, Aravind eye care in India performs 300,000 eye surgeries annually, roughly equal to 60% of the eye care procedures performed every year in the UK. Yet they do so for £ 8 million, compared to an annual cost of £1.6 billion in the UK. Differentials in labour costs and capital infrastructure cannot account for such a wide discrepancy; rather, it is Aravind's highly efficient operational model that has dramatically lowered the cost of healthcare delivery. Aravind has used this differential to provide free care for millions of poor people over its 30-year history. The international community must be mobilized to facilitate the scaling of the most promising innovations, such as Aravind's, worldwide. In the case of eye care, money is being wasted on higher cost procedures, and, even worse, people who could have the gift of sight must live with vision clouded by cataracts because this affordable model is not available to them. Similar social losses are being incurred with other innovations that struggle to scale in this antiquated policy and institutional environment.

The critical missing piece that prevents these innovative models from being replicated globally is the policy and institutional environment, which does not recognize the value of this kind of decentralized innovation and sets up barriers to the entrepreneurs pioneering these kinds of organizations. Governments and aid agencies rarely have policies in place to support social entrepreneurs, to learn from the experiences of social entrepreneurs, or to capitalize on their successes. National governments and multilateral agencies need to gain a better appreciation of how they can promote social entrepreneurship and utilize social entrepreneurs in their strategies for developing workable and efficient solutions to difficult social problems. With few exceptions, national governments do not have a legal category for social enterprises or policies on partnering with them.

As a result, many social enterprises operate at a tax disadvantage, have difficulty accessing capital and collaborating with organizations in other legal jurisdictions, and face large barriers to entering into mutually beneficial public-private partnerships with governments. Beyond new legal categories and tax issues, new financial markets and instruments are required to fit the needs of these new kinds of organizations. Existing financial instruments markets, just like existing legal categories, are bifurcated into traditional business and traditional charity. Social entrepreneurs often employ business models that blur that distinction.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on Social Entrepreneurship

Proposal and Explanation/Rationale

The Global Agenda Council on Social Entrepreneurship strongly recommends that global, national and local institutions and structures be redesigned to maximize the benefits created by social entrepreneurs. This aspect of the global redesign, however, should not be a centralized, top-down effort, but rather should be led and driven by social entrepreneurs with experience working on the ground. Thus, the Council recommends that the Schwab Foundation for Social Entrepreneurship serve as a platform for catalyzing a self-directed, self-organizing Global Alliance of Social Entrepreneurs to guide the redesign process, starting with the 150 social entrepreneurs already in the Schwab Foundation network.

Of course, we recognize that social entrepreneurs alone are not likely to have the time, knowledge, skills, power or authority to effect the necessary institutional and structural changes. They will need to form key strategic coalitions. The Global Alliance will have to extend to a variety of supporting organizations, composing an informal "global cloud" in support of social entrepreneurship. The Council proposes that the Alliance of Social Entrepreneurs identify appropriate partners, such as legal firms, capital market players and research institutes, to help achieve the following objectives in the next 24 months:

- Design and establish a complementary organization called the Consultative Group for Research to Advance Social Entrepreneurship (CGRASE), with the specific mission to conduct research and promote policies that maximize the benefits of social entrepreneurship to society. CGRASE would be governed by a board consisting primarily of experienced social entrepreneurs who are also members of the Alliance. CGRASE would have the standing, capabilities, and resources to conduct policy research, engage in advocacy and lobbying, and serve as an information source to ensure that national governments, regional bodies, and global organizations are not only aware of advances in the field but also see the advantages of actively supporting and working with social entrepreneurs. This group would play a supportive role in advancing the cause of social entrepreneurship similar to the supportive role that the now world-recognized CGAP (Consultative Group to Assist the Poorest) has played in advancing microfinance.

Specific functions that the Global Alliance of Social Entrepreneurs and/or the CGRASE should take on include:

1. Develop proposals for new legal forms of organization and tax policies to accommodate various forms of social enterprises and incentivize social value creation;
2. Collaborate with existing efforts, such as GIIN supported by the Rockefeller Foundation and the IRIS project, to build more appropriate financial services and markets for social entrepreneurs,
3. Create mechanisms to facilitate partnerships between social entrepreneurs and corporations (governments, multilateral agencies, or major NGOs); and
4. Promote ideas for raising public awareness and understanding of social entrepreneurship, e.g.:
   - Designate 2011 the "Year of Social Enterprise" and host a series of high-profile global events;
   - Create an interactive and accessible library of "success stories" that profile partnerships between social enterprises, governments and/or corporations; and
   - Work with members of the media and universities to showcase positive examples and share lessons learned.

Role of Key Stakeholder Groups

In addition, the Global Agenda Council on Social Entrepreneurship recognizes that all members of society have a direct interest in the success of the social enterprise sector, and the potential of the sector will only be fulfilled with additional support from governments, international organizations, the private sector and civil society. Specific recommendations for each stakeholder group are detailed below.

National governments should:

- Enact new legal forms of social purpose organizations that better accommodate the varying business models developed and used by social entrepreneurs (perhaps based on the CIC and L3C legal forms recently enacted in the UK and U.S., respectively);
- Apply tax incentives for the development of investment strategies in the social sector;

- Remove subsidies and change policies that distort markets and inhibit the entry of entrepreneurs and social entrepreneurs with new technologies, e.g. policies in the fossil fuel sector that inhibit the market competitiveness of social ventures in renewable energy;
- Adopt policies that allow government and donor aid money to be used to subcontract to or invest in social purpose organizations, based on their social value creation and efficiency gains over direct public service provision; and,
- Adopt policies and programs to encourage entrepreneurship (business and social) and support the development and growth of entrepreneurial ventures (such as easier licensing and registration processes for new organizations, state supported venture or loan funds, subsidized education and training for entrepreneurs, tax breaks for new venture incubators, etc.).

International organizations should:
- Explicitly endorse and encourage the practice of channelling donor aid money through national governments to subcontractors, e.g. social enterprises;
- Sponsor open dialogues between social entrepreneurs and national governments in the jurisdictions where they operate to identify shared goals, align missions and actively engage in developing partnership solutions;
- Consider how their interventions might create environments that foster productive social entrepreneurship in countries or problem areas where that kind of experimentation is needed to find new, more effective approaches to social problems; and,
- Actively seek out social entrepreneurs with demonstrated innovative solutions that have the potential to scale and those with experiences (including failures) from whom many others could learn, and disseminate these lessons.

Capital market players should:
- Create a social enterprise financial services industry. The first step towards such an industry could be the creation of a deal-making platform that would connect social investors with social enterprises, with the objectives of 1) creating a transparent, integrated marketplace where financing opportunities are made widely available for social enterprises; and 2) giving potential investors access to accurate information about the nature, scope and track records of social enterprises applying for financing; and,
- Design new, more appropriate financial instruments and funds suitable to the needs of social entrepreneurs, such as time-bound subsidies for the introduction of new technologies in developing countries or low-income markets.

The private sector should:
- Partner with social entrepreneurs as part of a more comprehensive strategy, which goes beyond CSR to addressing the “Base of the Pyramid” that opens new markets, repositions brands, and provides deeper engagement in solving social problems as a talent retention strategy; and,
- Consider licensing technology to social entrepreneurs for restricted use in markets that do not meet corporate profit thresholds.

Other stakeholders should:
- Consultant, evaluators and intermediaries: Help to develop and implement sector-wide standardized evaluation metrics so that potential investors can better assess the business and social return opportunities presented by hybrid organizations.
- Journalists, bloggers and media organizations: Research and tell the powerful stories, promote proven successes and expose the missed opportunities because society has under-invested in these ventures.
- Educators: Develop a curriculum to facilitate the skill set necessary to succeed in both the business and social sphere.

Next Steps

In order to move forward on these recommendations in the next 12-18 months, the Social Entrepreneurship GAC proposes the following next steps:

1. **Initiate the Global Alliance:** Identify social entrepreneurs who are willing to play a leading role in the Global Alliance of Social Entrepreneurs, and with them determine the catalytic role that the Forum and the Schwab Foundation can play to assist this group in getting off the ground.
2. **Design CGRASE:** Under the auspices of the Schwab Foundation and the Forum, convene a working group to design the CGRASE in a way that is likely to maximize its effectiveness: define its desired mission, governance structure, operating strategy, agenda, and business model. This working group will include leading social entrepreneurs, some of whom have direct experience with CGAP, representatives from leading social entrepreneurship organizations, academics with extensive experience in the field, and development policy experts.
3. **Take Steps to Launch CGRASE:** Begin discussions with a potential host agency for the CGRASE to determine receptivity and funding possibilities. (CGAP is housed at the World Bank, but supported by over 30 donor members including numerous multilateral and bilateral development agencies as well as several foundations). With the host agency, begin to approach other agencies and potential "donor members." Recruit a board of directors for CGRASE that will help assure that it stays true to the mission.
4. **Frame the Work on Key Issues:** Identify potential partners to work with the Global Alliance or CGRASE to develop proposals on new legal forms of organization and related tax laws, to draft other model policies for stimulating and supporting social entrepreneurship (perhaps linked to policies to support entrepreneurship in general), to develop a matching platform for social entrepreneurs to find corporate partners and vice versa, and to create an on-line library of partnership success stories with all kinds of organizations. Survey all the efforts currently underway to improve financial markets for social entrepreneurs and identify where the Global Alliance or CGRASE might be able to add value. Contact the UN about declaring 2011 the "Year of the Social Entrepreneur." Decide the best way to proceed on each key element. Does the Alliance or CGRASE take the lead? Is a partner involved? If so, who? What resources are needed?
5. **Attract Resources and Initiate Key Projects:** Raise funds and in-kind commitments to move forward with the projects and partnerships to implement the proposals described in this document, as far as the Global Alliance or CGRASE can do so. Begin work on these projects.

Through these steps, we want to maximize the ability of global institutions to benefit from the power of decentralized social innovation. Social entrepreneurs bring ingenuity, resourcefulness, and determination to their work. Our institutions should be designed to capitalize on that so that we all benefit from their efforts. These steps are designed to move us in that direction.

Global Agenda Council on Social Entrepreneurship

Appendices

Executive Summary

Main Premise: Global institutions need to be redesigned to recognize and harness the power of decentralized innovation as a tool for solving social problems.

Social entrepreneurs pioneer innovative models to address social inequity and environmental challenges and can, with limited resources, have transformative effects – not just on marginalized communities and populations where they often work, but on entire sectors and economies. Indeed, a number of social entrepreneurs have made undeniable breakthroughs, and scores of others have developed powerful models worthy of scale, but fail to scale because of flaws in the institutional environment, which lags at least five to ten years behind the developments in this rapidly changing sector. Even those that are less successful produce often valuable knowledge that should be harvested and shared, but rarely is, meaning we are doomed to duplicate mistakes.

The critical missing piece that prevents these innovative models from being replicated globally is a strategic and supportive policy and institutional environment that maximizes the value of real-world experiments conducted by social entrepreneurs as they test and refine their ideas and approaches. With few exceptions, national governments do not have adequate legal categories for social enterprises, strategies for encouraging them, or policies on partnering with them. Existing financial markets and instruments are woefully inadequate to meet the capital requirements of these hybrid organizations. And multilateral agencies lack an appreciation of how their procurement and contracting policies can be channelled towards social entrepreneurs in their strategies for tackling difficult social problems, or how lessons from social entrepreneurs in one country might inform their work in other countries.

As a result, many social enterprises:
- Operate at a legal and tax disadvantage;
- Have difficulty accessing capital and collaborating with organizations in other legal jurisdictions; and,
- Face large barriers to entering into mutually beneficial public-private partnerships with governments.

Against this backdrop, the Global Agenda Council on Social Entrepreneurship strongly recommends that global, national and local institutions and structures be redesigned to maximize the benefits created by social entrepreneurs. To accomplish this we recommend a two-pronged approach:

- The Council emphasizes the importance of employing a bottom-up approach, driven by social entrepreneurs with experience working on the ground. As such the Council recommends that the Schwab Foundation for Social Entrepreneurship serve as a platform for catalyzing a self-directed, self-organizing Global Alliance of Social Entrepreneurs to guide the redesign process, starting with the 150 social entrepreneurs already in the Schwab Foundation network.

- At the same time, the Council recognizes that social entrepreneurs alone are not likely to have the time, knowledge, skills, power or authority to effect the necessary institutional and structural changes. Thus, the Council recommends the establishment of a complementary organization called the Consultative Group for Research to Advance Social Entrepreneurship (CGRASE), with the specific mission to conduct research and promote policies that maximize the benefits of social entrepreneurship to society.

Global Agenda Council on Social Entrepreneurship

List of Members

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Sarah Mavrinac, President, aidha, Singapore
Thulasiraj Ravilla, Executive Director, Aravind Eye Hospital, India
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The Forum of Young Global Leaders[1]

A People's Plan of Action for the Millennium Development Goals

Context

The Millennium Development Goals (MDGs) are a series of core global targets for reducing extreme poverty and hunger by half while improving education, health, gender equality, and environmental sustainability by 2015. They are the world's goals, and are dedicated to advancing the wellbeing of the billion poorest and most marginalized people on the planet. They have spurred an unprecedented common global agenda for partnership. Bill Gates has called them "the best idea for focusing the world on fighting global poverty that [he has] ever seen."

Worldwide progress on meeting all the MDGs is off-track, particularly in sub-Saharan Africa. Nonetheless, remarkable advancements have been made towards meeting the MDGs since their establishment in 2000, including a 74% reduction in measles deaths, 4 million people on life-saving AIDS treatment, and more than 30 million additional children in primary school in Africa alone. These success stories each have major lessons for scaling up global partnership programmes, including sound technical interventions, institutional mechanisms to deliver services, adequate finance to reach scaled implementation, and a clear focus on metrics. These breakthrough successes share another common thread: most were widely considered unachievable in 2000.

In September 2010, the United Nations will host a high-level summit on the MDGs. This Summit will be the last major opportunity for the world to put in place a coherent and practical plan for achieving the integrated set of targets in time for the internationally agreed 2015 deadline. In his September 2009 opening address to the UN General Assembly, President Barack Obama announced a countdown to the September 2010 Summit. The President stated unequivocally that the United States "will support the Millennium Development Goals, and approach next year's Summit with a global plan to make them a reality."

Unlike the previous Summit in 2005, however, in 2010 there are no major international initiatives preparing recommendations to feed in to the summit processes. Political leaders are facing difficult economic conditions and near-term pressures that short change the MDG agenda. There is a significant risk that the 2010 intergovernmental processes will come and go without the necessary energy or resources being mobilized to forge critical breakthroughs for the Goals.

Leadership contributions are urgently needed from across the spectrum of civil society to help fill this gap. On the policy side, efforts are needed to identify where new mechanisms are required, where existing mechanisms need to be scaled, and where public and private sector engagement is essential. This leadership is necessary not only to contribute innovative thinking and resources to the traditional policy process, but also to support and catalyse official processes by mobilizing broad coalitions for action and implementation.

To this end, the Young Global Leaders' (YGL) MDG task force was launched in late 2009 to create a new mechanism that encourages a broader coalition of actors to contribute to the Goals. The core idea is that the Goals need to be made more actionable and accessible to a broader set of constituencies, thereby supporting global policy momentum for the MDGs. Thus the task force has adopted four core goals:

1. To mobilize individuals, companies, scientists and non-governmental organizations to make concrete, action-oriented pledges that contribute to the achievement of the MDGs
2. To leverage these pledges in a manner that builds awareness and thereby supports the adoption of a robust intergovernmental MDG action plan at the September 2010 UN summit, and
3. To identify opportunities for action-driven public engagement in support of the MDGs
4. To recommend a mechanism by which broader elements of society can make concrete MDG contributions on an ongoing basis through to 2015 – a "people's plan" for the Goals

[1] The views expressed here do not necessarily reflect those of all the Young Global Leaders or those involved in this proposal's task force, nor do they represent an institutional position of the World Economic Forum or its Members.

The Forum of Young Global Leaders

Proposal

The task force emphasizes leadership through action, example, and measurable results. Its initial focus has been on collecting a large number of YGL pledges for the MDGs in the lead up to the World Economic Forum Annual Meeting 2010 in Davos-Klosters. These pledges broadly span efforts to raise awareness, raise funds, and deliver services. Pledges are measured in terms of the number of people newly aware or who will be able to achieve an MDG (or multiple MDGs) as a result of the commitment.

The first batch of more than 50 YGL-MDG pledges were announced in Davos (see Appendices). A press release was circulated to World Economic Forum media, through YGL channels, and to UN leaders to increase awareness of the initiative. The task force also contributed relevant site material for the new YGL-GRI website (http://redesignourworld.com/mdg) that was launched in the lead up to Davos.

The MDG pledges also create the opportunity for "non-traditional" organizations and individuals to become MDG advocates by tying public descriptions of their own pledges to broader explanations of the MDG gaps. For example, someone making a pledge could frame it as: *The world has promised to reduce the number of people living in chronic hunger by 500 million people in the next 6 years. This is feasible if the G20 trust fund for smallholder farmers is properly financed and implemented in the next three years. To support the global MDG Action Plan, I'm doing my part by helping 10,000 children get access to school meals every day for the next 5 years.*

The task force aims to kick start a broader process through which companies, organizations, individuals, and governments all make their own concrete MDG action pledges during the course of 2010. This has been dubbed a "people's plan of action for the MDGs" since it underscores public commitments and awareness of the Goals and contributes to the adoption of an effective intergovernmental MDG action plan at the September 2010 UN Summit the following G8/G20 summits in Canada and Korea. YGL task force members are contributing expertise in strategies around advocacy, business, media, and policy, respectively.

Explanation/Rationale and Next Steps

Following the task force's early success leading up to Davos, a phase two strategy is now being firmed up to cover the period through to the UN's September 2010 MDG Summit, and in turn through to Davos 2011. The initiative has grown so quickly that it now merits modest direct fundraising to finance a full time project manager and basic operational oversight. A variety of funding sources are currently being pursued, with an immediate target of raising US$ 100,000.

Several World Economic Forum member companies and organizations have already made MDG pledges through the YGL network. The primary objectives are now to leverage the initial YGL pledges for broader MDG advocacy, and to identify a mechanism whereby the MDG pledge process can be opened up to broader communities. The full range of World Economic Forum Members would be welcome to join the initiative by (a) making their own MDG pledges, (b) contributing their technology expertise to the initiative, especially digital technology, (c) contributing communications and outreach efforts, and (d) contributing financially for core project staffing.

Against that backdrop, a draft timetable for the coming year is as follows:

March-April
- Send letter describing YGL-MDG initiative to global cross section of government, UN, religious and corporate leaders.
- Collect more YGL pledges for announcement in Tanzania
- Launch free-standing website, linked to redesignyourworld.com
- Build an online mechanism that will allow general publics to make MDG pledges
- Identify financing to hire a project manager; proceed with recruitment

May
- At the World Economic Forum/Young Global Leaders Summit in Tanzania:
  - Announce new YGL pledges (including potential announcements in collaboration with government leaders)
  - Launch MDG online pledge mechanism for general publics
  - Initiate media strategy, highlighting pledge makers and beneficiaries
- Confirm tracking mechanism for MDG pledges

June-August
- Support MDG advocacy leading up to June G8/G20 summit
- Collect MDG Pledges at UN Global Compact Leaders' Summit
- Draft YGL-MDG People's Action Plan report to be presented in September

September
- Convene event adjacent to UN MDG Summit, working with interested government, corporate, and non-profit partners. Present YGL-MDG People's Action Plan report at same event

January 2011
- At the World Economic Forum Annual Meeting in Davos-Klosters, present First Annual Progress Report (first of five through to 2015) that tracks MDG pledges

The Forum of Young Global Leaders

Appendices

Abstract

The Millennium Development Goals (MDGs) are dedicated to advancing the wellbeing of the billion poorest and most marginalized people on the planet. The World Economic Forum's community of Young Global Leaders' (YGL) has launched an innovative new partnership strategy in which individuals and organizations can identify and pledge practical efforts that tap into their professional or personal networks to advance the frontiers of MDG implementation, awareness, and resource mobilization. This "People's Plan of Action for the MDGs" focuses on results-based approaches at all scales. The aim is to broaden the range of constituencies contributing to the Goals - recognizing that government actions remain crucial, but much more than government action is required if the MDGs are to be achieved.

Davos Press Release

A People's Plan of Action for the Millennium Development Goals
Davos, Switzerland, 26 January 2010 **–** Today more than 60 Young Global Leaders (YGLs) from business, policy, science, and non-profit communities announced an innovative new partnership strategy to tackle the challenges of extreme global poverty. Each YGL has identified and pledged a practical effort that taps into their professional or personal networks to advance the frontiers of implementation, awareness, and resources in support of the Millennium Development Goals (MDGs).

The initiative is entitled a 'People's Plan of Action for the MDGs.' It focuses on results-based approaches at all scales, drawing from new forms of social entrepreneurship alongside highly successful existing programmes. The aim is to broaden the range of constituencies contributing to the Goals — recognizing that government actions remain crucial, but much more than government action is required if the MDGs are to be achieved.

"Ten years ago, the world charged itself with a great but realizable challenge: to end global poverty. In adopting the Millennium Development Goals, we agreed to one essential truth: that all the world's citizens deserve the chance to lead healthy, prosperous and fulfilling lives," said YGL Zainab Salbi Founder and CEO of Women for Women International.

"These pledges highlight the new types of entrepreneurship and dynamism that are essential for reaching the MDGs by 2015," said YGL Johann Koss, President and CEO of Right to Play International. "The Goals cannot wait on governments alone, especially in these difficult economic times. Everyone has something to contribute, and no pledge is too small, or too big!"

Partnering with organizations as varied as Facebook, Space Adventures, Architecture for Humanity and the GAVI Fund, Young Global Leaders are taking the lead in formulating initiatives aimed at eradicating extreme poverty and hunger, reducing child mortality, improving maternal health, achieving universal primary education, combating HIV/Aids and malaria, promoting gender equality, and promoting environmental sustainability. The collective work of the Young Global Leaders aims at contributing to MDG Goal 8: creating a global partnership.

Believing that each person and each organization can make a difference, the Young Global Leaders community of the World Economic Forum are dedicated to supporting the Millennium Development Goals and will work to have maximum involvement from people all over the world in this effort. Every idea counts – and every effort helps – in making the world more equitable and fair for the next generation. The coming nine months will be critical in making the September 2010 Millennium Development Goal (MDG) summit at the United Nations a success – and over the next five years, the Young Global Leaders will continue to work to achieve success by the 2015 mark.

The Forum of Young Global Leaders

Based on an initiative launched by YGL Johann Koss and YGL John McArthur, CEO of Millennium Promise, the MDG pledges span three key areas: implementation, fundraising, and public outreach. Some examples of pledges are:

*YGLs Esther Duflo, Kristin Forbes, Michael Kremer and Vikram Akula pledge, through the YGL Initiative 'Deworm the World,' to improve children's health and education by helping deworm at least 10 million children in 2010.

*YGL Orzala Ashraf Nemat has partnered up with YGL Christian Wenk to establish a school for 250 girls and 150 boys in Utran village, DaraiNoor District, Nangarhar Province of Afghanistan— one of most remote and mountainous areas in the country.

*YGL Mack Gill and the team at SunGard will provide technology services to Grameen Foundation to support ten microfinance institutions reaching 500,000 people worldwide. SunGard will also educate its 20,000 employees on the MDGs.

*YGL Acha Leke and the African Leadership Academy will encourage faculty and students to analyse data relating to the MDGs in the 53 countries of the African continent to enhance understanding of MDGs and to contribute towards achieving MDGs 3, 7 and 8.

The MDGs are the world's goals, and are dedicated to advancing the wellbeing of the billion poorest and most marginalized people on the planet. They have spurred an unprecedented common global agenda for partnership. Bill Gates has called them "the best idea for focusing the world on fighting global poverty that [he has] ever seen."

Even the best ideas cannot bear fruit without commitment and action – and thus Young Global Leaders call upon partners around the world to join in advancing the People's Plan of Action, and to help ensure a world that is fairer and better for all.

Huffington Post Op-ed

"**A People's Plan of Action to Fight Extreme Poverty**"
By Johann Koss, Chief Executive Officer and President of Right to Play & John McArthur, Chief Executive Officer of Millennium Promise
January 28, 2010

Government leaders cannot solve global challenges on their own any more. In today's much flatter world, it is everyday people —and, critically, their personal networks—who have the potential to be the world's big new problem solvers. Haiti's post-earthquake emergency has vividly displayed the need for coordinated best efforts from non-profits, companies, individuals, online communities, governments and the UN system. The same mindset of partnership, urgency, and "all hands on deck" is also required to achieve the Millennium Development Goals, the world's integrated targets for tackling extreme poverty by 2015.

The crisis in Haiti underlines the deep truth that life remains horrendously fragile in societies that lack the resources and infrastructure to meet basic human needs. For the 1.4 billion people still living in extreme poverty around the world, life and death tragedies remain all too common, whether brought about by a earthquake, drought, flood, or even just the simple bite of a mosquito. More than 8 million children will die this year before reaching their fifth birthday, most because they are too poor to stay alive.

In his September 2009 opening address to the UN General Assembly, President Barack Obama announced a new approach to the global challenge, with a countdown to the Millennium Development Goal summit that will take place at the United Nations in September 2010. This will be the last major opportunity for governments to put in place a coherent plan for achieving the Goals in time for the 2015 deadline. The President stated unequivocally that the United States "will support the Millennium Development Goals, and approach next year's Summit with a global plan to make them a reality."

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The Millennium Goals are the world's goals. They have spurred an unprecedented global agenda for partnership since they were established 10 years ago. Bill Gates has called them "the best idea for focusing the world on fighting global poverty that [he has] ever seen." They have seen remarkable progress, including a 74% reduction in measles deaths, 4 million people on life-saving AIDS treatment, and more than 30 million additional children in primary school in Africa alone. The success stories each have major lessons for scale-up, including sound technical interventions, institutional mechanisms to deliver services, adequate finance to reach scale, and a clear focus on metrics. Ten years ago most were widely considered unachievable.

In 2010, global policy agreements are crucial, but they are no longer enough. Some government commitments are becoming tough to respect in any case. The G7 rich countries alone are now more than US$ 30 billion behind on their high profile 2005 Gleneagles promises to the developed world.

The Goals need action from everyone. In that spirit, this week a group of more than 50 private individuals and organizations around the world are making their own pledges to help make concrete progress. These pledges will be announced at the World Economic Forum's annual meeting in Davos, Switzerland, and are being made by people the Forum has designated "young global leaders." The group strives to show that the Goals require shared ownership, with everyone doing what they can to leverage available skills, technologies and networks to contribute towards the core targets.

Pledges vary in size and include effort to deliver services directly, mobilize funding, or raise public awareness. They embody the spirit that everyone has something to contribute. One person is launching a school that will teach 250 girls in Afghanistan. Another is supporting the reclamation of Indonesian land in support of the Goal for biodiversity. Accion International will expand financial services to 500,000 microentrepreneurs in India. Deworm the World has committed to deworm more than 10 million children to support the Goals for education and child health. Facebook's leadership has pledged an innovative strategy to connect 20 million people with organizations supporting the Goals for gender equality. The pioneering African Leadership Academy will mobilize its students around the Goal for environmental sustainability.

These pledges can only be a beginning. In the coming weeks the initiative plans to launch a public mechanism through which companies, organizations, individuals, and governments can announce and register their own concrete MDG commitments. The aim is to leverage pledges in a manner that builds public awareness of the Goals and also supports the adoption of a robust intergovernmental action plan at the September 2010 UN summit.

Individuals, companies, and non-governmental organizations need to stand alongside their governments to advance the best solutions to extreme poverty, to sustain public engagement, and to hold their governments accountable. The Goals are too important to wait on politics. World leaders urgently need our help. It is time for a people's plan of action.

"MDG Pledges"
Announced by Young Global Leaders
During the World Economic Forum Annual Meeting in Davos-Klosters, Switzerland
January 26, 2010

The following Young Global Leaders and partner organizations have made action-oriented pledges to support the achievement of the Millennium Development Goals (MDGs) by 2015:

- **Muna Abu Sulayman**, through the Alwaleed Bin Talal Foundation, pledges to support initiatives impacting approximately 84,000 people by 2015 across Malawi, Niger, Senegal, Sudan, and Yemen and contributing to: MDG 1, on poverty; 2, on primary education; 3, on gender equality; 4, on child mortality; 5, on maternal mortality; 6, on combating HIV/AIDS, malaria, and TB; 7, on environmental sustainability.

- **Wilmot Allen** is a sponsor of a pledge from I Can Fly International Girls' Educational Empowerment to educate 500 girls in Kenya between 2010 and 2015. In addition to primary and secondary education, the girls will receive housing, computer training, entrepreneurship training, health and beauty advice, and college field trips in Africa and abroad, thereby contributing to MDG 1 on poverty, MDG 2 on primary education, and MDG 3 on gender equality.
  He also pledges during this period to help increase global awareness about the MDGs through an annual article published in an academic journal or non-academic magazine, contributing to MDG 8, creating a global partnership for development.
- **Mina Al-Oraibi**, through The GAVI Fund, pledges to protect children under 5 in the 72 poorest countries providing them with life-saving vaccines. Resources raised through advocacy and awareness by Ms. Al-Oraibi and YGL partners will have an initial target of immunizing 1,000 children with the pentavalent, pneumococcal, and rotavirus vaccines, thereby contributing to MDG 4 on child mortality.
- **Eric Anderson**, through Space Adventures, pledges to promote the awareness and advocacy cause of clean water for all in cooperation with Cirque du Soleil's founder Guy Laliberte's One Drop Foundation. This pledge commits more than US$ 200,000 in funding to directly support organizations implementing clean water programmes between 2010-11, reaching over 100,000 people, and will aim to raise over US$ 1 million in direct further support by 2015, thereby contributing to MDG 7 on environmental sustainability.
- **Orzala Ashraf Nemat** and **Christian Wenk** pledge to establish by 2011 a school for 250 girls and 150 boys in Utran village, which is located in the Darai Noor District, Nangarhar Province of Afghanistan, one of most remote and mountainous areas in the country, thereby supporting Goal 2 on primary education and Goal 3 on gender equality.
- **John Battelle** and Federated Media, including the more than 100 major publishers who work with Federated Media, will identify 5-10 specific initiatives that can directly improve MDG 4 for child health, MDG 5 for maternal health and MDG 6 for environmental sustainability. Each initiative will be taken up by several publishers who will be personally connected to it and will rally their readers for that cause. The overall campaign will reach more than 50 million people in aggregate by end-2012.
- **Jimena Blazquez**, through the NMAC Foundation, pledges by 2012 to improve art and environmental education for 1,000 children in underdeveloped areas in order to promote the use of creativity and imagination with the idea of establishing a multicultural dialogue between Africa and Spain by an exchange programme between community schools, thereby contributing to MDG 7 and 8, on environmental sustainability and creating a global partnership for development, respectively.
- ACCION International, supported by board member **Amy Butte**, pledges to work with partners to reach 500,000 poor Indian micro-entrepreneurs with inclusive financial services by 2015, bringing innovations, best practices and investment capital to both urban and rural microfinance institutions, thereby supporting MDG 1 on reducing extreme poverty.
- **François-Philippe Champagne** pledges to continue to financially support the Ruwwad Project – the first privately funded non-profit organization in Jordan – by personally contributing to the operating budget of one of its schools for a minimum of 2 more years, thereby contributing to MDG 2 on primary education.
- **Ganhuyag Chuluun Hutagt**, through XacBank and TenGer Financial Group, pledges to continue to provide financial services in Mongolia to the middle and low-income populations, including rural areas through mobile banking, to offer micro loans to finance eco-friendly products, to offer student loans, and to empower, through a partnership with the Ministry of Education, girls' financial education and savings programme. This pledge targets over 300,000 clients between 2010 and 2015 and helps supports MDG 1, 2, and 3 on poverty, primary education, and gender equality, respectively.
- **Veronica Colondam**, through the YCAB Foundation, pledges between 2010 and 2012 to educate 10,000 school drop-outs and underprivileged children in Indonesia with a holistic poverty alleviation programme addressing health access, vocational and life skills, and finding meaningful employment, thereby contributing to MDG 1, on extreme poverty and productive employment, and 6, by educating and training a million youth on healthy lifestyle in the light of the primary prevention of HIV/AIDS, malaria, and other diseases.
- **Jennifer Corriero**, through Taking It Global and in partnership with the YGL Youth Task Force, pledges to create awareness of and facilitate education about the MDGs among youth constituencies via website and discussion boards, thereby contributing to MDG 8, building a global partnership for development.

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- **Jo Cox**, through the Maternal Mortality Campaign, pledges in 2010 to raise global awareness among 100 million people about the women and girls who die needlessly in pregnancy and childbirth and to mobilize at least 20 world leaders to champion this issue, thereby supporting MDG 5, improving maternal health, and MDG 8, building a global partnership for development.
- **Idalia Cruz**, through TV Azteca & Grupo Salinas, pledges by 2010 to create awareness and encourage women's leadership by teaching wives, mothers, sisters, and daughters of the company's sales staff of over 30,000 employees in Mexico to be better leaders and help impact other women, thereby supporting Goal 3 on gender equality.
- **Marco de la Rosa**, through the AES Dominicana Foundation, pledges in 2010 to sponsor three schools impacting 2,500 students and one technical school impacting an additional 400 students in the Dominican Republic to elevate the quality of education and teachers and contributing to Goal 1 on poverty and productive employment and Goal 2 on education.
- **Kirill Dmitriev**, through Icon Private Equity, pledges by 2011 to cover more than 40 million people in developing countries with 4G broadband wireless service and to bring free 4G Internet to 2,000 schools, contributing to MDG 8, closing the digital divide and building a global partnership for development.
- **Jamie Drummond**, through ONE, pledges in 2010: to advocate that world leaders adopt a new strategy by September for driving towards the MDGs, as announced by President Obama; to encourage new partners from civil society, the private sector, and emerging powers to contribute and lead elements of the new strategy; and to educate at least two million active citizens around the world about the importance of the plan and what they can do. This contributes to MDG 8, building a global partnership for development.
- **Esther Duflo, Kristin Forbes, Michael Kremer,** and **Vikram Akula** pledge in 2010, through Deworm the World, to improve children's health and education by helping to deworm 10-20 million children worldwide in 2010. This pledge supports MDG 2, on increasing primary education, as well as 1, on eradicating hunger.
- **Salimah Y. Ebrahim**, through The Spirit Bear Trust, pledges by 2015 to mobilize a coalition of 6 million young people in over 65 countries; to work with all stakeholders to promote awareness of the MDG for environmental sustainability and biodiversity; and to protect the world's threatened Spirit Bear and its habitat through the specific creation of a 250,000 hectare wilderness conservancy in the Great Bear Rainforest.
- **Andy Freire**, through Endeavor, pledges between 2010 and 2012 to define the best practices of public policy, with new versions each year (e.g. versions 1.0, 2.0, and 3.0) that integrate learnings and updates. This pledge aims to promote entrepreneurship in developing countries by promulgating policies to help foster the creation of new jobs and innovation in the world, thereby contributing to MDG 1 on poverty and productive employment.
- **Ashish Gadnis**, through the YGL Marketplace Effort, pledges to enable YGLs across the globe "ask and offer" critical resources need to sustain business models in low-income economies; enable the creation of new business models in emerging economies by leveraging YGL talent; and allow for social enterprises in very poor economies to trade with developed economies. This pledge thereby supports MDG 1 and 8 on extreme poverty and building a global coalition for development, respectively.
- **Jitesh Gadhia** pledges by 2015 to persuade five major global corporations to focus their corporate social responsibility objectives more closely around meeting the MDGs, thereby contributing to MDG 8 on building a global partnership for development.
- **Daniel Lubetzky**, through PeaceWorks, pledges by 2011 to establish two additional joint business ventures involving a minimum of 200 neighbours striving to co-exist in conflict regions. This will contribute to MDG 1 on poverty and MDG 8 on building a global partnership for development.
- **Javier Garcia Martinez** pledges by 2011 to edit and distribute, as agreed with VCH-Wiley, initially 2,000 copies of the a book entitled "The Chemical Element: Chemical Contributions to our Global Future," with chapters organized around themes of the MDGs, thereby contributing to MDG 8, building a global coalition for development.
- **Mack Gill**, through SunGard, pledges in 2010 to provide technology services to Grameen Foundation to support ten microfinance institutions reaching 500,000 people worldwide and to educate SunGard's 20,000 employees about the MDGs, consequently supporting MDG 1 and 8, on extreme poverty and building a global coalition for development, respectively.

- **Ayla Goksel**, through the Husnu M. Ozyegin Foundation, pledges by 2014: to provide access to sustainable income generating activities for 1,600 people in rural Turkey; and to ensure 27,000 children have access to education in primary and secondary schools and programmes built by the Foundation. This pledge supports MDG 1 on poverty and productive employment and MDG 2 on education.
  She also pledges by 2011, through the Mother Child Education Foundation (ACEV), to impact approximately 1 million families in Turkey through increased awareness of early childhood development and education; to raise US$ 20 million for these activities; to provide preschool, parenting, and literacy education to 400,000 young children, parents, and illiterate women; and to train 2,500 new volunteer instructors for this programme, thereby contributing to MDG 2 on primary education, MDG 3 on gender equality, MDG 4 on child health, and MDG 8 on building a global partnership for development.
- **Suhas Gopinath**, through Globals Inc., pledges by 2011 to empower approximately 1,000 youth in developing countries with skills and education to alleviate them from poverty and to guarantee a sustainable career, thereby contributing to MDG 1 and 2 on extreme poverty and primary education, respectively.
- **Habib Haddad**, through the organization Yalla Startup, pledges by 2014 to empower 5,000 young entrepreneurs in the Middle East and North Africa to create their own ventures by sharing knowledge, assisting in raising seed funding, and offering appropriate mentorship, thereby contributing to MDG 1 on poverty and employment.
- **Vuyo Jack**, through Africa Empowered, pledges by 2012: to raise awareness of approximately 150,000 people in South Africa about the MDGs; to provide training for approximately 100,000 people on economic transformation at the corporate, grassroots, and government levels; to use to use eQuilibrium magazine, which reaches approximately 50,000 people, to highlight MDG success stories; and to facilitate business development skills for approximately 100,000 people in government and the private sector, including micro-enterprises, small and medium businesses. This pledge contributes to MDG 1 and 8 on poverty and building a global partnership for development, respectively.
- **Nik Kafka**, through Teach A Man To Fish, pledges by 2015 to enable over ten thousand young people in developing countries to access a relevant and transformative education by developing replicable models for financially sustainable schools, thereby contributing to MDG 2 on primary education.
- **Dennis Karpes**, through Dance 4 Life, pledges by 2014 to empower one million young people all over the world to be agents of change, actively participating in school programmes and pushing back HIV/AIDS, thereby contributing to MDG 6 to combat HIV/AIDS.
- **Terri Kennedy**, through the Power Living & Wellness Empowerment Network, pledges by 2012 to educate at least 10,000 people and leaders on the MDGs via newsletters, blogs, workshops, and events, thereby contributing to MDG 8 to build a global partnership for development.
- **Alan Knott-Craig**, through The Trust, pledges to provide an accreditation function for charities to help improve their fundraising abilities, as well as to improve their internal processes and financial reporting, with the target of channelling US$ 1million per month by 2011 to The Trust's accredited charities working on the MDGs, thereby contributing to MDG 8 to build a global partnership for development.
- **James Kondo**, through Table For Two, pledges by 2015 to support 20 million school meals in Africa, thereby contributing to MDG 1 and 2, on hunger and primary education, respectively.
  He also pledges between 2010 and 2015, through the Health Policy Institute of Japan, to galvanize G8 and G20 countries for action on health related MDGs through annual conferences, policy recommendations, multi-stakeholder engagement, and media outreach, thereby contributing to MDG 4, 5, and 6 on health and 8 on global partnerships.
- **Johann Koss** pledges in 2010 to mobilize the Rotman Business School to educate 200 students on reduction of poverty and how business can be promoted in emerging or developing countries, thereby contributing to MDG 8, building a global coalition for development.
  He also pledges by 2012, through Right To Play, to reach 450,000 children in Africa and Asia with basic life skills lessons, health promotion and infectious disease prevention, and community building, thereby contributing to MDG 2, 3, and 4 on primary education, gender equality, and child mortality, respectively.

- **Acha Leke**, through the African Leadership Academy, pledges between 2010 and 2015 to encourage faculty and students to analyse data relating to the MDGs in all 53 countries that form the African continent, leading to an enhanced understanding of the MDGs and the continent and to mobilize the Academy and its students to contribute towards achieving: MDG 3 on gender equality; MDG 7 on environmental sustainability; and MDG 8 on a global partnership for development.
- **Nancy Lublin**, through Do Something, pledges to organize a "boot camp" (e.g. a full day of workshops and ongoing resources) for about 100-120 young social entrepreneurs who are each leading programmes directly affecting the Goals, thereby contributing to MDG 8, building a global partnership for development.
- **Seraina Maag**, through Zurich North America Specialties, pledges in 2010 to increase the speed of life-saving mosquito net deliveries to approximately 300,000 people in malaria endemic Africa by partnering with NetGuarantee, a programme supported by the U.S. non-profit organization Malaria No More, thereby contributing to MDG 6 on combating malaria.
- **John McArthur** pledges between 2010 and 2015 to provide MDG overview educational lectures to at least 500 graduate students per year across five continents, thereby contributing to MDG 8, building a global partnership for development.
  He also pledges, through Millennium Promise, to partner with at least 400,000 people in rural communities of Ethiopia, Ghana, Kenya, Malawi, Mali, Nigeria, Rwanda, Senegal, Tanzania, and Uganda so that they can achieve all 8 MDGs by 2015, and to support related scale-up efforts around Africa.
- **Patrick McWhinney**, through Insight Collaborative, pledges in 2010 to educate 500 Northern Ugandan children affected by civil war on peace, democracy, and conflict resolution, thereby contributing to MDG 8, to build a global partnership for development.
- **David McWilliams** pledges to highlight the MDGs in his print and TV work as a journalist in Ireland, thereby contributing to MDG 8, building a global partnership for development.
- **Henrik Naujoks**, a partner at Bain & Company and a Board member of ProPoorSports, pledges by 2015 to use the platform of the Homeless World Cup to tackle poverty and homelessness using sport, and football in particular, as a tool for creating real change and significant impact by alleviating homelessness in more than a dozen developing countries across the globe, thereby contributing to MDG 1 on poverty.
- **Alec Oxenford**, through the Germinare Foundation, pledges, beginning in 2010, to sponsor the education of a poor child from the outskirts of Buenos Aires at a high-quality private school, thereby contributing to MDG 1 and 2, on poverty and primary education, respectively.
- **Salvador Piaz** pledges in 2010 to deliver 4,500 computers to public schools in rural Guatemala, benefiting close to 90,000 children by providing them access to technology as an integral part of their education, thereby contributing to MDG 8, closing the digital divide and building a global partnership for development.
- **Sunette Pienaar**, through Heartbeat, pledges by 2015 to reach at least 100,000 children orphaned by HIV/AIDS in the developing world through holistic service provision, addressing MDG 1, on poverty; 2, on primary education; 3, on gender equality; 4, on child mortality; and 6, on combating HIV/AIDS, malaria, and TB.
  She also pledges in 2010, through the Academic University of South Africa, to contribute to research culminating in an article, entitled "Strengthening Global Partnerships for Achieving the MDGs in Sub-Saharan Africa" for the UN MDG Summit in September 2010, thereby supporting MDG 8, building a global partnership for development.
- **Dina Powell**, through Goldman Sachs' 10,000 Women initiative, pledges by 2014 to train 10,000 underserved women in business and management, thereby supporting MDG 1 on poverty and productive employment and MDG 3 on gender equality.
- **Nikolay Pryanishnikov**, through Microsoft Russia, pledges between 2010 and 2015 to catalyse a more modern and competitive workforce in Russia by helping annually 100,000 people evolve their e-skills for employability and support more than a 1,000 young innovative companies and entrepreneurs by providing them with software, entrepreneurial knowledge, and technology readiness skills, thereby supporting MDG 8, to develop a global partnership for development.
- **Kate Roberts**, through PSI, pledges by 2011 to mobilize support for 100 million anti-malaria bed nets and to help prevent 350,000 HIV infections annually, 465,000 deaths from malaria annually, 95,000 deaths from diarrhea annually, and 15.3 million unintended pregnancies annually, thereby supporting MDG 4, 5, and 6 on health.

- **Alvaro Rodríguez Arregui**, through Compartamos Banco, pledges in 2010 to expand its services to generate more social, economic, and human value for nearly 1.8 million Latin-American micro-entrepreneurs and their families through access to financial literacy education and adequate financial services and products, such as micro insurance reaching more than 800,000 voluntary life insurance policies, thereby contributing to MDG 1 on poverty.
- **Linda Rottenberg**, through Endeavor, pledges by 2015 to provide continued assistance, mentoring, and support to a rapidly growing portfolio of over 470 high-impact entrepreneurs from 10 emerging countries, helping to create at least 100,000 high-value jobs, and to foster entrepreneurial ecosystems in nations transitioning from international aid to international investment, with the aim of operating in 25 countries. This contributes to MDG 1 on poverty and MDG 8 on building a global partnership for development.
- **Zainab Salbi,** through Women for Women International, pledges by 2012 to use public-private partnerships to improve the lives and livelihoods of 103,000 women survivors of war in the Afghanistan, Bosnia and Herzegovina, DRC, Iraq, Kosovo, Nigeria, Rwanda, and Sudan through a comprehensive programme of rights education and vocational and business skills training that will enable them to raise themselves, their families, and their communities out of poverty and food insecurity, thereby contributing to MDG 1, on poverty and hunger; 3, on gender equality; and 8, on building a global partnership for development.
- **Sheryl Sandberg**, through Facebook, pledges in 2010 to enable 20 million Facebook users to connect with global women's issues and organizations, by highlighting stories of individuals and groups using the Facebook platform in remarkable ways to bring awareness of MDG 3 on gender equality and to build support for causes globally that advance women's and girls' achievement of all the MDGs.
- **Marie So**, through Shokay, pledges between 2010 and 2015 to work with partners to make investments required for providing market access for 5,000 Tibetan nomadic herders' households, benefiting 40,000 herders in the rural Western China regions. Through capacity building, expansion of technical training and cultivating Yak Down fibre from herders, Shokay supports MDG 1 and 8 on poverty alleviation and building a global coalition for development.
- **Khaldoon Tabaza** pledges by 2014 to help fund and strategically support at least 50 small and medium sized enterprises (SME) in the Middle East, North Africa, and South Asia regions and to support entrepreneurship development initiatives, incubators, and other SME development efforts, thereby contributing to MDG 1 on poverty and productive employment.
- **Michael Tarazi**, through CGAP–World Bank, pledges by 2012 to work with regulators from 30 countries to adopt regulations for mobile and other forms of branchless banking to enable 10 million currently unbanked individuals to access financial services for the first time, thereby supporting MDG 1 to reduce extreme poverty.
- **Silverius Oscar**, through Unggul, pledges to work with 20 indigenous peoples' cooperatives, reaching approximately 160,000 people, to produce 1 million cubic meters of "green" wood in Indonesia by adapting the Forest Stewardship Council's standards. This sustainable community logging is a partial solution to illegal logging, eradicating poverty, and absorbing CO_2, thereby contributing to MDG 7 on environmental sustainability.
- **Alberto Vollmer**, through Project Alcatraz, pledges by 2013 to provide training for 20 communities in one of the top 5 areas with violent crime in the world (e.g. Revenga County, Venezuela) in order to reduce violence and increase stability as a critical precondition for MDG achievement. The pledge aims to enable 55,000-person community to curb its homicide rate from 75 homicides per 100,000 inhabitants to 40 homicides per 100,000 inhabitants, thereby contributing to a society better equipped to achieve the MDGs.
- **Casey Wasserman**, through Wasserman Foundation, pledges by 2012 to support 500 children in Right To Play physical activity programmes every week, which targets MDG 4 and 6 by improving children's protection from infectious diseases, MDG 3 on gender equality, and MDG 2 on primary education.

The Forum of Young Global Leaders

YGL Millennium Development Goals Task Force

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5 Managing and Mitigating Global Risks

Systemic Risk in the 21st Century[1]

By Ian Goldin, Director, James Martin 21st Century School, and Professorial Fellow, Balliol College, University of Oxford, United Kingdom

Introduction

While the precise definition and various periods of globalization have been widely studied and debated,[2] the latest wave of globalization has been unique, with the particularly widespread and intense integration of markets, trade and finance. This has been facilitated over the past 20-30 years by seismic policy shifts, such as the economic and political reform process in China, and much of Asia, Latin America and Africa, the fall of the Berlin Wall in 1989, European integration following the signature of the 1992 Maastricht Treaty, and the ideological convergence around market primacy ushered in during the Reagan, Thatcher, and Kohl era of the 1980s. According to International Monetary Fund (IMF) and World Trade Organization (WTO) reports, between 1980 and 2005, global foreign investment inflow increased 18 times, real world GDP growth increased by approximately 32% and world merchandise imports and exports increased more than sevenfold.

Technological innovation has accelerated economic integration through both virtual and physical time–space compression.[3] While the development of fibre optics, the Internet and mobile telephony, as well as exponential growth in computing power all revolutionized the underlying architecture of systems by *virtually* increasing proximity, *physical* proximity has also increased through technological innovation in transport and infrastructure. Population growth and urbanization are driving physical proximity, integration and interdependence. The world population has nearly doubled since 1950, and the urban share has increased dramatically from 29% in 1950 to over 50% in 2009 with a strong concentration in coastal areas.

In addition to policy shifts, technological innovation and increased population density, changes in managerial practice and accounting standards have extended the "just-in-time" management strategies to emphasize that inventories reflect tied-up working capital, and must be made to "sweat."[4] This has shortened the time between the production and consumption of goods and services, while outsourcing and global logistics chains have reflected the declining significance of geography in determining production and trade processes.

In short, by the turn of the 21st century, globalization was characterized by a more interconnected, interdependent and complex world than ever witnessed before. The benefits of global integration have been associated with unprecedented leaps in human development indicators.[5] However, that is not to say that globalization is not an entirely benign process: it can be viewed as a double-edged sword. One of the downsides to globalization, that of increased inequality between and within countries, has been widely studied, with Stiglitz,[6] Goldin and Reinert[7] and others stressing the need for national and global policies that enhance the potential benefits and mitigate the downsides of integration.

The existing literature fails to appreciate the extent to which the current tidal wave of globalization is different from its predecessors, especially in terms of the levels of interdependency and complexity and how this has resulted in an additional downside to global integration. This second "side-effect" of globalization has been the unintended and hitherto largely ignored production of systemic risks, which are "breakdowns in an entire system, as opposed to breakdowns in individual parts or components, and are evidenced by co-movements among most or all of the parts."[8] Kaufman and Scott describe three main concepts of systemic risk:

[1] This chapter draws extensively on Goldin, I. and Vogel, T. 2010. Global Governance and Systemic Risk in the 21st Century, *Global Policy*, 1 (1), January.
[2] See Goldin, I. and Reinert, K. 2007. *Globalization for Development: Trade, Finance, Aid, Migration and Policy*. Washington, DC: The World Bank and Palgrave Macmillan.
[3] Harvey, D. 1989. *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*. Oxford: Basil Blackwell.
[4] Hutchins, D. 1999. *Just in Time*. Hampshire: Gower Publishing Ltd.
[5] Goldin and Reinert, 2007.
[6] Stiglitz, J. 2006 Making Globalization Work. New York: W. W. Norton & Company.
[7] Goldin and Reinert, 2007.
[8] Kaufman, G. and Scott, K. E. 2003 *"What Is Systemic Risk, and Do Bank Regulators Retard or Contribute to It?" The* Independent Review, 7 (3), pp. 371.

1) "macroshock" triggered when relatively modest tipping points or regime shifts hit their threshold and produce large, cascading failures on most or all of the system; 2) shock diffusion through the network via contagion (transmission, feedback and amplification of risk); and 3) "common shock", which is not the result of direct causation, but is evidenced by indirect impacts of systemic risk.

While historically the term systemic risk has referred only to collapses in finance, recent decades of globalization have created a "global risk society" characterized by new and much broader risks in the 21st century.[9] The fragility of the system as a result of these new vulnerabilities now challenges the very core of the benefits that globalization has produced and is a fundamental challenge to global institutions.

This essay draws on Goldin and Vogel[10] to conceptualize systemic risk in the 21st century, examining four major existing and emerging risks: financial stability, pandemics, cybersecurity and climate change. These examples highlight the complexity of risk in the 21st century and how globalization has structurally altered and heightened its impact. This essay further explores how global governance structures can adopt new approaches to mitigation and management with the development of a new set of tools to encourage improved behavioural reflexes and resilience mechanisms. A key challenge for this approach is to address the tension between national interests and global collective interests with a need for increased awareness from governments and institutions as well as citizens. An urgent and far-reaching reform agenda is required to ensure that the threat that systemic risks pose is mitigated. The Forum's Global Agenda Councils have developed a set of recommendations that go some way to addressing this urgent challenge.

A paradox of the current tidal wave of globalization is that although it has been associated with the creation of many new nation states, including those arising out of the fall of the Soviet Union, the latest wave of globalization also has been a period in which the power of the individual has grown rapidly. The widening of democracy, increasing wealth and education, Internet connectivity and other forms of empowerment have been liberating forces for many. Social and technological developments have the potential to immeasurably amplify the power of the individual. In particular, the widening availability of DNA synthesizers and the growing potential for single or small groups of individuals to create bio-pathogens or engage in other activities that could lead to massive destruction poses a new form of systemic risk. This is the first century in which single individuals can cause massive destruction and worldwide panic. With the multiplication of nation states that can pose serious systemic risk, either because they have the means or because they are failed and so have become havens to rogue elements, and individuals, particularly in democracies more able to pursue their personal ambitions, the potential for systemic risk has been compounded.

Exploring Global Risks – Examples

Financial Risk

The recent financial crisis is the first clearly evident systemic crisis of the 21st century.[11] It is vital therefore that we learn the lessons of the financial crisis in order to manage deeper and more damaging global challenges, such as climate change and global pandemics, and to avoid a destabilizing cycle of more acute future financial crises.

At the turn of the 21st century, the liberalization of capital markets and technological innovation resulted in the development of an increasingly complex "financial network", where the speed, value and volume of financial transactions had increased sharply both domestically and internationally.[12] In particular, the pace of change and innovation in financial markets between 1998 and 2007, the "Golden Decade", saw the explosive growth of sophisticated financial instruments, such as credit default swaps, collateralized debt obligations and an increase in resale markets for capital.[13] Whereas the trading of derivatives had been marginal in the three

[9] Beck, U. 1999. *World Risk Society*. Cambridge: Polity Press.
[10] Goldin and Vogel, 2010.
[11] See Goldin and Vogel, 2010, on which this section draws.
[12] White, W. 2004. "Are Changes in Financial Structure Extending Safety Nets?", BIS, Working Paper No. 145.
[13] Gai, P., Jenkinson, N. and Kapadia, S. (2007) "Systemic Risk in Modern Financial Systems: Analytics and Policy Design", *The Journal of Risk Finance*, 8 (2), pp. 156-165.

previous decades, by the turn of the century the global over-the-counter derivatives market had reached US$ 100,000 billion of outstanding deals. By the end of the "Golden Decade" in 2007, the market had expanded to US$ 600,000 billion, 16 times global equity market capitalization and 10 times global gross domestic product. Globally integrated markets and innovation had led to a transformation of the financial landscape. Integration and new networks greatly increased the robustness of the finance system, but interdependence, complexity and the growing gulf between oversight and market innovators simultaneously made global finance more brittle and fragile.

The financial crisis can be described as a systemic risk that began with the advent of an unregulated sub prime mortgage market in the United States, which ultimately destabilized the market for credit default swaps, collapsed markets for securitized instruments across global financial systems and triggered a global liquidity crisis. While many blame the burst of the real estate bubble for the financial crisis, few examine how economic integration and financial innovation in a deregulated environment created a financial network vulnerable to systemic risk. Governance gaps at all levels of the financial system, from global to individual actors, allowed regulatory arbitrage, bonus gouging and other corporate governance failures to spiral out of control. The response to the crisis has been a massive injection of liquidity into the system, but the deeper underlying systemic failures have not been addressed. It is therefore likely that further crises will occur. Governments have reached the limits of their indebtedness, and having fired all the bullets of defence, are now more vulnerable. The economic arsenal will be empty when the next systemic crisis strikes. The fact that finance is the best skilled and equipped of the global risk management systems, and that the relatively well endowed IMF, Bank for International Settlements *(*BIS), central banks, finance ministries and other institutions whose job it is to ensure financial stability failed to even see the crisis coming is a matter of acute concern. Small groups of banks, and even individual banks and individual rogue traders have the ability to bring down the entire financial system. Collectively and individually they will continue to be able to stay one step ahead of even the most effective supervision and regulation, even though the growing complexity and connectivity of the system means the risks they create are amplified and can lead to systemic failure. Existing reforms in financial governance remain unable to address the deep structural changes in globalization and the risks posed by increased integration and innovation in financial systems.

Pandemics

Pandemics are characterized as global systemic risks because of their ability to reach all corners of the world due to "increasing multidimensional interconnectedness and integration".[14] The spread of pathogens across wide geographic scales has increased throughout history, facilitated by the increasing flow of information, goods, capital and people across political and geographical boundaries. The 1918 Spanish flu outbreak remains the most lethal pandemic in human history, killing an estimated 50 million people, 3% of the world's population (which was around 1.6 billion people at the time) over a period of two years.

Global pandemics have not proliferated to such lethal proportions in recent years, however the rapid worldwide spread of the SARs virus in 2003 and of the influenza H1N1 virus in 2009 illustrates that the nature of risk is changing in the 21st century with pathogens utilizing our globalized society to their advantage. In the mid-13th century, the opening of trade routes in Europe assisted the violent spread of bubonic plague (the Black Death), killing 20 million people over three centuries. In comparison, pandemics of the 21st century no longer impact societies with the same mortality margins due to the introduction of inoculations against infectious disease as well as advances in public health. For example the smallpox virus, which decimated Native American populations in the 1500s, was successfully eradicated in 1979 following global vaccination programmes. Despite pharmaceutical advancements, however, not all viruses and pathogens can be eliminated. For some, such as HIV/AIDS, an effective treatment is yet to be found but even for those for which treatment exists, such as malaria, TB and cholera, inadequate health infrastructure and sanitation mean millions continue to die every year, mostly in sub-Saharan Africa.[15]

[14] Ingram, A. 2005. "The New Geopolitics of Disease: Between Global Health and Global Security", *Geopolitics,* 10, pp. 522-545.
[15] WHO, 2000. "Report on Global Surveillance of Epidemic-prone Infectious Diseases", Department of Communicable Disease Surveillance and Response. [online] Available from http://www.who.int/csr/resources/publications/surveillance/en/cholera.pdf

The greater movement of people, from rural to urban areas and across national borders, as well as higher population density and climate change, combine to facilitate the spread of known and new pathogens. The mobility of pathogens is further stimulated by advances in bio-technological innovation and the anthropogenic (human) fabrication of biological agents. It is now possible to harvest, reconstruct, and synthesize genomes such as smallpox or bubonic plague on a near-private basis. This presents a security challenge as it bypasses traditional regulatory frameworks for the control of biological agents. As a result, bio-terrorism risks are likely to become increasingly systemic in the 21st century with the "weaponization" of harmful pathogens or toxins. An early example was the 2001 delivery of letters laced with anthrax to US Congress and media offices, which killed five people. In addition to risks arising from the intentional misuse of these pathogens, there are safety considerations for research facilities with concerns over the accidental contamination of lab workers and the subsequent escape of viruses. Exposure to such pathogens can also trigger food insecurity, threatening agriculture, livestock and crops. For example, the outbreak of foot-and-mouth disease in the United Kingdom caused widespread economic damage and public concern in 2001 and 2007. Contamination of water supplies is similarly a looming threat, as the ability to create deadly pathogens and panic has moved in concert with a growing dependence of more people on a handful of reservoirs and pipes.

Pandemics of the 21st century have the potential to cause widespread economic, psychological and environmental impairment and our need to recognize and respond to such outbreaks should therefore be the same regardless of their natural, accidental or anthropogenic origins.

Cybersecurity

The continued exponential growth of computing power in the 21st century has revolutionized our modes of communication and developed a more integrated and amalgamated society. We are now more dependent than ever on communication networks such as the Internet to facilitate knowledge and information transfer. Despite our reliance on the Internet, it remains a fragile mechanism that is open to exploitation for malicious purposes and can now be used by both nations and, more ubiquitously, by individuals as a weapon to target financial markets, government computer systems and utilities. The low-cost and largely anonymous nature of cyberspace makes it an attractive domain for criminals, terrorists and states seeking means of espionage, influence or even warfare. Cybercrime is now a global issue; it has evolved significantly and poses a significant threat to citizens, as it does to corporate systems as well as to national and global security.[16] As is the case with pandemics, the power of individuals or small groups to destabilize society or systems through cyberattacks is a significant concern. At the same time, the power of states to engage in such activities has been greatly enhanced.

There are three main methods of cyberattack. Firstly, electronic attacks launched over a network, whereby criminals and others attempt to gain access to devices such as mobile phones, computers or web-servers, and thereby obtain information on those systems, spread propaganda, or use them as a launch pad for further attacks. For example, in 2009 a cyber spy network, dubbed GhostNet, using servers in China, hacked into classified documents from government and private organizations in 103 countries. Furthermore, in 2009, hackers penetrated the Gmail accounts of Chinese human rights advocates in the United States, Europe and China in a series of high-profile cyberattacks that led to Google redirecting requests to its Hong Kong based servers from mainland China. Cyberwarfare is a good example of an emerging 21st century systemic risk, fuelled by the interconnecting engine of globalization. Attribution in cyberattacks is particularly difficult as servers in one country may be used as a conduit for attacks initiated by agencies or individuals in another country. Secondly, "distributed denial-of-service" (DDOS) attacks that target sites or services hosted on high-profile web servers such as banks, credit cards payment gateways, and infrastructure networks (power grids, telecommunications, and transportation). For example, during the 2007 Estonian election campaigns and riots preceding the election, there were a series of DDOS cyberattacks against the Kyrgyz Central Election Commission's Internet service providers.[17] The Estonian cyberwar in 2007, manifested by disputes with Russia surrounding the relocation of the Bronze Solider of Tallinn, disabled government ministries, broadcasters,

[16] Zittrain, J. 2008. *The Future of the Internet and How to Stop it*. New Haven: Yale University Press.

[17] Evans, M. and Whitell, G. 2010. *Cyberwar declared as China hunts for the West's intelligence secrets*. The Times Online. March 8 2010. [online] Available from: http://technology.timesonline.co.uk/tol/news/tech_and_web/article7053254.ece

newspapers and banks with the onslaught of spam e-mails disabling communications. Furthermore, the 2008 South Ossetia conflict heralded the arrival of "iWar", in which a series of cyberattacks swamped and disabled websites of numerous Georgian, Russian, South Ossetian and Azerbaijani organizations. Thirdly, subversion of the supply chain where the technology supplied to an organization or individual is subtly altered (for example by implanting malicious programs) in order to make network attacks easier. This may be associated with an interference with services or, as is most commonly the case, systemic theft or simply anarchistic actions. All three of these are growing threats that challenge the integrity and trustworthiness of the entire Internet and risk destroying the system.[18]

Climate Change and Natural Catastrophe Risk

Climate change presents a significant environmental, social and economic risk to humanity. According to the latest evaluations, the average temperature at the surface of the planet has increased by 0.6°C during the 20th century. The Intergovernmental Panel on Climate Change (IPCC) concludes that observed temperature increase can be attributed to increasing concentrations of greenhouse gases resulting from unsustainable anthropogenic activity such as fossil fuel burning and deforestation. Furthermore, climate model projections summarized in the latest IPCC report indicate that global surface temperature is likely to rise by at least a further 1.1°C during the 21st century.

Increasing global temperature has the potential to trigger three significant consequences. Firstly, sea levels will rise as a result of ice caps melting and glacial retreat, which will inundate low-lying island states and coastal regions. Already, rising sea levels in the South Pacific have forced residents of the Carteret Islands to relocate to nearby Bougainville, becoming the world's first environmental refugees. Secondly, desertification will be exacerbated in arid and semi-arid regions, which will amplify a broader set of resource scarcity issues such as food, energy, land and water. In the Sahel region of Africa, expansion of the deserts already has led to mass migration and to violent conflict over scarce natural resources. Thirdly, there will be changes in the frequency and intensity of extreme weather events such as floods, heat waves, droughts and precipitation.

The nature of climate change risk has evolved in the 21st century and has increased in severity as the tidal wave of globalization stimulates population growth and urbanization. The expansion of trade networks and docks has fuelled movement towards low-lying coastal regions. Higher incomes and mobility has been associated with mass migration and settlement in coastal regions, such as the southern coast of Spain, Florida, California and China coasts and in arid regions such as Arizona. This transition is leaving millions of people vulnerable to more severe natural catastrophes, such as hurricanes, floods and earthquakes. Hurricane Katrina, for example, decimated the New Orleans coastline in 2005, resulting in US$ 100 billion of recovery costs. Furthermore, the rapid swelling of urban centres has led to inferior construction and engineering practices to keep pace with demand. The 2010 earthquake in Haiti killed 230,000 and in the 2008 Sichuan earthquake in China, over 68,000 people lost their lives, mainly those trapped under the rubble of buildings that were inadequately designed and built for areas of seismic activity. In addition to the death toll, those earthquakes also left an estimated 1 million Haitians and 4.8 million Chinese homeless. Many urban centres remain susceptible to destruction, such as Iran's sprawling capital, Tehran, of 8 million people, 1 million of whom are estimated at risk if an earthquake of the same magnitude of Haiti should hit the geologically unstable region.

The impact of climate change is not evenly distributed, with the world's poorest at greatest risk. Inadequate public and private finance, poor infrastructure and weak or non-existent state services all diminish the resilience and coping mechanisms of the poor. There is some scope for adaptation but policy must focus on the mitigation of climate change impacts. Greater unity and commitment at the global level is required to address the risks exposed by climate change as it threatens the potential for globalization to flourish in the 21st century. The development of new tools to manage and mitigate its impact, not least in poorer countries and communities, is a necessary precondition for an effective, efficient and sustainable response.

[18] Zittrain, 2008.

Managing and Mitigating Global Risks

Global Risk and Governance in the 21st Century

The 2008 financial crisis was a stark illustration of how difficult it is to contain or indeed understand the exact nature of contagion in a highly interconnected world and thus how any one entity cannot respond alone. The January 2010 earthquake in Haiti also demonstrated how an emergency can trigger a rapid response on a global level. The underside of globalization is systemic risk. However, the upside is the potential for global coordination and for the raising of global consciousness in ways that were not possible even 20 years ago. So, for example, the growing global awareness of the threat of climate change and the rapid global mobilization of donations in response to the Haiti earthquake from citizens are evidence of the awakening of a global consciousness and solidarity which has been facilitated by the tidal wave of globalization.

The challenge lies in sustaining the focus of collaborative action and the effectiveness of the response over time. Once the initial wave of concern subsides, and the first signs of "back to normal" reappear, the momentum for collaboration around reform and innovation, as with solidarity and support for development, can dissipate. To borrow the title of Jonathan Safran Foer's novel, the "extremely loud and incredibly close" nature of national, political and business interests can all too easily submerge the larger, and longer-term, collective interest. A common objective emerged from the Global Agenda Councils' Risk Cluster proposals: to proactively mobilize, and sustain, collective action around threats from global risks, be they systemic or incident-driven. There are several fundamental elements for effective global risk governance.

Developing a Better Understanding of Risk Interconnections and Priorities

The globalization in communication has brought a daily tsunami of data and media coverage that influences policy-makers, business leaders and, not least, the general public in their role of electorate and consumers. Decision-makers from all spheres are exposed to information that is often conflicting or highly technical from innumerable sources. Fear, rather than facts, can rapidly shift public opinion and use of the word "risk" has become overused to a point where it has lost its significance. In this environment, decision-makers need to be equipped with reliable information and frameworks with which to better understand and communicate true risk priorities and, thus, priorities for action and resource allocation.

While not prescriptive in its proposal, the Global Agenda Council on Catastrophic Risks highlights the need for better information for better decision-making around a range of risks. The Council believes that the highest-return areas for improving global risk management lie in the area of better applying knowledge that already exists about hazards and how they can be prevented or the capabilities necessary to respond to them developed. This knowledge-action gap can easily be bridged by engaging in a dialogue process among experts and policy-makers rather than ascribing the need for a specific, new institution to risk managers. They propose to convene a dialogue involving key actors in the risk-management field so as to determine how best to create a comprehensive risk management institution (CRMI). This organization could have several forms but its focus would be to create a source of neutral and shared information not just on risks but also on what can be done to prevent, respond to or mitigate their impact using best practices and drawing on international expertise and support.

Providing a Net Assessment of Emerging Risks

Science and technology have provided solutions to many risks and been an accelerator of growth, from the development of vaccines to the Internet. Its powers will continue to deliver solutions but with the convergence of genetics, computing power and nanoscience, a certain level of caution is necessary to understand the impact new discoveries could have on individuals, society and the environment. As the Global Agenda Council on Emerging Technologies states, "science and technology have been at the heart of economic growth, social prosperity and improvement in quality of life for close to ten thousand years," and "now, perhaps more than at any time in history, we need the tools that science and technology provide to face an uncertain future." At the same time, the Council suggests that, "attempts to introduce genetically modified foods (GMOs) into commerce in Europe provide a sobering lesson in how easy it is to mishandle emerging technologies." More particularly, the European GMO debate exemplifies how difficult it is to provide neutral and clear information to the lay decision-makers, be they policy-makers or consumers.

The complexity of the subjects, the interests, commercial or otherwise, of those involved, and the pace at which science evolves, make it particularly difficult for decision-makers to be confident that they have sufficient information. In the absence of a respected and neutral source, fear and miscommunication, rather than facts, appear to lead public opinion and overwhelm policy. An institution tasked with providing a neutral and transparent assessment of the potential risks, benefits and wider implications of emerging technologies as well as communicating this to the public would be a key asset to decision-makers. Dissatisfied with the observation that too often "emerging technologies result in a polarized debate between those who have a vested interest in developing the technology (academics seeking funding, early investors, consultants seeking to develop new markets) and those wishing to maintain the status quo (conservative religious organizations or consumers who are distrustful of technology), the Council on Emerging Technologies wishes to encourage "rational debate" through the creation of a Global Centre for Emerging Technology Intelligence. This organization could be a source of neutral analysis, to be shared with all stakeholders, around the identification, evaluation and assessment of new opportunities and challenges.

Engaging Stakeholders around Systemic Responses

Just as risks cannot be fully understood unless considered in the context of their interconnections, so do most risks require a multistakeholder approach to their management or mitigation. Several of the Councils proposed models that leverage the power and scope of stakeholders from different spheres (public and private, but also global and regional or national) to complement existing bodies or mechanisms by sharing information, improving their capacity to act and, ultimately, by reducing the costs of the risk or its management to all.

One area of systemic risk was the focus of a proposal of the Global Agenda Council on Illicit Trade. Illicit trade includes narcotics, weapons and other potential threats to society. Breaking down the way this risk embeds itself into global trade, the Council's proposal is to build a coalition from all actors in global trade, from nations, suppliers and retailers to the end consumers. The "T3 Coalition", standing for "Trust and Transparency in Trade", would build engagement around product labelling, providing guarantees between producers and consumers, integrating the movement in global and regional free trade agreements, and working on cooperation among member states and signatories. The Council proposes to bring anti-illicit trade agreements under the mandate of the WTO, thus linking it to new trade agreements.

Focusing on the need for greater and more sustainable investment in energy infrastructure, to reduce the risk of supply shocks and periods of high volatility, the Global Agenda Council on Energy Security's proposal brings together stakeholders who normally sit on either the supplier or the consumer side. There is "no shortage of the geological resources", the Council Members write, while nevertheless worrying that "whether [adequate investment] happens hinges on producers being confident about the level of the future demand." In short, the sector's investor need for stability justifies why "the energy system … requires novel methods for providing both private and public actors with increased visibility regarding their future." It is with these concerns in mind that the Council proposes to create both a World Energy Forum and an associated Energy Stability Board to ensure transparency and stability in the politically-sensitive market. While the former would bring producers and importers together to meet biannually to propose novel norms and solutions to the market's constraints, the latter would act in a manner akin to that of the Financial Stability Board to support the newly-created World Energy Forum's efforts.

The proposal put forward by the Global Agenda Council on the Future of the Internet is an innovative example of how collective action on a decentralized basis might also serve as a model to manage some systemic risks. The Council points out that the Internet has "a history of self-governance on technical matters" and one may argue that in some cases "systemic risk is best tackled by openness and collaboration, not centralizing and control" for "attempts to gather major public and private stakeholders in one room – literally or metaphorically – are necessarily limited." Instead, the Council suggests basing the Internet's resilience at all levels – World Wide Web, software, hardware, wiring – on a scheme based on the principle of mutual aid and solidarity. "Consider longstanding practices on the high seas, where private parties will respond to an SOS without any obligation to do so – indeed, even if they are business competitors to the firm owning the ship in distress. They do so not only because they may consider it the right thing to do, but because they adhere to a larger scheme of

reciprocity: if they should be the ones in trouble next time, others will help." The strength of this proposal, the Council argues, is that it does not require oversight and enforcement by an organization to be implemented. "At the election of a site operator […] a site can implement a practice the Council calls "Mirror as You Link". In simple terms, this system would safeguard and protect content on a reciprocal basis.

Strengthening Existing Institutions to Better Manage "Known" Risks

Several of the Councils considered how the role of existing institutions could be reshaped or how to leverage their existing capacity. While greater investment or resources featured as part of the proposals, equal emphasis was placed on the leadership role they could play. The importance of understanding the impact of population growth on a number of risks has already been raised in this essay. The Global Agenda Council on Population Growth focuses its attention on existing governance institutions and structures active in this area: the United Nations Population Division, which tracks demographic shifts and conducts policy relevant research; the United Nations Population Fund (UNFPA), which was originally tasked with knowledge and capacity-building in population and family planning; and the World Bank and regional development banks, which provide loans for a number of population-related development issues, such as health and education. As the Council points out, each of these entities has a complementary role to play and already has a mandate to act. However, a lack of investment in, and leadership from, the UN Population Division and the UNFPA means that they are not in a position to fulfil their roles, which are now more critical than ever. If properly organized and funded, these institutions could provide crucial analysis of the causes and implications of demographic change, could disseminate these data widely and build capacity worldwide. The Council proposes a systematic evaluation of their missions, structures, staffing and programmatic strategies. The objective of this evaluation "would provide the foundation for a set of recommendations aimed at enhancing (their) future role and capacity to addressing population growth".

Funding Transparent Research on Threats and Potential Responses

To better understand some of the biggest threats facing the world over the next decades, more resources need to be spent on research that can be shared in a transparent manner. Research funding is often geared towards single issues or those that have been traditional areas of investigation. There is currently about four times as much scholarly research on the dung beetle than there is on global catastrophic risks. Funding for emerging issues or non-traditional topics is extremely limited. Solutions to manage highly interconnected risks will only be possible if there is a shift in how those issues are understood. Just as new governance mechanisms should be designed to leverage multistakeholder input and response, so should research funding encourage a multidisciplinary approach to understanding the drivers and systemic implications of highly interconnected global risks. This understanding should also enable some element of prioritization: to prevent what can be prevented and to prepare for what cannot. A neutral source of information and prioritization would also provide a better base for collaboration across regions, reducing the concern about vested interests dominating the discussion.

When threats have been identified and their potential impact assessed, possible solutions should also be assessed in light of the real threat and current capacity to manage it. In the case of the ongoing threat of the emergence of a new influenza pandemic, the Forum's Global Agenda Council on Pandemics notes that "[t]o reduce the potential occurrence of this future scenario, the global community must immediately address today's antiquated influenza vaccine technology (i.e. 1950s technology requiring the growth of the virus strain in inoculated chicken eggs over six or more months). […] The international public and private sectors must fully support the development and regulatory approval of "intermediate-technology influenza vaccines" including cell culture and "recombinant vaccines" if the 21st century's pandemics are to be addressed. The recent UK parliamentary enquiry into what some committee members saw as an exaggerated response to the recent H1N1 (swine flu) pandemic points to the difficulties facing governments who react robustly to a threat which is then not realized. Increasing the awareness of decision-makers and the public of the need for these robust and at times costly responses is vital if catastrophic systemic risks are to be avoided.

Stabilizing Confidence through a Better Understanding of Risks

Economic history is punctuated by periods of boom and bust. Overconfidence can translate into over-reliance on "business as usual" or a belief that the odds can be beaten. Overconfidence, underestimation of low probability risks and myopia about not-so-near future risks are all human traits that institutions display collectively.[19] Thus, they cannot be ignored as key factors for success in any redesign of governance systems to manage risks. Underconfidence is not a healthy alternative either. Its effects can prolong a crisis; until confidence returns to investors and consumers, the financial crisis will continue to cast a shadow. As research and history proves time and time again, humans are bad judges of risk, confused by probability and blinded by a natural tendency to worry more about today than tomorrow. By focusing attention on what are real risks, as opposed to perceived risks, decision-makers can help stabilize confidence by avoiding the worst excesses of the peaks and troughs. Delivering clear messages about the nature and extent of risks and what can be done about them could also help generate support for difficult decisions. There is a huge flow of information available to all today but decipherable by only a few. Leaders in political and public life must have oversight and they need greater insight, into both the risks and the potential to act to prevent or mitigate them.

Conclusion

The discussion in this essay has highlighted how the flipside of globalization – the ties that bind regions and economies together, and aid growth, trade, mobility, information technology and communication – also acts as carriers for risks. Over the past 20 years seismic policy and other changes have been associated with supercharged globalization. This tidal wave is unlike any other past wave of globalization. It has brought immense benefits but has also led to new systemic risks. If the benefits of globalization are to continue to outweigh the risks that rapid integration exacerbates, understanding systemic interconnections and building multistakeholder responses are vital. Redesigning global risk governance mechanisms to take these interconnections into account and to enable cooperation is a major but necessary undertaking. The bad news is that the tidal wave of globalization has brought unprecedented and new systemic risks. The good news is that this phase of globalization has brought the means to meet these risks, through raising levels of wealth and opportunity, and vitally increasing our collective knowledge and connectivity. The opportunities for cooperative solutions have never been greater.

Addressing some of the behavioural aspects that determine so much of our individual and collective choices when faced with risks is a major challenge. Many key global risks are closely related to changing demographics, intensifying demand and competition for resources, and climate change. The immediate growth and development concerns of many countries, which are justifiable, can be at odds with the near-term costs they may have to incur to engage fully around global risks. The potential for long-term gains, through greater growth due to better resource management or reduced risk from the effects of natural catastrophes or improved resilience in financial systems, is weighed against the short-term political and economic costs of reform or change, which governments and, ultimately, taxpayers are usually reluctant to bear.

There is a growing disconnect between the long-term aspect of these risks and political and business time frames for tenure and decision-making. The full impact of many of the global risks addressed by the Global Agenda Councils may only be felt in several decades' time. Though other risks may occur in the near term, their shadow may stretch over several years, through the costs they inflict or their direct impact on future growth and development. Only effective governance can help stakeholders manage these "generational imbalances", the costs current generations will have to bear for actions that will provide benefits to future generations. In the wake of recent crises, we should seize this opportunity to rethink how governance mechanisms can reward long-term efforts that avoid reliance on a short-term "fix". The long tail of risk events that have a very low probability and high impact need to be better understood. Greater connectivity and complexity, as well as the rising density of people and assets, make it more difficult to predict the source and impact of these events, even though their impact is becoming more severe. As a result of globalization, the

[19] Shiller, R. 2005 "Behavioral Economics and Institutional Innovation", *Southern Journal of Economics*, 72(2), pp. 269-283.

long tail of risk distribution is wagging more aggressively. Small surprises somewhere can lead to big shocks everywhere in ways that were unimaginable only 20 years ago.

The current tidal wave of globalization has brought unprecedented benefits; there is immense potential for it to create a widening set of opportunities that bring development to the many, perhaps 1 billion people, who have not benefited so far. Globalization and development are reversible and the twin threats of growing inequality and systemic risk could well severely undermine the achievements so far and derail the potential for further progress. For the poor, this is especially worrying, as not only have they yet to reap the full benefits of globalization, but because systemic shocks exacerbate poverty and inequality. The poor are most vulnerable to systemic risks, be they financial, pandemic, climate or other.

This article illustrates the changing nature of systemic risk using four examples: financial stability, pandemics, climate change and Internet security. Unfortunately, many more potential sources of systemic risk exist and the triggers for these risks will continue to evolve in unpredictable ways. To be sure, there will be many more nasty surprises.

Global institutions have proved themselves singularly unable to understand the structural changes in systemic risk. As made evident by the financial crisis, even the IMF, BIS, central banks and other well endowed institutions were surprised and incapable of achieving their ambition of global financial stability. New thinking and risk management systems are urgently required. Together the United Nations and Bretton Woods institutions have the global mandate to secure a safer, inclusive and sustainable global society. To date, they have failed to grasp the scale or extent of change in the nature of risk and the threat this poses to the achievement of their mandates. Global mobilization, on the scale of that which in 2000 at the Millennium Summit launched a fight against poverty, is required to meet this challenge.

If implemented, the objectives of the Global Agenda Councils' proposals, including better information and insight, the wider engagement of various stakeholders, greater resilience to shocks, longer decision-making time frames, and collective agreement around priorities for cooperation in a proactive manner, should go some way to addressing these issues. Much will rely on the political will and far-sightedness of key stakeholders whose task it will be to take up these proposals and design a global governance system that will meet the challenges of the 21st century.

The author would like to thank Sheana Tambourgi, Director of the World Economic Forum's Global Risk Network, who provided invaluable guidance and wide-ranging contributions to the drafting of this chapter, and Andrew Bishop and Matthew Richard who provided very helpful research assistance.

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Global Agenda Council on Catastrophic Risks[1]

Creating a Better Architecture for Global Risk Management

Context

It would be hard to have lived through the last few years of global events – through the wrenching financial crisis and its associated collapses of major financial institutions and its resultant global economic slowdown, recession, or even depression in some regions; through the tragic Indian Ocean tsunami in 2004, Hurricane Katrina on the Gulf Coast of the United States in 2005, earthquakes first in Pakistan in 2005, then in Wenchuan in 2008; through the disastrous cyclone in Myanmar in 2008; through 2009 with H1N1 as a "near miss" or perhaps "yet to be" threat; through the earthquake in Haiti in 2010 with its catastrophic and, sadly, largely preventable loss of life and with its often heroic but also often imperfectly-coordinated relief actions; and, then the Chilean earthquake in 2010 with its clear demonstration that building codes and enforcement can radically reduce lives lost even in historically massive seismic events – and not conclude that as a global society we do not yet have as comprehensive and effective a suite of global risk management mechanisms as we seem to need. We clearly need better institutions to prevent and prepare for catastrophic events and to respond to them when they do occur.[2]

Preventing and Preparing for Catastrophic Risks
The Global Agenda Council on Catastrophic Risks proposes that progress in preventing and preparing for catastrophic risks is critically important for five interrelated reasons:[3]

First, ***many catastrophic risks are potentially intensifying***. The accession of nuclear weapons by one or two additional states would be likely to create rapid proliferation of nuclear explosives in a number of other countries (some observers have suggested that literally dozens of countries might follow). In a number of countries, depletion of fossil underground water threatens to cause rapid changes in crop production and significant shifts in the overall balance of food production and consumption. All scientifically-based scenarios of climate change imply that we will see significant – and rapid – changes, even if we also aggressively pursue policies of climate change reduction, so that major efforts at adaptation are crucial to minimizing overall losses from rising sea levels, cyclones, droughts, and floods. The world economic order proved itself over the last eighteen months more fragile than we had imagined, and few would argue that structural changes commensurate with the level of demonstrated risk have yet been undertaken. We continue to experience high rates of population growth in areas of high hazard – in low-lying areas of Bangladesh and Myanmar, where cyclones repeatedly threaten the lives of millions, in seismically-active zones across Asia and in Indonesia, and in malaria-infested areas of Africa. And the world and its major systems – financial, food production and distribution, communications, information exchange – continues to become increasingly tightly interconnected and interdependent, creating a rising risk of system-level collapse.[4]

Second, as a global society, in the face of both long term and short term risks, ***we remain largely reactive, fragmented, and self-interested rather than strategic, integrated, and public-spirited.*** For a variety of reasons, human beings and human institutions are not intrinsically very good at managing risk. First, the public at large often ignores risks entirely; knowledge and attention to risk is frequently limited to specialists. Second, people often do not process information about

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] For simplicity, throughout this discussion we will most frequently use the word "institution" in describing the possible or suggested changes in global risk management architecture that we are examining. We do not assume, however, that what is needed is a single organization or institution. We may need many institutions, entities, organizations, networks, and mechanisms, and together with existing risk management entities they will collectively constitute what we are referring to as the "global risk management system." While we will generally use the word "institution," we mean this to encompass a wide range of different possible elements of the system architecture – and we will sometimes use other descriptions (mechanism, network, system, and so on) so as not to convey the misapprehension that our discussion is limited to the possibility of a single institution or to institutions of the traditional kind.

[3] The discussion in this section closely follows and builds on ideas and dialogue at the "Global Risks" tables at the World Economic Forum Annual Meeting in Davos-Klosters in January 2010, which included participants from a number of risk-related Global Agenda Council groups, and we are grateful to the participants at those tables for many of these ideas and observations.

[4] "System accidents" result from the reverberation of forces in tightly-linked interconnected systems – a phenomenon described by Charles Perrow in *Normal Accidents: Living with High-Risk Technologies* (Princeton, NJ: Princeton University Press, 1999.

probabilistic events accurately and effectively, and therefore systematically underestimate many risks. Third, people often have trouble appropriately balancing the future against the present. Finally, people often find it difficult to maintain focus on threats and negative outcomes. Large scale risks, of course, present all four of these difficulties in concert. In addition, our institutional fragmentation (which arises from an often-appropriate quest for specialized expertise and focus) generally creates a difficulty in formulating a more comprehensive overall view of the risk landscape – and when attention is fragmented, response is tactical rather than strategic. We need a system that facilitates broad identification of risks and generates attention among a larger community of global leaders, thus enabling development of more systematic and comprehensive approaches to address these risks.

Third, ***there is no natural and appropriate overarching institution through which we can, as a global society, accurately assess and consciously and intentionally address and manage global risks*.** There is no general and comprehensive institution or approach to viewing global risks together – to the extent to which risks are attended to, it tends to be through a wide array of only very loosely coordinated clusters of organizations and entities, with each tending to be focused on a relatively narrow bandwidth of hazards and consequences. It is generally quite difficult to compare risk levels or efforts across different risk domains – so our attention tends to be spotty, at best episodic, and often most focused on issues that have direct consequences for our own parochial interests. There is nothing intrinsically wrong or immoral about that focus – but it does not generate a comprehensive, global picture or globally-focused collection of risk-management actions. We strongly believe that our global society needs to work on developing a system with this broader focus.

Fourth, ***there are few effective institutions for balancing conflicting values and priorities in the face of future risks or in the presence of ongoing emergencies*.** In familiar emergency situations, the hierarchy of values has been thought about and generally a consensus has emerged about what the principal issues are – but in facing unprecedented risks, priorities may arise that societies have not previously thought their way through. Because facing future risk intrinsically involves balancing conflicting values – current resources against future savings, for example, or against future losses of different kinds – the ability to frame and deliberate about values tradeoffs is a central requisite of an effective risk management institution.

Fifth, ***existing modes of risk communication appear to be confusing the global public about the level of risk, the appropriate responses to risk, and the likely consequences of not undertaking mitigation efforts with regard to risk*.** The 2009 H1N1 pandemic was first advertised as potentially deadly, but did not in fact in most instances turn out to be, and most people's experience of the pandemic is that it is no more threatening than seasonal flu. The truth is somewhere in between – for pregnant women and in the younger age groups, and especially for those with other underlying health conditions like asthma; H1N1 constitutes a significantly elevated mortality risk as compared with seasonal flu. But the resulting risk message is complex, detailed, and confusing – and the public appears to have little patience for its nuances.

The Challenge of Developing Better Risk Management Institutions

For all of these reasons, we believe the time is right for making progress on developing better approaches to global risk management. The World Economic Forum Global Agenda Council on Catastrophic Risks thus addresses the challenge of developing better risk management institutions for successfully confronting potential large-scale and widespread disasters. This is a broad challenge, and a complex one. We do not have a single answer to the question of what additional forms or institutions or mechanisms of risk management our global society may need to better address the risks we collectively face. We believe that we almost surely need more than one change, and that perhaps we may need a number of changes in the form of alterations to existing institutions, development of new institutions (public, private, and civil society), and new means of coordination among existing and new entities to provide a more effective global capacity to anticipate, prepare for, respond to, and recover from catastrophes of a wide array of types. We strongly believe, however, that existing institutions, as currently operated, have repeatedly shown themselves to be less than adequate to this crucial task – as recent events have again painfully demonstrated.

Global Agenda Council on Catastrophic Risks

The Council is focused on low-probability but high-consequence events that have a severe impact on many aspects of populations and businesses on a local, regional, or global scale. Catastrophic risks are characterized by high severity, often along multiple dimensions, including physical losses and social, political, and economic consequences. And they are generally characterized by our inability or failure to adapt successfully in the relevant time frame to evolving events. Catastrophic risks include potential disasters stemming from a wide range of sources, including hurricanes, earthquakes, fires, pandemics, and financial meltdowns.

Our Council is concerned with identifying common principles to prevent, mitigate, respond to, and recover from the wide range of catastrophic incidents that may strike us at any time – some with little or no warning and with sudden impact (such as earthquakes), some that usually have at least some warning (such as volcanoes and hurricanes), some that develop more slowly (like pandemics that take weeks or months to spread across the globe), and others that develop even more gradually ("slow burners"), with a long build-up to catastrophic outcomes (such as some forms of financial crises, the increasing shortage of water resources, and global climate change).

The Council believes that more can be done to understand the nature and sources of extreme risks so as to prepare populations, leaders, and policy-makers to reduce the consequences of such risks through prevention and increased readiness when these disasters strike.

Much work on disaster reduction has already been achieved, ranging from the United Nations' International Decade for Natural Disaster Reduction in the 1990s to the World Economic Forum's 2008-2009 Global Agenda Council on the Mitigation of Natural Disasters. Nevertheless, dangerous gaps remain in the world's approach to catastrophic risks, starting with sub-optimal private sector and local community engagement. Hence, one of the Council's priorities is to assist companies, business associations, and communities identify risks more accurately in order to help them gain a greater understanding of the diverse and often heavy costs they may incur through inaction or disinterest.

Similarly, more could be done with regard to the integration of innovation in mitigating catastrophic risks. Indeed, while the impact of many catastrophic events can be reduced through the application of research-based knowledge and proven technologies, the preventive value and even commercial worth of such applications are often under-appreciated.

Finally, there is often a misunderstanding of what catastrophic risks really are. These risks differ from their "moderate" counterparts in qualitative terms – not only in quantitative ones – and they are constantly evolving. Tomorrow's large-scale disaster is unlikely to closely resemble today's.

With these failures in mind, it is essential for the general public as well as for key leaders to understand that catastrophes affect not only those proximate to a disaster but also, increasingly, those far removed from the disasters, through the far-reaching global interdependencies that permeate contemporary travel, trade, and finance.

While the likelihood of a particular catastrophe in a specific region in a given year is low, their aggregate global ramifications over several years can be large. Indirect costs, while often hard to measure, are also particularly insidious. The private sector, government agencies, and non-governmental organizations thus share a common interest in addressing these issues. Risks constitute probabilistic liabilities, and, as such, need to be managed as (contingent) liabilities. This means that they have "owners" – the equity owners of a given risk are those who will, if and when it occurs, pay for its damages (whether or not they are aware in advance of whom they are). Thus, an important part of getting large-scale risk management right is transparency about who the risk owners are (so that they will have appropriate incentives to manage those risks as cost-effectively as possible). Drawing on these shared concerns, the Council's work also usefully points toward session ideas for future meetings of the World Economic Forum, and contributes to the themes of the Global Redesign Initiative.

Global Risk Management Institutions
We view the problem of developing an appropriate and effective set of global risk management institutions as a classic problem of "acting in time". In order to act in time in the face of risk, risk-owners have to accomplish four tasks; they must:

1. foresee hazards (or at least the possible consequences of hazards), clearly enough to enable us to develop approaches to managing them
2. make some estimate of the probability or frequency with which the hazard (or consequences) will occur
3. identify or develop cost-effective means for reducing the anticipated costs that will flow from these hazards or consequences
4. mobilize our capacities to build those elements of prevention and preparation that need to be carried out in advance of the anticipated events

A fully effective overall global risk management strategy (and suite of institutions) would result in our collectively acting in time – and it would thus need to embody capacities corresponding to the four elements of acting in time. First, it would need to have capabilities to imagine and assess hazards (the probabilities of events) and risks (the possible consequences to people and valued assets). This component is often referred to as the capability to carry out ***risk assessment***.

Second, it would need the ability to explore, develop, discover, identify, and formulate actions that can be taken that would cost-effectively reduce losses from these foreseen events and circumstances. This component is sometimes referred to as the ability to develop strategies and tactics of ***risk management***. Finally, it would need to be able to connect with and influence the relevant organizations – international, national, civic, and private – to mobilize and coordinate amongst themselves to take the appropriate actions on a timely basis in advance of the hazards becoming realities.

High Return Opportunities for Global Risk Management
We believe that there are important gaps in global performance in the face of risk in all three of these areas. Further institutional and methodological development is thus needed to improve risk assessment and risk management, and we need institutions that are effective in mobilizing resources and action once appropriate risk management opportunities have been developed or identified. We recognize, however, that the development of better risk assessment and risk management institutions capable of mobilizing action is likely to take a considerable time, and is likely to be an ongoing and evolving challenge, as the continuing evolution of society and its economies and its interdependencies will produce an ever-changing risk landscape. We therefore think it is important to direct efforts first at where the highest returns can be obtained for the least incremental effort, and build out over time to the areas where more difficult institutional development challenges are encountered.

Taking into account the "acting in time" framework for identifying the critical challenges of comprehensive risk management, ***the Council believes that the highest-return areas for improving global risk management lie in the area of better applying knowledge that already exists about hazards and how they can be prevented, mitigated, or responded to.*** Our council strongly believes that there are many areas of global risk where we are not successfully acting in time. In particular, the Council believes that there is important knowledge about the nature and level of hazards and value at risk and about how losses to value in the face of those hazards could be significantly and cost-effectively reduced that is not being appropriately and effectively applied and responded to. We refer to this as a ***knowledge-action gap*** – we perceive a number of areas where there is a good understanding of risk levels and how they can be reduced, but where there has been a failure to mobilize successfully to address them. Viewed in the "acting in time" framework, we are arguing that ***the greatest opportunities for rapid progress lie in closing the gap between what is already known about significant risks and what has actually been done to address them.***

Proposal and Explanation/Rationale

Improving Global Risk Management
How, then, might we make progress toward reforming existing institutions, creating new organizations or other entities that can effectively contribute, and finding new and better ways for all of these organizations to work together successfully to improve risk outcomes? This is a large and complex task that will require considerable work over a long period, and continuing work to keep it adaptively suited to the ongoing evolution in the landscape of large-scale risks. Accordingly, we do not wish to propose a single new entity or other specific reform.

Instead, we want to propose a ***process*** for developing better institutions, organizations, and/or networks that will collectively constitute a better global risk management effort. *We believe that what the world needs is not a single institution or proposal to debate, but rather a way to convene a dialogue to focus on the inadequacies of the current regime and to creatively and inclusively work toward the construction of a new global risk management system.*

In proposing this process, we are open to the possibilities that new arrangements might be undertaken in one or more existing international authorities, under one or more newly-created authorities, or through voluntary agreements or collaborative practices. The Council believes that the new arrangements might involve multinational organizations, national governments, and non-governmental organizations, and that they could operate through institutions that are not organizations in the formal sense. For example, forming an agreed-upon set of international standards and protocols for data exchange could create a network or "cloud" that is not a traditional organization, though it might have an associated organization that maintained it, managed membership, and enforced compliance with standards. Forming and operating a market-based prediction mechanism would provide a way for information about risks to be exchanged but similarly does not constitute an organization in a conventional sense, though it would presumably need to be established and operated by some organizational entity.

We thus proceed, in the following sections, with three types of suggestions. First, we propose ***a process*** be convened to develop and manage a dialogue to produce proposed reforms and recommendations for a better array of risk management institutions and processes. Second, we propose ***design criteria*** that the institutions and reforms should be designed to achieve. Third, we provide some ***illustrative examples*** of reforms and institutions that are intended to exemplify the kinds of possibilities that could be explored, but they should not be seen as specific recommendations.

Convening a Process to Redesign Global Risk Management

First and foremost, we believe that the world needs to convene a high-level, inclusive dialogue including business leaders, political leaders, and civil society leaders to reconstruct and redesign the architecture of global risk management.

It is difficult to look at the recent track record of large scale hazards that have befallen the global society and conclude that the existing risk management process is a success. Given the rather remarkable collection of recent global experiences with major hazards, the time should be ripe to convene a dialogue that could bring a high degree of intentionality and intelligent design to formulating a more comprehensive and effective global risk management system.[5]

It would be hard to describe the existing collection of risk-oriented organizations as a "system" – or, at least, as an intelligently designed system displaying a high degree of intentionality and a grasp of the political and social challenges of risk management. A central commonplace of system theory is that a system is perfectly designed to produce the results it in fact produces – and, on that theory, the current global risk management "system" appears to be designed to produce neither effective prevention and mitigation nor very effective response nor particularly rapid recovery.

The Council views the first step as a "constitutional convention" of sorts – that is, as a convening for the purpose of designing a new (reformed) architecture within which global risks can be better assessed and addressed. It might need to proceed in several stages – first establishing design criteria, then developing a general architectural design, and finally developing, creating, or authorizing new institutions or components of that design.

Such a dialogue could be convened by the United Nations (or by one of its constituent agencies), by an organization like the World Economic Forum, by one or a collection of non-governmental organizations, by one or a collection of academic organizations or think-tanks, or perhaps by some combination of organizations. The keys to success for such a discussion, in our view, are that it be:

1. **inclusive as to points of view and stakeholders involved** – the dialogue must involve stakeholders from a wide array of different histories, backgrounds, and experiences. India, Brazil, and Mongolia face different kinds of risks and face these risks in different ways; we will not make much progress overall if we do not take into account the differing experiences, histories, and imperatives of the organizations that can usefully contribute to the process

[5] In making reference to a "system," we do not mean to imply that a single organization could or should seek to carry out risk management and comprehensive risk management strategy for all locations. Indeed, it seems to us unlikely that a single entity could successfully undertake such a large, broad, and varied collection of tasks. We refer to a system (rather than a single or specific entity) because such a system may need to have many constituent parts that undertake different components of the overall task. Because risks in different places are related to one another, different component parts will need to be coordinated, networked, or otherwise engaged with each other.

2. **broad as to risks considered** – the purpose must be to provide a very general view and to develop a very general platform for dealing with a wide range of risks. This does not imply that the result must necessarily be one "super-agency" that is designed to deal with the full spectrum of risks, but it does imply that the system as a whole should span the landscape of different risks
3. **comprehensive as to approaches to managing risks** – the discussion and the resulting system and constituent institutions must be able to contemplate, analyse, recommend, and activate the full spectrum of possible responses to risk, ranging from prevention and mitigation through preparation of response capabilities to response and recovery. For different risks, different approaches are most cost-effective, and the spirit of this dialogue must be to create capabilities to encompass the full range of possible effective responses
4. **integrative** – the result must be system that successfully spans and thus helps decision-makers view together (and thus helps them to set priorities among) the full range of global risks, thereby enabling the evaluation of the relative cost-effectiveness of different tactics **within** a given risk category as well as the development of appropriate priorities for actions **across** risk categories. Thus, for example, the dialogue needs to encompass the development of a system that can distinguish among effective forms of remediation to reduce seismic risks (and recommend or specify building standards and other forms of risk reduction) and that can also make judicious comparisons across risk areas to distinguish domains in which actions are largely consonant with appropriate cost-effective practices from those areas in which action falls dramatically short of what is needed.

As a specific proposal, we suggest that the World Economic Forum convene, in Fall 2010, a "design group" of 50 to 75 business leaders, politicians, civil society leaders, and experts in risk assessment and management from around the world to examine and consider the existing collection of global risk management efforts and to begin the process of imagining a more comprehensive and integrated system.

The resulting proposed architecture – or alternative options for this architecture – should be a significant focus of discussion and debate during the World Economic Forum 2011 Annual Meeting. The "design group" should then reassemble in the spring of 2011 for the purpose of producing specific actionable recommendations to identified entities with the capacity to act for (a) one or more new institutions needed for global risk management; (b) proposed changes in or reforms to existing risk-related organizations; and (c) proposed new networks, collaborative infrastructure, and institutions for data exchange and aggregation for existing and new organizations.

To support the discussion among the "design group," it may be helpful to provide an introduction to and training in risk analysis and management issues for members of the group who do not have previous experience with common language and forms and techniques of risk description, analysis, and management.

Design Criteria

The reforms that result from the discussion we are proposing may involve multiple parts – the creation of new entities, new forms of cooperation and collaboration across existing (and new) entities, new processes of data sharing, and so on. When all is said and done – when the various existing and new organizations and institutions and processes are in place and functioning effectively – there is a set of functions that need to be performed and capabilities that this system of organizations and actors needs to be continuously operating. These are, in effect, the ***design criteria*** for the system – the features that it must have if it is going to be fully effective in confronting global risks more successfully and, thus, the features that it must be designed to have. For purposes of discussion, we will presume that what will emerge can best be described as a global system of risk management. In this section, we outline what we believe some of the design features of this system need to be.

The system would need to assess hazards and risks and scan for low probability, high-consequence events, and it could also monitor real-time catastrophic risks across a range of areas (e.g., drawing upon a wide range of sources, including the World Health Organization, World Food Programme, and other well established sources, possibly including private sources and services). It would involve all stakeholders including national governments, international agencies, non-governmental organizations, and major corporations.

The system needs to be able to encompass the full range of available risk management strategies. The Global Agenda Council antecedent to this one, which focused on the mitigation of natural hazards, articulated an outline, referred to as the "comprehensive risk management framework," of five alternative forms of actions that can be taken to reduce the losses associated with hazards:

1. prevention and mitigation of the consequences of a hazard in advance of its advent
2. preparation of an effective response in the event that the hazard does eventuate
3. preparations for making a speedy recovery from the consequences that do arise
4. activation and execution of the response if the event occurs
5. execution of the recovery after the event takes place

Each of these five areas potentially provides an opportunity for cost-effective intervention against the possible losses from a hazard. A "comprehensive risk strategy" thus consists of a balanced portfolio of investments across these five opportunities, with an appropriate overall level of resource expenditure across the five areas, with judicious decisions about which area(s) of intervention is(/are) likely to be most valuable, and with an effective search within each area for the most cost-effective investments of that type.

As an example, consider what a comprehensive approach to risk management might involve in the case of protecting people living on low-lying shore areas of the Padang region in Indonesia (which last September experienced a sizable offshore earthquake that caused a tsunami and extensive damage to buildings, including schools, onshore). According to seismologists, this area remains at risk for a very large earthquake (on the scale that caused the Indian Ocean tsunami in 2004). A ***comprehensive risk management institution*** (CRMI) for such an area would develop and oversee the implementation of a balanced and coordinated set of actions including:

- efforts to reduce damage by retrofitting existing buildings and undertaking new construction built to higher structural code levels with greater reinforcement and seismic resilience, and by building a rapid warning system and escape routes so that people in low-lying areas can readily move to higher ground to escape the immediate impacts of the anticipated major tsunami;
- additional efforts to organize rapid response, especially locally since in seismic events rescue in the first minutes and hours is dramatically more likely to be successful;
- efforts to organize in advance the ability to rebuild and recovery quickly, perhaps, for example, by maintaining a national stockpile of easily transportable building materials or by making advance stand-by procurement arrangements for materials that are likely to be needed;
- rapid and effective execution of a well-coordinated local, national, and international response in the aftermath of an event; and
- rapid and determined execution of a coordinated recovery process driven by local leaders but supported and assisted by resources from regional, national, and international agencies.

An institution for global risk management must, therefore, be designed in a way that allows it to develop a comprehensive risk management strategy against major global risks – that is, a balanced portfolio of the right overall level and right mix of investments across the five possible areas of intervention, with effective search within each area to find the highest net value interventions. The global risk management system should be designed to develop and implement comprehensive risk management institutions that can in their turn develop and encourage implementation of comprehensive risk management strategies.

The system would thus need to be designed to:

1. bring greater attention to the long-term indirect and unexpected consequences of catastrophic risks, their root causes, metrics for them, and the best practices for preventing and responding to them;
2. create a better dynamic characterization of best practices and a stronger capacity for conveying the practices to agencies and organizations that could make use of them;
3. ask major United Nations agencies and international organizations, national governments and multinational companies to conduct a risk and vulnerability analysis for their own societies and organizations in facing a set of canonical catastrophic risks identified by the organization;
4. devote attention to building leadership and resilience in organizations responsible for addressing catastrophic risks in cities and communities faced by such risks, and better informing decision makers who must confront and respond to the risks; and

5. help to address the capability gap between the scale of risks and the level of resources reasonably available to address them. Many countries, and particularly some developing countries, face increasing concentrations of risk as population growth continues in high-hazard areas, but do not seem to be able to divert resources from dealing with immediate needs in order to manage the prospective risks.

We believe that the system (and one or more of its component institutions) should be tasked with:
1. developing methods for improving imagination about catastrophic risks and creativity in facing their consequences
2. building better appreciation for the metrics of indirect long-term consequences and losses to general social welfare
3. developing more simplified and effective risk communication strategies based on scientific knowledge about how to convey risk information
4. working to decrease the knowledge gap between disaster-experienced and non-experienced countries
5. developing better understanding of the antecedents, co-factors, and underlying causes of catastrophic risks
6. establishing the appropriate distribution of risk "ownership," responsibility, and accountability" across sectors and organizations
7. developing a dynamic catalogue of best practices and risk assessment methods
8. developing institutions for sharing information, expertise, and resources in the aftermath of an emergency
9. building scenarios for both specific types of catastrophes and more generic complexes of consequences
10. strengthening a host of measures for assessing catastrophic risks, including prediction markets, insurance data, statistical information, and other aggregation devices for forecasting catastrophic risks

Planning for and development of the institutions involved in this system should draw upon the experience of the Global Fund to Fight AIDS, Tuberculosis and Malaria and other existing models.

Options for Improved Global Risk Management
We outline options for institutions that we believe could, in combination with other existing institutions, constitute a more effective suite of global risk-management institutions. These options are intended to be neither singular, nor exclusive, nor comprehensive. They are not singular in the sense that we do not believe that any one single institution can successfully provide overall global risk management. They are not exclusive in the sense that we believe they could and should be used in combination with other existing institutions (and with each other). And they are intended to be illustrative rather than comprehensive – we certainly do not believe that we have exhausted the range of possible useful institutional reforms and new developments.

Option A: A new transnational civil society organization. One option would be the creation of a new international civil society organization with the mission of collecting, aggregating, and analyzing risk-related data, identifying gaps between apparent risk levels and the level of mitigating actions, and encouraging relevant organizations to undertake actions to reduce risks where such gaps are found to occur.[6]

Option B: A new function of a private organization. A second possibility would be to organize a more effective risk scanning and analysis function within a non-profit private organization (like the World Economic Forum) that is dedicated to serving broad public interests. Such an organization could draw on many existing efforts in both the public, non-profit, and private sectors.

[6] We are mindful that a number of civil society organizations that already exist that might meet, or might partially meet, or might in combination meet, this general mandate. For example, the International Emergency Management Organization will meet this spring, and intends to present a declaration on the prevention of emergencies. While this would not cover the entire landscape we are envisioning, it could certainly be a component of a group of entities that jointly constituted a new, broad institution. (Or alternatively, it could be part of a network of the kind envisioned in Option C, below.)

Option C: A new collaborative network process. A third option would be to create a process that aggregates the risk-related information produced by existing organizations into a more integrated whole, with the intent of creating a more balanced and comprehensive picture of the overall array of global risks. Existing specialized organizations (WHO, for example) that scan for and track specific domains of risk (health risks, in the case of the WHO) would contribute data that would be aggregated, disseminated, and analysed to form a "common operating picture" that is made widely available and subject to debate, correction, and interpretation. This would constitute a "wisdom of crowds" approach – and would operate through creating infrastructure and processes through which the wisdom of other organizations could be aggregated and utilized.[7]

Option D: A new partnership between an international organization and a civil society or private sector organization. A variation on Option C would be a partnership between an existing, already-authorized international organization (like the UN or World Bank) and an existing civil society or private organization (like the World Economic Forum). Using an existing component of an organization like the UN (for example, the UN's International Strategy for Disaster Reduction) may help to confer legitimacy (especially in areas where the UN's influence tends to be strong, as in some developing countries), while alliance with a less bureaucratic and more nimble organization may allow the resulting combination to be more adaptable, flexible, and effective.

Option E: A new transnational organization. A fifth possibility would be the creation of a new entity that is explicitly both transnational and trans-sectoral – that is, it would include as constituent components or as collaborating partners a variety of national government organizations and international civil society organizations. Using the networks of information, scanning, and analysis thus brought together, it would work to identify and prevent and prepare for catastrophic risks. It would seek to centrally identify the strategy and mission but work with and rely upon local and grass-root initiatives. It would operate top-down strategically but bottom-up tactically – that is, overall goals and direction goals would be set through its central governance process, but it would draw on, aggregate, and disseminate information from and about grassroots organizations and action – and would seek to encourage decentralized and widely distributed responses by local and national organizations to identified risks.

Next Steps

We have outlined the need for an improved system of risk management for large-scale global risks. In an attempt to advance discussion about how progress might be made in constructing a more effective system, we have presented suggestions in three stages. We have proposed the convening of a process for exploring and designing such a system, together with design criteria that the system should be capable of, and, by way of providing examples and the basis for further discussion, we have outlined some preliminary options. To say that a great deal of work lies ahead is an understatement. Indeed, we do not believe that this work will ever truly be finished – we expect that it will need to be revisited on a continuous basis as the landscape of global risks continues to evolve. Our hope is that our Council can help to start this ongoing dialogue and effort.

This Global Agenda Council suggests that the essential first step is for the World Economic Forum, as part of its Global Redesign Initiative, and working with the sponsoring governments of Qatar, Singapore, Switzerland, and Tanzania, to select a design group and provide it with budget resources and authority to convene appropriate meetings and discussions to reconsider the general architecture of global risk management and to propose appropriate new institutions or reforms of existing elements of the system. The culmination of this process should be the unfolding and discussion of proposed new and reformed elements of the process at the World Economic Forum Annual Meeting 2011 in Davos-Klosters in January.

[7] In outlining this alternative, we are mindful, and respectful, of the many existing organizations and efforts that deal and have dealt with risk assessment and the mobilization of prevention and mitigation efforts. The International Decade for Natural Disaster Reduction (IDNDR) and the associated Yokohama conference and Strategy and Plan of Action, the International Strategy for Disaster Reduction, the 2005 Hyogo Framework for Action, the Prevention Council hosted by the World Bank and the Federation of Red Cross and Red Crescent Societies, and the UNDP's Bureau of Crisis Prevention and Recovery, to name just a few, all constitute important work on identifying and figuring out how to manage major risks, and these or other efforts like them are likely to be durable elements of the landscape. There are also organizations and efforts that are already moving to coordinate the data and actions of other organizations. For example, the Disaster Reduction Hyperbase project, which builds and operates in part through linkages to and among other projects, could provide experience and perhaps a model on which the kind of effort we are suggesting here could build. Our intention is not to re-invent existing institutions, but to build on them as powerful precedents and to suggest, under this option, that one approach might be to treat them as elements of a network and figure out how best to combine and aggregate their work and findings.

Global Agenda Council on Catastrophic Risks

Appendices

Executive Summary

Preventing and preparing for catastrophic risks is critically important for five reasons: 1) many catastrophic risks are intensifying; 2) we remain largely reactive, fragmented, and self-interested rather than strategic, integrated, and public-spirited; 3) there is no natural and appropriate overarching institution through which we can, as a global society, accurately assess and consciously and intentionally address and manage global risks; 4) there are few effective institutions for balancing conflicting values and priorities in the face of future risks or in the presence of ongoing emergencies; and 5) existing modes of risk communication appear to be confusing the global public about the level of risk, the appropriate responses to risk, and the likely consequences of not undertaking mitigation efforts with regard to risk.

The World Economic Forum Global Agenda Council on Catastrophic Risks thus addresses the challenge of developing better risk management institutions for successfully confronting potential large-scale and widespread disasters. We view the problem of developing an appropriate and effective set of global risk management institutions as a classic problem of "acting in time," and that requires that the set of institutions 1) foresees risks, or at least the possible consequences of risks, clearly enough to enable us to develop approaches to managing them; 2) makes estimates of the probability or frequency with which the risks or consequences will occur; 3) identifies or develops cost-effective means for reducing the anticipated costs that will flow from these risks or their consequences; and 4) mobilizes our capacities to build those elements of prevention and preparation that need to be carried out in advance of the anticipated events.

Drawing on this framework for identifying the critical challenges of comprehensive risk management, the Council believes that the highest-return areas for improvement lie in the area of better applying knowledge that already exists about risks and how they can be prevented, mitigated, or addressed – of closing the gap between what is already known about significant risks and what has actually been done to address them. The Council accordingly proposes a *process* for developing better institutions, organizations, and networks that will collectively constitute a better global risk management effort. What we need is not a single proposal to debate, but rather a way to convene a dialogue to focus on the inadequacies of the current regime and to creatively and inclusively work toward the construction of a new global risk management system.

The Council believes that the world needs to convene a high-level, inclusive dialogue including business leaders, political leaders, and civil society leaders to reconstruct and redesign the architecture of global risk management. This would have to be inclusive, focused on a broad array of risks, comprehensive in approach, and integrative. To jump-start the process, we suggest that the World Economic Forum convene, in the fall of 2010, a design group of 50 to 75 business leaders, politicians, civil society leaders, and experts in risk assessment and management from around the world to examine and consider the existing collection of global risk management efforts and to begin the process of defining a more comprehensive and integrated system.

List of Members

Chair: **Herman Leonard,** Professor of Public Management, John F. Kennedy School of Government, Harvard University, USA

Nick Bostrom, Director, Future of Humanity Institute, Faculty of Philosophy, University of Oxford, United Kingdom
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Detlof von Winterfeldt, Director, International Institute for Applied Systems Analysis (IIASA), Austria
Xue Lan, Dean, School of Public Policy and Management (SPPM), Tsinghua University, People's Republic of China; Vice-Chair of the Global Agenda Council on Catastrophic Risks

Global Agenda Council on Emerging Technologies[1]

A New Global Centre for Emerging Technology Intelligence

Context

Emerging technologies are critical to long-term global prosperity. They represent the innovation that adds necessary economic and social value to materials, products and processes. And they provide potential solutions to a wide range of pressing global challenges including energy generation and storage, health care, climate change, food security and access to clean water. Yet without better global cooperation on technology innovation, many potential emerging technologies will not mature to the point at which they can be used effectively.

Government and corporate decision-makers are foundering in a world dominated by rapid and unprecedented social and technological developments. They are limited in their ability to anticipate and respond to new developments and they lack the mechanisms necessary to work with non-traditional but increasingly influential stakeholder groups.

Proposal

The Global Centre for Emerging Technology Intelligence will directly address this need. A neutral, transparent and authoritative organization, the Centre's leaders and staff will work with decision-makers at the highest level in industry, government and other organizations in ensuring the best possible tools are available to support the successful and sustainable development and implementation of new technologies.

The mission of the Centre is to ensure that governments, businesses and other stakeholder organizations are equipped to make the most effective use of science and technology innovation in addressing the global challenges of the 21st Century.

Explanation/Rationale

Why a Global Centre for Emerging Technology Intelligence Is Necessary
Science and technology have been at the heart of economic growth, social prosperity and improvements in quality of life for close to ten thousand years. From the agricultural revolution to the information revolution, advances in society around the globe have been underpinned by new discoveries, and their innovative use in new products and processes. Nearly 250 years ago, the invention of the Spinning Jenny vastly increased speed with which cotton could be turned into yarn, revolutionizing the textile industry and helping usher in the industrial revolution. The discovery of penicillin in the early 1900's allowed previously fatal infections to be treated, opening the door to modern surgical procedures. In the mid twentieth century, the invention and subsequent development of the transistor initiated a technology revolution that is still driving economic and social growth. And more recently, innovations in global communication, social networking and information processing have begun to empower global communities in ways unimaginable a few years ago.

Yet despite the clear impact of these and other examples, the continued success of science and technology as an engine for economic and social growth is not guaranteed. Over the past few decades, global economic and social landscapes have shifted radically, leading to new thinking on how to tap into the potential offered by emerging technologies. A growing global population, coupled with a widespread desire for a first-world quality of life, is placing unprecedented demands on resources around the world. Humanity's actions are becoming uniquely entwined in environmental reactions, redefining our relationship with the planet on which we live and depend. And modern communications are making a mockery of geographical and institutional boundaries that have endured for hundreds and thousands of years. These three factors not only place new demands on how emerging technologies are used; they also rewrite the rules for using them effectively.

Recent attempts to introduce genetically modified foods into commerce in Europe provide a sobering lesson in how easy it is to mishandle emerging technologies. Despite little evidence to the contrary, apparent concerns over health and environmental impacts severely retarded the implementation of a technology that could save and improve millions of lives around the world. Yet these concerns were grounded in a backlash against corporate control that cut consumers out of the decision-making process. And through a socially-savvy media, people were galvanized to say "no" to "frankenfoods" – not because of the science and technology, but because of the way they were handled.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on Emerging Technologies

Missteps over the development of genetically modified foods are a prominent case among many where the trajectory of a technology has been dictated by social concerns as much as scientific evidence. It is becoming increasingly clear that hierarchical, evidence-based decision-making is not sufficient on its own to ensure the success of new technologies. In part, the situation is exacerbated by peer to peer global communications, where virtual groups can be informed about, motivated by and empowered to take action on emerging issues before institutional decision-makers are even aware there is an issue to respond to. We now live in a world where an incident in China, or the Middle East, can influence attitudes and actions in regions like Europe and the Americas in a matter of minutes through media like FaceBook and Twitter.

The impact on realizing the social and economic potential of new technologies is potentially profound. Established approaches to government and corporate policy-making founder in the new social order, and are limited in their ability to anticipate and guide new developments effectively. They lack the responsiveness, adaptability and foresight to anticipate hurdles to progress, or to work through partnership with non-traditional but increasingly influential stakeholder groups - including consumers.

Yet this disconnect between established policy mechanisms and new approaches to implementing emerging technologies is occurring at a point where future global prosperity is more dependent than ever on new science-based solutions to pressing problems.

Providing people with access to healthy food and clean water; managing climate change and its impacts; treating disease; generating and using energy wisely; coping with pollution—over the next fifty years, global challenges in these and similar areas will reach an unprecedented level. Without rapid and targeted advances in science and technology, humanity will not be able to face them without paying a large price. Now, perhaps more than at any time in history, we need the tools that science and technology provide to face an uncertain future. And just as the challenges are global in scope, so the solutions will need to be global in reach.

In emerging areas such as nanotechnology, synthetic biology and geoengineering, there is growing awareness that a new paradigm is needed if the technologies are to be developed effectively—one that predicts and avoids potential hurdles, develops and implements new technologies in partnership with multiple stakeholders, identifies and addresses possible health and environmental impacts before they occur, and responds rapidly to new developments. Yet there is a gaping chasm between the knowledge that a different approach to policy-making is needed, and an understanding of what this new approach should look like.

This is the gap that the Global Centre for Emerging Technology Intelligence will fill. Working with decision-makers at the highest level in industry, government and other organizations, it will aim to ensure that decision-makers have the best possible tools at their disposal to ensure the successful and sustainable development and implementation of new technologies.

The Goals of a Global Centre for Emerging Technology Intelligence

- **Be an authoritative and neutral source of intelligence on emerging technologies and the opportunities and challenges they raise**
  The Centre will work towards becoming the premier go-to source of information on emerging technologies for decision-makers, the media and the public. This will be achieved through developing a global network of experts on emerging technology policy, potential and risks, building in-house expertise, producing high value/high impact products and working closely with the media. The Centre will also promote accessibility, inclusiveness and strategic partnerships in an attempt to bridge divides that can characteristic advance technologies.

- **Provide timely information on emerging opportunities and challenges**
  The Centre will develop in-house expertise in identifying, evaluating and assessing new opportunities and challenges related to emerging technologies. Assessments of emerging issues will be published and made publicly available on a regular basis.

- **Bring senior stakeholders together to identify emerging issues**
  The Centre will bring high-level experts and decision-makers together on an annual basis to identify emerging issues and inform a rolling two-year programme of targeted projects.

- **Publish targeted research, analysis and recommendations**
  Based on a two-year strategic plan, the Centre will publish analyses and recommendations on key emerging technology issues.

The Impact of a Global Centre for Emerging Technology Intelligence
Many emerging technologies result in a polarized debate between those who have a vested interest in developing the technology (academics seeking funding, early investors, consultants seeking to develop new markets) and those wishing to maintain the status quo (technology-suspicious NGO's, conservative religious organizations or consumers who are distrustful of technology). Instead of a rational debate about the benefits and risks, new technologies are presented as either having the ability to usher in a techno utopia or the potential to destroy the world. For policy-makers and businesses alike, the clear perspective they need on benefits and challenges ends up buried by an avalanche of poorly informed opinion.

The most significant impact of the Centre will be to provide clear, impartial, understandable intelligence on emerging technologies that will allow decisions on technology policy and deployment to be taken earlier, and to be based on science fact not science fiction. This will lead to:
- Awareness of and clarity on emerging technology policy opportunities and challenges
- Informed and responsive decisions on emerging technologies
- Faster and more effective technology transfer
- Increased use of evidence-based and socially responsible decision-making
- Better-informed investors and the use of new investment models
- Sustainable emerging technology-based solutions
- Socially responsive emerging technologies
- Responsive and relevant oversight
- Effective use of emerging technologies in addressing global challenges

Activities
At the heart of the Centre's activities is an annual meeting of high level decision-makers and thought leaders from government, industry, academia and civil society, brought together to explore needs, barriers and solutions to developing and using emerging technology.

The outcome of this meeting will be a series of actions that are specific, relevant, have the support of key stakeholders, have a measurable impact, and are implementable within a 12-24 month time period.

Examples of possible actions include evaluating the social and economic potential of specific emerging technologies within different economies, developing new approaches to technology transfer, providing horizon scanning assessments of emerging technologies, developing new partnership models for technology development and implementation, and implementing innovative new ways to stimulate the use of emerging technologies in addressing global challenges.

Next Steps

Year One
1. Establish and implement the governance structure for the Centre
2. Establish a communication and engagement infrastructure.
3. Engage with relevant bodies (governmental, NGO, regulatory, scientific etc) on a global and regional basis
4. Host a first Centre for Emerging Technologies Intelligence Retreat
5. Develop a two-year action plan based on the recommendations and conclusions of the Retreat

Year Two

1. Implement the action plan arising from Retreat, focusing specifically on horizon scanning, analysis and communication
2. Engage with governmental, NGO, regulatory, scientific, etc.) on a global and regional basis
3. Host second Centre for Emerging Technologies Intelligence Retreat
4. Review and develop the two-year action plan based on the recommendations and conclusions of the Retreat

Year Three

1. Implement the action plan arising from Retreat, focusing specifically on horizon scanning, analysis and communication
2. Host third Centre for Emerging Technologies Intelligence Retreat
3. Review and develop the two-year action plan based on the recommendations and conclusions of the Retreat
4. Ramp up communication and outreach programme, based on the first two years' work of the Centre

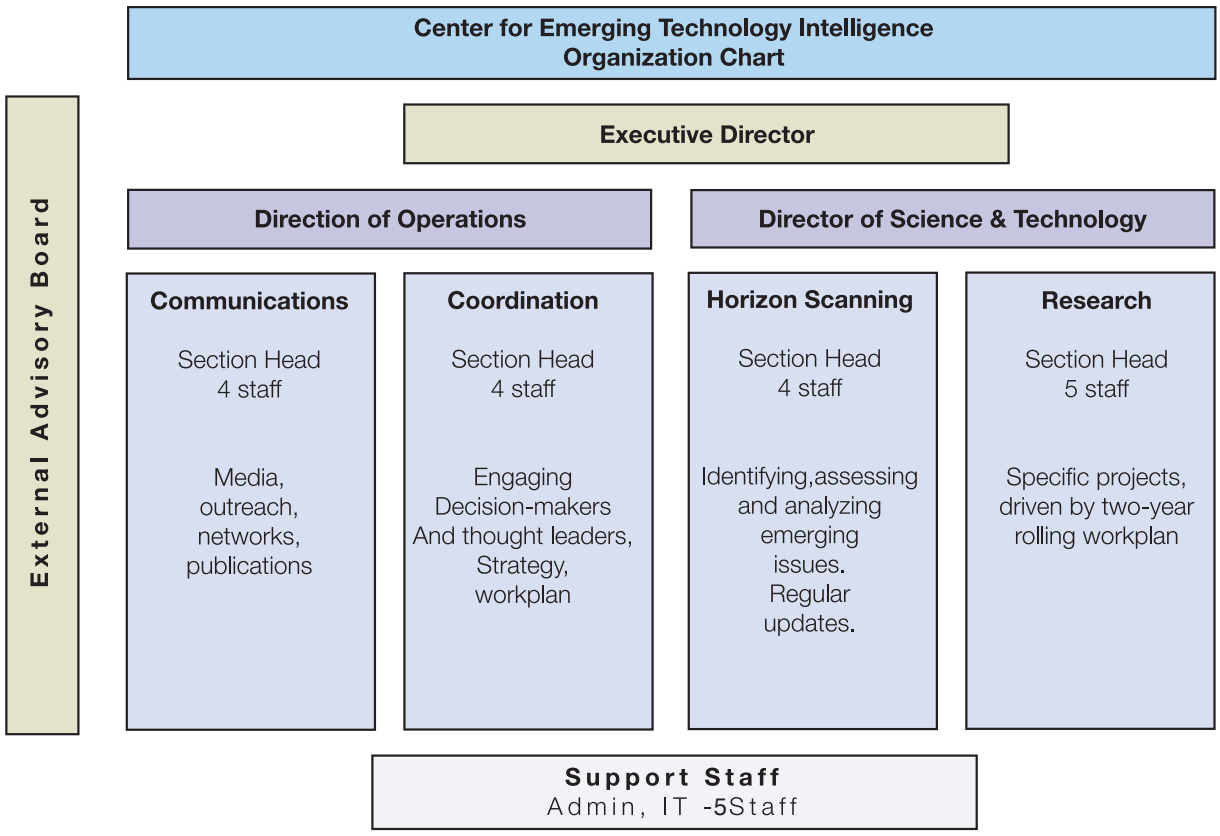
Management

The Centre will be managed by an Executive Director, supported by a Director of Operations and a Director of Science and Technology. The activities of the Centre will be grouped into four areas,

1. **Communications** – ensuring that the work of the Centre is widely disseminated, building and maintaining networks in the science, business, government and NGO communities and managing publications and electronic information.
2. **Coordination** – managing the annual Centre for Emerging Technologies Intelligence retreat, developing work plans, ensuring targets and budgets are met, managing databases and web sites and developing the overall strategy of the management of the Centre.
3. **Horizon Scanning** – identifying, assessing and analyzing issues surrounding emerging technologies, and providing regular updates to all other departments as well as to partners and stakeholders.
4. **Research** – In depth analysis and specific projects driven by the Centre's two-year work-plan.

Table 1 Organization Chart

The Centre will be overseen by an External Advisory Board to ensure appropriate governance. The External Advisory Board



will be drawn from a wide range of stakeholders, governments, industry, financial institutions and academics, and is a core part of the Centre's remit to be both neutral and technology-agnostic.

While the role of the External Advisory Board will be purely advisory, the centre will also appoint a board of trustees in order to ensure that the Centre is immune to any political or business interests. The chair of the board of the trustees will also sit on the Centre's management board.

Defining the Scope of the Centre
Everyone has their own list of urgent global problems that need to be addressed, and the number of emerging technologies is as much a matter of nomenclature as new science. As such the number of possible interactions is almost infinite. To avoid a diffuse and ineffectual focus, the Centre will work with partners and stakeholders to ensure the most pressing and relevant issues are addressed.

As a starting point it is proposed that the Centre will concentrate on two areas of emerging technology; one that is already finding its way into consumer products and industry across the globe, and another that although in its early stages is expected to raise a wide range of moral, ethical and legal issues. These two focus-technologies come under the broad banners of 'nanotechnologies' and 'synthetic biology.'

Other emerging technologies and related issues will be added to the overall scope of the Centre as appropriate and following recommendations from the annual retreat. In addition, the Centre will develop horizon-scanning functions that identify and, if necessary, pursue rising emerging technologies-based issues deemed to be of significance.

Staffing
Initial staff will consist of an interim Executive Director, a Director of Science and Technology, two analysts and an administrative assistant. These will be supplemented by other managerial staff within six months.

Staffing will rise to ten full time equivalent (FTE) staff within the first year and reach twenty six FTE by the end of year three. As the Centre will be aiming to recruit the best and most effective staff, some of which will require a period to transition from existing commitments, it is envisaged that a number of post will be filled on a part time or pro rata basis during the first year of operation.

A number of other functions such as IT, public engagement and events may be outsourced to local partners depending on location.

Location
The location of the Centre is still to be negotiated. The location requirements are for good transport infrastructure, including access to major air routes, and the ability to attract staff of the highest calibre. The location will also have a significant effect on the overall budget.

Funding
An indicative budget for the first three years is given below based on international salaries and benefits, anticipated travel and infrastructure requirements (office space, IT etc).

Table 2 Annual Budget (US$'000)

	Year 1	Year 2	Year 3	Total
Staff Costs	$4,574	$5,543	$17,359	$7,241
Travel	$851	$973	$1,062	$2,886
Infrastructure	$373	$373	$373	$1,118
Total	**$5,798**	**$6,888**	**$8,676**	**$21,362**

Table 3 Staffing

Staff Numbers	Year 1	Year 2	Year 3
Directors	**2**	**3**	**3**
Other	8	18	23
Total	**10**	**21**	**26**

Table 4 Travel Budget (US$ '000)

	Year 1	Year 2	Year 3
Annual Retreat	$250	$250	$250
External Advisory Board	$50	$50	$50
Directors	$185	$185	$185
Other Staff	$86	$168	$228
Total	**$571**	**$653**	**$713**

List of Members

Chair: **Christopher B. Murray,** Richard Perry University Professor of Chemistry and Materials Science, University of Pennsylvania, USA

Gabriel Aeppli, Director, London Centre for Nanotechnology, United Kingdom
Bai Chunli, Vice-President, Chinese Academy of Sciences, People's Republic of China
Giovanni De Micheli, Professor and Director, Institute of Electrical Engineering and of the Integrated Systems Centre, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland
Christoph Gerber, Director, Scientific Communication, National Center of Competence in Research 'NCCR' Nanoscale Science, University of Basel, Switzerland
Tim Harper, Chief Executive Officer and President, Cientifica, United Kingdom
Annabelle Hett, Head, Swiss Re Centre for Global Dialogue, Swiss Re, Switzerland
Thembela Hillie, Principal Research Scientist, Nanoscience Research Group, South Africa
Rüdiger Iden, Senior Vice-President, Polymer Physics, BASF, Germany
Raghunath A. Mashelkar, President and Bhatnagar Fellow, National Chemical Laboratory, India
Kiyoshi Matsuda, Associate Director, Innovation Center, Technology and Production Center, Mitsubishi Chemical Holdings Corporation, Japan, Vice-Chair of the Global Agenda Council on Emerging Technologies
Andrew D. Maynard, Director, Risk Science Center, University of Michigan School of Public Health, USA
Matthew M. Nordan, Vice-President, Venrock, USA
James Wilsdon, Director, Science Policy Centre, Royal Society, United Kingdom
Jackie Y. Ying, Executive Director, Institute of Bioengineering and Nanotechnology, Singapore

Global Agenda Council on Energy Security[1]

Establishing a Global Energy Forum

Context

Energy security is the reliable, stable and sustainable supply of energy at affordable prices and social cost. For many years, governments have struggled to provide energy security through a mix of policies that have tempered demand and increased supply. There is growing evidence that those policies are falling far short of the effort needed. Energy producers and consumers are mutually interdependent and increasingly anxious about the reliability of energy supplies. A much more effective international system for coordinating policies is needed. Such a system would promote energy security and the development of alternative energy sources such as renewable power, integrate environmental policies more fully into the energy system, and promote much larger investment in research and development.

Moving to a new energy security system can be extremely difficult and requires committed governments and institutions and clear long-term policies and strategies. This necessitates a continued dialogue between consuming and producing countries aimed at improving energy security.

While alternative, sustainable and clean energy sources are still in development – and in view of the fact that the full "greening" of energy sources is a long-term process – in the interim period discussions are increasingly focusing on the greener and cleaner use of hydrocarbons, safer nuclear power and renewables.

Over time, "energy" issues have become much more complex and require more nimble systems for governance. For example, in recent years analysts have become more aware of the links between energy and water as well as links between energy supply and food security. Yet no mechanisms exist to address these linkages systematically or to find solutions.

Despite the many new and persistent energy challenges, there is no shortage of institutions that are charged with working on energy issues. They include a variety of international organizations devoted to energy matters (e.g., the International Atomic Energy Agency, International Energy Agency, International Energy Forum, International Renewable Energy Agency, etc.) as well as energy agendas on other broader organizations (e.g., the EU, G8, G20, Major Economies Forum on Energy and Climate, UN Framework Convention on Climate Change, etc.) and many other ad hoc and nascent efforts. Although energy challenges are extensive, this is one of the most highly institutionalized areas of international cooperation. Any serious effort to address energy security must work with these existing efforts.

The Global Agenda Council on Energy Security recommends the establishment of a Global Energy Forum, bringing together all the major stakeholders and focusing on the critical energy security issues that existing institutions are unable to address. The effort would be launched by the World Economic Forum and would notably involve business in its foundation. Most energy problems require altering investment patterns that ultimately are the province of business, yet, to date, industry has not played a central role in most international governance.

The Global Energy Forum would work by catalysing other institutions and would set its agenda to focus on urgent, orphaned problems. We suggest two for the group's early agenda: the problem of creating a more secure nuclear fuel cycle, which is on many international agendas but has stalled for lack of political focus, and the challenge of radically boosting energy efficiency. In time, the Forum could work on many other issues that are falling through the cracks of international cooperation, such as the emerging challenges created by the linkages between energy, water and food, and the perennial challenge of coordinating the much larger global investment needed in energy research, development and demonstration (RD&D).

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on Energy Security

Background

- Economic development and population growth are expected to lead to strong growth in energy demand, doubling over the next 30 years. Most of that growth will be in developing countries.

- Reliable and affordable energy systems are essential to a healthy economy. The energy system is also pivotal to other social objectives, such as national security, the alleviation of poverty, and the protection of the environment.

- Under current trends, fossil fuels will continue to provide the great majority of the world's energy for the foreseeable future. There are still abundant fossil resources; utilizing them, however, depends on extracting, delivering, and using them at reasonable prices and in manners consistent with sound environmental objectives.

- Energy resources, generation and supply are unevenly distributed geographically. This, and other factors, have led to an increase in the global trade of energy and resources (especially fossil fuel); that trade is a source of perceived energy insecurity.

- Energy systems broadly fall into two categories: liquid fuels that dominate the transportation sector and all other fuels that commingle and compete mainly in the power sector. It is useful to distinguish these two sectors of the energy system when planning policies.

Fuels for Transportation

- There is no shortage of geological resources, but there are growing challenges to mobilize investment in a timely manner. The financial, technological and human resources needed are massive but manageable. Whether this happens hinges on producers' confidence in the level of future demand. How can the resources for production be mobilized and the producers be confident of future demand?

- Many nations view oil security as a geopolitical issue marked by competition. In fact, security is an intrinsically global phenomenon, arising through commerce and markets rather than competition. A dialogue between producers and consumers is essential.

- In principle, extractive industries can play an important role in economic development. In practice, the benefits have often not been apparent. Producers and consumers alike have an interest in ensuring that oil revenues are used effectively, since development is essential to the human condition and to providing the context for the reliable supply of energy to world markets.

- Over the long term – fifteen years and beyond – many options to reduce dependence on traditional liquid fuel supplies in the transport sector exist. These range from advanced biofuels and electric vehicles, to carbon-based fuels such as heavy oils and coal-based liquids. Some of these options are already used on a large scale, while some, such as corn-based biofuels, have revealed problems that will arise with the full-scale shift to alternative fuels supplies. Much more research, development and demonstrations of oil substitutes are needed.

The Power Sector

- The demand for power in most societies is expected to grow faster than the demand for other energy uses. In nearly every country in modern industrial history, economic development has evolved in tandem with massive electrification. Post-industrial economies, based on electronics, promise yet greater electrification while requiring an increasingly efficient electric system. Energy security in the power sector hinges on the grid that connects suppliers and end-users, and the system could be designed for much greater efficiency. Efforts are needed – some are under way – to make the electric grid more capable and secure, while encouraging radical energy savings.

Global Agenda Council on Energy Security

- The electric power system must play a central role in decarbonizing the future economy. Many options to reduce emissions exist, but it is not yet clear which paths will prove most effective. Efforts over the next few decades are likely to concentrate on renewable energy supplies (notably wind), clean-coal technologies (e.g. carbon capture and storage), a switch to natural gas, the promotion of nuclear power, and greater energy efficiency in particular. But few analysts believe these near-term options will deploy widely enough to achieve the very deep cuts in emissions needed to stop global warming. Thus over the longer term, radical new sources of energy will be needed, such as perhaps continental electric grids connected to solar energy supplies, or other systems that few have as yet imagined. Binding the near- and distant-term options together is the need for a robust RD&D framework.

- Coal with carbon storage is promising but poses large regulatory and technological challenges. Improvements in this technology – and in making conventional coal plants much more efficient through high-temperature and gasification technologies, for example – are essential since coal is abundant and a key political factor in most of the world's largest and most dynamic economies.

- While the full "greening" of energy sources is a long-term process with outcomes that are difficult to predict in detail, in the interim it is likely that dozens of nuclear power plants will be built worldwide. This new building spree is already under way, engaging countries that traditionally have not had large commercial nuclear programmes of their own. The Council on Energy Security has paid special attention to nuclear power because a shift to this power implies new challenges in securing the nuclear fuel cycle, and raises serious political and geopolitical implications, as in the case of Iran, for instance. The question is not essentially the right of nations to have and use nuclear technology for non-military usage, but the creation of a more secure and controlled nuclear fuel cycle. While a number of proposals point towards a multilateral fuel cycle, the central challenge remains: what should be done politically and technically to begin implementing such schemes urgently?

- In some regions natural gas supplies are causing growing concern. While many institutions have been created, what can be done to improve confidence in both natural gas consumers and producers?

Recommendations

More than at any time since the oil crises of the 1970s, governments and major industrial customers in nearly all the large consuming nations are concerned with their long-term energy security. After an era of excess capacity, since 2001 oil prices have risen sharply and become more volatile. Worries about insecure supplies extend not just to oil but also, in many parts of the world including Europe, to gas supplies, seen as unreliable. Some countries are also now struggling with unreliable supplies of coal and are turning to imports to help satisfy demand.

The largest suppliers of oil and other energy commodities – as well as food and water – are questioning whether there is enough surety in their markets to justify the big investments needed to establish and develop new capacity. Concerns also exist on the safety of nuclear power and its management, and on the storage of nuclear fuel. While considerable effort is being applied to the search for cleaner and greener sources, the production and use of renewable energy have been constrained by funding, the lack of proper legislation and effective policies. Energy suppliers and users often view their interests quite differently and thus have not been able to find common ground on how best to finance and manage a more secure global energy system.

No forum or body bringing together the players working on these disparate but critically related issues as yet exists. In all of these areas, gaps in the governance of global energy are glaring. Therefore, of the myriad important and urgent issues, the Council has identified governance as an urgent, pragmatic area that it is in the interest of key stakeholders to tackle by coming together to establish global norms with which to begin to address energy security issues. This includes the future of research and development as well as investment in infrastructure.

Global Agenda Council on Energy Security

Proposal and Explanation/Rationale

- The first step is the establishment of a Global Energy Forum (GEF), gathering together the key stakeholders and players in one venue. The GEF would include the international organizations mentioned above that are dealing with the various aspects of energy issues, industry and professional associations representing the industry to highlight energy security issues across the spectrum of energy sources. The engagement of pivotal governments, international organizations, financial institutions, the business community and representatives of public organizations is crucial for providing leadership on strategies to achieve energy security. The vision is to eventually establish a new global energy platform to provide the governance of global energy markets along a norms-based system. The GEF will be issue-driven with participation determined by the issues under discussion.

- The Global Energy Forum would debate and, where possible, provide recommendations for guidelines, norms and principles to resolve issues relating to energy security and for their resolution against a set of Energy Forum Security Principles.

- In parallel, the GEF would support the continual process of strengthening the existing international energy institutions, which will need to act as technical or operational authorities in such sectors as oil, gas, coal, renewables and nuclear energy.

  The ultimate role of the Global Energy Forum would be to provide transparency and stability to the global energy market.

Applying the Global Energy Forum to Practical Problems: Energy Efficiency
There is enormous potential for reducing energy consumption and emissions through radical improvements in energy efficiency. Many reports, such as recent studies by McKinsey, have highlighted that potential. Also clear is the big gap that exists between potential and reality; filling that gap is essential if energy efficiency is to play its rightful role. Reducing the gap requires efforts by firms and ultimately by consumers. Yet few really know what can be achieved individually, and no institution stands ready to add up, compare and help coordinate these efforts. The GEF could play that role.

Were the Global Energy Forum to take on this agenda, it could concentrate on activities such as:
- Setting global goals for achievements in energy efficiency that are framed not just in technical feasibility but also in industrial and regulatory realities about what is achievable
- Encouraging leading firms to declare the level of effort and achievement they will undertake and to quantify those efforts in their impact on the firm's own energy consumption (and emissions) as well as on the environment outside the firm
- Comparing efforts by firms to identify leading examples
- Hosting a dialogue between governments, industry and NGOs on the efforts needed (and the tradeoffs) to allow much greater achievement in energy efficiency.

Applying the Global Energy Forum to Practical Problems: The Nuclear Fuel Cycle
As more governments worry about energy security and such environmental challenges as global warming, many new nuclear reactors will most probably be built. Nuclear power plants produce miniscule amounts of greenhouse gases and are capable of providing at least the basic energy (electricity) needs of most countries. This mitigates the immediate challenges of global energy security and concerns over climate change. When well-managed, the costs of operation of nuclear power plants are competitive with coal and gas fired electricity generation. Indeed, licenses and plans to build new nuclear powers are growing globally.

Nevertheless, nuclear energy involves a number of particular challenges related to **safety, security, proliferation, the management of spent nuclear fuel and the safe storage of radioactive waste**. These challenges' solutions rest on political deals and on the engagement of the key firms that will be needed to implement new fuel cycles.

- The Council on Energy Security advocates that the Global Energy Forum focus on a secure nuclear fuel cycle as one of its initial challenges. We further recommend that the GEF debate establishing an international public-private partnership (PPP) that can act throughout the entire fuel cycle – supplying, transporting, reprocessing (where appropriate) and disposing of fissile material – in a safe manner. The PPP would recognize that for a fuel cycle to work at scale it must engage private firms that have an incentive to deploy capital and expertise while, at the same time, requiring strict regulatory oversight by governments and international institutions. The PPP proposed would operate within the current international framework according to the Non-Proliferation Treaty of Nuclear Weapons (NPT) and IAEA safeguards, not requiring additional obligations from benefiting states to those mentioned under the NPT and applicable IAEA safeguards. The partnership would be open to participation from any interested parties.

- Cooperation from the United States and Russia (as well as China, France and others) on this issue could become one of the most significant areas in their political relationships. The current method of neutralization of spent nuclear fuel is very costly and inefficient. In the coming decades, as new technologies are developed and nuclear science becomes more advanced, stored spent nuclear fuel could be retrieved and put to good use for energy generation.

- Nuclear fuel can be produced by a multilaterally created international entity or public-private partnership organization, which would provide supply guarantees to user countries, thus reducing states' desire and need to have their own full fuel cycle.

- The support and funding of research and development on innovative nuclear fuel cycles could provide technological benefits and reduce the risks of proliferation, while encouraging the development of technologies for the management and safe storage of spent nuclear fuel.

Other Possible Topics that the Global Energy Forum Could Help Catalyse

- **Interconnected Security: Energy, Food and Water**
  The links between energy, food and water security have become significant in recent years. Their security is not only related to the geopolitical implications of adequate energy, food and water, but to their production, transportation and consumption on a global level.

- **Large-Scale Renewables**
  Interest in the development of alternative, sustainable and clean energy has increased in recent years from governments, international organizations, corporations, banks, private equity funds, etc. With the increase in the deployment of renewable power supplies – most of which are intermittent and have properties that are quite different from standard fossil fuel-powered electric systems – many countries will face shared challenges emanating from large deployments. The success of renewables rides on overcoming these challenges at a reasonable cost, and will require international coordination, joint RD&D and sharing experiences.

- **Energy Markets: Tariffs, Prices, Volatility**
  The economics of energy (in all forms) have implications not only on interstate and regional relations, but also on international trade and markets, politics, legislation and policy choices.

- **Infrastructure and Transportation Security**
  Energy security in the larger global context is closely linked to infrastructure and transportation security, from pipelines to nuclear power plants, to air, sea and ground travel, to the transportation of fuel.

- **National Oil Companies versus International Oil Companies**
  In recent years, the shift in the energy system from international oil companies to national oil companies has introduced a wide range of challenges, risks and concerns.

- **Transparency: Governments versus Corporations**
  While corporations have been increasingly open and transparent regarding their energy trade, assets and income, governments have been less willing to play by existing market rules.

- **R&D and Funding**
  Well funded research and development remains low on the energy security sphere' list of priorities. Although governments are constrained by financial difficulties at home, creative ways to fund research exist. But cooperation on the part of governments and all stakeholders is required.

Deliverables

- The GEF will provide a platform for addressing energy security governance issues and challenges with the participation of all stakeholders.

- The GEF will meet periodically on a permanent basis.

- The GEF will provide the institutional framework (secretariat) for ongoing discussion, dialogue, assessment, and the study of issues, and for maintaining stakeholder engagement in providing international leadership to energy security.

- The GEF will provide policy recommendations and guidance, for instance, advocating the creation of an Energy Stability Board to focus on strategy, the organizational aspects of governance or the creation of a public-private partnership for nuclear fuel (e.g., International Nuclear Fuel Corporation).

Timeline/Next Steps

May 2010 Doha
At the World Economic Forum Global Redesign Summit, present the concept of the Global Energy Forum and seek approval to move forward

June-August 2010
Enlarge the membership of the Global Agenda Council on Energy Security, identify experts and work with G20 governments and stakeholders to set the agenda for the GEF

September 2010 (venue to be determined)
First meeting of the Global Energy Forum Initiative Group (GEFIG) – comprised of the enlarged Global Agenda Council on Energy Security, experts, and G20 and E20 representatives – to discuss and consider themes and make recommendations

November 2010 (location to be determined)
Finalize the GEF agenda, list of delegates and organizational matters

January 2011 Davos-Klosters
At the World Economic Forum Annual Meeting, announce the creation of the Global Energy Forum

May 2011 Doha?
First meeting of the GEF

Global Agenda Council on Energy Security

List of Members

Chair: **Armen Sarkissian,** President and Founder, Eurasia House International, United Kingdom

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Peter Parry, Partner, Bain & Company, United Kingdom
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Zha Daojiong, Professor, School of International Studies, Peking University, People's Republic of China

Global Agenda Council on the Future of the Internet[1]

Mutual Aid and the Future of the Internet

Context

World Economic Forum Global Agenda Councils are tasked with "transformational innovation in global governance … collaboratively developing solutions for the most crucial issues on the global agenda. … In a global environment marked by short-term orientation and silo-thinking, Global Agenda Councils will foster interdisciplinary and long-range thinking to address the prevailing challenges on the global agenda."

This is a particularly daunting challenge for the Global Agenda Council on the Future of the Internet. The developing template for taking on transnational problems is for organizations like the Forum to convene diverse, multistakeholder groups to propose both process and substance that can transcend viewing a problem simply through the lens of a handful of state actors and corresponding public policies. This has resulted in bold proposals, such as demarcating large swaths of our oceans as preserves against fishing, to ensure that stocks are not depleted. Such a proposal is directly beneficial to corporate and social interests, not just government ones – while still implemented largely through multilateral treaties.

The Internet is different. As the Council's report from Dubai explains, government intervention is fraught both theoretically and practically for the Internet:

> "A fundamental tension is that, while social policy problems have typically been tackled by national governments, the Internet is global and has a history of self-governance on technical matters. …
>
> "The experience of the Internet community demonstrates that everybody must be involved in managing these risks. The Internet has developed into its current size by the adoption of an open and participatory approach with strong technical involvement and the participation of industry, civil society and government. Openness is essential for flexibility; the online world changes extremely quickly so new stakeholders must be able to join the conversation quickly when they realize they have a stake.
>
> "The challenge is finding a way to meld this approach with other governance mechanisms. This means designing multistakeholder structures for the institutions that deal with global problems with an online dimension. Thus the establishment of a multistakeholder institution to address such issues as Internet privacy, copyright, crime and dispute resolution is necessary. The government voice would be one among many, without always being the final arbiter. And as ever more problems come to acquire an online dimension, the multistakeholder institution would become the default in international cooperation. To conclude, the Internet's systemic risk is best tackled by openness and collaboration, not central management and control."

Attempts to gather major public and private stakeholders in one room – literally or metaphorically – are necessarily limited. So how can we address some of the very real and growing problems of Internet governance when stakeholders or their representatives cannot readily be brought together to deliberate and act in a way that binds all?

Proposals and Explanation/Rationale

The Council on the Future of the Internet suggests a guiding principle that captures the essence of cooperation and concerted action: mutual aid. By reframing the issues most commonly mentioned as problems for the fabric of the Internet to encourage mutually beneficial, reciprocal actions among all Internet participants, we hope to show concretely how a spirit of mutual aid, backed up by corresponding technologies and practices, can make a difference, while avoiding some of the gravest hurdles and unintended consequences that arise when governments alone or formally chartered multistakeholder groups attempt to regulate or intervene.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

The Internet's structure is often conceived as layers. In its most basic form, the network includes a physical layer, wired or wireless, by which signals representing data are transmitted and received; it also includes a logical layer, which comprises the protocols – then implemented in Internet-compatible hardware and software – that allow data to be routed and understood properly between sender and recipient; and there's an application layer, where services and software visible to the general public are placed. Modularization means that expertise in one layer need not implicate much about another, and the firms and other parties involved in providing connectivity for one layer need not exercise control over another, a partial vaccine for some of the structural competition worries rightly expressed in the Council's Dubai report.

We offer implementations of the vision for mutual aid that can be applied concretely at roughly each layer of the Internet. These implementations are meant to show the elasticity of the mutual aid principle as a means of dealing with very real problems, even as particular details can be refined and varied. We also name the sorts of parties best positioned to take a lead in bringing such implementations to life, showing how depending on the problem and layer, the parties who can help may well vary greatly – another reason to emphasize an underappreciated framework for problem-solving rather than a purely process-oriented institutional framework that can be effective in so many other areas of interest to the global agenda.

Mutual Aid for a More Robust Web

The World Wide Web is perhaps the most successful application to which the Internet has been put. Indeed, the Web is now so fundamental to being online that it is itself rightly viewed as a form of infrastructure – many applications, whether interacting with your bank, buying and selling things, or browsing and conveying news, take place depending on functioning Web servers and browsers.

As Figure 1 below indicates, when you access a site (1) and read a Web page there (2), links generally look the same whether they point to another page on that site or to another site entirely. By clicking on the link, you ask your browser to visit a new destination and see what's there (3). Too often, links don't work: you click and nothing happens (4). This can be because a server has crashed or eliminated the page in question; because it is experiencing a cyberattack in the form of "denial of service," where a stream of requests overloads its ability to serve most visitors at all; or because there is some network interruption between you and it.

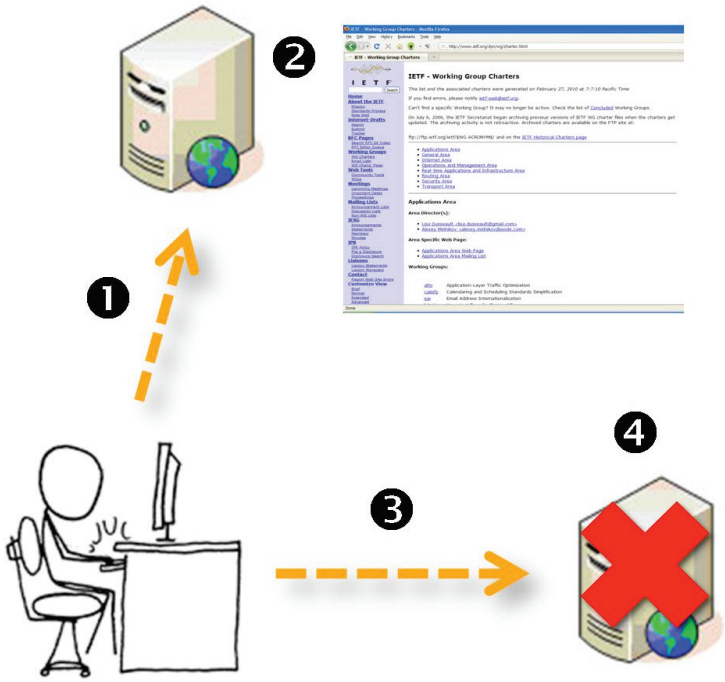


Figure 1: Anatomy of a Failed Link[2]

[2] Internet user icons in Figures 1 and 2 courtesy of XKCD, licensed under a Creative Commons Attribution-NonCommercial 2.5 License, http://xkcd.com/license.html.

Cybersecurity is a multifaceted problem, but the risk of any site becoming unavailable at any moment due to sudden denial of service is prominent in nearly any characterization. Currently only those sites with significant financial resources can hope to weather such an attack, and then only through some nontrivial tactics.

Current state-of-the-art thinking on cybersecurity relies on notions honed during the Cold War, such as effective deterrence. To achieve effective deterrence one must know how to reach (and usually to identify) an attacker, to exact a price for the attack. This in turn has led to some calls for rearchitecting the Internet to solve the "attribution" problem – to effectively identify the source of any particular set of data sent over the Internet. Many implementations would require a fundamental rewriting and re-implementing of Internet Protocol – a practical challenge – and, if successful, would carry acute consequences for civil liberties of the sort the Council warned about in its Dubai document – a theoretical challenge. It may yet come to that, and the Council expresses no view on the value of more traditional, centralized interventions which incorporate both costs and benefits, except to say that if there is a distributed alternative with fewer costs and benefits, we should incline towards it:

> "Above all, collective commitment is needed to keeping the Internet open as the world's forum, its social innovation platform and marketplace – universal, unfettered and end-to-end. Free trade in bits is just as critical for economic recovery, growth and progress as free trade in goods and services."

So how might the philosophy of mutual aid help? Imagine a very small tweak to the way Web servers work. At the election of a site operator – that the external sites referenced on the first site's Web pages – a site can implement a practice we'll call *Mirror as You Link*, shown in Figure 2 below.

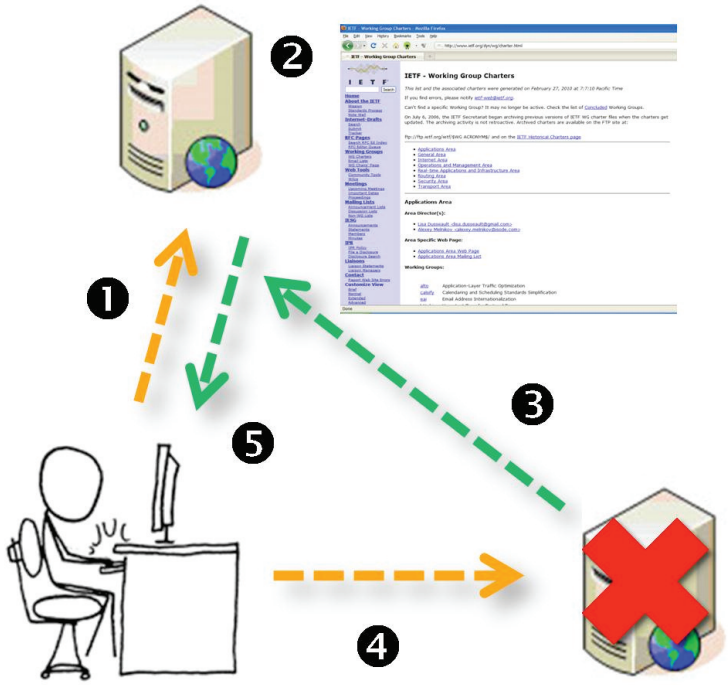


Figure 2: Mirror as You Link

Here, you visit a site (1) and are shown a page there (2). As the page is displayed, the site follows (or has previously followed) the links that it's showing to you and, if the destination server is amenable, makes a copy of what's there for safekeeping (3). In the meantime, you click on a link on the page that points to another site, try to get there, and find that you can't (4). You then have the option of asking the *linking* site to show you its best rendition of what you're missing at the *linked* site (5).

Such an approach could have an impact on this particular dimension of the cybersecurity problem in a way that helps everyone, not just those with substantial money to spend on private defences, and without the downsides of more traditional interventions on the table. The practical implementation details are not nearly as fundamental as reworking Internet Protocol or establishing a broad-based identity scheme – an elusive if ongoing goal. Rather, because nearly 80% of Web servers worldwide are accounted for by two vendors, Apache and Microsoft, the option to join such a mutual aid scheme could be added through updates to two pieces of software.[3]

And, as with most forms of mutual aid, many actors can be motivated to participate through self-interest rather than charity. Consider longstanding practices on the high seas, where private parties will respond to an SOS without any obligation to do so – indeed, even if they are business competitors to the firm owning the ship in distress. They do so not only because they may consider it the right thing to do, but because they adhere to a larger scheme of reciprocity: if they should be the ones in trouble next time, others will help. This is also the animating logic behind a standard military alliance: an attack upon one is an attack upon all. A state may see the downsides of joining – being called upon to defend another state in an unasked-for fight – balanced against the benefit of knowing that others will come to its aid should it be attacked. As long as no one knows ahead of time who will be the next target, it can make sense to band together. Moreover, such a scheme creates a natural overall deterrent: cyberattacks on participating sites will naturally be less effective, since inbound-linking sites will have copies of the data the attacker is attempting to take offline.

Participation in a mutual aid scheme of this sort can be entirely voluntary, since it is naturally incented. Those sites not desiring to have their data mirrored for any reason can decline to participate, and see that respected by inbound-linking sites. And those who fail to participate by actively mirroring other sites may find that they are not themselves mirrored – eliminating free riding as a reliable option.

The Council on the Future of the Internet offers the example of Mirror as You Link as a way of being utterly concrete about the larger principle of distributed reciprocity aided by appropriate technologies. There are many further details and issues to be worked out for such a tangible proposal. For example, one might want to safeguard interactive database-stored content and transactional services where successful connection to a website is crucial for purposes other than simply viewing information on a page ideally accessible to all. And one might also want to see a principle of mutual aid applied to link persistence, not just accessibility, leading to the ability to naturally see what used to be at a link – even if something different is there now. (Currently such a service is provided by the private, non-profit, but administratively centralized Internet Archive's Wayback Machine, started by an Internet user with a vision for preserving the contents of the Web at large.[4]) The idea here is to sketch a proposal that demonstrates the power of looking at an Internet problem through the lens of mutual aid. Existing standards organizations such as the World Wide Web Consortium might be impelled to flesh out implementing protocols that in turn could be made available by the makers of Web servers and implemented by website owners one server at a time.

We can see the possibilities of mutual aid at other layers of the Internet as well. For example, at the physical layer, should traditional Internet service be disrupted in times of natural disaster or unrest, so-called ad hoc mesh networking can allow each Internet user's device to also serve as a router, allowing data to hop from one device to another until it finds its way out of the troubled zone – with no Internet Service Provider needed in the middle. The key value is of reciprocity: participating Internet users would see their devices expending power and bandwidth carrying others' data – in exchange for having their own data carried similarly.

[3] See Netcraft, February 2010 Web Server Survey, available at http://news.netcraft.com/archives/2010/02/22/february_2010_web_server_survey.html.
[4] See Internet Archive: Wayback Machine, available at http://www.archive.org/web/web.php.

At the application layer, another problem of cybersecurity might be addressed: that of users' personal computers and other machines becoming compromised by malware. Often a website visited by that user will be able to detect that his or her machine is under attack, but will fail to issue a warning lest the messenger be blamed. One could imagine a network of websites that agree to warn simultaneously: a compromised user will see persistent warnings from one site to the next and thus be alerted to a problem regardless of his or her configuration of extra security software on the infected machine, in a manner that does not implicate any particular website.

Conclusion

By emphasizing and applying a particular principle – mutual aid – rather than a particular institutional structure in a domain containing many overlapping organizations and forums, the Council hopes to illuminate a path true to the Global Redesign Initiative's mission to "promote integrated thinking and develop concrete proposals to update and upgrade structures of international cooperation in a wide range of areas". Cooperation can arise from a recognition of mutual interests and the implementation of technologies and practices designed to further those interests – technologies and practices that can come about in a variety of ways, from any number of existing stakeholders. As our Dubai report noted, historically the Internet domain has seen infrastructural advances not through carefully planned interventions forged self-consciously at a given moment among stakeholders participating in a worldwide summit, but rather through an open architecture that allows any number of ideas to be floated for general adoption: applications that in turn can become infrastructure. Once they have achieved that status, standards organizations might form or cluster around them.

Our contribution here is to show that multistakeholder cooperation can take many forms and on the Internet can be mediated minute-to-minute through technology and praxis as much as through formal organizations. The original structure of the Internet, allowing any node to join on equal terms as sender or receiver without gatekeeping or negotiation, itself suggests a realistic frame for taking on problems that, left unchecked, will otherwise call for much more costly and complex forms of intervention.

Global Agenda Council on the Future of the Internet

List of Members

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Jimmy Wales, Founder, Wikipedia.org, USA
Wu Jianping, Director, China Education and Research Network (CERNET), People's Republic of China
Ethan Zuckerman, Co-Founder, Global Voices, USA

Global Agenda Council on Humanitarian Assistance[1]

High Performing Tri-Sector Partnerships to Push Forward a New Business Model for Humanitarian Assistance

Context

In light of its Global Redesign Initiative, the World Economic Forum has invited the Global Agenda Council on Humanitarian Assistance to provide a concrete proposal to improve an existing or propose a new international cooperative structure or arrangement in its area of focus. Following its deliberations during the Summit on the Global Agenda 2009 in Dubai and the virtual calls it has held since July 2009, the Council proposes a high-performing Tri-sector Partnership model, capitalizing on the Forum's experience as a multistakeholder platform, in order to improve the quality and the coordination of humanitarian assistance to alleviate suffering and save lives in times of humanitarian crises.

The Need for a New Business Model for Humanitarian Assistance
Due to a number of interconnected factors, it has been widely predicted that the humanitarian caseload will increase in the coming years. This will have an important impact on people's vulnerability and calls for creative and collaborative solutions to tackle the challenge of ensuring a coherent and coordinated humanitarian response.

The Inevitable Increase in the Humanitarian Caseload
During its two years of existence, the Global Agenda Council on Humanitarian Assistance has repeatedly insisted on the salience of this issue in the wider conversation about global well-being. The repeated crises and their aftermath indicate that there is a need to focus on the humanitarian imperative, and rethink the patterns created for relief, recovery and prevention activities.

Since last year, the world has witnessed millions of fellow-humans affected by crises: in Pakistan, Sri Lanka, Gaza and other longstanding conflict areas; in Vietnam, Indonesia, the Philippines and the Pacific, as a result of weather extremes and earthquakes; and in many other countries affected by the global food crisis and the fall-out from the global recession.

The earthquake that devastated Haiti in January and left the country's population in distress was more than a wake up call to the international community. It has catapulted humanitarian assistance to the front lines. Now the island is trying to cope with flooding and the upcoming hurricane season, while 1.9 million beneficiaries will rely on food aid distribution (through the World Food Programme and its partners) to survive and rebuild their livelihoods.

This Council's expert membership firmly believes that the humanitarian caseload will increase and become more complex. In the short term of 2-4 years, this will be due to the impact of the global financial crisis and the global recession which accompanies it. Beyond that, growing and unprecedented problems are foreseen, caused by climate change, the pressure on natural resources and sudden shocks, e.g. pandemics. These problems will intensify political instability and risk, and bear most heavily on weak and fragile states, as the greatest intersection of risks today is found in poor countries characterized by state fragility.

The world will witness vicious feedback loops and risk of downward spirals as each risk factor exacerbates the others.

Interconnected Global Trends Aggravating People's Vulnerability
The notion of risk becomes central to any discussion regarding humanitarian assistance, and also encourages humanitarian workers to rethink the way risks are assessed, monitored and managed. In the future, these risks will increase, not diminish, and could undermine the livelihoods of millions, lead to migration on an unprecedented scale and undermine good governance in the world's most fragile countries. The effects of climate change are already visible. Estimates predict that the humanitarian caseload could rise by 25% by as early as 2015. Population increase will compound these risks.

The disastrous impact of climate change on vulnerable communities has been almost unanimously stressed by the whole humanitarian community. It is likely to heighten humanitarian needs, coupled with a higher frequency of natural disasters. Global trends, such as population growth, are also likely to become highly problematic from a humanitarian perspective if

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

the changes they cause are not anticipated and fully integrated in the design and planning of responses. As populations grow, the challenge to manage natural resources is increasing. This potentially leads to migration based on a need to flee resource scarcity and may well cause conflicts over access to those resources. This is also interconnected with the world's accelerating urbanization trend. The aggregation of people in shanty towns, which are growing in already overcrowded areas, living in precarious conditions, is aggravating people's vulnerability and therefore creates a risk of instability.

The Need to Bridge the Gap between Relief, Recovery and Prevention/Preparedness Activities
We must understand that humanitarian assistance goes beyond responding quickly to an emergency, as the way help is delivered can possibly hamper the recovery phase, and considerably delay the reconstruction effort. The recovery phase, eventually leading to what is usually considered as development activities also has to encompass prevention and preparedness measures to build back better. These different phases can either follow one another or, more realistically, occur in parallel. It is generally understood that there is no clear division between each phase, and transitional moments between phases end up becoming new phases in the management of an emergency. In that context, bridging the gap between the different activities that happen during those times and the different actors who are involved is instrumental. It is especially critical because the nature of these activities is heterogeneous. The distribution of non-food items in the relief phase or development of micro-finance projects to restore livelihoods require different processes and financing mechanisms as well as the involvement of partners with different mandates and agendas. There is therefore a real need for a mutual understanding and awareness, to generate better interactions and coherent action.

The Need to Agree on Pre-arrangements before the Crisis Bursts
When a crisis hits, several actors become involved in the response, according to the situational needs and according to their different levels of responsibility and expertise. Because of the combination of the likely increased frequency of extreme events and the importance of the pressure from slow onset change, a new approach should be less focused on events and more focused on recurring patterns and structures.

Members of this Global Agenda Council have indicated previously that national capacity to deal with crises should grow and be strengthened, in the spirit of encouraging and achieving resilience directly among the communities at risk. The Council also foresees a significant shift from high international engagement (represented by the Darfur model) to a hybrid model in which victim governments play a larger role (as during the Pakistan earthquake) and eventually to a government-led model, as with the Sichuan earthquake in China.

Each emergency becomes a special case in the sense that resources available, as well as the socio-economic and political contexts vary from one place to another. However, it has been observed that in particularly vulnerable countries the default response is largely driven by an international alliance of aid donors, UN agencies, international NGOs and some companies, which have either already been involved during previous crises or which were already on site when the crisis occurred. Although there is no consensus over a clear typology of the different actors who become engaged in humanitarian assistance activities, there is still a need to map the different stakeholders and resources (whether in-kind, financial or human) that can be mobilized in a timely manner prior to the emergency. As was underlined during the Annual Meeting 2010 in Davos-Klosters, the time of a crisis is not the time to create partnerships: It is already too late for creating effective coordination mechanisms. Partnerships and patterns that will lead to the design of contingency plans need to be created before a crisis hits, which also emphasizes the previous point made on the importance to rethink humanitarian assistance beyond the borders of pure emergency.

Proposal and Explanation/Rationale

A New Humanitarian Business Model
This Global Agenda Council has produced, in a Challenge Paper published by International Alert,[2] a new vulnerability and protection business model for humanitarian assistance, more focused on pattern and structures, retaining the traditional ethical and legal principles of humanitarian action, and linking them to the broader context of poverty, vulnerability and poor governance in which different principles come into play. The Business Model is articulated around the following key dimensions:

[2] Global Agenda Council on Humanitarian Assistance, *A New Business Model for Humanitarian Assistance? A Challenge Paper*. International Alert 2009 http://www.international-alert.org/pdf/A_new_business_model_for_humanitarian_assistance_WEF_Nov09.pdf

- a comprehensive risk framework
- a reworked balance of spending between response and prevention-recovery
- a significant investment in national and local capacity for response, prevention and recovery
- wider engagement of the private sector, linking the humanitarian to broader social and economic development issues, as well as regional and international readiness to address cross-border humanitarian issues

This Business Model can be considered as the framework that lays the stone of the contribution that the Global Agenda Council on Humanitarian Assistance can make to the humanitarian agenda and beyond.

Building on this first effort, the Council proposes the widespread development of Tri-Sector Partnerships to tackle the gaps identified in preparedness, linking humanitarian and development activities, and will also further private sector's contribution during and after crises to reduce suffering and save lives. Such partnerships are also designed to develop responses at a more national and local level in order to enhance communities' resilience, when they are affected or at risk to natural and man-made disasters.

Investing in Local Resilience with Tri-sector Partnerships
Based on the challenges and priorities identified in the previous section, and inline with the Business Model it has developed, this Council's vision is that humanitarian assistance should become increasingly embedded in locally-owned and managed programmes. These will identify and manage risk, react promptly to emergencies and make an effective link to recovery and further risk reduction. These will also encourage proactive approaches to broaden the scope of public policies related to the management of risks, leading to a more integrated, participative and adaptive governance framework for humanitarian assistance. This virtuous spiral can only be constructed if all actors work together.

The Global Agenda Council has therefore proposed the creation of high performing Tri-Sector Partnerships. They would hold the key to successful investment in building local resilience to both natural and man-made disasters by bringing together key actors: businesses working together with government and community organizations, social energy mobilized for the common good, combining the talents, skills and experience of the different sector. A special role exists for both international and local business, working in new partnerships. But a global initiative is needed to support all actors, share knowledge and resources, and put the finance and technology in place. This model will engender the flexibility and capacity to innovate needed by communities, governments and international institutions to face the unfolding humanitarian challenges of the years to come.

The Tri-Sector Partnership model has been designed to be locally driven, nationally coordinated and globally supported. The key words are resilience, partnership and investment.

Performance at All Levels: Locally Driven, Nationally Coordinated and Globally Supported
There is evidence that governments, NGOs and businesses can work together in a synergistic way to build resilience at the local level, which will allow them to link local efforts to national and regional efforts as well. The Council identifies an urgent need for investment in the capabilities needed to generate synergy on a larger scale, locally driven and globally supported.

Local resilience is the foundation stone of the new humanitarian business model, the essential underpinning of sustainability. Resilience is generated by diminishing the human impact of disasters through adequate preparation. Measures can be taken to prevent natural events from having a disastrous effect, or to mitigate the impact. Steps can also be taken to ensure swift response and, for that part of the risk that cannot be eliminated, speedy recovery. This resilience is not only a product of technical preparations but of mobilizing social energy and participation for the community's benefit. For this reason, enhancing resilience is an important contribution to social and economic development as a whole.

The Council's approach is to invest in a partnership that would bring together the three key groups of actors – business, the government sector including inter-governmental organizations, and the not-for-profit sector of NGOs and community organizations. Each point of this triangle – each group of actors – brings different strengths to the table:

- The business sector brings expertise, service delivery, efficiency and entrepreneurial drive. Business is increasingly "development-minded", bringing new ways of working into the heart of the business.
- The government/inter-government sector brings decision-making power, legitimacy, visibility, policy frameworks and enforcement, together with unparalleled funds. Investment in disaster preparedness and recovery has fallen behind, however. The Council therefore calls for greater commitment of donor funds to these areas.
- The not-for-profit, civil society sector, embedded in local communities, brings local knowledge and networks, participation and passion, direct contact with need and its own capacity for effective mobilization and delivery.

This model works best when all the different levels are communicating and working together, using local, national and international platforms, cooperating in the analysis of needs, capacities and gaps.

The local level is fundamental. If people in their communities do not build resilience, none will be built. Tri-Sector Partnerships work well when trust develops over time, for example between local chambers of commerce, provincial authorities and local NGOs. The new model must therefore be driven locally.

Yet the local level alone is not enough, since events that cause humanitarian crises often cross jurisdictions. To be effective, local action must be coordinated by national policy and receive support from regional and international organizations: new technology, operating at scale, for example communications; finance, mobilized internationally to support local efforts; early warning, operating at the regional scale; and, knowledge, an international public good.

Building on the Successes and Experience of Public-Private Partnerships to Date
There are examples of successful humanitarian, peacebuilding and development actions that show this triangular relationship can be replicated from the local level to the global. For instance, the World Economic Forum has been working with actors in such diverse sectors as logistics, engineering and construction, and health.

The Forum offers a neutral platform for the development of partnerships between the humanitarian sector and the private sector, through its member companies. Through both the Disaster Resource Partnership (DRP) and Logistics Emergency Teams (LETs), initiated respectively by the Engineering & Construction and Logistics & Transport industries, the Forum has helped companies catalyse efforts to mobilize the core strengths and existing capacities of the private sector during and after crises to reduce suffering and save lives. The Council can therefore capitalize on the multistakeholder nature of the Forum to leverage its proposal.

Logistics Emergency Teams (LETs)
Agility, TNT and UPS, three leading logistics and transport companies, are joining forces to help the humanitarian sector with the logistics of emergency response to large-scale natural disasters.

The three companies and the Global Logistics Cluster, led by the UN World Food Programme (WFP) have agreed on guidelines and conditions for the intervention of joint "Logistics Emergency Teams" (LETs). LETs' support includes providing logistics specialists (e.g. airport coordinators, airport managers and warehouse managers), logistics assets (e.g. warehouses, trucks, forklifts) and transportation services. LETs will intervene for the first three to six weeks following natural disasters such as earthquakes, floods or storms.

The companies stand ready to deploy LETs worldwide upon request from the United Nations Global Logistics Cluster. The nature of the request, local situations and the companies' available resources will dictate the teams' size and composition. As a general rule, they will serve in countries where member companies already operate, thereby leveraging their knowledge of local constraints. LETs have recently been deployed in Haiti.

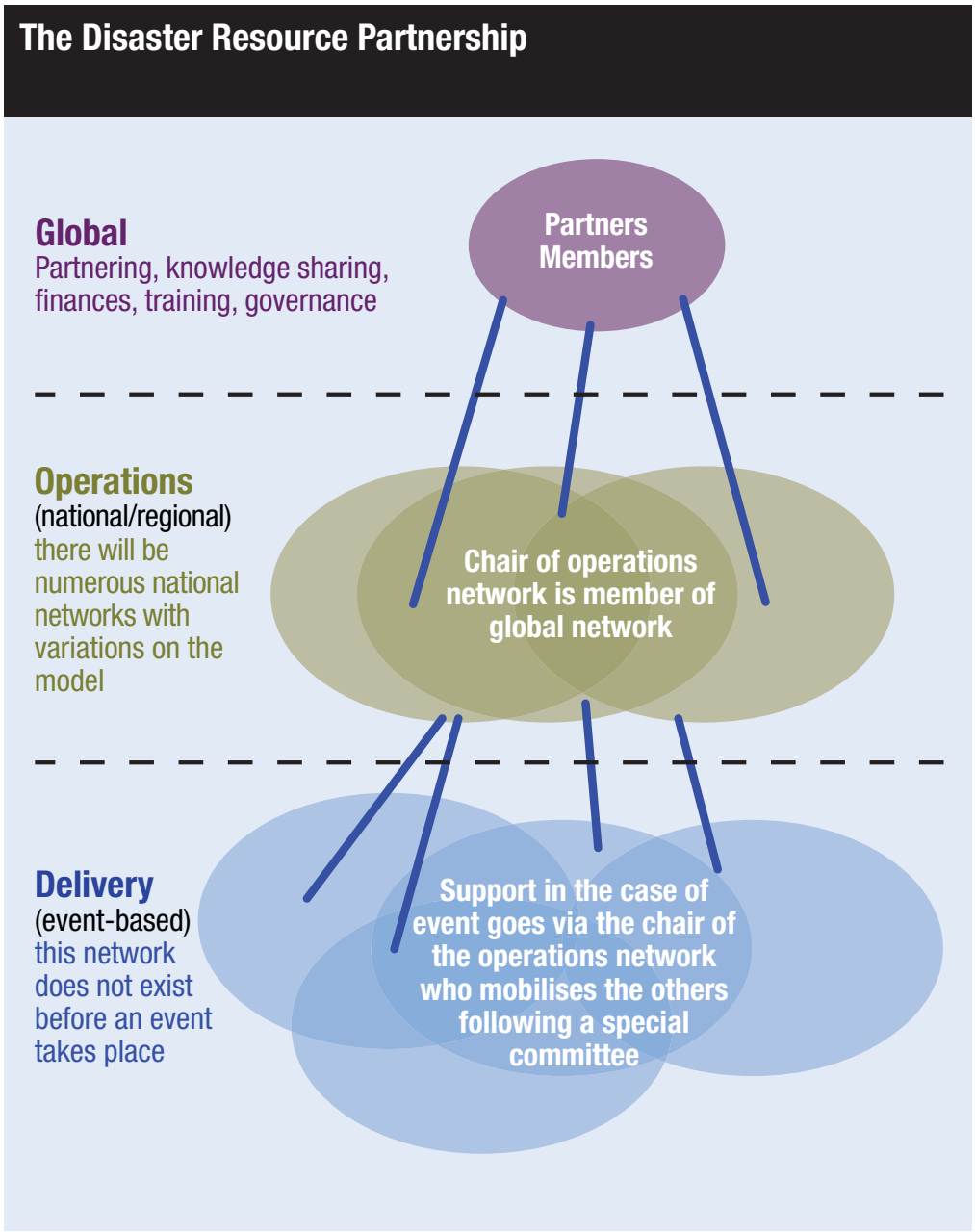
Disaster Resource Partnership (DRP)
Based on the success and lessons learned with the Disaster Resource Network (DRN) and its Indian and Mexican pilots, as well as the experience gathered by E&C companies involved in humanitarian assistance in disasters such as floods or hurricanes, a new model was proposed by a steering committee consisting of Arup Group, Consolidated Contractor Company (CCC), Grupo Marhnos, Halcrow Group, Hindustan Construction Company (HCC), and with key humanitarian actors – UN Office for the Coordination of Humanitarian Affairs (OCHA) and Oxfam – in an advisory capacity.

Global Agenda Council on Humanitarian Assistance

The Disaster Resource Partnership brings together businesses working together with government and community organizations, combining the talents, skills, energy and experience of the different sectors. When disaster strikes, local response and recovery by individual organizations will be facilitated through national/regional networks, which would be connected through and supported by a global partnership of E&C community members.

The key feature of the model is that it builds on the core strengths and existing capacities of the companies involved and leverages the contribution that companies already make in times of natural disasters. Mobilization will depend on each company's proximity to the disaster-affected area, their assets and skills, and the needs of the affected communities.

These partnerships will provide immediate relief help, but also "build back better", to mitigate the negative impact of natural disasters in the future and increase local resilience.



Leveraging the Guiding Principles for Public Private Collaboration for Humanitarian Action[3]
As a result of a consultation process which took place from 2006 to 2008, UN OCHA and the World Economic Forum launched ten guiding principles for public private collaboration for humanitarian action. These guiding principles were created to help guide the private sector's increasing interest in supporting humanitarian operations worldwide. Equally important, they provide a sound framework for partnerships between humanitarian actors and private sector companies. Some particular principles echo the call made by the Council in both its Business Model and the proposal of Tri-Sector Partnerships:

- **Leverage Core Competencies:** There should be a mutual understanding that businesses are not only donors, but also doers, given that the expertise and resources they make available can be instrumental at times when people's live are at stake.
- **Driving Needs and Building Local Capacity:** Stressed here are the importance of needs assessments, jointly conducted with local communities, as well as the knowledge transfer to them.
- **Relationships with Governments:** National and local authorities should be engaged in the relief, recovery and preparedness effort as much as possible, while respecting the operational independence of humanitarian actors.
- **Predictability:** This particular principle stresses the need to establish partnerships in advance, so that "related relationships and processes are defined in advance for effective partnership implementation".

Next Steps

From Words to Action: Refining and Operationalizing the Tri-Sector Partnership Model
The Global Agenda Council on Humanitarian Assistance, as a multistakeholder platform, is in the best position to make the most of its Members' network, linked to the World Economic Forum's. As the Forum's intellectual driver on humanitarian issues, it should also be the ambassador of the proposal at various Forum events and other relevant fora.

- The first step is to convene the main interested actors and gain agreement on this approach.
  The Tri-Sector Partnership model brings the intellectual framework in which such partnerships are likely to be developed. It stresses the main principles that should drive them, respectively investing in local resilience, catalysing collaboration and coordination among the different actors who bring key assets to the table and planning activities throughout the different phases before, during and after the crisis. It gives the main directions in which these partnerships should be developed: locally driven, nationally coordinated and globally supported.

  As it stands, to lead to a fully operational model, the proposal should be further discussed among the main actors concerned.

  Experiences accumulated with the LETs, the DRP and the Humanitarian Relief Initiative of the Forum have shown that a sectoral approach, i.e. concentrating on one particular sector of humanitarian assistance, leads to more fruitful results than does a more holistic approach that combines all the different sectors together. However, in order to open the discussion, a general discussion convening companies, government representatives, key NGOs and UN agencies and programmes across all sectors would be beneficial. Not least because of its unique role in releasing the capacity of business to contribute to the common good, the Forum could play this convening role, as a neutral platform.

  The overall concept would therefore be refined during this first discussion, and then ideally presented to the different sectors, one particular lead being to use the Global Cluster meetings.

- The second step is to identify an appropriate location that combines pressing vulnerabilities, the active contribution in social life of all three sectors and a suitable regional framework. While this approach is applicable with appropriate flexibility in all regions and whether the major risks are man-made or natural disasters, the Council sees merit in identifying one place in which to pilot the approach, test and refine it as necessary. The South-East Asia region meets these criteria. The regional organization, ASEAN, is capable of developing initial capacity to support this approach. The region itself faces some entrenched conflict problems along with growing pressures from climate change that are altering the pattern of typhoons there. Other regions should follow as there is high potential in Southern Africa, the Andes and South Asia.

[3] UN OCHA – World Economic Forum, *Guiding principles for Humanitarian Action*, http://www.reliefweb.int/rw/RWFiles2008.nsf/FilesByRWDocUnidFilename/AMMF-7B6DBP-guiding_principles.pdf/$File/guiding_principles.pdf

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Global Agenda Council on Illicit Trade[1]

A Global Partnership for Transparency in Free Trade

Context

Illicit Trade – A Global and Growing Phenomenon
Illicit trade – that which causes direct human, social, political, or environmental harm – is a major contributor to discrepancies in wealth between the developing and developed world, fuels devastating conflicts, and has become the principal economic activity of several fragile states, severely undermining their legitimacy. In effect, illicit trade is the conduit that supports destabilizing and dangerous activity in nearly every sphere of the global economy.

From the illegal export of protected commodities to the use of supply lines by terrorist groups and transnational criminal networks, illicit trade hinders the fundamental building blocks of development, democracy, human rights, and rule of law. It supports corrupt practices among government officials and private citizens alike. The value of illicit trade globally rivals the individual GDP of most members of the G8.[2] The many forms of illicit trade are often linked to one another and have also penetrated many legitimate businesses. Illicit trade is intimately intertwined with legitimate trade and has enormous negative costs for the business sector and also for states through loss of tax income and excise duties. However, beyond the economic consequences, the human consequences are palpable.
Despite media attention and substantial effort by governments and international organizations, the illicit drug trade, illicit financial transactions, the trade in small arms and the trade in nuclear material have not diminished. But there are many other forms of illicit trade which are less well known or lower on the agenda, and which cause harm on a similar magnitude. These include human trafficking; trade in wildlife, trade in conflict resources and counterfeiting.

The appendix further details some of the various forms of illicit trade and their impact.

The Case for Global Urgency to Combat Illicit Trade
The tenfold expansion of illicit trade over the last 20 years is a clear indication that this phenomenon has been poorly understood and addressed by the international community, and that the global and national prevention and response systems are not effective. The global community has failed to recognize the scope of the problem and commit the necessary resources to stop the damage to societies, economies, peace, and prosperity. Current investment in the identification of prevention activities is heavily plagued by fragmented interests and approaches.

Reversing the growth of illicit trade requires the global community to address the root causes and leverage the important links with other core issues such as corruption, free trade, human rights, environmental protection, rule of law, food security, competition, and building and sustaining democratic institutions - among many others. But while rule of law is a critical foundation on which to build the fight against illicit trade, criminalization and enforcement alone will not curb trades that are primarily motivated by supply and demand. Law enforcement, national governments and international organizations cannot hope to make a serious dent in illicit trade on their own.

Illicit trade is a key cross-cutting issue that could bring together a large number of themes identified under the Global Redesign Initiative. These can be tied to the concept of transparency and the efforts to find a new paradigm to expose and eliminate illicit trade and business practices. Among related Global Redesign Initiative issue areas, the link between combating illicit trade and eliminating corruption is particularly strong and could be further leveraged to address both issue areas in a more comprehensive way.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] Any estimates about illicit trade must be treated with caution. The nature of the trade makes it exceedingly difficult to provide accurate estimates, although increasing effort has gone into understanding this trade in recent years. This report relies on the work of leading experts and international organizations to present the best current thinking about the magnitude and dollar value of illicit trade.

Global Agenda Council on Illicit Trade

Proposal

The essence of the proposal is to develop a global public-private partnership among corporations, governments and civil society that advocates for trust and transparency in free trade in order to eliminate all kinds of illicit trade. The goal of the Global Partnership for Transparency in Free Trade is to promote free trade that is respectful of fundamental human rights. It is increasingly accepted that free trade cannot be a justification for tolerating grave abuses, such as child or forced labour, massive destruction of the environment, or counterfeiting.

The proposal aims also at reducing the perceived and actual distance between fair trade and free trade. It intends to boost free trade's capacity to promote civil liberties, justice, development and human security. Finally, it will also provide transparent evidence for advocates of free trade to prove that trade is an effective vector of human development.

Explanation/Rationale

Weaknesses and Gaps in International Cooperation
The tenfold expansion of illicit trade in the last 20 years is a clear indication that the international community has failed to recognize adequately and respond to the challenges, and that the global and national prevention and response systems are not effective. Some of the reasons behind this are:

- **A flexible and dynamic adversary.** Failed and corrupted states, off-shore tax havens, trade barrier reductions and free trade zones offer transnational criminal networks protection and opportunities. Criminals will exploit diverse opportunities for profit, adjusting rapidly to variations in supply and demand, evading the current focus of law enforcement, and increasingly favouring low risk, but equivalently profitable, commodities. These illicit "business opportunities" are supported by modern communication, production and transportation technologies, allowing criminals to capitalize on the differences in legal systems, living standards, income inequalities, banking regulations, and fiscal and taxation systems.
- **A lack of cooperation and coordination.** While law enforcement agencies monitor flows of many illicit commodities and activities, these efforts are often divided among entities that do not coordinate effectively, leaving a large gap in collective efforts to fight illicit practices. And the culture of secrecy inherited from the Cold War that is at the heart of several intelligence agencies responsible to monitor illicit activities, prevents the level of information sharing that would be required for effective coordination. Nation states have difficulty apprehending criminals that operate outside their jurisdiction. Excessive attention and resources are often applied to certain illegal activities, ignoring the larger picture and connections among many forms of illicit activities.
- **Weaknesses in global governance.** The role of international organizations is frequently limited by jurisdiction, as well as the willingness of its members (nations) to share information and collaborate on a global basis. In part, this is due to national pride, as governments are loathe to admit their inability to adhere adequately to international standards. If the UN Security Council and G8 countries won't acknowledge problems, then it will be difficult to press for change on a global scale. Another weakness in global governance is decision-making mainly through governments' consultation in the framework of international treaties without broader stakeholder participation. Even where there is a will to take action, a lack of resources may severely limit the capacity of an organization to implement decisions.
- **Misaligned incentives.** Source and transit countries, which are often in a good position to stop or reduce illicit trades and corruption within their jurisdiction, often lack the incentives or the capacity to do so. Destination states that would benefit significantly from the end of these trades are in many cases reluctant to cooperate by providing intelligence, capacity-building or financial help.
- **A wide grey area between the licit and the illicit.** There is widespread tolerance and acceptance of fuzzy boundaries between illicit and licit trade in the private sector. While corporations are increasingly signing on to ethical principles, there is still reticence to assume responsibility for actions occurring throughout their extended supply chains. Often the illicit trade component happens very early on in the supply chain and at many removes from the corporate entity under whose name the final product appears.
- **Poor understanding of the issue.** Because so much of illicit trade is hidden within the licit, and the profits associated with it are so huge, it is both easy and, in many cases, useful to ignore since there is often no legal responsibility on the part of corporations or governments for illicit trade activities and corrupt practices occurring within, through or into their territories or supply chains.

Motivations for a Global Partnership

From the above we see that governments, law enforcement, international organizations, civil society organizations, the private sector and consumers all have a role to play and share a common responsibility in fighting illicit trade practices.

Indeed, there are a few successful examples of multi-stakeholder coalitions in specific sectors. These include IMPACT, the International Medical Products Anti-Counterfeiting Taskforce, which enhances cooperation and coordination by regrouping drug regulatory authorities, international organizations, international associations representing patients and consumers, and the various private sector parties involved in the production, distribution and sale of medications. EITI, the Extractive Industry Transparency Initiative, which aims at setting a global standard for transparency in oil, gas and mining, integrates three constituency groups: countries, companies and civil society organizations. Initiatives like the Partnership Against Corruption Initiative (PACI) seek to raise the level of awareness around corruption but lack an implementation arm that channels funding to specific initiatives to level the playing field.

Despite these encouraging examples, there is a gap as regards a platform from which to combat illicit trade with an integrated approach that recognizes the links between the different forms of illicit trade and between these and the core enabling factors such as corruption. The need for a global and comprehensive approach is also linked to the principle of global free trade and universal human rights.

Illicit trade and the related corrupt practices are not an unavoidable consequence of globalized free markets. Quite the contrary, they are in contradiction with core WTO principles on international trade:

- predictability through binding and transparency: with stability and predictability, investment is encouraged, jobs are created and consumers can fully enjoy the benefits of competition choice and lower prices
- promoting fair competition: the WTO is a system of rules dedicated to open, fair and undistorted competition
- encouraging development and economic reform: The WTO system contributes to development, while over three quarters of WTO members are developing countries and countries in transition to market economies

Illicit trade on the other hand:

- reduces stability, predictability and transparency, through the different practices, rules and standards that are applied in different jurisdiction
- distorts competition, through maximization of profits that violates human rights and degrades intellectual property and the environment
- favours short-term profit over human development and longer-term growth

The core principle behind the Global Partnership for Transparency in Free Trade (GPTFT) is that human development, a fundamental goal of free trade, is incompatible with illicit trade practices. The implementation of fully transparent trade practices are a key step in the elimination of the hidden crime of illicit trade.

GPTFT Goals

- To strengthen cooperation and coordination between governments, private sector, civil society and other stakeholders in combating illicit trade
- To improve understanding and raise awareness of illicit trade and its real human and financial costs through research and advocacy
- To support governments and the private sector in combating illicit trade through advisory services on new technologies, policy formulation and resource mobilization

Proposed Organization Structure of the GPTFT

The Global Partnership for Transparency in Free Trade will be an independent international entity initially underwritten by global business interests and endorsed by the World Economic Forum and, eventually, other leading organizations. GPTFT and its donors would welcome a broad coalition of interests and projects involving governments, other international organizations, civil society organizations, the private sector, and consumers.

Bringing these diverse stakeholder groups together to effect real change requires the formation of a new entity that would be initially driven by private sector funding and would seek to make real global impact – not only in combating illicit trade but also in linking with other relevant initiatives, such as combating corruption.

Global Agenda Council on Illicit Trade

The GPTFT will need to be flexible, responsive, and unencumbered by overly bureaucratic institutional structures while respecting transparency in all of its processes. It will be composed of a board representing different interests that have a stake in combating illicit trade including corporations, civil society, international organizations and governments. A modest secretariat will be advisable in order to ensure continuity and momentum.

While initial funding would be sought from corporations with a direct interest in combating one or more forms of illicit trade, formal status as a non-profit entity would need to be established in order to make GPTFT eligible to apply for grants from governments and international organizations as well as receive funding from the corporate sector.

As a possible evolution or "spinoff" of the proposed initial structure after the initial phase, the council is also considering the establishment of a Foundation for Transparency in Free Trade and Business. This foundation would have higher budgets and more effective ways to fund major initiatives. It would seek to make real global impact, not only in combating illicit trade but also in linking with other relevant initiatives, such as combating corruption.

Initial Activities

The following activities will be implemented by GPTFT according to availability of funding.

- Establishment of a centre of excellence for policy and research that will serve as an incubator for new ideas to link private and public interests to improve corruption-free business practices, legitimate trade and legitimate revenue sources
- Publication of periodic regional and country reviews on major illicit trades, and propose policies and targets for progressive reduction of illicit trades
- Technical assistance to governments of developing countries in establishing and implementing measures to combat illicit trade
- Participation in a variety of fora (WTO, UN, regional organizations etc…) to raise awareness and advocate for policy development and implementation
- Establishment of a roster of experts in the fields of *inter alia* law enforcement, new technologies, banking, customs and excise to provide advisory services to governments and corporations
- Development of innovative approaches to combating illicit trade such as the use of informative labelling and mobile commerce to raise consumer awareness and involvement, micro-credit opportunities and title of land property as incentives to producers involved in illicit productions
- Advocacy for policies and practices that stimulate a deterring effect on illicit trade, such as lowering import taxes and tariff, fiscal incentives for transparent trade practices

Next Steps

- Establish a skeleton secretariat (possibly just one person initially) to refine the proposal, draft a 12-month workplan, and begin engaging with corporate, civil society and governmental entities to establish a provisional Board
- Find an existing organization to host the secretariat
- By the end of the first year, write and publish a report on illicit trade demonstrating the scope of the trade and its costs. Develop a media dissemination plan for the report which should serve as an initial advocacy tool for both GPTFT and the issue of illicit trade
- Set a target of at least 20 institutions to join GPTFT by the end of the first year. This should include at least 8 partners from the corporate sector, 6 from civil society, 2 international organizations and 4 government agencies, at least one of which should be from a developing country
- By the end of the first year, draft statutes for GPTFT, register as a non-profit organization (probably in Switzerland) and have the initial 20 Partners nominate a Board – principally from among themselves – for the second year
- During the course of the first year, place illicit trade as an agenda item on at least four major global or regional economic, trade or political meetings

Global Agenda Council on Illicit Trade

Appendices

Forms of Illicit Trade and Their Social, Economic, Political and Environmental Impacts[3]

- **Human trafficking:** It is estimated that at least 2.4 million persons are trafficked at any given point in time. The annual profits generated from "modern slavery" are as high as $US 32 billion.[4] Victims are trafficked for sexual exploitation, labour exploitation, or for a mixture of both.[5] **Human Smuggling**[6] – which generates annual revenues of approximately $US 10 billion per year[7] and **trafficking in body parts** are other major illicit activities.
- **Drug trafficking:** The illicit trade in drugs is estimated at $US 400 billion a year; within that, the market for illicit opiates is worth $US 65 billion, the one for cocaine $US 71 billion.[8] Drug money is used as a lubricant for corruption, and a source of terrorist financing: in turn, corrupt officials and terrorists make drug production and trafficking easier.[9]
- **Illegal logging** is an important contributor to global warming. In addition, the World Bank estimates that illegal logging reduces government revenues by about $US 5 billion a year. "As illegal logging is very profitable to a few in the short run, it often coexists with corruption, undermining the rule of law and good governance."[10]
- **Environmental crimes** includes **pollution crimes**, "the handling, transport, trading, possessing and disposal of hazardous wastes or resources in contravention of national and international laws,"[11] and **illegal trade in natural resources**, such as timber, seafood, live wild animals and plants and the diverse range of other wildlife products needed or prized by humans – such as **caviar, timber**, or **ivory**. This market is estimated to be worth at least $US 5 billion and potentially in excess of $US 20 billion annually.[12] If one included the profits kept for personal enrichment by corrupt officials or used to finance conflicts, the figures would be far higher.
- **Trafficking in weapons:** Illicit trade in small arms and light weapons (SA/LW), which is conservatively estimated to reach $US 1 billion a year remains significant despite progress on transparency and control measures. [13] More than 200,000 people are victims of gun homicides annually.[14] While it is impossible to attribute a specific portion of the tens of thousands of casualties of war and armed conflict each year to illicit arms, the nature of those conflicts suggest the proportion is high; moreover, as much as 90% of those casualties are civilians.
- **Trafficking in chemical, biological, radiological, and nuclear materials:** Between 1993 and 2008, the IAEA registered 1,562 confirmed incidents of illicit nuclear trafficking. Of these, approximately 65% of incidents of lost or stolen material involve material that has never been recovered.[15]
- **Trafficking in art:** This market takes advantage of poverty-stricken countries where people are willing to sell their heritage to survive and legal loopholes in developed countries where the illicit antiquities are mainly bought.[16] Although it is not possible to put a figure on this type of crime, international art theft has been estimated to be valued at between $US 2 billion and $US 6 billion per year.[17]

[3] Any estimates about illicit trade must be treated with caution. The nature of the trade makes it exceedingly difficult to provide accurate estimates, although increasing effort has gone into understanding this trade in recent years. This report relies on the work of leading experts and international organizations to present the best current thinking about the magnitude and dollar value of illicit trade.

[4] ILO Action against Trafficking in Human Beings - 2008 http://www.ilo.org/wcmsp5/groups/public/—-ed_norm/—-declaration/documents/publication/wcms_090356.pdf.

[5] U.S. Department of State-Trafficking in Persons Report 2008.

[6] The Migrants Protocol supplementing the United Nations Convention against Transnational Organized Crime, art.3, defines the smuggling of migrants as the *"procurement, in order to obtain, directly or indirectly, a financial or other material benefit, of the illegal entry of a person into a State Party of which the person is not a national or a permanent resident."*

[7] Amnesty International, Refugee Campaign Fact Sheet, *People Smuggling*, March 2009.

[8] UNODC, *World Drug Report 2009*

[9] World Drug Report 2008 http://www.unodc.org/documents/wdr/WDR_2008/WDR_2008_eng_web.pdf.

[10] Ruhong Li, J. Buongiorno, J.A. Turner, S. Zhu, J. Prestemon (2008). Long-term effects of eliminating illegal logging on the world forest industries, trade, and inventory. *Forest Policy and Economics* (10): 480-490.

[11] Interpol website http://www.interpol.int/Public/EnvironmentalCrime/Pollution/Default.asp.

[12] CRS Report for Congress - "International Illegal Trade in Wildlife: Threats and U.S. Policy" - Updated in August 22, 2008 - http://www.ncseonline.org/nle/crsreports/08-Sept/RL34395.pdf.

[13] *Small Arms Survey 2001*.

[14] IANSA, "Gun violence: A global epidemic," based on Small Arms Survey data.

[15] IAEA, Illicit Trafficking Database fact sheet, 2009 http://www-ns.iaea.org/downloads/security/itdb-fact-sheet-2009.pdf.

[16] Crime Facts Info, Australian Institute of Criminology, November 26, 2002, No.38.

[17] Australian Institute of Criminology, Art Crime, No.170, 2000.

- **Counterfeiting of goods:** international trade in counterfeit and pirated products could have been up to $US 200 billion in 2005. This total does not include domestically produced and consumed counterfeit and pirated products and the significant volume of pirated digital products being distributed via the Internet.[18] In our information-based economy, profit incentives from counterfeiting will grow as intellectual property will take an increasing proportion of the price of a product for the foreseeable future.
- **Counterfeit medicines:** Sales alone are estimated to reach $US 75 billion globally in 2010, an increase of more than 90% from 2005.[19] In several developing countries, the risk of buying a counterfeit and potentially lethal medicine is as high as 50% and even more in some cases. According to recent estimates 700,000 people, a large proportion of them children, die each year because of counterfeit and therefore ineffective medicines.
- **Cigarette smuggling** has been developed by organized crime groups as a global criminal business and generates huge profits for the transnational crime organizations involved, which may be also linked with international terrorism organizations.[20]
- **Money laundering** activity in one year amounts to 2-5% of global GDP, or 800 billion – 2 trillion in current US dollars globally.[21] Transnational criminal groups and terrorist organizations employ money-laundering techniques to hide their profits.
- **Cybercrime** has already emerged as a proven weapon in the arsenal of transnational criminal organizations and it is expected to play a bigger role in years to come. An unregulated and fast developing cyber network is quickly becoming one of the key "implements" to support illicit trade, whether for criminal or terrorist purposes. In Africa, for example, the cyber infrastructure is growing (through support of major infrastructure projects), but without the accompanying regulatory framework and rule of law in place to actually police who is using the system.

Alternative Approach: The Foundation for Transparency in Free Trade and Business

The Foundation for Transparency in Free Trade and Business (FTFTB) will be an independent international entity, dedicated to promoting free trade that is respectful of human rights and promoting corruption free business practices to level the playing field on a global basis. The core principle behind the Foundation Partnership for Transparency in Free Trade and Business is that economic development and human security is incompatible with illicit trade and corrupt business practices.

Initially, the Foundation would be underwritten by global business interests and endorsed by the World Economic Forum and, eventually, other leading organizations.

More specifically, initial funding would be sought from corporations with a direct interest in combating illicit trade and corruption, in particular those making investments for past corrupt practices. Formal status as a Foundation would allow FTFTB to be eligible to apply for grants from governments and international organizations as well as receive funding from the corporate sector.

FTFTB and its donors would welcome a broad coalition of interests and projects involving governments, other international organizations, civil society organizations, the private sector, and consumers.

Bringing these diverse stakeholder groups together to effect real change requires the formation of a new entity that would be initially driven by private sector funding and would seek to make real global impact – not only in combating illicit trade but also in linking with other relevant initiatives, especially those that are part of the GRI, such as combating corruption.

The FTFTB will need to be flexible, responsive, and unencumbered by overly bureaucratic institutional structures while respecting transparency in all of its processes. It will be composed of a board representing different interests that have a stake in combating illicit trade including corporations, civil society, international organizations and governments.

In addition to the activities mentioned previously, the FTFTB would propose the assessment of best practices in creating corrupt-free business environments. It could fund major initiatives to level the playing field when it comes to business practices in countries with high levels of corruption.

[18] OECD, "The Economic Impact of Counterfeiting and Piracy"-2007. WHO, http://www.who.int/medicines/services/counterfeit/impact/ImpactF_S/en/.
[19] WHO, http://www.who.int/medicines/services/counterfeit/impact/ImpactF_S/en/.
[20] World Customs Organization, *Customs and tobacco report 2008.*
[21] UNODC, http://www.unodc.org/unodc/en/money-laundering/globalization.html.

Global Agenda Council on Illicit Trade

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Global Agenda Council on Population Growth[1]

Strengthening International Institutions to Address the Neglected Issue of Population Growth

Context

Population Cluster Bombs

In 1950, 2.5 billion people inhabited the planet. By 2000, this number had increased to 6 billion, and the United Nations Population Division projects that world population will reach 9.2 billion by 2050 (or 10.5 billion if the UN's high-fertility scenario comes to pass). To put this in perspective, it took over 50,000 years for world population to reach 1 billion, but it will take only the first half of this century to add over 3 billion more people – and that number might be higher if fertility does not continue to decline as projected. Moreover, all of the projected population growth will take place in today's developing countries and, particularly, in the politically, socially, economically, and environmentally most fragile countries of the world, in many of which both mortality and fertility remain high while development efforts continue to stall. These are the countries that are least capable of coping with the consequences of population growth. The burden of feeding, housing, clothing, educating, and providing healthcare to this growing population and of absorbing large numbers of young people into productive employment represents a colossal challenge – one that becomes all the more difficult when the goal is to raise, not merely maintain, living standards.

World population grew particularly fast between 1950 and 2000, with the annual growth rate reaching a maximum of 2% in the late 1960s – a rate that, if maintained, would have produced a doubling of the population in just 35 years. In his 1968 book, *The Population Bomb*, Paul Ehrlich sounded the alarm about this rate of increase, warning of mass starvation in the coming decades as population growth outran global resources. The alarm was premature because the rapid decline in fertility that has taken place in many developing countries has reduced the rate of population growth to an annual average of 1.18% today. Nevertheless, at this rate of increase, population would still double in 59 years. Today, fertility averages 2.5 children per woman at the world level, down from 5 children per woman in the early 1950s, and fertility is below its long-run replacement level of 2.1 children per woman in 76 countries, representing 46% of world population.

Declines in the rate of population growth and in total fertility indicate that world population has lost some of its "explosive" character. Furthermore, population decline in some regions has emerged as an important, previously unanticipated component of the world's population agenda. Nevertheless, there remain 77 countries whose populations are currently growing at rates that imply doubling times of 40 years or less. Among those, 44 countries are currently growing at rates that imply doubling times of 30 years or less. Although it is no longer proper (if it ever was) to describe the world in unitary fashion as representing a "population bomb", there arguably exist dozens of population "cluster bombs", which will deliver to the world during the first half of the 21st century the equivalent of another China and India in total population. Depending on the course of fertility, mortality, and migration, we may also see wrenching demographic shifts that affect urban/rural population distribution, population concentration in megacities and slum settlements, and age structures.

Rapid population growth poses significant health, human rights, human security, economic, social, political, and ecological challenges at the national level. In an integrated world, these challenges will inevitably spill over to other countries, creating regional and global challenges as well. *Rapid population growth – especially when fuelled by continued high fertility rates – thus magnifies every global problem that is scaled by population and creates a strong cross-national interest in population growth and the consequences thereof.*

Although there is no UN Millennium Development Goal (MDG) focused specifically on population growth, it will be difficult to achieve the existing MDGs – particularly the eradication of extreme poverty and hunger – without addressing the challenge of population growth. Slower population growth may also be expected to promote greater global resilience with respect to any future global crises in arenas ranging from food to energy to the supply of clean water.

Dealing with population growth requires action on several levels. Countries themselves will need to assess their own situations and take actions that they find appropriate. Bilateral and multilateral aid agencies also have a clear role to play. But what is most required is a strong global voice that advocates effectively, advises wisely, and coordinates seamlessly.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on Population Growth

Unfortunately, population growth has, in recent years, been neglected by the world's institutions of global governance, none of which regards rapid population growth as its central focus, although the United Nations Population Fund (UNFPA) is commonly perceived as having this responsibility. Introduced in 1969 as a trust fund, the UN Fund for Population Activities, UNFPA was placed in 1972 under the authority of the UN General Assembly and proceeded to focus on processing and disseminating knowledge about the consequences of population growth and assisting developing countries in dealing with population issues, especially through the provision of family planning. However, since the 1994 International Conference on Population and Development (ICPD) in Cairo, UNFPA's work has taken a micro-level, rights-based approach focused mainly on improving individual reproductive health and promoting gender equity. Notwithstanding the natural appeal and progressiveness of this approach, and its demonstrated success in promoting lower fertility and slower population growth in some contexts, UNFPA's new tack has not proven universally successful. Moreover, the global influence of UNFPA has diminished in recent years as a result of its political and financial marginalization, with adverse implications for reproductive health and for global awareness of the nature, determinants, and consequences of population growth.

UNFPA will require significant retooling if it is to provide leadership in facing the challenge of population growth. Its status as an intergovernmental organization means that its reach extends only as far as intergovernmental consensus allows. Its efforts are fully funded by voluntary contributions from Member States, meaning in practice that activities are sensitive to the prevailing political winds in its donor countries. Its activities are also affected by government policies in client countries, where in some cases rapid population growth is not perceived (perhaps sometimes correctly) as a policy challenge.

Proposal

Mix and Stir
As a Filipino saying goes, "To cook rice cakes, one needs heat at the top and heat at the bottom." We believe there is space for UNFPA to encourage a macro perspective that emphasizes a lower-fertility norm and enables greater access to family planning, while simultaneously pursuing a rights-based reproductive health programme that focuses on individual women and men. As such, our proposal represents a "mix and stir" approach to reforming UNFPA. It seeks to blend well-established principles and sound practices regarding the bottom-up approach to reproductive health with a modern form of aggregate population strategies and instruments.

Our proposal has four key aspects, which we refer to as the "Four R's."

Reaffirm. The first R calls on UNFPA to reaffirm the world's interest in global and national rates of population growth. It is crucial that rapid population growth and its consequences occupy a place in the minds and on the lips of world leaders. In recent years, population growth has not constituted a central component of development efforts and has fallen off the development radar screen. For example, US Secretary of State Hillary Clinton's January 2010 speech on the occasion of the 15th anniversary of the ICPD did not make reference to "population growth". In her quest to motivate and "rededicate" the US to the Cairo Programme of Action, Clinton did not consider macro-level population issues as an issue that needs attention.

Reassert. The second R calls for UNFPA to reassert its leadership in the population arena. This would involve taking the lead on communication and coordination among different UN agencies, among non-governmental organizations that implement family planning and reproductive health programmes, and with political leaders in, and more importantly, beyond the health sector. Reasserting its leadership also requires that UNFPA serve as a clearinghouse for data and evidence on best practices regarding population policy, family planning, and reproductive health interventions. As an established UN fund with a presence in 162 countries, UNFPA has the legitimacy, mandate, and influence to serve in this capacity. Now is an opportune time to catalyse the leadership potential of UNFPA, as the selection of a new Executive Director will take place this year.

Rebalance. The third R calls on UNFPA to rebalance its portfolio. UNFPA's current strategic plan identifies three focus areas, one of which is population and development. However, our analysis of UNFPA's financial data reveals that this area has the smallest budget of the three and that funding within this area is heavily concentrated on achieving micro-level objectives.

Our proposal calls on UNFPA to rebalance its work portfolio by undertaking more activities that focus on population and development from a macro perspective, in a manner consistent with its rights-based, individual-level, gender-sensitive approach to reproductive health. Such a transformation would move UNFPA more solidly into serving as a strategic adviser to ministers of planning and finance on issues of population and development.

In practical terms, this means that UNFPA should undertake more strategic analysis related to the integration of population issues into development planning. It also means that UNFPA should increase its emphasis on activities that promote individual demand for family planning and reproductive health services. In addition, UNFPA should rebalance its efforts on the supply side, shifting attention to the effective coordination of efforts among the well-established implementing agencies such as John Snow, Inc. (JSI), Marie Stopes International (MSI), Pathfinder International, Population Services International (PSI), local non-governmental organizations, and governmental programmes, by providing technical expertise, promoting knowledge transfer across organizations, working to improve the policy environment in which these agencies operate, and helping them realize economies of scale.

Rebalancing UNFPA's portfolio would better align the world's need for strong global governance vis-à-vis population growth with UNFPA's post-Cairo perception of its primary mission as promoting reproductive health through an individual-centred rights-based approach. To bolster the rebalancing effort, strategic planning is needed as well as a shift in resource allocation to reflect the importance of both top-down and bottom-up approaches to population issues.

Review. The final R calls on UNFPA to subject its activities to periodic review by a Technical Advisory Group that would present a report to both the UN Secretary-General and the Administrator of the UN Development Programme on UNFPA's strategy and performance vis-à-vis its stated goals. As the world's premiere international body on population issues, UNFPA needs to ensure the relevance and technical excellence of its efforts. The work of UNFPA would benefit from such technical guidance to ensure that its activities get the full benefits of evidence-based reasoning. Although UNFPA's Technical Division has attempted to bridge this gap, the added credibility of an external technical review would be useful.

Explanation/Rationale

"Development is the best contraceptive, but contraceptives are the best development."
This proposal is aimed at establishing UNFPA as the world's lead institution for addressing the challenge of population growth by strengthening both its mandate and its capacity to focus on this issue.

The "Four R's Proposal" has several strengths: it simultaneously leverages the unique assets of UNFPA and overcomes UNFPA's greatest liability. The proposal takes advantage of UNFPA's legitimacy as a UN entity. It also capitalizes on UNFPA's ability to call on and draw together ministers of planning, finance, and social development, which private organizations and NGOs are often unable to do. In addition, the proposal makes use of UNFPA's decentralized structure and network and its appreciation of regional and cultural differences across countries, a legacy associated with its current executive director, Thoraya Obaid. The proposal also makes better use of technical resources in the population field, which has the added benefit of promoting transparency and accountability.

This proposal will allow UNFPA to focus its efforts on high-level strategy, communication, and coordination of on-the-ground service delivery of reproductive healthcare by implementing agencies, many of which have long and proven track records. It also positions UNFPA to work closely with its sister UN entities and to make better use of available resources within the UN system. For example, it could leverage the United Nations Population Division's highly respected work in analysing population dynamics and monitoring progress towards meeting the goals set out in the Cairo Programme of Action and three MDG indicators related to reproductive health.

Another virtue of this proposal is its consistency with the Cairo agenda: it merges the strengths of that agenda – an appreciation for individual rights and choice – with a modern approach to macro-level population policies. Reducing the unmet need for contraception is beneficial to individuals because it reconciles their desired and actual fertility. It is even more beneficial insofar as it promotes income growth and poverty reduction, political and social stability, and environmental sustainability.

As per the Cairo Programme of Action (paragraph 7.12), lower fertility levels can and must be achieved without resort to coercive policies. More specifically, UNFPA can promote better reproductive health and slower population growth by providing information about the benefits of delayed marriage and smaller families, and through its continued emphasis on positive instruments for achieving lower fertility: infant and child survival programmes, access to quality family planning services, and girls' education.

In addition to its base in the Cairo Programme of Action, the proposal builds on the momentum created by the 2005 addition to MDG5 (improve maternal health) of the target to "achieve universal access to reproductive health".

Next Steps

Shaping Our Demographic Future
In order to implement the proposal, several concrete steps must be taken in addition to securing a mandate from the World Economic Forum to further explore the specifics of the plan. Ensuring that UNFPA's current and potential future funders are supportive of our proposal is an important first step. UNFPA's top donor countries include governments in Europe, North America, and Oceania. A meeting of these key donors and relevant UN policy-makers would create a forum for discussion and refinement of the proposal, and for catalysing donor buy-in.

Second, the support of UN Secretary-General Ban Ki-moon is a critical determinant of our proposal's success. His support of the redirection of UNFPA, and by extension the support of the UN, can lead to the solidification of UNFPA as the lead institution of global governance with respect to population, both inside and outside the UN system. Also important is the Secretary-General's acknowledgement that population growth constitutes an ongoing challenge; a significant portion of our battle can be won by acceptance of population growth as a serious threat to the world's well-being.

Third, the terms of reference for the incoming executive director of UNFPA should be expanded so that they explicitly include the "rice cake" approach described above: the inclusion of a macro perspective on population growth in UNFPA's work that would complement the organization's current approach to population issues.

The proposal outlined here does not offer an easy road to implementation. However, it offers the beginning of a global governance solution to one of the most pressing issues facing the world: population growth. The Global Agenda Council on Population Growth is prepared to undertake further work on the development and, if necessary, adaptation of the proposal delineated herein.

List of Members

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6 Ensuring Health for All

Towards a New Paradigm for Health for All

By Peter Piot, Professor and Director, Institute of Global Health, Imperial College London, United Kingdom, David E. Bloom, Clarence James Gamble Professor of Economics and Demography, Harvard School of Public Health, USA, and Peter C. Smith, Professor, Health Policy, Imperial College London, United Kingdom

Health: A Key Issue for People, Business, Governments

Health is recognized as a strategic issue for socio-economic development, prosperity, risk management, and international relations.[1] Continuing population growth, the increasing concentrations of people in megacities and slums, the ageing of the population, climate change,[2] migration patterns and huge, persistent health inequalities among and within countries all affect both disease patterns and our ability to control diseases and offer health services. On top of profound social and environmental changes, disease patterns are changing rapidly: a historic transition in disease burden, from acute to chronic diseases, is happening in most of the world, even in urban parts of sub-Saharan Africa, while the unfinished agenda of infectious diseases, malnutrition, and maternal and child mortality in low-income countries remains.

Healthcare delivery systems and their financing were in general designed to address acute health problems, not the enormous burden of chronic diseases. A dramatic human resource shortage in health continues to present a formidable obstacle for health service delivery and to be a source of health inequities.

In addition to these challenges, a number of opportunities are arising, particularly in the area of technological innovation. A scientific revolution is occurring in terms of curative and preventive technologies. New technologies have started to personalize therapy in high-income countries. New vaccines as well as new technologies for administering them are under development to prevent infectious diseases and even cancers. But the health sector is still years behind in utilizing IT applications beyond hospital administration, although new uses of information and mobile communication systems should help particularly in the community-based management of chronic diseases. It is uncertain how societies will use and pay for these new technologies, but with adequate demand they could become affordable.

Perhaps more fundamental even than any of these specific points are two others that lie outside the health system. First, billions of people lack the material resources to attain a minimally decent standard of living. People who can barely pay for some of the most essential goods and services are typically unable to pay for healthcare, and often there is little or no free healthcare available. A few countries have managed to offer viable health systems that serve poor populations, but the great majority of low-income countries have not been able to make affordable healthcare available to the poor. Second, the majority of the world's poor have essentially been powerless to substantially improve their material conditions or to gain access to healthcare.

These trends carry multiple *risks.* First, the risk of emerging pandemic infectious diseases may increase due to the high degree of connectivity in the world, population concentrations, environmental degradation, and intensive food production and distribution. Second, the long-term trajectory of the AIDS epidemic will continue to put an enormous burden on the people and economies of much of sub-Saharan Africa and is likely to absorb a significant portion of development assistance for decades. Third, the failure to address and pre-empt the pandemic of cardiovascular diseases and diabetes at ever younger ages will result in skyrocketing direct and indirect costs of disease in most of the world.

[1] Fallon, W.J., Gayle, H.D. (co-chairs) (2010). *A healthier, safer, and more prosperous world*. Report of the CSIS Commission on Smart Global Health Policy. Washington, Center for Strategic and International Studies.
[2] Haines A. et al. Aligning climate change and public health policies. *Lancet* 2009, 374:2035-37.

Ensuring Health for All

The *gap* between the real world of multiple actors and governance mostly limited to a few state entities renders such national and international governance increasingly inefficient, if not irrelevant. The absence of international accords (with the notable exceptions of the Framework Convention on Tobacco Control and the International Health Regulations) makes it harder to effectively deal with many health issues that are transnational – from emerging epidemics to health workforce shortages.

A New Paradigm

The current predominant paradigm in promoting health is primarily based on the treatment of acute diseases, although in middle- and high-income countries chronic diseases are also a focus, emphasizing biomedical and technological solutions for individuals, provided by medical professionals in a public or private sphere. Such provision is complemented by childhood immunizations with limited investment in influencing social determinants and harmful behaviours. International governance is mostly restricted to interaction among ministries of health, with limited independent monitoring. The current system has led to major improvement in health outcomes in high-income countries, albeit at an increasingly unsustainable cost to society, and in selected developing nations and states such as Cuba, Costa Rica and Kerala. At the other end of the spectrum, several low-income countries are dependent on development assistance for up to half of their health budgets.

A new paradigm is emerging to address the new and old health challenges across different types of countries. Its main elements include:

- Health as a multideterminant and multistakeholder issue: the recognition that much of health is dependent on water and sanitation systems, transportation, communication, education and information, food and individual behaviours, not on hospitals or health workers
- Improving care for acute and infectious diseases in low-income countries
- Care systems and their financing adapted to the dominance of chronic diseases in an increasing number of countries
- Community-based care outside the hospital
- Human resource shortages addressed through increased education and training schemes, and the optimal use of technologies
- The new prominence of disease prevention and wellness, with a focus on keeping people healthy, instead of only dealing with diseases
- Independent monitoring and evaluation as drivers for accountability
- Governance adapted to new realities, including stronger community and patient involvement, with new international governance including NGO and business involvement, the drafting of binding health treaties, and the recognition that social sector spending is essential for development

A New Health Ecosystem Involving Multiple Actors

Health solutions require multiple actors to achieve the best outcomes for the largest number of people possible. Major gaps and challenges in health, such as financing health services and influencing social determinants, are beyond the control of current decision-makers. And yet, the health sector is surprisingly poorly connected with other sectors, with businesses, and with civil society, resulting in major missed opportunities to improve health outcomes. Rather than trying to rally other sectors around an agenda entirely conceived and driven by health professionals, the time has come to involve other sectors (e.g. transport, environment, agriculture, education, law) from the planning stage to improve the impact of curative and particularly preventive health activities, and realize co-benefits.

The concept of "embedded health" should become an integral part of new social and infrastructure programmes, such as welfare benefits, urban planning, public transport, housing design, agricultural subsidies, as well as international trade rules – as it has become in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) since the Doha Conference in 2002. A serious handicap is that the key concept of the social determinants of health has rarely been translated into policy or operationally practical guidance, with the possible exception of the EU "Health in all policies" – although the latter does not seem to have received much political traction.

Finally, a growing number of international organizations and local non-state actors are active in health:

- New international institutions and programmes, such as the Global Fund and the US President's Emergency Plan for AIDS Relief, have been set up to respond to new threats or to develop new technologies through public-private partnerships such as the Medicines for Malaria Venture.
- A plethora of non-governmental organizations are now active locally and transnationally – too often with loose coordination and monitoring and, as a result, sub-optimal efficiency.
- For-profit businesses from the mining industry to the food sector are addressing health among their workforces and in their marketing – trends that accompany growth in the healthcare, technology and maintenance industries.
- Ministries of foreign relations in a limited number of countries are timidly addressing health challenges in their portfolio.
- Above all, people affected by health issues such as AIDS and breast cancer have become powerful advocates and policy influencers, inaugurating an era in which people are increasingly acting as public agents for population health.

This new health ecosystem has as yet not yielded its maximum potential, partly because of its novelty and partly due to the lack of adequate governance, policies, incentives, and ultimately, financial support.

Redesigning Healthcare Services

Whereas healthcare services in the poorest countries are often poorly financed and staffed, struggling to effectively handle an enormous burden of child and adult acute and infectious diseases, elsewhere the rapidly growing burden of chronic diseases is posing new challenges to existing health systems. Neither their structure nor their funding mechanisms have adapted to the new realities of ageing populations and chronic diseases, and the costs of healthcare are escalating dramatically in many countries.

In general, innovations in medicines and medical devices are easily embraced by health professionals. However the tremendous potential of information technology and mobile applications, such as wireless devices, low-cost sensors, and Internet-based applications for improving healthcare and lowering costs, has only been timidly exploited. It seems the health sector lags a decade behind other sectors in terms of the integration and use of IT applications.

Global Agenda Council on the Future of Mobile Communications

The Council on the Future of Mobile Communications calls for strengthened global coordination among stakeholders to provide for investment, interoperability, innovation and social inclusion. As it relates to the health sector, the Council sees a tremendous opportunity to leverage the pervasiveness of mobile networks and devices as an enabling global platform. Mobile solutions are vital in the transformation of the health sector as it becomes more personal, real time and a "closed-loop" system. These factors are seen as critical to reduce costs, increase wellness, improve productivity and positively impact social benefits.

Key priorities for mobile health include:

1. Empower individuals to keep themselves healthy (wellness) and manage their own health (e.g. chronic care) via real time feedback, while owning and controlling their own health data
2. Cost effectively improve and extend the reach of existing health services to support more people at all economic levels
3. Increase the collecting and sharing of a base of evidence to demonstrate efficacy and return on investment
4. Integrate mobile health solutions into the payment programmes of governments, insurers, employers and other payers

Financing mechanisms should be developed that encourage effective disease management that focuses on quality of life as well as length of life, and that would reward providers for effective preventive care. A family and community approach for chronic care should be evaluated as an alternative to hospital-based care and follow-up.

At the same time, current domestic and international investments in controlling major epidemics such as AIDS, tuberculosis and malaria, as well as maternal and child mortality, must continue to sustain current achievements.

Insofar as access to health services is largely determined by access to health workers, any meaningful discussion of global health gaps must address inequities in health worker supply, training and certification, and distribution.[3]

The World Health Organization (WHO)[4] ranks 57 countries as having "critical shortages" in health workers, resulting in a global need for 4.3 million additional trained health professionals. While incremental increases in health worker-to-population ratios in developed countries may not lead to substantial improvements in population health, in developing countries such increases are likely to significantly improve health outcomes. In addition, technological innovation, in particular information technology, has a great potential to reduce the need for specialized health providers and to move chronic care from the hospital into the community.

Developing countries suffer from disproportionate losses of health workers due to both internal migration, where health workers migrate towards urban centres, and international migration to more developed countries.[5] Managing or stemming the tide of this migration is complicated. Some of the possible mechanisms involve difficult trade-offs between health workers' individual freedoms and the basic health needs of populations. Furthermore, in many sub-Saharan African countries, health workers have increasingly left the public sector for employment – with higher wages – in NGOs and multilateral or bilateral aid agencies, resulting in critical shortages in public sector positions.

[3] Bärnighausen, T., and Bloom, D. (2009). *The Global Health Workforce*, Oxford Handbook of Health Economics, Peter Smith and Sherry Glied, eds, Oxford University Press.
[4] World Health Organization (2009). Global atlas of the health workforce. http://www.who.int/globalatlas/default.asp (accessed 11 November 2009).
[5] Pang, T., Lansang, M.A., & Haines, A. (2002). Brain drain and health professionals. BMJ, 324(7336), 499-500.

The gap in infrastructure, insufficient health workforces and funding will take decades to address. New, innovative delivery models have been designed in resource-constrained settings of emerging markets, which have proven to be able to deliver access to quality healthcare at a fraction of the costs usually considered. They are currently assessed for their potential to be replicated, transferred and scaled-up in an initiative led by the World Economic Forum.

Need for New Prominence of Prevention

A great deal of mortality and disability can be alleviated through preventive biomedical interventions (vaccines, polypill), healthy behaviour (smoking cessation, exercise, hand-washing, condom use), a healthy environment (indoor and workplace pollution control), structural interventions (sanitation and trans fat bans), or social and individual incentives (conditional cash transfers). These interventions' return on investment for society and individuals is usually high to very high, although we need much better evidence on which specific prevention efforts offer good returns; many currently used interventions may be poorly focused. Population-based disease prevention is grossly under-resourced, while resources have been concentrated on individual healthcare. Patient demand, the power of the medical profession, higher remuneration of treatment over prevention services, and the motivation of the pharmaceutical industry to sell its products, which are overwhelmingly for treatment, are all powerful disincentives for prevention. Moreover, there has also been a striking lack of national and international leadership on disease prevention. The silver lining of skyrocketing healthcare costs and of the economic crisis may be a renewed emphasis on staying healthy rather than on disease treatment. Disease prevention and the creation of a good evidence base are public goods that should be supported by society and the international community.

New technologies are generating new products (vaccines, polypill) and new opportunities for influencing behaviours (social networking, mobile communication). However, a growing anti-technology and anti-science movement may undermine the effectiveness of old and new prevention technologies.

Business beyond the pharmaceutical industry has a major and still largely underutilized role in disease prevention and wellness. The food and beverage industries have a crucial role to play in selling healthier alternatives, at a minimum starting in schools (for example, the recent announcement of PepsiCo to stop selling high-sugar drinks in primary and secondary schools worldwide). Contemporary marketing and behaviour-influencing methods are undervalued in public health and should be fully incorporated into prevention programmes.

Legal instruments have been particularly helpful for smoking cessation and protection from passive smoking. The Framework Convention on Tobacco Control is the first international treaty for health promotion, possibly providing a model to tackle other global health issues.

Finally, a major unfinished research agenda exists, both in terms of developing new vaccines and other prevention technologies, and to address the lack of evidence on "what works" to reduce risk factors (such as obesity).

Need for Significant Strengthening of Measurement and Accountability

The provision of relevant, accurate and timely performance metrics is central to improving the performance of all aspects of health systems. The transparency offered by measuring performance is an essential element in securing accountability for health system performance, and thereby improving the health of citizens and the efficiency of the health system. Citizens, patients, governments, politicians, payers, policy-makers, managers and clinicians all need performance information in order to assess whether the health system is operating as well as it should, and to identify where there is scope for improvement. Without performance information, there is no evidence with which to design health system reforms, no means of identifying good and bad practice, no protection for patients or payers, and ultimately no case for investing in the health system.

Most health systems are in the early stages of performance measurement efforts, and there are many challenges involved in the design and implementation of measurement schemes. A recent book has highlighted the state of knowledge in the development of metrics in four broad areas: the health of the population; the responsiveness of health services to users' expectations; the financial protection from catastrophic financial hardship offered by the health system; and the system's efficiency,[6] indicating the variable and sometimes rudimentary progress in the development of metrics. Yet without rapid development in this domain, proper governance and accountability will be impossible, and many of the ambitions of health system reform will be frustrated.

Furthermore, there is growing acknowledgement that all aspects of health system activity should be subjected to proper evaluation. Although big gaps remain, a great deal of progress has been made in the evaluation of individual health technologies, in the form of cost-effectiveness studies. With limited health service budgets, countries have sought to seek out technologies that offer the most health gain for the resources expended, leading in some countries to the development of health technology assessment agencies. Such agencies have the potential to become powerful regulatory agencies, effectively setting a price for health gains, and guiding the research and development activities of the health technology industry.

However, the evaluation of macro instruments of health system reforms, such as provider payment mechanisms, decentralization, and governance and leadership initiatives, has been much less useful. Evaluating such reforms raises complex issues. Yet almost all health systems have experimented with them, very often in the absence of any supporting evidence and without any arrangements put in place to monitor and evaluate their effects. The World Bank, the Bill and Melinda Gates Foundation, and many donor agencies recognize this fundamental weakness and are seeking to nurture a more evaluative culture into their initiatives. However, evaluation methods are at an early stage of development, and it is often difficult to generalize findings from experiments undertaken in specific contexts.

The role of performance metrics and evaluation becomes even more crucial as health systems become more global and more local. International cooperation requires that donors, regulators, lawmakers, funders and industry obtain improved assurance that funds are being spent wisely and that lessons learned from policy experiments are transmitted rapidly and effectively to all relevant decision-makers. At the same time, the ambition to devolve greater control of health services to the local level requires high levels of reliable performance information if local organizations and individual citizens are to make informed decisions, to hold local providers properly to account, and thereby to promote quality and efficiency improvements.

Finally, it is important to note that the major determinants of a population's health lie outside the immediate influence of the health system. In particular, the recent WHO Commission on the Social Determinants of Health[7] pointed to the very strong associations between social circumstances and health outcomes. There is currently very little data on specific policy instruments to address the social determinants of health, for example actions on health-related behaviour. The proper evaluation of experiments in this domain is an urgent priority.

The proposal of the Global Agenda Council on Global Healthcare Systems & Cooperation is detailed below, and provides a solid basis for a new international accountability in health.

[6] Smith, P., Mossialos, M., Leatherman, S. and Papanicolas, I. (eds) (2009), *Performance measurement for health system improvement: experiences, challenges and prospects*, Cambridge: Cambridge University Press.

[7] World Health Organization, Commission on Social Determinants of Health (2008). *Closing the Gap in a Generation: Health Equity Through Action on the Social Determinants of Health.* Geneva.

Global Agenda Council on Global Healthcare Systems & Cooperation

Partnership for Health Risk Accountability
Recommendations:

1. Promote a shared understanding and objectives for reducing health risks across a broad set of actors beyond the traditional health system
   => World Economic Forum to convene a multistakeholder group of global leaders, across sectors, to engage in health

2. Improve the evidence base on the magnitude of different health risks
   => Commission a Global Burden of Disease Study on 10 major risks by November 2010

3. Provide standardized metrics for tracking health risks and the contribution to health risks of different sectors in society, such as schools, the built environment, the workplace
   => Identify interventions, policies and programmes that address these 10 risks by year end 2010

4. Report to citizens, agents, institutions on progress on managing leading health risks
   => Assess, compare and communicate responses and contributions to implementing and delivering these interventions across society by November 2011

5. Catalyse shared learning across different actors on successful models to reduce health risks in different contexts
   => Institutionalize the partnership at the global and national levels for launch at the World Economic Forum Annual Meeting 2012 in Davos-Klosters

International Cooperation and Governance

International cooperation is becoming increasingly important in health because of growing transborder epidemics and major population movements. Like prevention, health-related research, which is being conducted increasingly across countries, is a global public good. By contrast, healthcare and financing are largely a national responsibility and take many forms, depending on a country's political and social history and resources. Nevertheless, a proposal for a "world health insurance" has been made to fund healthcare services in low-income countries from a share of healthcare financing in high-income countries.[8]

International health-related governance is no longer adapted to the new ecosystem, as it largely excludes non-state actors (be they NGOs or businesses), is disconnected from financial, trade and economic decision-making, and lacks the power to broker binding accords promoting global health. In addition, the WHO and health-related multilateral organizations such as UNICEF, UNFPA, UNAIDS, the Global Fund to Fight AIDS, TB and Malaria, GAVI and the World Bank, are scattered in terms of policies and staffing, struggle to achieve their core aims, and lack sufficient high-quality staff to deliver on their mandates globally and particularly in countries. Despite these handicaps, the multilateral health system has made significant contributions to health in a number of normative and operational areas, and is now better coordinated, for example through the "H8", together with the Bill and Melinda Gates Foundation.

[8] Ooms, G. (2008) PLoS Medicine.

Ensuring Health for All

Multiple small and large innovative international health initiatives and product development partnerships have emerged – often various types of "public-private partnerships" – in addition to the traditional health, development and humanitarian NGOs. Among the private foundations, the Bill and Melinda Gates Foundation and the Wellcome Trust are adding significant new resources for health research and prevention programmes in developing countries, and the former in particular has also become a major actor in global health policy-setting. Finally, new R&D initiatives on neglected tropical diseases are emerging in some major pharmaceutical companies, perhaps ending an era in which such research was exclusively conducted in the public sector.

Better coordination of these multiple health actors would undoubtedly be beneficial to developing countries with limited government capacity and may reduce transaction costs. However, the time has come for national, multilateral and bilateral institutions to welcome and embrace this pluralism of health actors, in contrast to lamenting about it as we can read in statements by international development agencies and public health experts. This diversity can be a formidable force if brought together by strong political and policy leadership working for a common agenda.

Development assistance can change health outcomes to a certain extent, although the benefits it adds to government spending on health is highly variable. In some instances aid has facilitated direct access to health services, but the most effective programmes have been those targeting specific health outcomes, such as the provision of antiretroviral therapy for AIDS, bed nets to prevent the transmission of malaria, vaccines to protect children against major causes of death, and programmes that promote smoking cessation and hand-washing.

In spite of broad recognition that the international health architecture is highly inadequate to confront today's health challenges and bring together the whole health ecosystem, the political will to redesign it is lacking, as appetite for UN reform in general has waned in our time of crisis and as any reform effort would need to confront powerful regionally organized political interests and established bureaucracies. In the meantime, a number of actions can be taken – some suggested by the work of the Global Agenda Councils, the Young Global Leaders, and the World Economic Forum's Social Entrepreneurs. The two basic principles of new governance in health are to make health an issue for the whole of government and to be inclusive of all main actors. We make the following recommendations:

1) International governance, in particular the WHO with its main multilateral partners, but not exclusively, should create mechanisms ensuring the participation of sectors traditionally not included, such as civil society, business, private foundations, and patient and survivor groups. This could initially be achieved through the creation of *temporary mechanisms and coalitions* around specific issues, such as confronting the escalating pandemic of non-communicable diseases, the affordable pricing of vaccines and drugs, and the health workforce crisis – as proposed by some of the Global Agenda Councils. An annual World Health Summit bringing together a broad range of key political, economic, technical and implementing players should address solutions for discrete issues in the most pragmatic way possible, and would be complementary to and supportive of the World Health Assembly.

2) A clearer *division of labour* among the main multilaterals engaged in health would enhance their effectiveness. The temptation that they all work on health systems at the country level, as proposed by some donor countries, should be resisted. Thus, the normative, leadership and coordinating role of the WHO should be strengthened, while the World Bank should be the lead multilateral investor in health systems. GAVI, the Global Fund to Fight AIDS, Tuberculosis and Malaria, UNICEF, UNFPA and UNAIDS should focus on their respective core missions.

3) International legal instruments have emerged around specific health issues, such as tobacco control and infectious disease epidemics. Foremost among these, the Framework Convention on Tobacco Control should be enforced in all countries, saving millions of lives. Additional *global accords on health* are needed – just as they exist for international trade. In the meantime, voluntary commitments by industry, including but not limited to major food and beverage companies, should be expanded to more companies and other areas.

4) The H1N1 pandemic has illustrated the need to reinforce a truly global system of *epidemic preparedness* under the WHO's leadership, and to conclude binding agreements on prompt and *uncensored information sharing* of epidemiologic information. Good progress has been made to control the major endemic infectious diseases that continue to kill millions of children and adults, and these efforts should be *sustained through existing mechanisms.*

5) The *independent monitoring* of health action should be supported through a new Health Data Charter and a Partnership for Health Risk Accountability, as proposed by the Global Agenda Council on Global Healthcare Systems & Cooperation.

6) *Development assistance* for health should be driven far less by donor conditionalities and by a commitment to support both national priorities, as determined by multiple stakeholders in health, and global public goods, such as R&D, and monitoring and evaluation. New resources have to be identified to address the emerging non-communicable disease epidemics, while continuing funding for the unfinished agenda of infectious diseases, maternal and child health, family planning, and malnutrition. Emerging economies can and should invest more in health. Financial support from multilateral funding mechanisms should focus on low-income countries and on global public goods such as research and evaluation. The international financial institutions and major bilateral donors at the basis of the "Washington Consensus" should now explicitly recognize that increased, well-targeted social and health sector spending is needed for most countries, as current signals are unclear.

7) *Incentives for "embedded health"* should be created, along with accountability measures such as health indexes for cities, companies, and sectors. Cities such as New York City and Ghent show that this is a politically and financially feasible proposition.

Such an agenda would bring the global governance of health closer to both the world's needs and the new constituencies and would provide incentives and accountability for all to contribute to a health paradigm for the 21st century.

The authors thank Olivier Raynaud and their colleagues of the Global Agenda Councils, Young Global Leaders and Social Entrepreneurs for their advice and inspiration.

WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

GLOBAL REDESIGN INITIATIVE

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Global Agenda Council on Chronic Diseases & Conditions[1]

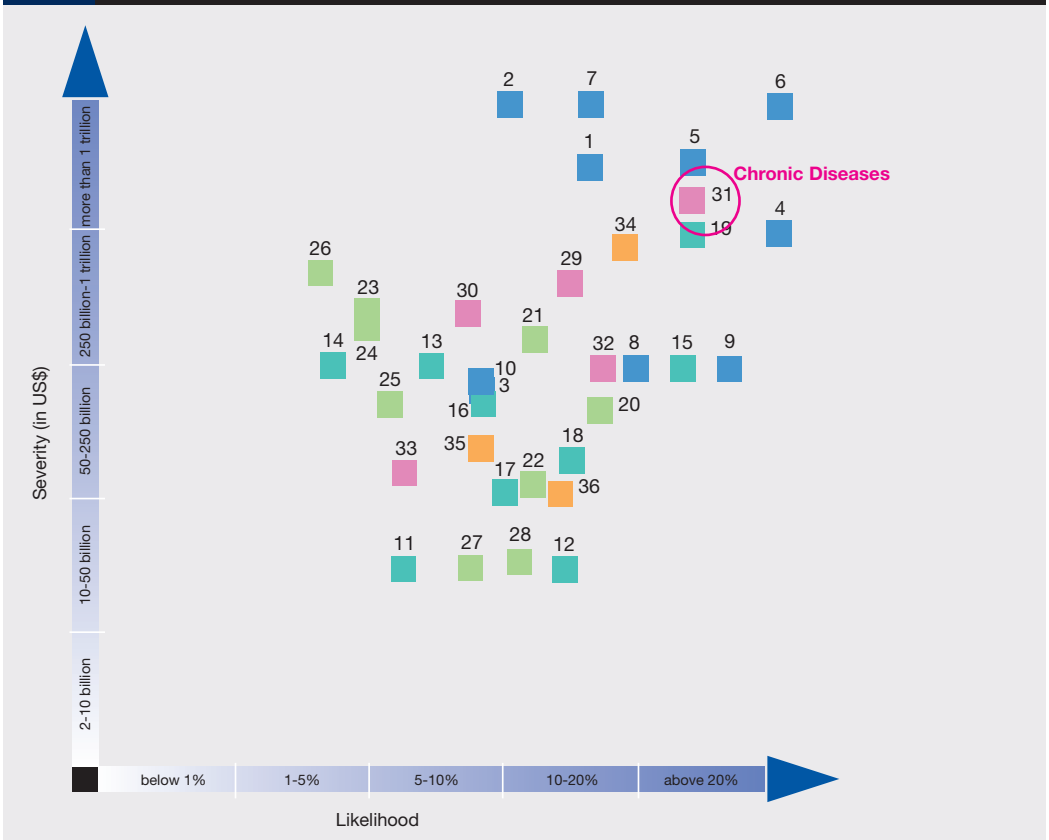
Action to Promote Health and Well-Being

Context

Risks in Focus

Chronic diseases and conditions include cardiovascular and respiratory diseases, cancers, diabetes and impaired mental health. Promoting health[2] and well-being[3] through the prevention of chronic diseases and poor mental health is vital for sustainable global development. As illustrated in Figure 1, chronic diseases remain near the **top of the global risk landscape**. They are here and now, affect us all and are worsening quickly. Globally, 60% of all deaths are due to chronic diseases, with four-fifths of such deaths occurring in middle- and low-income counties. Globally, poor mental health accounts for one-third of all diminished health and well-being, costing societies 2-3% of GDP, with around 90% of poor mental health occurring in low- and middle-income countries.

Figure 1 Global Risks Landscape 2010: Likelihood with Severity by Economic Loss



Source: Global Risks 2010. World Economic Forum, 2010.

Because the failures and risks of chronic diseases emerge over a long period of time, their enormous impact and long-term implications are vastly underestimated. Chronic diseases present a high and increasing threat and likely risk of severe global economic loss, **threatening global well-being and dampening world development**. One-half of those who die from

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

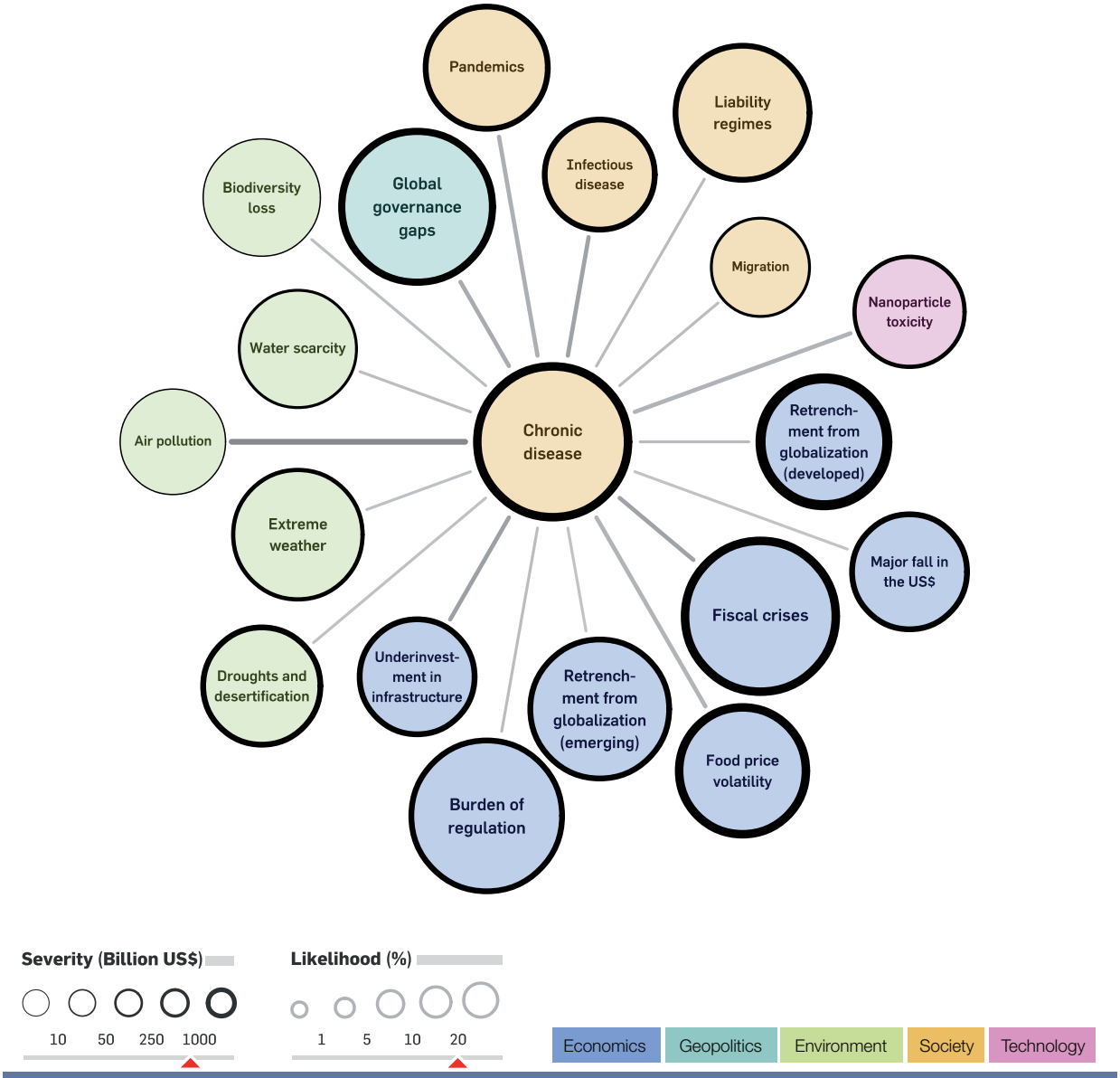
[2] Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.

[3] The state of being or doing well in life; happy, healthy, or prosperous condition (OED).

chronic diseases are in their productive years such that the social costs and economic consequences in terms of lost productivity are considerable. Of the two most populous countries in the world, it is estimated that (in international dollars) China will forego $558 billion and India $237 billion in national income between 2005-2015 as a result of premature deaths caused by heart disease, stroke and diabetes alone. Brazil, Russia, India and China currently lose more than 20 million productive life-years annually to chronic diseases, and that number is expected to grow 65% by 2030. The losses in productivity associated with chronic diseases are four times as high as the direct costs of healthcare coverage.

As Figure 2 shows, chronic diseases are **highly interconnected** with other risks contributing to higher levels of systemic risk facing the world. Chronic diseases and poor mental health reduce resilience and the capacity to cope with the world's stresses, and their financial burden crowds out essential monies to deal with other global risks and systemic failures. Thus, there is a greater need for an integrated and more systemic approach to risk management and response by the public and private sectors alike.

Figure 2 **Chronic diseases and interconnected risks**



Source: Global Risks 2010. World Economic Forum, 2010.

In moving towards solutions, it should be remembered that almost all **chronic diseases are preventable** and preventable quickly, offering an untold opportunity to unlock enormous tied up value. Four factors that can be effectively targeted contribute to nearly three-quarters of the risk for chronic disease: inactivity and poor nutrition, which lead to obesity, tobacco use, and the harmful use of alcohol.

- **Governance Gaps**

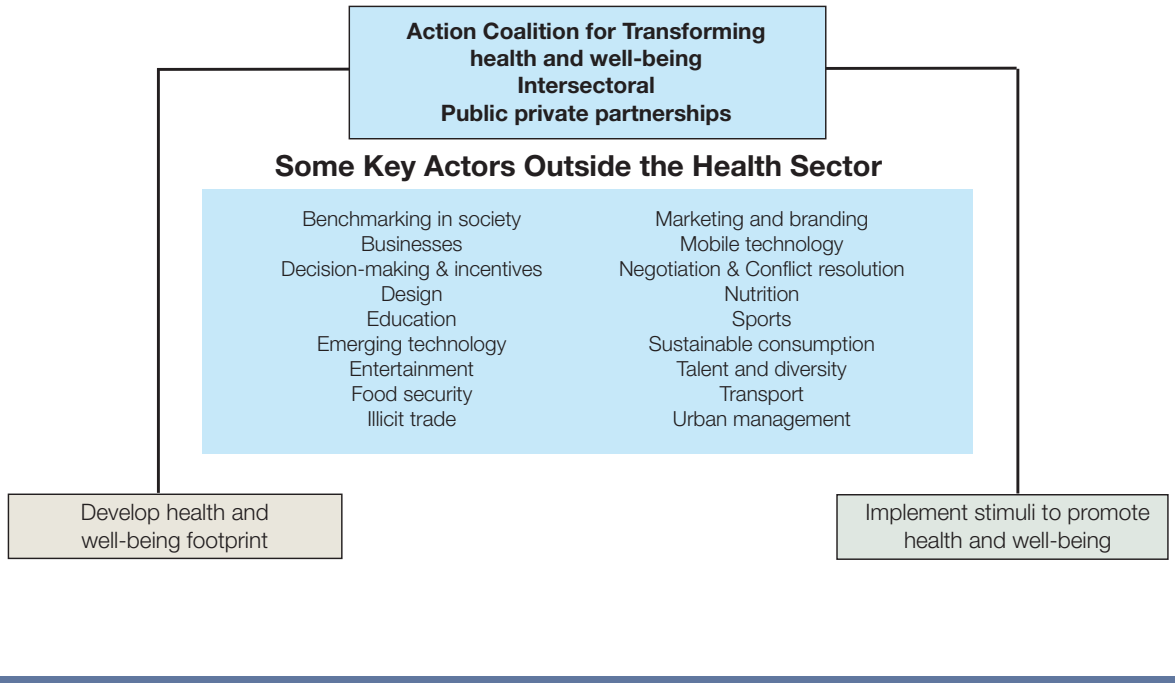
Although we know what to do, three global governance gaps have failed to translate knowledge into action:

- **International cooperation gaps**: no clear architecture exists for diverse sectors and public and private partners to work together at the global level for improved health and well-being and to deal with the interconnected risks
- **Awareness gaps**: health and well-being are grossly undervalued as central and crucial to human, business and social capital development
- **Delivery gaps**: incentives and stimuli to realign the actions of all government sectors, international organizations, the private sector and individuals towards healthy outcomes are underutilized

Proposals and Explanation/Rationale

The governance proposals are summarized in Figure 3: to create an **overarching action coalition** mechanism that stimulates joined-up action, promoting policy coherence across sectors and businesses for improved health and well-being; to create an integrated health and well-being **Footprint** that measures the impact of public and private sector producers and service providers on health and well-being; and to implement stimuli and **incentives** to promote health and well-being across public and private environments and at the level of the individual.

Figure 3 **Governance proposals**



Source: Global Risks 2010. World Economic Forum, 2010.

Global Agenda Council on Chronic Diseases & Conditions

An "Action Coalition" for transforming health and well-being will be created as an overarching platform and apex coordinating mechanism to stimulate **joined-up action** and to **promote interconnectedness and policy coherence** across interested governmental bodies, sectors and businesses. The coalition will foster awareness of the increasing threat of chronic diseases and conditions among public, private and international bodies and their role in mitigating them. The coalition will help mobilize such bodies to address questions on the financing of risk prevention or mitigation, the need for regulatory frameworks and how to create incentives for change. The coalition will channel existing knowledge to address awareness gaps and to help leaders prioritize risks and thus better allocate resources to manage them and build resilience. It will foster **accountability** for addressing the interconnectedness of risks and the substantive cross-cutting health risks that no existing approach to public health focuses upon in a comprehensive manner. Core to this is **integrating knowledge** in all structures and promoting adequate political will to ensure the necessary legal frameworks and institutional capacity at the country and global levels to ensure that healthy choices are easy choices.

The coalition will help **mobilize the private sector** which can contribute significantly to reducing the risks posed by chronic diseases and conditions by informing and supporting actions to tackle the lifestyle-related risks, tobacco use and the harmful use of alcohol, unhealthy diet and lack of physical activity among employees and customers. Such action is not only important for good global citizenship but there is also a strong business case. Recently, a groundbreaking set of voluntary commitments to shift to healthier options were made by nine of the largest food and beverage manufacturers to Dr Chan, the Director-General of the World Health Organization. For example, by focusing on responsible food marketing to children, reducing trans-fatty acids and salt, and providing simple, clear and consistent food labels, significant gains can be achieved at the population level. The democratization of health information, growth in self-care technology, increased level of social interaction through social media and liberation of the Internet through mobile platforms are shifting worldwide attitudes and can support person-centred health. The mobilization of social forces and people outside of health systems is critical as it is clear that chronic diseases are affecting social and economic capital globally.

The coalition will support the work of the **World Health Organization**, the lead technical agency in health, to garner the necessary resources and cross-sector political will to implement the Global Action Plan for Non Communicable Diseases, 2008-2015, and the Global Noncommunicable Disease Network (NCDnet). It will help the organization to work in partnership with all relevant multilateral and bilateral agencies to provide coordinated and consolidated guidance to implement plans, policies and programmes, including ongoing work on negotiated agreements for the reduction of salt in processed food, the work of the Conference of Parties in giving shape to the terms of the Framework Convention on Tobacco Control and the forthcoming Global Strategy to reduce the harmful use of alcohol.

The coalition will enable dialogue beyond one-sector centred meetings and facilitate trust building between the business community, the public sector and civil society for sustained action. Through multistakeholder engagement it will promote the creation of a health and well-being Footprint and incentives for change as outlined below, enabling efforts to be in line with, rather than in tension with, health and well-being.

A Health and Well-being Footprint[4] can act as a yardstick that public and private sector producers and service providers can use to align incentives for action on health. Such a Footprint would act as an incentive to create new ways of working to promote well-being and a healthier workforce. The Footprint would also measure how much health and well-being is being created or diminished. An economic value can be assigned to the Footprint to help align market outputs with health and well-being over time. The Footprint will have two integrated components. The first is a health and **well-being yardstick** that acts as an incentive to collect and measure the daily pulse of the world's and a country's health and well-being, providing better solutions for sustainable health and development. The yardstick should ensure that the position of health and well-being as central and crucial to human, business, and social capital development is fully valued; that the impact of the economic burden due to chronic diseases on crowding out essential monies for other critical global issues is mitigated; and that the true value that people place on good health and well-being is fully recognized. The second is a health and **well-being corporate index** that acts as a simple measurement system that businesses can use to align incentives for corporate action on health. Such an index would recognize that healthy people equals healthy profits; would

[4] The health and well-being footprint will be expressed in a summary metric and will be modelled on the carbon footprint, which is the total set of greenhouse gas emissions from an individual or organization, event or product, expressed in the metric carbon dioxide equivalent.

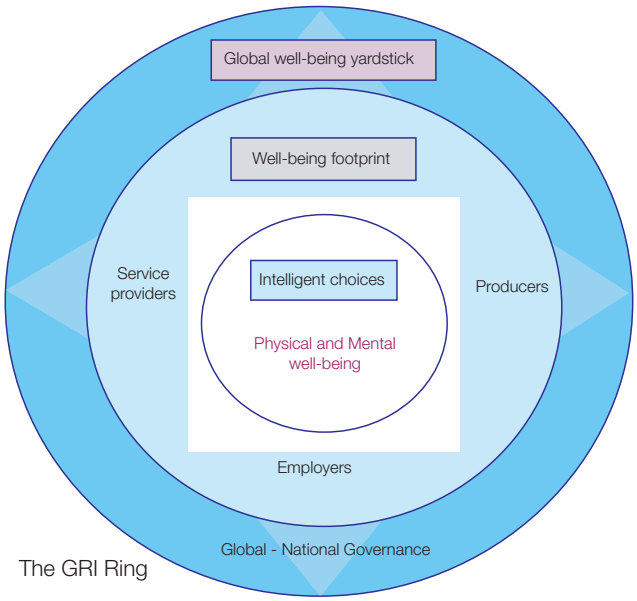
act as an incentive to create new ways of working to promote well-being and a healthier workforce; would lead to the production of healthier products and services; and would encourage businesses to provide individuals with incentives in their immediate decisions for health. The index will link with the Forum's **Wellness Alliance for Workplace Health**, and its Wellness App, which estimates healthcare costs and loss of productivity a business suffers from chronic diseases, and which identifies the savings that can be made by implementing health and wellness programmes.

The Footprint can be used and self-reported by a country, a municipality or community, a business, a producer or service provider and an individual. It will be flexible and developed in partnership with stakeholders to ensure endorsement and buy-in, and will include process as well as outcome factors. It will be relevant across a range of sectors, levels and sizes, including large businesses and small and medium enterprises. The Footprint can be linked to chronic disease measures as part of the World Economic Forum's *Competitiveness Report* and should be embedded as well as part of the Millennium Development Goals review process.

Models and metrics for developing and measuring the Footprint are already available, including, for example, Global Burden of Disease, Population Health Modelling, and the Chronic Disease Model of the National Institute for Public Health and the Environment of the Netherlands. Further work needs to be done to combine both rigour and broad accessibility to ensure that the underpinning analysis is technically accurate, yet the Footprint is capable of driving the behaviours of a full range of actors. The Footprint can also help advance the global debate on creating more holistic measures of societal progress and well-being. For example, the recent Stiglitz-Sen-Fitoussi benchmarking report for the French government on the measurement of economic performance and social progress includes health as a pillar to promote equitable and sustainable well-being. It notes that commonly used statistics may not capture certain phenomena that have an increasing impact on citizens' health and well-being (e.g., traffic jams may increase GDP as a result of increased gasoline usage but not health and quality of life).

Incentives and stimuli will be matched to the Footprint in a **Charter for Change** to help align the actions of all government sectors, international organizations and the private sector towards healthy outcomes. Building on many of the recognized incentives across sectors, the Charter will document the stimuli for change needed to support governments in their policy reformulation and actions, helping them to realign existing resources to ensure that subsidies do not distort consumption patterns in a way that negatively affects health and well-being. Steadily, profitability will be aligned with the Footprint, encouraging industry to respond with new markets and the reformulation of existing products and services that promote health and well-being. Governments need to create frameworks and incentives for healthier products and services and healthier choices throughout the whole value chain. The Charter will support the business environment in saving costs, in attracting ethical investments and in producing new products and services that promote health and well-being, thus creating revenue-streams and improving the business Footprint.

Incentives for Global Health and Well-being



The GRI Ring

The Charter will also stimulate governments and businesses to utilize new technologies and social entrepreneurship to improve health literacy and develop metres and gauges for individual use that give real-time feedback on purchasing decisions and daily actions that promote health and well-being. For example, a **universal system of symbols** backed by rigorous metrics to inform shoppers about the health Footprint of products on the shelves and an **intelligent shopping basket** that monitors the health impact of shopping purchases could be designed to help nudge people in the direction of healthier choices and to improve an individual's health footprint.

Health behaviour change is a crucial aspect if global growth is to be sustainable in all senses of the word. Technology and markets can be powerful tools to address some of the problems associated with health behaviour change. However, **innovative governance models** will be key to creating the environment in which these can operate effectively and reach all stakeholders and individuals in all parts of the world. The tensions between acting for the collective good over the long term and the legitimate desire of individuals, corporations and states to respond to their immediate needs will have to be addressed if global governance, policies and strategies are to be effective. This can be supported by **chronic diseases scenario analyses**, considering the outcomes of different approaches that balance collective accountability and individual responsibility.

Next Steps

The topic of chronic diseases was active in the agenda of the **40th Annual Meeting** of the World Economic Forum in Davos-Klosters, January 2010. The meeting provided the platform for dialogue and multisectoral stakeholder engagement, helping to stimulate the creation of the Action Coalition. Future **World Economic Forum Regional Meetings** will promote and engage ongoing discussion of chronic diseases and the Action Coalition in further dialogue with relevant stakeholders to mobilize commitment and build up the menu of incentives and stimuli for change.

In response to its burden of chronic disease, the **Abu Dhabi Health Authority** has already begun to pilot key elements of a Well-being Footprint, and aims to host a meeting in partnership with other countries that have expressed interest in this work in late 2010. Based on its Health Policy Agenda, Abu Dhabi has undertaken whole population cardiovascular screening, with health analytics in place to link chronic disease exposures to future health status based on real-time data; this analytic engine will lay the foundation for developing and piloting the Footprint. Preliminary results will be available in time for the **World Economic Forum Global Redesign Summit in Qatar** at the end of May 2010.

Simultaneously, work on the incentives are being developed for global deployment. The **"Quantum Leap" Abu Dhabi meeting in late 2010** will bring together the three key strands of work, giving high level visibility to the Action Coalition and offering an opportunity to present and discuss the first year's outcomes. The meeting will launch the Charter for Change to ensure further engagement and to continue bridging the governance gaps in global health and well-being.

Throughout the year the Global Agenda Council on Chronic Diseases & Conditions and the Action Coalition will use the **WELCOM platform**.

List of Members

Chair: **Cary Cooper,** Professor of Organisational Psychology and Health, Lancaster University Management School (LUMS), United Kingdom

Ala Alwan, Assistant Director-General, Non-communicable Diseases and Mental Health, World Health Organization (WHO), Geneva
Peter Anderson, Associate Professor, School for Public Health and Primary Care, University of Maastricht, Netherlands
Gustavo Averbuj, Chief Executive Officer, Ketchum, Argentina
Oliver Harrison, Director, Public Health and Health Policy, Government of Abu Dhabi, United Arab Emirates
Helen Herrman, Secretary for Publications, World Psychiatric Association, Australia
Martin RJ Knapp, Director, Personal Social Services Research Unit, London School of Economics and Political Science, United Kingdom
Paul Litchfield, Chief Medical Officer and Head, Health and Safety, BT Group, United Kingdom
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Michael P. O'Donnell, Editor-in-Chief, American Journal of Health Promotion, USA
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Scott Ratzan, Vice-President, Global Health, Government Affairs and Policy, Johnson & Johnson, USA
K. Srinath Reddy, President, Public Health Foundation of India (PHFI), India; Vice-Chair of the Global Agenda Council on Chronic Diseases & Conditions
Wu Fan, Director-General, Shanghai Municipal Center for Disease Control and Prevention (SCDC), People's Republic of China

Global Agenda Council on Food Security[1]
Global Agenda Council on Nutrition[1]

A Global Food, Agriculture and Nutrition Redesign Initiative (GFANRI)

Context

The world faces a global food crisis, and more critically a global nutrition crisis. Today, under-nutrition is the underlying cause of 3.5 million deaths and over one-third of the disease burden in children younger than five years of age. In Africa, Asia, the Caribbean and elsewhere across the developing world, nearly 200 million children are chronically malnourished or stunted and 130 million children are underweight.

The science is clear: if children do not receive adequate nutrition during gestation and the critical first two years, much of the damage is irreversible. Sustainably increasing food and agricultural production that meets the specific nutritional needs of young children and other vulnerable populations must be an essential part of the solution to this critical challenge. By 2050 the global population will grow to a projected 9 billion. Agricultural output in developing countries needs to double to keep up with their food needs and global output needs to grow by roughly 70%.

It is critical to strengthen the links between the production of food, environmental resources, and the quality of nutrition for minimizing the risks of increasing malnutrition and improving nutrition efficiency. The nutritional needs of people over the long term will be influenced by environmental changes, food and agricultural production, people's food consumption choices and by the scale and depth of poverty.

If we link food and agricultural production more deliberately with nutritional requirements, we could improve both the quality and quantity of consumption. For example, plant breeders may need to revise varietal selection criteria and policy-makers may need to consider creating incentives to raise crop nutritional value. To create foods that meet the needs of children under two, partnerships between production facilities in the developing world and producers of locally grown food could be developed to foster both economic growth and improved nutrition.

New 21st-century governance structures are needed to match the complexity and promise of a multistakeholder world. There does not exist as yet a sufficiently close relationship between those who set food and agriculture policies, those who are committed to addressing national and global nutrition needs, and those who are involved in addressing pressing environmental and economic development concerns.

We need to redesign the world's food and agricultural systems to deliver adequate, nutritious food through environmentally sustainable means. This is a time of urgent need for new national and global institutional arrangements, frameworks and platforms to harness the convening power of major stakeholders and to bring together the skills, expertise and capacities of both the public and private sectors. International organizations, national governments, NGOs and corporate players need structures and approaches that match tomorrow's agricultural, nutritional and environmental challenges. International organizations and national governments should further harness the powerful capabilities and reach of the private food, agricultural, and distribution sectors.

Proposal and Explanation/Rationale

Together with the Council on Food Security and with inputs from other concerned Councils, the Global Agenda Council on Nutrition proposes the establishment of a *Global Food, Agriculture and Nutrition Redesign Initiative (GFANRI).*

Goal

The goal of the GFANRI is to guide development of food and agriculture policy, and supportive multistakeholder institutional arrangements, that will address current and future food and nutrition requirements within the realm of environmentally sustainable development. GFANRI would engage the leadership of public and private sectors involved in agriculture,

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

nutrition and sustainable development to provide an action-oriented strategy and a set of high-profile projects to explicitly yield tangible gains in the diet quality of the poor and in the nutritional status of children with a focus on children under two years of age and school children. In pursuit of these food and nutrition goals, the strategy aims at strengthening small farmers' productivity, the quality of their products, their access to markets and value chains, and income growth for poverty reduction.

Specific Objectives

- Define how agricultural supply can meet the optimal qualitative and quantitative nutrition needs of all people by 2030, particularly children under two years of age and school children, in ways that also address environmental issues, especially climate change, biodiversity, water and land use, and support economic development

- Identify incentives and disincentives to address barriers that currently hamper food and agriculture from meeting the world's nutritional needs – especially those of children under two

  Some complex issues that this Initiative may need to consider:
  - How do international trade agreements and tariffs affect global food prices and therefore the productivity (and income generation) of local farmers?
  - How can commercial food producers and agri-businesses more effectively tackle agricultural, environmental, and nutritional problems?
  - How can we harness the use of a range of emerging technologies, including genetically modified (GM) crops to address food security problems in a sustainable manner while also improving nutrition?[2,3]
  - How can we minimize food waste and maximize access to affordable food?
  - How can we simultaneously address the food based determinants of obesity, cardiovascular disease and diabetes while tackling food security and the environment?
  - How can we better engage with and harness the power of 500 million smallholder farmers and their families in transforming the global food system?[3]
  - How will we meet the nutritional needs of the poorest billion, many of whom are among smallholder farmers, and most of whom are women?
  - What incentives are needed to increase the focus on children under two and to engage food production facilities, particularly those in the developing world, to better address the nutritional needs of this population?
  - How can the food, agriculture and nutrition sectors work together to solve these problems?
  - How can parallel efforts in the education and empowerment of girls and young women, social entrepreneurship and the social marketing of nutritional health help to elevate the importance of nutrition efficiency?

- Identify institutional changes and practical actions in the food, agriculture and environment sectors through which governments, multilateral organizations, NGOs, smallholder farmers, corporations and consumers can build a more responsive agricultural system that would meet the world's long-term nutrition needs, and most urgently those of young children, in a sustainable manner. New actions are needed alongside existing interventions for a complete package to effect change

- Engage with ongoing initiatives that are tackling the challenge of food production, sustainability and nutrition in order to achieve critical synergies and avoid duplicative efforts, including:
  - The World Economic Forum's Project Board New Vision for Agriculture with representatives from Monsanto, Syngenta, Bunge, Kraft, Coca Cola, PepsiCo, Yara, ADM, Pioneer, Unilever, Kraft, Nestle, SAB Miller
  - Industrialized countries' initiatives such as the UK Foresight Project on Global Food and Farming Futures, taking a global view of the food system, the US Department of State Global Hunger and Food Security Initiative, Germany's Bio-Economy Council, bringing together public and private sector initiatives for innovation, the European efforts for joint implementation of agriculture and nutrition research, etc.

[2] Herper M (2010). http://www.forbes.com/free_forbes/2010/0301/opinions-gmos-crops-genetics-monsato-ideas-opinions.html?partner=yahoomag
[3] Federoff et al (2010). Radically rethinking agriculture for the 21st century

- Africa's CAADP-NEPAD initiatives for agriculture and food security
- L'Aquila Food Security Initiative, with world leaders committing US$ 20 billion over three years for sustainable agriculture development and safety nets for vulnerable populations and related follow up by the UN
- The World Food Prize Foundation's focus on smallholder farmers in 2010, addressing how to engage small-scale farmers as innovators and entrepreneurs, how the private sector works with smallholders and NGOs, and how to address not just growing more food but better, more nutritious food
- The Global Alliance for Improved Nutrition, working with businesses to develop commercially viable complementary foods and home fortifications targeted at improving the nutrition of young children in low income households in the developing world
- The World Economic Forum's Global Responsibility License project, aiming to release intellectual property for development use while also protecting commercial interests. In securing global scale and coverage, it will also be crucial to build on IP-management tools such as the Forum's Green Exchange in order to deploy each nutrition breakthrough wherever it can help

GFANRI Preliminary Project Portfolio

GFANRI's initial high-profile portfolio includes the following options of projects, each of which will be further developed to comprise a set of goals, implementation plans and leadership with accountability. They will be defined with a view to making a measurable contribution to the above-mentioned food and nutrition goals within a time schedule.

1. **Healthy food and appropriate feeding practices for young children**. A new global initiative is called for to engage relevant public and private players in enhanced availability and access of affordable and healthy foods and optimal feeding practices for young children. Using locally sourced commodities where possible, the food processing and retail industry possibly in conjunction with international organizations can make a major contribution to improved access to, demand for and appropriate use of nutritious complementary foods and improved feeding practices, including breast feeding for children under two at scale. Investment vehicles are needed to provide capital for companies. Existing small-scale initiatives can serve as partners and building blocks. Strong involvement from the health sector is needed for effective service delivery in this project. We need to harmonize the commercial production of new foods for children at the base of the economic pyramid with the purchase of these products for public distribution and food assistance.
2. **School foods**. Similarly, innovations in smart school feeding are noteworthy but in many country contexts not yet at scale and not sustainable. Experiments with innovations such as by the World Food Programme (WFP) and International Food Policy Research Institute (IFPRI) have shown opportunities. The time is ripe for a truly global initiative led by public and private partners building on, but also revising, current programmes for coverage at scale and for efficiency.
3. **Market access and efficiency**. The world food crisis of 2007/8 was also a crisis of trade and market malfunctioning that undermined the availability of nutritious food for the poor, especially many children for whom even transient under-nutrition has irreversible consequences. The private sector can make a major contribution in policy and for innovations that enhance market functioning, transport systems, exchanges, information systems, and storage.
4. **Governance**. Globally there has been a decline in training in such subjects as agronomy, plant physiology, soil science and nutrition science. This was well documented in a recent UK report in relation to plant science, and in a recent *Lancet* series in relation to nutrition science. This trend needs to be reversed through greater publicly funded and public-private alliances focused on early career researchers in plant science, agronomy and modern concepts of nutrition and food science. Similarly, governance structures should be maintained that connect farmers with these innovations and put into practice the benefits of academic advances.[4]
5. **Health-oriented food processing**. Health-oriented food processing that reaches the poor and enhances the quality and nutritional value of domestic agriculture and food production is also needed. Examples might include cassava, rice, and other staples as well as lentils, fruits and vegetables.[5] For instance, there is great promise in rolling out new technology to fortify rice with micronutrients and investments should be made to take this technology from the pilot level to scale.

[4] The Royal Society (2009). Reaping the benefits: Science and the sustainable intensification of global agriculture
[5] http://www.allbusiness.com/manufacturing/food-manufacturing/878669-1.html

Next Steps

GFANRI's Implementation Strategy
GFANRI's envisioned implementation includes the following steps:

- Further development of the details of GFANRI by the World Economic Forum's Global Agenda Councils on Food Security and Nutrition (who may best be merged for the task) and the establishment of close links to the Forum's "New Vision for Agriculture" initiative
- Identification of a small panel of champions (two corporate and two policy-leaders), that decides on the initial set of projects based on options presented to it
- Establishment of project leadership and partnerships (private and public) specific for the projects
- Initiation of the process at a high-level meeting of key decision-makers, for example at Bellagio
- Use of existing mechanisms for the actual implementation and redesign of organizational mechanisms where necessary

GFANRI's Potential Outcomes
GFANRI will pay close attention to strengthening linkages between agriculture and nutrition to improve the nutritional outcomes in children under two as the most pressing need of our time.

- Scenarios presenting the likely agricultural supply in 2030 with implications for nutrition, health, environmental sustainability and economic development

- Approaches for engaging smallholder farmers by building local educational, technical, and research capacity, food processing capability, storage capacity, and other aspects of agribusiness, as well as rural transportation and water and communications infrastructure

- A clear mobilizing vision of actions required by all key stakeholders to meet the optimal quantitative and qualitative nutrition needs of all, including suggestions about appropriate market-based and non-market mechanisms needed to achieve these within a multistakeholder framework that draws upon and develops the best 21st-century global governance practices in cooperation with national governments

- Key performance indicators and a global tracking system – success will be determined by a set of nutrition and sustainability efficiency indicators and a tracking process to measure progress in the reduction of under-nutrition and over-nutrition, the promotion of nutrition for all, and improved environmental outcomes

Global Agenda Council on Food Security
Global Agenda Council on Nutrition

Appendices

Background

The Global Nutrition Crisis
Malnutrition, which includes under-nutrition, over-nutrition and micronutrient deficiencies, has devastating effects on health, productivity, intellectual capacity and the environment. Over 1 billion people are considered to be hungry and over 2 billion people suffer from vitamin and mineral deficiencies. Today 195 million children under the age of five are stunted and 129 million are underweight. At the same time, agricultural and trade policies, rapid urbanization, the increasing presence of the multinational food industry, and consumer preferences are contributing to dietary preferences for more highly refined and higher calorie snack foods as well as resource-intensive food and food products such as meat and dairy. Over-consumption of these foods is leading to a rise in chronic diseases such as cardiovascular disease and diabetes.

Malnutrition reduces competitiveness, increases healthcare costs, reduces productivity and robs nations of their most vital asset – the intellectual capabilities of its citizens. Most critical are the needs of children under two years of age, when key physiological developments determine health outcomes throughout adolescent and adult life. Adequately nourishing all children is the world's most cost-effective investment for economic growth and human health.

Environmental and Population Pressures
Responding to the need for global food security, the "Green Revolution" led by pioneering scientist, Norman Borlaug, changed the face of agriculture in the 1960s and 70s and tripled grain yields in many developing countries. However, the world's population has continued to grow at an exponential rate and experts are now questioning whether the current agriculture system has the ability to keep pace. Well-meaning policies and practices to feed the world have inadvertently prioritized agricultural yield, resiliency traits, appearance or shelf-life above environmental impact and nutritional outcomes. While yields of wheat, rice, and maize have increased, a US analysis of selectively bred high-yield conventionally grown produce from 1950 to 1999 showed that the overall nutritional quality of crops actually decreased, with significant loss of protein content and micronutrients.[6] Fast-growing varieties are widely believed to have root systems that are unable to keep up with growth and consequently unable to take up nutrients from the soil and deliver nutrient quality in the plants.

Furthermore, crop yields have not increased in all countries. Policies providing for subsidized fertilizer – urea, in particular – in India since the 1970s have led to degraded soil, resulting in lowered crop yields and an increased dependence on agricultural imports. Partly in response to food prices jumping 19% in 2009, the government has announced that it will soon offer subsidies for fertilizers based on the nutrient content but will unfortunately continue to allow farmers to purchase urea.[7] India's troubles appear to be only a taste of soil health issues that are now affecting food production worldwide.

Downstream efforts to fortify food with micronutrients are compensating for some nutrient shortcomings, but less attention has been placed on improvements in crop production related to enhanced nutritional quality.[8] Agricultural and international trade policies have encouraged monocultures that threaten both ecosystems as well as the diversity of diets that in the past contributed both to food and nutrition security. Only three crops (maize, wheat and rice) make up 86% of the world's cereal production. Nearly half the world's grain is diverted to feed animals, an inefficient use, where, for example, it takes up to seven kilograms of grain to make one kilogram of beef. Global meat consumption is rising rapidly, notwithstanding the negative environmental and nutritional consequences of this dietary transition.[9] Current agricultural practices are believed to contribute to 30% of global greenhouse gas emissions, including methane from livestock and nitrous oxide from fertilizer use. Climate change in itself poses significant risk to human health, as noted by Margaret Chan.[10] For most temperate region staple crops, the optimum temperature range for photosynthesis is 20-25°C. Plants grow faster as temperature increases, leaving less time to accumulate essential carbohydrates, fats, and proteins.[11] Seventy percent of the world's

[6] Davis, DR. "Changes in USDA Food Composition Data for 43 Garden Crops, 1950 to 1999" *Hortscience* Vol. 44(1) February 2009
[7] Anand, Geeta. Green Revolution in India Wilts as Subsidies Backfire. *The Wall Street Journal*. February 22, 2010
[8] Unnevehr L. et al (2007). Addressing Micronutrient Deficiencies: Alternative Interventions and Technologies *AgBioForum, 10(3): 124-134*
[9] Morris & Sands. The breeder's dilemma – yield or nutrition? September 2006, Volume 24, Number 9
[10] Chan, M. (2009). Cutting carbon, improving health. *The Lancet,* Vol. 374 December 5, 2009
[11] M. M. Qaderi, D. M. Reid, in *Climate Change and Crops*, S. N. Singh, Ed. (Springer-Verlag, Berlin, 2009), pp. 1-9

freshwater goes to agricultural use, but at current rates of depletion of water resources, the global production of wheat is expected to drop by one-third. Pesticides persist in produce destined for human consumption while excess fertilizers and pesticides run off agricultural land to contaminate human drinking water. Monocultures of commodity crops often destroy biodiversity that is critical to maintain ecosystems, which in turn impacts soil health and consequently crop nutrient profiles. Healthy soils and adequate water are essential for the production of adequate and nutritious food.

There are, however, examples of positive alignment between agriculture and nutrition. One such example is oats. Oats are an excellent source of soluble fibre and also rich in antioxidants. Fibre has been shown to decrease low-density lipoprotein, iron, and thiamin.[12] Growing oats also limits environmental damage typically resulting from agriculture. Oats contribute little to soil erosion and are usually planted with no soil tillage. The crop has an extremely fibrous and prolific root system and is often grown in areas with soil erosion risks from other crops to control damage. Commercial fertilizer additions are generally low, in the range of 50-100 pounds per acre (about the same amount as wheat or barley, and approximately half that used by corn). Pesticide use is relatively low for oats, since they are resistant to many soil borne diseases common in other crops. Crop yields are often twice as much per acre as wheat or barley and very little water is needed for irrigation.

The Role of the Food Industry
Food manufacturers are taking a deep look at their supply chains to identify ways to align their environmental, health and nutrition, and business sustainability goals. Food and beverage companies are particularly under pressure to respond to the criticism that they cannot remain profitable and reduce overconsumption. However, just as the automobile industry and the energy sector are now expanding their horizons with new, sustainable products and technologies, so is the food industry as it takes on the challenge of shifting from a business model built on volume and quantity to one built on sustainable consumption and quality.

The food and beverage industry's supply chain of producing, processing, storing, and delivering food to meet consumer needs represents a natural vehicle for transformation, with the most far-reaching potential for impact. The supply chain has been described as an "underused policy tool" that can be used to influence how we produce and consume food.[13] Food companies must scrutinize where along the value chain of crop procurement, primary and secondary processing, research and development, food production, distribution, and the marketing process they can maximize nutritional outcomes and minimize environmental impact. How can we ensure that every step of our supply chain supports both goals? Among the broad spectrum of existing and future interventions that could deliver results would be nutritional crop varietal selection, preferential subsidies for nutritionally superior varieties, biofortification, improved soil and water management for maximizing nutrients, integrated pest management to minimize chemical use, and post-harvest food fortification.[14] Local sourcing of key ingredients and improved processing, distribution and marketing capabilities of production facilities in the developing world have the potential to improve the availability and use of appropriate complementary foods by low income consumers, and become a valuable resource for sourcing subsidized and emergency complementary foods, while at the same time fostering economic growth.[15]

- **Cassava**, as the third most important source of food in tropical regions of the world, is a staple of local diets where it is difficult to grow cereal grains: it grows on poor soil, is relatively resistant to drought, and resists locust damage. The crop is relatively cheap to produce and requires little weeding. Cassava has high yields and is one of the highest crop producers of carbohydrates, but its roots also suffer from low protein content (low protein-to-energy ratios). Poor quality cassava endangers health because cassava naturally contains low levels of cyanide. The plant needs to be processed (shredded and dried) in order to eliminate the production of cyanide from the roots and leaves when eaten. The leaves have higher amounts of protein and are close to meeting UN Food and Agriculture Organization (FAO) protein intake requirements. A combination of carefully processed roots and leaves could provide appropriate nutrients to developing communities.

[12] M.B. Andon, J.W. Anderson (2008). "State of the Art Reviews: The Oatmeal-Cholesterol Connection: 10 Years Later." *American Journal of Lifestyle Medicine*, Volume 2, Pages 51-57

[13] Hawkes, C. (2009). *Journal of Hunger and Environmental Nutrition*, 4:336-356

[14] In fact, for the next 10-15 years, post-harvest fortification of existing staples and condiments to produce new value-added food products that provide required micro- and macronutrients may be the best intervention for women and children in developing countries.

[15] Even with the development of new approaches, challenges associated with the introduction of new nutritional staples and convenience foods in new geographies should not be underestimated.

- In 2005, Barilla released their "Barilla Plus" brand, a new type of pasta made with multigrains, legumes, ground flaxseed, wheat fibre, and egg whites. It contains twice as much fibre as traditional pastas, 40% more protein, and an omega-3 fatty acid called alpha linolenic acid (ALA). A single serving of the pasta provides close to or exceeds amino acid requirements set by the World Health Organization. Furthermore, the chickpeas and lentils are purchased from a cooperative of farmers practising no-till agriculture, thus minimizing greenhouse gas emissions and maintaining soil integrity. New policies and partnerships need to be created that can increase yields and lower prices for this nutritional (and environmentally sustainable) product to contribute to international food security.[16]

Difficult trade-offs will inevitably present themselves in this process, as shown by the examples below. However, the advantage of supply chain analysis is that it can reveal both conflicts as well as synergies and can point companies towards practical solutions.

- **Palm oil** has a significant impact on climate change as a result of the large-scale clearing of rainforests, and loss of biodiversity. It is also high in saturated fats and may contribute to cardiovascular disease. Using both environmental and health criteria, the food industry should be minimizing the use of palm oil. Supply chain analysis, however, reveals two barriers. Firstly, palm is by far the most productive oilseed at 3.68 tonnes of oil per hectare. Rapeseed comes a distant second at 0.59 tonnes/ha. Given that the world is faced with widely depleted soil and water resources, the environmental impact of production capacity should not be underestimated. Secondly, the saturated fat content is beneficial for the stability of food products, in the absence of which increased packaging would be required to protect and preserve products. One way to tackle the problem is to develop processes to remove saturated fats from palm oil. Food companies are also actively exploring how to increase the productivity of alternative, healthier oilseeds and supporting sustainable palm oil sources, for example through the Roundtable on Sustainable Palm Oil.[17]
- **Dairy** is not only a fast growing opportunity in South Asia and East Africa for women farmers but also offers diet improving options. Building on cooperative and contract farming options, the dairy industry in developing countries can make a key contribution to food and nutrition security, income and employment of the poor. However, dairy expansion must be undertaken with great care to limit environmental damage and greenhouse gas emissions.
- **Rice** is one of the premier staple foods of the poor worldwide. Yield and nutrition content must and can be enhanced. The private sector can also contribute here. In India, PepsiCo promotes the direct seeding of rice (DSR) with local farmers. India grows about 130 million tons of rice paddy. Traditionally, paddy is cultivated by allowing seeds to germinate into saplings in a nursery, then transferring the saplings into the main field which is flooded to prevent weed growth. DSR avoids these operations and saves 40% water over traditional methods and reduces methane emissions. There may, however, be nutritional disadvantages to DSR, with reduced phosphorus, iron, and zinc availability, and biological nitrogen fixation.[18] DSR usually results in micronutrient deficiencies, which are critical for the development of children under two.[19] These deficiencies need to be corrected by the application of chelated zinc and ferrous fertilizers. An alternative approach is to prioritize rice varieties with a high micronutrient profile. Research from the International Rice Research Institute has shown that there is adequate genetic variation in concentrations of B-carotene, other functional carotenoids, iron, zinc and other minerals in the major germplasm banks to justify such selection.[20]

16 http://www.allbusiness.com/manufacturing/food-manufacturing/878669-1.html
17 Roundtable on Sustainable Palm Oil www.rspo.org
18 http://cpwf-theme1.irri.org/arrd/ARHow.htm
19 https://www.soils.org/files/publications/sssaj/abstracts/74-1/s08-0060-abs.pdf
20 Gregorio, GB (2002). *J. Nutr*. 132: 500S–502S, 2002

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Global Agenda Council on Global Healthcare Systems & Cooperation[1]

A Partnership for Health Risk Accountability

Context

Many factors influence population health. Indeed, the healthcare system's impact on health is generally considered to be secondary to social and behavioural influences. These broader influences are manifest through an array of factors, including obesity, malnutrition, high blood pressure, tobacco, poor water supply and sanitation, alcohol or inadequate physical activity, which affect infectious diseases, non-communicable diseases and injuries. The risk factors act as powerful predictors of future life expectancy, quality of life and healthcare expenditure, and in addition have important economic consequences.

Traditional global health governance arrangements focus primarily on the healthcare system. Through a multiplicity of actors, including the World Health Organization, UNICEF, the Food and Agriculture Organization of the United Nations, the World Bank, new funds such as The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and The Global Alliance for Vaccines and Immunization (GAVI), and a range of public-private partnerships, global dialogue and coordination on infectious diseases is reasonably effective. Although gaps exist globally in helping health systems to build capacity for effective stewardship, especially in low resource settings, initiatives have been proposed to strengthen this area, including the IHP plus, the health system platform from GAVI, GFATM and the World Bank and the Innovative Task Force on Health Financing. However, current governance arrangements are generally unable to mobilize the cross-sectoral involvement needed to address social, economic and behavioural risk factors, which arise mainly from forces outside the health system.

Thus a fundamental gap in the current governance of the global health system exists, in the form of a lack of accountability for addressing these health risks. This weakness gives rise to many important non-health system actors' and institutions' lack of engagement, such as employers, schools or local community planners. Yet these actors' actions can have significant effects on health risks. They also often have a major interest in reducing the levels of risk. For example, employers' productivity may be adversely affected by high levels of health risk in their workforce. In a world where health expenditure continues to grow but the payoff of this increased expenditure is unclear, the need to accelerate the reduction of risk and cost becomes ever more critical.

Critical to understanding health risks and the roles and responsibilities for different actors in a society for reducing health risks is the careful, comparable quantification of health risks and the extent of implementation of programmes and policies to reduce health risks. For example, for tobacco, we know a lot about the consumption of tobacco by age and sex in many countries. The extent to which effective programmes such as taxation, advertising bans, public bans on smoking or tobacco cessation have been implemented and by whom is much harder to ascertain. Progress on health risks will require careful quantification of the extent to which different institutions and actors in society have been able to achieve the reductions in health risks that are evidence-based and socially and politically feasible in each context.

Proposal and Explanation/Rationale

In bringing together stakeholders from many perspectives, the World Economic Forum is uniquely placed to address this lacuna in global health governance. The Global Agenda Council on Global Healthcare Systems & Cooperation proposes that the World Economic Forum put in place a process to create an institutional architecture, tools and practical implementation to address the lack of global accountability for health risks. The intention is to track the most important risks and the interventions to address them, in a science-based, transparent and participatory manner, with a view to promoting accountability across all sectors for the improvement of health outcomes. This will be accomplished by inviting all sectors to contribute to global health, and improving their awareness of health risks through their participation.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on
Global Healthcare Systems & Cooperation

This proposal for a **Partnership for Health Risk Accountability** (PHRA) is based on the premise that global health is a shared responsibility that is everybody's business. The intention is to effect fundamental system change by creating a broad-based partnership for health risk accountability. The ultimate goal of the partnership will be to catalyse reductions in health risks around the world that contribute to improved health and economic performance. This overarching goal will be achieved by:

- Promoting across a broad set of actors beyond the traditional health system a shared understanding and objectives for reducing health risks
- Improving the evidence base on the magnitude of different health risks
- Providing standardized metrics for tracking health risks and the contribution to health risks of different sectors in society such as schools, the built environment, and the workplace
- Reporting to citizens, agents, institutions on progress made on managing leading health risks
- Catalysing shared learning across different actors on successful models to reduce health risks in different contexts

Next Steps

1. Convene an Initial Meeting of Stakeholders

This will be achieved by inviting a broad range of stakeholders from the corporate, not-for-profit and public sectors, representatives of civil society and other relevant parties to join a Partnership for Health Risk Accountability, under the auspices of the World Economic Forum. Existing organizations such as the WHO, research organizations, and professional societies have been drawing attention to selected risks and providing important guidance on some risks such as tobacco or diet. A substantial number of initiatives in the business sector are addressing components of risk through wellness programmes. To make a Partnership for Health Risk Accountability that has a broader vision beyond the health sector across a wider range of health risks will require effective engagement of the health community, business and many other organizations such as schools and local governments. Given the intrinsically multi-stakeholder nature of this effort, the World Economic Forum is well situated to incubate the development of this partnership in its initial phases. This initial meeting will then form the basis for identifying groups with a strong enough interest to become board members of the Partnership going forward.

2. Commission a First Assessment of Leading Health Risks

Progress on the PHRA will be stimulated by concrete steps undertaken in the initial 18-month period. Success of the effort will be catalysed by the production of useful evidence-based information on the distribution of health risks and the contributions that different actors in society can make to reducing those health risks. The first global assessment of the distribution of leading health risks and the extent of implementation of policies and programmes in different sectors to address these risks should be undertaken country by country. To make this feasible, the first analysis should focus on 10 leading health risks. The Global Burden of Disease Study to be released in November 2010 will provide a sound basis for selecting these ten leading risks at the global and regional level. In the meantime, the WHO's 2009 assessment of risks identified: childhood underweight, alcohol use, unsafe water, sanitation and hygiene, high blood pressure, tobacco use, sub-optimal breastfeeding, high blood glucose, indoor air pollution, obesity, physical inactivity, and high cholesterol as some leading risks for consideration. This assessment did not consider important components of the diet such as omega-3 fatty oils, trans-fat or legume intake which have been shown to be major risks in countries such as the United States. All available evidence should be taken into consideration when selecting the set of 10 risks for this initial assessment.

The risks selected for this first analysis should be based on two criteria: magnitude of the burden of disease related to each risk and the potential for modification through actions by different actors in society. The initial risk report would examine the same set of leading risks for all countries selecting those that are important risks across a wide range of contexts. The purpose of this initial assessment would be to stimulate broad m multi-stakeholder engagement as well as setting a baseline for future progress. Clearly, risk profiles and the priorities would likely differ country by country in actual implementation of national action plans but this broad comparative work would provide an initial starting point for a broader dialogue.

Initial assessment of health risks country by country for the 10 leading risks would need to have three components to the work. First, an assessment of the relative risks of death and functional impairment as a function of risk exposure based on the published scientific literature. Many of these meta-analyses of relative risks have been published so this phase of the work can leverage the investments made by many research groups and organizations such as the WHO.

Second, development of a database from all available survey, census and administrative data (including health risk assessments from clinical providers) on the extent of exposure to key risks. Some risks are well characterized in many settings, such as tobacco consumption, while others, including trans-fat intake or the intensity of physical activity, are less well studied. For the initial assessment, the analysis will have to deal with the reality that there will be many measurements for many countries that are missing. Reasonable efforts to estimate these risks will need to be undertaken that produce plausible first round assessments.

Third, compile the evidence-base using efforts undertaken by national technology assessment organizations and cost-effectiveness compendia such as the Disease Control Priorities, WHO-CHOICE, the UK NICE or the US CDC community effectiveness guide on which interventions delivered in different settings including schools, communities, workplace, the media and others are effective and cost-effective. This evidence base would then be used to identify which policies and programmes that address the 10 leading health risks should be tracked as part of generating accountability for health risk reduction. Particular attention in this phase of the analysis should be paid to the evidence on the importance of incentives for individuals, schools, communities, employers and other groups to make progress on health risk reduction. Experience with conditional cash transfer programmes and other wellness incentive programmes should be examined.

Fourth, provide first assessments of the extent to which different interventions are being delivered through policies and programmes in different national contexts.

National data on the extent of health risks and the implementation of evidence-based policies and programmes should be combined into one or several summary health risk indices that will help a broader audience track the overall level and progress on health risks. Design of these indices should pay careful attention to scientific credibility, broad comprehensibility and meaningful comparability overtime and across nations.

These steps should lead to the production of a first global assessment of health risks country by country and the social responses to these health risks that would be released after 18 months. Release of the report by the World Economic Forum should be timed to inform and stimulate sessions at the Forum's Annual Meeting in Davos-Klosters. The release of the report should also be used as an important milestone in triggering a broader stakeholder engagement and clarification of the key members of the board of the PHRA.

The World Economic Forum will need to engage outside analytical support to produce this ambitious first health risk report including national rankings of efforts to address health risks. The outside analytical support would need to have the following skills and experience to be effective: demonstrated experience in analysing health risks in more than one country; effective capacity to analyse and synthesize data from multiple data sources; experience in dealing with sparse health exposure data in many countries and settings; proven track record in scientific publication in the health risk area; experience in undertaking or analysing the effectiveness and cost-effectiveness of health risk reduction policies and programmes; proven capacity to undertake complex data-intensive projects on a short time line, meeting milestones along the way.

3. Articulate Key Principles for PHRA to Be Effective

The preliminary 18-month phase is intended to demonstrate the importance of bringing together diverse stakeholders to address health risks. It is expected to lead to widespread acceptance that a new approach to global health governance is needed, in which the nature and extent of health risks is exposed to public scrutiny, and practical actions to address them can be developed. Long-term success will require designing the PHRA with certain key principles in mind. These principles include:

a) Ensuring independence – accountability for health risks requires that the metrics of progress be sheltered from vested interests or political interference. This principle of independence has important implications for the ultimate institutional home for the PHRA once it has been effectively incubated by the World Economic Forum.

b) Inclusively involving multiple stakeholders because progress requires the active and enthusiastic engagement of a broad set of groups outside the health sector – other sectors such as education, community infrastructure need to be effectively engaged from the beginning. Consideration should be given to various devises to encourage this including engagement of local government leaders such as mayors of major cities around the world, education leaders and businesses.
c) Grounding the choices of risks and actions to reduce risk in sound scientific evidence – as many groups have strong views on what are the most important health risks, it will be critical to always ground the dialogue on health risks on the best science and to avoid the temptation of pursuing the health risk priorities of a given leader at a given moment in time.
d) Keeping the health risk compass in mind, the big picture of the largest risks and the progress over time on these risks – navigating the landscape of health risks and the contributions that can be made of different groups will require keeping the big picture firmly in mind. Annual assessments of the extent of health risks and progress on health risk reduction will be essential.
e) Promoting clarity and good communications, especially to the public, as individuals and their choices are critical to progress and sustaining political commitment to tackling risks – health risks are ultimately involve choices by individuals, families, communities, businesses and governments. Effective communication beyond the scientific community will be an essential component to success.
f) Carefully choosing scientifically measured metrics essential for tracking health risks over time – the science of measurement must be maintained at each point in the process of the PHRA development.

4. Planning for the Second Phase of PHRA

Once broad stakeholder engagement has been undertaken and a first health risk report has been released after 18 months, the next phase should be to provide the PHRA with the appropriate governance, leadership, institutional home and revenue so that the principles identified above can be effectively achieved. These steps will be more effective after the initial convening and release of the analytical work than before. The initial 18-month phase will generate broad interest and demonstrate through action that tracking health risks is feasible and informative. To be effective PHRA will need to have a light institutional architecture at the global level focused on assessment, risk metrics, reporting on country progress and communication and stimulate a network of country PHRA collaborators. Country implementation must be country-owned and the organization of national efforts would likely take on diverse institutional arrangements in different countries.

The global PHRA and the network of national PHRA collaborators will need to identify funding sources after the first 18 months. At the global level, funding for the global component could come from a combination of different stakeholders including traditional global health funders, businesses invested in fostering healthy workers, families and communities and some of the national research organizations with an interest in risk modification. National PHRA organizations would need to identify local funds based on the set of stakeholders in each country with an interest in health improvement and healthcare cost reduction that can be achieved through health risk modification.

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Global Agenda Council on a Healthy Next Generation[1]

Starting Healthy and Staying Healthy: Creating a Youth Social Movement to Fix the Future of Health Now

Context

During the World Economic Forum's Summit on the Global Agenda in Dubai in November 2009, the Global Agenda Council on a Healthy Next Generation focused on addressing adolescent health – e.g., the dual challenges of obesity, hunger and malnutrition, HIV infection, smoking, alcohol and drug abuse, along with chronic conditions that first emerge as young people enter adolescence and young adulthood – as a relatively neglected yet critical opportunity to ensure a healthier next generation. Our statement of the problem remains relevant:

> "The challenges of adolescent risk behaviours are an invisible pandemic that threatens to run out of control. As we've learned with other pandemics, early intervention is always more effective and less expensive than acting later. A global movement is needed to encourage everyone to start healthy and stay healthy; to show youth the behaviours they undertake today affect their lives and the lives of their peers; to harness the potential of many industries – consumer products, food, beverages, entertainment and new media, sports, IT and mobile communications – to reinforce healthy behaviours and provide incentives to avoid unhealthy ones; to engage youth through social networks and with their new media tools; to promote health literacy; and to work with schools, communities and governments to use both regulations and incentives. The costs of inaction are too great – and solutions that work exist."

A New Mindset

The Council on a Healthy Next Generation outlined a path forward, focusing on a new mindset and the need to create a social movement for change. The new mindset is simple yet powerful – "that young people themselves should be leaders in developing the strategies and solutions required and should be at the table whenever policies and interventions directed at youth are designed." To create the social movement needed – to identify and change risk behaviours, to improve health literacy and promote healthy behaviours, and thus to enable a healthier next generation – we identified four critical elements: "a common agenda, a strategy for achieving it, a coalition of like-minded partners and a set of relevant targets and benchmarks to measure progress". Here we sketch a proposed set of actions that will catalyse the international cooperation required to generate real improvements in adolescent health. The action proposal is congruent with the key themes identified by the cluster on "Ensuring Health for All", especially the goal of increasing the supply of an important global public good – improved health – through a new pluralism, in which diverse stakeholders bring together complementary skills and resources to achieve a common goal.

Proposal and Explanation/Rationale

1) Developing the Common Agenda

The first step is to codify what is already known about the challenges and opportunities of adolescent health (i.e., the health of children and young adults between the ages of 10 and 24). What are the risk behaviours and patterns of illness in different countries and settings? What are the health-seeking (or avoiding) patterns of behaviour, and how do these vary with age, across societies and by socio-economic status? What are the most appropriate interventions, and how should they be designed and disseminated for maximum health impact? How does the health of youth depend upon their families, peers, communities and other contexts (such as work or environment)? These are some of the salient research questions that will inform the actions and initiatives of our proposed campaign for "The Future of Health Now."

To address these questions effectively and to marshal available evidence to inform action, we propose to hold a scoping conference (between now and June) to bring together three groups: representatives of key youth groups; expert researchers in both health and social sciences from academia, government and multilateral organizations (such as UNICEF, WHO and UNAIDS); and marketing and media research experts from the business community (especially from consumer product companies with a deep understanding of the behaviour of youth, and media companies that understand how they seek and use information). The Council will consult with a representative group of experts in the first instance to provide a background paper to help refine the key areas for discussion at the conference, which will maximize the likelihood of obtaining workable outputs and active engagement from key stakeholders.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

The product of the scoping conference will be a set of core questions to answer, a preliminary assessment of where to find the available evidence, and a notional set of targets and benchmarks to measure progress towards our goals. One of the questions to address during the discussion is how best to focus our campaign – whether to address a central issue (such as the rising incidence of childhood obesity in many countries) or to take an approach focused on a particular risk group (such as young girls and the related health issues of reproductive health, adolescent pregnancy and its complications, gender-based violence, etc., as advocated by Miriam Temin and Ruth Levine in *Start With a Girl: A New Agenda for Global Health).* We would then commission a series of review papers to pull together the answers to these key questions and to define further the relevant targets and benchmarks, along with a set of proposed pilot projects in selected countries focused on the key issues identified through the conference discussions.

2) Building a Coalition of Like-Minded Partners
With the results of the scoping conference in hand, the next step is to reach out to potential partners for our movement. We would start by establishing a youth advisory council for the initiative. We would then enlist other collaborators through a series of outreach meetings between the scoping conference and the launch events (see below). We would seek to work with interested companies that are already involved in the adolescent marketplace, building on their core competencies. We would also plan to coordinate with existing partnerships on this and related issues to learn from their experience and to explore potential synergies (examples include the Partnership for an HIV-Free Generation and the UN Programme on Youth).

Among the categories of potential partners, here are representative candidates:

- **Youth**: Global Youth Action Network, Oxfam International Youth Partnerships, Global Youth Coalition on HIV/AIDS, University Coalitions for Global Health, YouthAIDS, GlobeMed, DoSomething.org, Junior Achievement, Youth Action International

- **Sports**: Grassroot Soccer, Right to Play, Basketball without Borders, Beyond Sports

- **Other NGOs**: Save the Children, CARE, Global Health Council

- **Private sector (including companies in the consumer products, food and beverage, entertainment and new media, IT and mobile communications, and health industries)**: Africa Broadcast Media Partnership, Accenture, Microsoft, Intel, Global Business Coalition on HIV/AIDS, TB and Malaria, The Coca-Cola Company, PepsiCo, Kraft, Omnicom, Publicis, WPP, Warner Brothers, Google (YouTube), Facebook, Twitter, NewsCorp (MySpace), MTV

- **Foundations**: The Bill & Melinda Gates Foundation, Nike Foundation, Staying Alive Foundation, Children's Investment Fund Foundation

- **Multilateral organizations**: WHO, UNICEF, UNAIDS, UNDP, World Bank, UNESCO, etc.

3) Launching a New Movement to "Fix the Future of Health Now"
The outcome of the scoping conference and additional consultations would culminate in a focused set of planned activities – developed by, with and for youth themselves, in collaboration with other partner organizations – to address a key challenge or challenges in adolescent health. Ideally, the action plan will harness the technological savvy of today's youth will communicate to them in ways that resonate with their concerns and empower them to take action, will build on evidence-based approaches for changing youth behaviour, will leverage private sector capabilities and approaches, and will lead to measurable improvements in identified health targets and benchmarks. While we want adolescents to actually be involved in the process at every stage, it will be important to have the right balance of partners to tackle the issues in a serious and sustained way with broad support.

The plan could be unveiled at the World Youth Conference in Mexico City (23-28 August 2010), with a timeline to coincide with the UN International Year of Youth (from August 2010 – August 2011). Other opportunities for engagement and outreach include the 5th World Youth Congress (Istanbul, 31 July – 13 August 2010), International Youth Day (12 August 2010), and the CIVICUS World Youth Assembly (Montreal, 19-20 August 2010).

There may also be opportunities to highlight our plans and to enlist additional support at side events in connection with the UN General Assembly's review of the Millennium Development Goals (September 2010), the Clinton Global Initiative annual meeting (September 2010). The Global Health Council also offers a platform for building support for this action plan, through its regular Roundtable meetings, special programmes and (in due course) its Annual International Conference in June 2011.

The World Economic Forum Annual Meeting in Davos-Klosters (January 2011) would be a natural opportunity to report on early progress, to highlight how the Forum's Member companies are engaged in the movement to address adolescent health in creative and meaningful ways, and to convene a multisectoral dialogue (involving global youth leaders and others from the Forum's civil society community, together with government leaders) to chart the way forward. The goal would be to have a report ready for International Youth Day in August 2011 that can point to concrete improvements achieved in the first phase of this work.

Conclusion

Leading the Way to a Healthy Next Generation
The activities outlined above are important steps in leading the way to a healthy next generation. By using the tools of the information age, combined with private sector core competencies and the technical knowledge of relevant experts, we can catalyse a youth-led movement to engage young people around the world in "starting healthy and staying healthy". This work will have tremendous leverage and holds enormous potential to improve the state of the world through increased and effective international cooperation in this critical area of health and development.

Global Agenda Council on a Healthy Next Generation

List of Members

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7 Enhancing Global Security

By Lilia Shevtsova, Senior Associate, Carnegie Endowment for International Peace, Carnegie Moscow Center, Russian Federation, and Jean-Marie Guéhenno, Senior Non-resident Fellow, Brookings Institution, USA

21st Century Security Challenges

Ten years into the new millennium, few would expect the 21st century to repeat the tragedies of the 20th century. And yet, there is a growing sense of unease and uncertainty. The clarity of a polarized world structured by a strategic conflict has been replaced by the confusion of less existential but more unpredictable and apparently less manageable threats. The triumph of a Western world that understood the defeat of communism as the victory of capitalism gives way to doubt as new powers assert themselves. What was seen 20 years ago as the dawn of a new age appears in hindsight as a brief window of opportunity that may now be closing.

While the United States accounts for half of the world's military spending, its role as stabilizer of last resort is in doubt: the sheriff is reluctant and the world is suspicious. The policies of the Bush Administration gave a bad name to intervention and the economic costs of being a global power are becoming harder to sustain in a time of fiscal crisis: military spending competes with the growing demands of a US social safety net that lags behind social protection available in other developed countries. But there is no obvious replacement to the dominant role of the US. Efforts to adapt institutions to post-Cold War dynamics have so far failed, and no power seems to have the capacity or the will to fill the vacuum. Meanwhile, old conflicts persist and new threats are emerging. States remain the main actors in international security, but they are not the only actors, and in the absence of a new conceptual framework, their grip is weaker. New non-state actors (multinational corporations, international and national non-governmental organizations (NGOs), organized crime and terrorist cells) may topple the international chess board. The post-Cold War order is fragile and subject to rupture.

A global redesign is becoming ever more urgent. Managing international security in the 21st century requires first that we develop a common understanding of the new security environment and identify new answers that a new security environment requires.

International Security: Globalization without a Global Community

The Lost Decades: The Missed Opportunities of the Post-Cold War Moment

When the Cold War ended in 1989, there was hope that the ambitions of 1945 could be fulfilled. A "new international order" would replace the balance of terror and Mutual Assured Destruction (MAD). It would start with a genuine integration of the former "enemy", Russia, which was emerging from the collapse of the Soviet Union. In the early 1990s, the Russian elite viewed Russia's integration "into the West" as the solution to their problems and viewed Russia as part of the European Community. Not everyone in Russia or in the West was comfortable with that vision. The Russian elite hoped for integration into the West while preserving its rules of the game and regaining superpower status. Central and Eastern European states that had just escaped the domination of the Soviet Union loathed finding themselves together under the same roof with Russia and its renewed superpower longings. For the traditional European partners of the United States, there was unease at the prospect of being squeezed between Washington and Moscow. Moreover, "old" Europe felt overstretched as it incorporated the former Communist states. For the US, integrating a former enemy in the North Atlantic Treaty Organization (NATO), which had been a key foundation of its national security for 40 years, would have been an enormous gamble. In the end, nobody was prepared for that gamble.

Thus, the West lost incentive for a future-oriented strategic redesign. Insufficient steps were taken. The Conference on Security and Cooperation in Europe was transformed into the standing OSCE, an attempt was made to form the EU and NATO partnership with Russia and the NATO-Russia Council was created. But it was

a case of too little, too late. The Euro-Atlantic security institutions were not prepared to redesign fundamentally, although that might have allowed them to play a new global role at a time when Europe was losing its strategic centrality.

The European Union's Contribution to Security

The disconnect between a Eurocentric and Western view of the new world order was to become more apparent as European institutions began to transform: the creation of the euro, the transformation of the European Community into a European Union, and the EU's enlargement policy were bold moves. But they were largely driven by intra-European concerns: from a political perspective, the euro was first an instrument designed to anchor Germany into a European structure, and not a step towards a European political union in which all European powers would pool their sovereignty into a new centre of global power. The enlargement of the EU, which occurred without an effective deepening of European institutions, helped stabilize Europe and provided an inspiring model for a new type of inter-state relations based on shared values and agreed norms. But the model failed to recognize that hard power still mattered in many parts of the world.

As enlargement progressed, the limits of the model that claimed to downplay the importance of borders became more apparent. The increasingly strident European debate on the borders of Europe threw doubts on the universal viability of the model. A soft European-style model of integration through a single market and agreed rules might help European states adjust to a global economy, but on global security, it did not address the need to have centres of hard power capable of defending the strategic interests of clearly defined polities. The threat of war was removed from Europe, but Europe did not seem prepared to become a major exporter of security beyond its own neighbourhood.

The Limits of UN Reform

Since its creation, the United Nations was weakened by the rift that appeared between the victors of World War II. As the unity of the five permanent members of the Security Council crumbled, the institution that had been expected to play a crucial role in the management of global peace and security issues nearly became paralysed. With the end of the Cold War, there was hope of a second beginning. Indeed, the Security Council has adopted twice as many resolutions since 1989 as it did between 1945 and 1989.

In 1992, Secretary-General Boutros-Ghali submitted an "agenda for peace" that outlined a more active role for the UN as well as a more holistic approach to peace and security. He noted that, "the United Nations is a gathering of sovereign states and what it can do depends on the common ground between them."[1] The assumption was that more common ground among member states led to an unprecedented expansion of the executive role of the Security Council in the maintenance of peace and security. UN peacekeeping started to grow. Although peacekeeping was almost destroyed by the crises of the 90s (Yugoslavia, Somalia, Rwanda), it stands today at an all-time high, with more than 120,000 troops, police and civilians deployed globally. The quantitative expansion has been accompanied by a qualitative transformation: while non-interference in the internal affairs of state remains the indispensable basis of any consensus, the evolution in the nature of conflicts, which have increasingly been intra-state struggles, means that the UN has become increasingly involved in issues of governance, the rule of law, human rights and development. These issues blur the distinction between security and development and between internal and external affairs.

Fifteen years after the Cold War ended, Secretary-General Kofi Annan tried to consolidate a new consensus that would anchor the UN's actions around three pillars: peace, development, and human rights. The effort was partially successful, as the 2005 World Summit declaration grudgingly affirmed the principle of the "responsibility to protect" (R2P) and the Human Rights Council was created. But no agreement was reached on a reform of the key institutions of the United Nations and their articulation with the Bretton Woods Institutions. A link between security and development was recognized and a bridge established through the creation of the Peacebuilding Commission. The responsibility for development remained with the 192-member

[1] An Agenda for Peace, Report of the Secretary-General pursuant to the statement adopted by the Summit Meeting of the Security Council on 31 January 1992, A/47/277-S/24111, 17 June 1992.

General Assembly, with its one country-one vote rule, which gave a tiny minority of the world's population the ability to command the majority. Consequently, the small group of rich countries that pay more than 80% of the budget could only accept consensus-based decisions, which precluded any forward movement. Meanwhile, the responsibility for security remained with the Security Council, which did not reform its composition and remained overly represented by Europe. Ultimately, the failure of reform means that while the definition of security keeps expanding, the legitimacy of the Security Council is steadily weakening. Today, a growing operational and legitimacy deficit plagues the UN as it remains under-resourced and insufficiently reformed.

Old and New Threats

The Proliferation of Weapons of Mass Destruction

The international community inherited several unresolved problems from the Cold War. The most pressing risk remains the threat posed by weapons of mass destruction (WMD) and their proliferation. The indefinite extension of the Non-Proliferation Treaty (NPT) in 1995 was a major achievement but, fifteen years later, optimism is eroding. The nuclear powers have not lived up to their commitments, enshrined in Article 6 of the NPT, to work for nuclear disarmament. To this day, the US and Russia not only retain several thousand nuclear weapons in their arsenals but also continue to base their relationship on the mutual nuclear deterrence principle. Legal instruments and treaties that were designed to gradually marginalize the role of nuclear weapons and make their spread difficult have stalled. Forty-two state parties to the NPT have not signed the Additional Protocol that allows for effective control by the International Atomic Energy Agency (IAEA). The US has not yet ratified the Comprehensive Nuclear-Test-Ban Treaty (CTBT). The Fissile Material Cutoff Treaty (FMCT) has been shelved. The Global Partnership Programme against WMD proliferation formed at the G8 at Kananaskis in 2002 is not delivering. Meanwhile, the withdrawal of the US from the Anti-Ballistic Missile Treaty, the protracted negotiations between the US and Russia on the Strategic Arms Reductions Treaty, and the enormous conventional superiority of the United States complicate the strategic picture, making genuine progress on nuclear disarmament difficult. On the one hand, there is a growing awareness that managing the nuclear balance through arms control is no longer a priority. Rather, the risk of nuclear proliferation is a much greater threat. On the other hand, the absence of an agreed framework complicates efforts to address the threat of proliferation.

Recent progress in the form of the signing of the new START between Russia and the United States, reducing nuclear stockpiles 30% from 2002 levels, will of course raise the profile of the nuclear proliferation issue. The Nuclear Security Summit, hosted by the Obama Administration in April 2010, addressing the issue of nuclear materials and terrorism, is another high profile step in the right direction, but commitment and the success of both these issues remain to be seen.

Meanwhile, the failure to eliminate chemical and biological weapons goes unnoticed. The overwhelming majority of chemical weapons are in Russia and the US, and they should have already been destroyed by April 2007. The situation is even worse for biological weapons, for which no system of verification exists. Exports of conventional arms and dual-use technologies – into areas of conflict – have become another threat.

Unresolved Conflicts and the Changing Nature of War

The risk posed by WMD would be less threatening if conflicts were disappearing. But although the number of conflicts has declined since the end of the Cold War, hopes of solving some longstanding disputes have been dashed. In that respect, no conflict has a greater global impact than the Israeli-Arab conflict, because it generates two incompatible narratives on the present state of world security: for millions of Muslims around the world, it is an illustration of the international community's double standards and it feeds a profound scepticism on the concept of a rule-based international system; while for others, it is terrorism that makes a mockery of the concept of law and needs to be prioritized in a security-driven agenda. The conflict thus poisons international relations not only in one of the most strategic regions of the world, but globally too.

At the same time, a whole new generation of conflicts – intra-state rather inter-state – has appeared, profoundly transforming strategic calculations: a growing number of states are perceived as threats not because they are too strong, but because they are too weak. The international system thus loses its first line of defence, functioning states that are the custodians of their respective communities. While the international community is accustomed to balancing power with power, it is much less adept at responding to weakness. Increasingly, "peace operations" have been deployed in the midst of civil wars or on the basis of precarious peace agreements. Success has been uneven, as "war among people" requires a level of commitment, sophistication, and orchestration of international efforts that is rarely possible. From Iraq to Afghanistan, from Sudan to the Democratic Republic of Congo, the international community muddles through.

The Shrinking but Networked World

The growing number of threats, natural as well as man-made, from transnational crime to terrorism, from climate change to pandemics and cyberattacks, transcend state borders either because they do not emanate from state actors or because they ignore borders. Old socio-political structures are being destroyed much faster than new post-modern ones are being built. Displacement, whether it is the consequence of conflict, as in Darfur, or of economic hardship, as in many parts of rural Africa, leads to accelerated urbanization and megacities in which unemployment and underground networks are rife. This creates fertile ground for insurgencies and terrorism. Meanwhile, what would have been a local security issue 20 years ago becomes a global concern because of the increased material and virtual connectivity. Borders do not act as circuit breakers and it remains unclear whether a networked world will be more resilient or more vulnerable. Recent experience suggests that the network improves the resilience to small shocks, but increases the vulnerability to major ones.

The New Paradigm of Security: From Oligopoly to Open Architecture

The redistribution of military power lags behind the redistribution of economic power, but it is accelerating, as China and India are gradually turning their growing economic weight into hard power. The geopolitical ascendance of China could become a formidable challenge for the international order. Although the US remains the only global military power, regional power dynamics are asserting themselves, as the prospect looms ever larger that the US will lose its capacity or the will to be the ultimate "balancer". Asia is affected more than any other region by this prospect as the absence of any overarching security structure, the critical importance of sea lines of communication, and unresolved disputes lay the ground for future tensions, of which the development of the local arms race is the most worrying symptom. Globally, the rapid economic growth of new actors increases the competition for energy, natural resources and markets. While that competition remains economic, energy and natural resources have a strategic facet, giving them a political and security dimension.

Asymmetric Multipolarity

This state of affairs provokes very different reactions, reflecting differences of perceptions as well as objective differences of situation. In rich countries, the principal beneficiaries of the previous order, there is a risk of retrenchment, indicating the rest of the world is now perceived more as a threat than an opportunity. In Europe, nationalism, populism and xenophobia are on the rise and support for European solidarity is limited. The members of the EU as well as Russia seem to be increasingly uncomfortable with the fluidity of the post-Cold War moment: Russia looks for privileged areas of interest and emphasizes hard power, while the members of the European Union have doubts on the efficacy of their soft power, and look increasingly for bilateral arrangements rather than a coordinated European response. Newly independent states find themselves in the "grey zone" between Russia and the EU, looking for new security solutions as they become the targets of conflicting efforts – the EU Eastern Partnership or a special relationship with Russia that they perceive as *Finlandization*. Emerging regional powers are beginning to take on leadership roles in their respective continents, developing new arrangements between themselves and working on strengthening regional organizations. Countries that benefit from rapid economic growth exhibit a growing sense of self-confidence – China is the most spectacular illustration here. Whether that self-confidence could turn into aggressive nationalism if there were a reversal of fortune remains an open question.

The enormous asymmetry in the distribution of power and wealth worldwide has major security implications because more and more people are aware of it. More than a billion people feel disenfranchised. For a tiny but dangerous minority, the asymmetric threat of terrorism can become the answer to a perceived asymmetric world.

Status Quo Impossible, Change Difficult

The past status quo is gone. A new and fast evolving redistribution of power, a new generation of threats that does not eliminate old threats, and an increasing awareness of global interdependence make the present state of affairs both dangerous and unacceptable. The status quo is challenged and there is no agreement on the process and rules through which change should be managed.

National sovereignty and national security are no longer synonyms. For many countries, national sovereignty is viewed as an equalizer and bulwark against domination, while sometimes serving to preserve undemocratic regimes. Memories, expectations and objective situations are too different for any overarching concept of security to be a rallying point. This may be a good thing, because grand designs usually fail, and the world requires nimble and flexible responses. At the same time, the deepening gap between an increasingly connected world and increasingly fragmented and insular communities can produce unmanageable tensions and lead to a breakdown of global governance. The absence of agreement on direction and guiding principles that should inform change, or on the priorities that it should address, is dangerous if it leads to parochialism and nationalism. Our lives have never been more connected, but except for a small minority of global citizens for whom the benefits of globalization are obvious, the world is fragmenting rather than coming together.

A New International Security Framework

Building Common Ground through Comprehensive Security

At the conceptual level, we need to rethink the security paradigm, recognizing that security is more than inter-state security, and that respecting sovereignty does not mean indifference. We form an emerging global community, and sovereignty entails responsibility. This is the basis of R2P endorsed at the 2005 World Summit. The world must not allow another Holocaust, Cambodia, or Rwanda. At the same time, it must recognize that Russia and China are not comfortable with the new norm. The dynamics of the negotiations in 2005 indicated that R2P was seen as an expression of a Western agenda tempered by concessions to make it acceptable to the rest of the world. Building common ground today requires a different approach requiring from the outset that it integrates widely disparate concerns. Although the 2005 document made clear that R2P did not displace the primary responsibility of states in ensuring protection of their citizenry, the focus on an enhanced role of the international community – with military intervention the last resort – was troubling for many countries. This came against the background of the Iraq war, which blurred the distinction between pre-emption and prevention. R2P seemed threatening for the many countries that consider the principle of national sovereignty as the best protection against *existing* imbalances of power.

Building trust should therefore start with the reaffirmation of the basic principles of international law enshrined in the United Nations Charter. There is no need to rewrite or redefine the principles that were agreed in 1945. Actually, any such effort would most likely backfire. More clarity on concepts, such as R2P, as well as more effective monitoring would be helpful, as suggested by the Global Agenda Council on Human Rights & Protection in their Global Redesign Initiative proposal. The invocation by Russia of R2P principles in the Georgian crisis should give pause to those who ignore the dangers of eroding international law. A solid reaffirmation of a rule-based international order is therefore urgent. Once trust in basic principles of international law has been restored, it should be easier to establish common ground on the broader concept of human security that is still seen by some countries as a challenge to sovereignty.

Enhancing Global Security

As the economic engagement of major emerging economies in fragile countries continues to grow, a dilemma appears: how can the future of the international system based on state sovereignty be ensured, without interfering with the sovereignty of weak states? What needs to change to ensure that the principle of sovereignty remains untouched? Fragile states are an extreme illustration of the fact that a stable international order cannot ignore what happens within states. If the rule of law is ignored in the internal affairs of a state, stability is at risk and international security is threatened. Lasting progress in inter-state relations cannot be achieved if intra-state issues are ignored and basic human rights, including the right to a decent life, are trampled. Recognizing that international security issues do not stop at national borders may be of concern to the developing world. But it is also recognition that development is indeed a global security issue.

A Global Security Forum

States have the primary responsibility in building common ground for a new international security order, but they cannot be the only actors. Several security conferences are held in Europe and the US as well as a number of regional security conferences focusing on regional issues. Unfortunately, there is no global forum that addresses the old as well as the new security challenges in a comprehensive way, emphasizing the human security dimension. Such a forum should also engage non-state actors and civil societies, and involve a broader network in which non-Western institutes are effectively connected. The traditional security debate is often perceived as US or Eurocentric. The consequences are widely divergent agendas, a lack of agreement on what are genuine security issues, and a lack of legitimacy for ideas that are perceived as Western-focused. Liberal democracies should not shy away from defending their values and their security concepts, but they should be ready to engage countries that have different views. This should be a *process* rather than an event so that, gradually, genuine common ground emerges. The Global Security Forum, which would become an annual event, could then feed into the more formal discussion held in the United Nations, preparing the political ground for an evolution in form and substance of international security institutions.

Redesigning Institutions

The Indispensable Reform of the United Nations

All attempts to reform the UN have so far failed. And yet, no informal arrangement can be an effective substitute to institutional reform. In security more than in any other area, legitimacy is a key component of effectiveness, and informal arrangements will never have the legitimacy of formal institutions. Only powerful nations can feel secure enough to be comfortable with informal understandings. The poor and the weak need the equalizing reassurance of law to deal with power. Therefore no alternative to a reform of the composition of the Security Council and of the voting procedures of the General Assembly exists.

Reform is difficult, but it is not impossible. Firstly, it requires not just acceptance by the five permanent members of the Council, but their active engagement. Precisely because they are powerful countries, they may have the illusion that they can live with unsatisfactory institutions and that reform is not worth their political capital. But new security threats should convince them that a number of challenges can legitimately and effectively be addressed only on a multilateral basis. They should also be aware that an evolution towards a global system based on the balance of power – which ended disastrously in Europe – might lead to catastrophe if tested on a global scale. We may be reaching the situation when no power can hope to have a dominant position, and support for international law becomes the best option. Action must be taken before that window closes.

Security Council reform would make it more representative and therefore more legitimate, but legitimacy is also a function of effectiveness. An enlarged Council might well be even less effective than it is now if it continues with present working methods. The greatest challenge starts once the reform of the composition of the Council has been agreed. New members of an enlarged Security Council will eventually gain little in status and influence if they replicate the practices of the present Council members. Reform should aim to create a more proactive and more coherent Council that can effectively address the security agenda of the 21st century. That requires that institutional reform be accompanied by more systematic informal engagement between key countries on issues of common concern.

From G20 to Coalitions of the Relevant

In the economic sphere, the informal grouping of the G20 has quickly gained broad acceptance because it brings together a critical mass of countries that decisively shape economic decisions. The challenge in the security sphere is somewhat different: while the G20 may be relevant for some security issues with strong economic or financial content – such as money laundering – for many security issues the G20 has no particular relevance. It may be more effective to have smaller groups of countries that sometimes include countries outside the G20. For some issues, the involvement of non-state actors, such as international organizations, major NGOs, or corporations, may be needed. Such informal groupings, which should systematically aim at combining relevance with geographic and political diversity, can play a major role in forging policies that could then be endorsed by formal institutions. They will be effective only if they self-select themselves, but they should from the outset establish a connection with formal institutions, in particular the Security Council. The UN Secretariat should evolve to be able to service such groupings, thus creating an institutional bridge with the work of the Security Council.

Alliances

How can alliances contribute to a better response to new security challenges? As more threats challenge the capacities of single states, alliances seem to be a natural answer to the changing scale of security. Among alliances, NATO is in a unique position. It can call on more military resources than any other organization in the world and is committed to respecting the rule of law. In principle, it could be a powerful instrument to support an international order based on the principles of the UN Charter. Moreover, since the end of the Cold War, it has strived to take a cooperative and open posture. NATO emphasizes the values that bring its members together, rather than any particular threat. And yet, as it expands its membership to become global and engages in "out of area" missions, it has been unable to reduce mutual suspicions with Russia. The new Russian military doctrine cites NATO and its possible enlargement as a "main external danger" to Russia, which is a source of tension in the Eurasian landscape. To address this tension, NATO should be explicit in not excluding the possibility of Russian membership. Russia, in turn, should be prepared to accept the rights and obligations of this membership and satisfy NATO criteria. While it is most unlikely that any fundamental change in the Russia-NATO relationship would occur, it could lead to a more cooperative relationship between potentially competing groups of countries such as NATO, on the one hand, and the Collective Security Treaty Organization (CSTO) and the Shanghai Cooperation Organization, on the other.

Inventing New Tools

Redesigning National Security Structures

Inter-state wars are not the most pressing security challenge, and yet national security structures are still configured to address traditional military threats. Military resources cannot be effectively orchestrated or mobilized to deal with the new generation of threats, which requires civilian engagement as much as military resources. The deployment of civilians to stabilize fragile states is usually done on an ad hoc basis, and states find themselves with little capacity to mobilize expertise in their own ranks or in the private sector. The rapid mobilization of military resources was a key feature of national security for more than a century. The rapid deployment of civilian capacities in fragile countries remains an afterthought. This needs to change, and it requires that state structures develop flexible arrangements with the private sector to identify the right talent pool, with appropriate incentives, so as to be able to deploy the right people in a credible time frame. States that recognize the urgency of that shift should not only develop their own national response, as the UK is doing, but test-run pilot structures in partnership with the private sector and other countries. North-South "partnerships for human security", combining the resources and know-how from developed and developing countries, could then become models not only of north-south cooperation but also of a new approach to security in which developed-developing country partnerships are possible.

Addressing the Challenges of Fragile States: Peacekeeping and Human Security

Such North-South partnerships would make external support for fragile states more acceptable, especially when the support excludes military components. But peace operations often require a military component and they are effective only if they are seen to be legitimate. Operations conducted by states or by a coalition of

states may sometimes be inevitable, but they are often suspected of furthering their own national agendas. For that reason, the considerable development of UN peace operations since the end of the Cold War corresponds to a lasting need. The tool of peacekeeping has been strengthened by a decade of reforms, but it is threatened by its very success, which leads to overstretch and an overambitious agenda. The instrument of peacekeeping is in urgent need of effective consolidation. Four major changes must occur:

First, although in many post-conflict situations, greater reliance on professional police is warranted, there are many cases where a peace operation must deploy in a context of incomplete peace: a fragile peace agreement was concluded, but could easily unravel. In these situations, a proactive and robust military force that raises the threshold for any actor tempted to derail a peace process and that offers a modicum of protection for civilian populations is necessary. Presently, the UN does not have the capacity to address such situations. The better-resourced military forces do not contribute to UN peacekeeping in any significant manner, especially in the most dangerous situations. This undermines the effectiveness of UN peace operations, operationally as well as politically. The critical capabilities required in a fluid environment, such as tactical mobility, targeted firepower and good intelligence, are lacking. Further, troop contributing countries in the developing world are increasingly reluctant to implement risky decisions, if the countries that take the decisions do not share in the risks. Finally, selective engagement by major countries either sends a dangerous message of weak political commitment if they are absent or a message of partiality when they do engage. A more equitable burden-sharing of military contributions is possible; for example, the richest countries should not be expected to compete in numbers, but rather to provide transformative capabilities, such as rapid reaction forces, which fundamentally alter the dynamics in a theatre of operations. The proposal submitted by the Global Agenda Council on Human Rights & Protection offers more information on this aspect.

Second, the complex executive responsibilities that are given to the UN Secretariat in peace operations are de facto redefining security, as tasks such as rule-of-law reform, disarmament and reintegration bridge the divide between security and development, and require a level of flexibility and multi-year programming that a micro-managed secretariat designed to support conferences cannot provide. The creation of a dedicated peacekeeping and human security agency, whose board would be the Security Council, should be considered. While such an agency would be politically unrealistic in the absence of Security Council reform, it is possible if reform happens.

Third, the capacity of the international community to react quickly and proactively should be enhanced through a combination of standing capacities in some specialized areas (military, police and civilians) where it is hard to identify resources quickly and effective stand-by arrangements with states that enter into “partnerships for human security”. A more professional human resource is needed to address the complex emergencies of the 21st century. Such initiatives as the “global curriculum on conflict management”, suggested by the Global Agenda Council on Negotiation & Conflict Resolution, will help prepare a more effective response.

Fourth, much greater emphasis should be put on prevention: a Human Security Agency could enter into multi-year partnerships with countries that have not slipped into conflict, but that need external support. Such support should follow a new model focused on the empowerment of the host country, as put forward in a proposal submitted by the Global Agenda Council on Fragile States.

Redefining Global Corporate Governance for Investing in Fragile Countries to Promote Stability

Foreign direct investment is a critical element of the stabilization of fragile states. It can have a very positive impact on security if it is well managed, but can also feed conflict if spoilers redirect the resources. The Kimberley process and the Extractive Industries Transparency Initiative (EITI) are important steps in the right direction. They need to be amplified and expanded. Global corporations should be encouraged to highlight in their annual reports a report on the *human security* impact of their presence in developing countries. Global corporations should set up a working group to define the kind of information that such reports should include.

Addressing Nuclear Weapons

From MAD to Global Zero: How Feasible?

What could persuade nuclear states to disarm? The answer seems simple: states must feel secure either because the perception of threat has receded, or because they have other means to defend themselves. Unfortunately, it is not so simple. For Russia, nuclear weapons are the sign of its global power status, which remains the pillar of the Russian system. In some cases, nuclear weapons serve as the counterweight for other states' powerful conventional force preponderance. The attitude towards nuclear disarmament depends on how and when other means to address security concerns are developed. Giving up the nuclear shield is not easy. Nuclear disarmament inevitably entails a stricter verification regime that limits sovereignty in a sensitive area. However, there are no insurmountable obstacles to start the process: the first conceptual step could be to start the process of doing away with mutual nuclear deterrence between the US and Russia.

De-emphasizing Nuclear Weapons

Nuclear arms control is a key challenge. A critical test will be a US-Russian Strategic Arms Reduction Treaty follow-on accord. If it is combined with cooperation in the area of missile defence, the relationship of the two leading nuclear powers could be transformed. It could lead to a discussion of tactical nuclear weapons – a thorny issue for Russia. European proposals could also be discussed including moving all Russian tactical nuclear weapons to central storage, where they would be subject to international monitoring, in return for the withdrawal of American nuclear weapons from Europe. This would start a multinational nuclear reduction process, which should then include Britain, France and China. Good-faith dialogue, a discussion of the fears and suspicions, could help build mutual trust and lessen the threat perceptions of nuclear states. Differences in values and perceptions would remain, but dialogue could at least make disparity in security perceptions and agendas less contentious.

Strengthening the NPT, Managing the Fuel Cycle

It is critical that the NPT Review Conference in May 2010 be successful. Success would mean that key elements of UN Security Council Resolution 1887[2] have been agreed, such as universal adherence to IAEA comprehensive standards, new arrangements to deter withdrawal from the NPT, and adherence to the Additional Protocol as a precondition for continuing access to peaceful nuclear technology, as supported by the proposal submitted by the Global Agenda Council on Terrorism & Weapons of Mass Destruction. Monitoring and verification mechanisms will be important to prevent the NPT regime eroding further. Thus, IAEA needs to be provided with additional resources and a broader mandate.

In the present state of American domestic politics, it will be very hard for the US Senate to ratify any major international treaty, especially the CTBT, but efforts should not be abandoned. Likewise a Fissile Material Cutoff Treaty (FMCT) would be a critical step towards securing and monitoring fissile materials that are used to build nuclear weapons. The United States and Russia have declared their readiness to proceed. Other countries, primarily India and Pakistan, must be convinced to join. The FMCT can make a significant contribution to stopping the growth of the unrecognized nuclear powers' non-strategic nuclear arsenals and to deterring non-nuclear countries' attempts to gain nuclear status. In fact, the CTBT and FMCT could give a boost to vertical and horizontal multilateral nuclear disarmament.

A comprehensive international approach to nuclear energy and fuel cycle management should be developed, to block the spread of sensitive technologies and materials. Incentives for the internationalization of the fuel cycle under the aegis of the IAEA should be discussed, and seen as essential to the extension of the 1997 Additional protocol. The US and Russia are expected to bolster commitment to ensure that civil nuclear materials and facilities receive the highest protection. In this context, the revival of the US-Russian civil nuclear cooperation agreement (123 Agreement) is extremely urgent and important. The Russian proposal to build an international long-term waste storage and disposal facility should also be supported. Efforts should be made to operationalize the obligations of the Convention on the Physical Protection of Nuclear Materials and of UN Security Council Resolution 1540, as supported by the Council on Terrorism & Weapons of Mass Destruction in their proposal.

[2] See S/RES/1887 (2009) "Maintenance of international peace and security: Nuclear non-proliferation and nuclear disarmament", http://www.un.org/Docs/sc/unsc_resolutions09.htm

Managing Other Lethal Threats

The near future can bring new dangers. The militarization of space through the deployment of weapons to destroy satellites and intercept ballistic missiles creates potential for a new space-based arms race. It is urgent to start drafting international agreements to prevent the weaponization of space. The first step could be the approval of the Model Code of Conduct for Responsible Space-Faring Nations. Subsequently, legally binding agreements guaranteeing the exclusively peaceful use of space would be required. While global attention is focused on nuclear weapons, a vigorous public debate on the elimination of chemical and biological weapons is needed. International assistance should be offered to Russia for chemical weapon destruction. The global community must actively engage to prepare the Biological and Toxin Weapons Convention (BTWC) in 2011. The absence of any verification in the BTWC must be corrected. A task force including scientists as well as representatives of the biotechnology industry could develop proposals and build consensus for the creation of an agency that would be the biotechnologies' equivalent of the IAEA. At the same time, more people are now killed by small arms than by any other category of weapons, and small arms remain a major threat for many African countries. The Wassenaar Arrangement, established in 1994 by 39 countries, is useful but must go further. A meeting of major arms suppliers (the US, Russia, UK, France, Germany, Italy and China) should be convened to tighten the control of arms deliveries and to curb arms deliveries to conflict areas.

Conclusion

Between Dawn and Dusk

Can we now achieve the global redesign of international security that was unachievable when the Cold War ended? In the immediate aftermath of the economic crisis, several scenarios were mentioned, and some already look unlikely. The prospect of a G2-led world assumes complementarities between China and the United States that are so far not evidenced. On the contrary, a focus on the two biggest powers seems to reinforce a tendency towards a zero-sum game, which is destructive. On the other hand, the absence of a "Chinamerica" does not necessarily lead to an unfettered world ruled by raw balance-of-power calculations: both countries share an interest in predictable outcomes, and so does the rest of the world. But perceptions and interests are too far apart to allow for the quick emergence of a new consensus and institutional framework. In the field of security, a comprehensive redesign is as unlikely as a straightforward return to the power politics of a previous era.

This essay argues for intermediate solutions that recognize the underlying tensions between sovereignty and human security, between status quo and change, but that attempt to manage these tensions through a series of coherent and practical initiatives that can gradually help build more common ground on issues of shared concern. Tomorrow's world is unlikely to have a tidy structure. No single country or coalition of countries will be in a position to shape it decisively. Nor is it going to be structured by a defining conflict. But like a patchwork quilt, it can become more resilient if we take advantage of the development of networks to turn interdependence into an opportunity rather than a threat.

WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

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Global Agenda Council on Human Rights & Protection[1]

Implementing the Responsibility to Protect: Next Steps

Context

The Global Agenda Council on Human Rights & Protection chose to focus on just one of the many human rights and human security issues within its potential mandate, but one where failures of international will and cooperation have produced catastrophic consequences in the past, and may well again in the future, if recently agreed new principles are not effectively implemented in practice. The issue is the responsibility of states, and if they fail the wider international community, to protect peoples against mass atrocity crimes – genocide, ethnic cleansing, crimes against humanity and war crimes: how to ensure, in short, that the world never again endures a Holocaust, Cambodia, Rwanda, Bosnia, Darfur, or Sri Lanka.

Until very recently, there was no agreed normative foundation for dealing with these cases, with a fundamental division evident between states supporting robust military "humanitarian intervention" in these cases, and those giving overriding weight to state sovereignty and the centuries-old practice of non-intervention. But the UN General Assembly in 2005 unanimously embraced the new norm of "the responsibility to protect." In the period between 2005 and 2009 the responsibility to protect ('R2P' or 'RtoP') has been endorsed in three Security Council resolutions, including resolution 1894 passed in November 2009, which reaffirmed the relevant provisions of the 2005 World Summit Outcome Document dealing with the responsibility to protect populations from R2P crimes. Equally significant was the overwhelming reaffirmation of R2P in a three day debate conducted in the General Assembly in July 2009, and in the consensus resolution (with 67 member states cosponsors) passed by the 63rd General Assembly on 14 September 2009.

R2P, as conceived and reaffirmed through these resolutions, rests on three pillars:

- **Pillar 1** - the enduring responsibility of the sovereign state to protect its own people from the defined mass atrocity crimes;
- **Pillar 2** - the responsibility of the international community to assist states to fulfil their national obligations; and,
- **Pillar 3** - the responsibility of the wider international community to step in, when a state fails, through incapacity or ill-will, in ways that are consistent with the UN Charter. International responses should be timely and flexible, and most include, in the most extreme cases, and with Security Council approval, coercive military force.[2]

While the debate and the resolution adopted by the General Assembly indicate that the norm is no longer facing the high levels of principled objection that had long been feared, the question about R2P has now shifted. The critical task now is to consistently put these agreed principles into operational practice. Indeed, the consolidation of R2P will depend on the capacity of member states to live up to their previously pledged commitments; commitments that include their readiness to undertake collective efforts to prevent and halt mass atrocities. That will mean addressing at least six particular problems which, to a greater or lesser extent, remain apparent:

- **ensuring commitment to long-term prevention strategies:** recognizing that underlying institutional weaknesses, inequalities and unredressed grievances can create situations of R2P concern, finding ways to encourage and assist states to address these concerns;
- **agreeing on cases where the norm is applicable:** ensuring that there is a general consensus as to what specific situations justify a responsibility to protect label and response (as distinct from conflict or human rights concern more generally);
- **initiating action:** having sufficient early warning, authoritative fact-finding and decision-making capability within the international system, to ensure that situations that deserve international attention get it;
- **ensuring civilian capability:** building sufficient diplomatic and civilian capability in the international system to meet needs as they arise for both assistance (Pillar 2) and intervention (Pillar 3);
- **ensuring military capability:** building sufficient military capability in the international system to meet needs as they arise for both assistance (Pillar 2) and intervention (Pillar 3), and that there is agreement about the proper criteria for the use of coercive military force;

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] The new architecture of the pillar structure was endorsed by the Secretary-General in his report, *Implementing the Responsibility to Protect,* A/63/677, 12 January 2009. See also Edward C Luck "The United Nations and the Responsibility to Protect", *Policy Analysis Brief*, The Stanley Foundation, August 2008.

- **mobilizing political will:** ensuring that the political will necessary for effective action by all relevant decision-makers is mobilized and sustained.

Proposals and Explanation/Rationale

(1) Ensuring Commitment to Long-Term Prevention Strategies
The frontline responsibility for preventing the occurrence of mass atrocity crimes within their territory rests with sovereign states themselves. R2P not only aims at constraining the behaviour of states and reacting when they fail, but at assisting them in their efforts to ensure that such situations never arise: as aptly put by the Secretary General the respect for human rights is the "first line of defence" of responsible sovereignty. Underlying institutional weaknesses, inequalities and unredressed grievances can, over time, create situations of R2P concern. Pillar 1 preventive measures mean addressing these concerns, and envisage among other things the strengthening of domestic human rights instruments and institutions, and the effective implementation of security sector reforms.

But others in the international community have a role too: encouraging states to meet their Pillar 1 responsibilities; helping states both to exercise this responsibility and to build their domestic protection capabilities; and equally important, coming to the assistance of troubled states well before crises break out. The international community can be actively engaged in preventive work by bolstering regional and international human rights monitoring capacities, deploying preventive diplomacy initiatives and R2P-sensitive aid and assistance programmes, and helping establish national and regional early warning and early response systems in troubled areas.

Historical experience indicates that situations of R2P concern often take quite some time to crystallize as such, and the committing of mass atrocity crimes – requiring preparation, planning, and the mobilization of substantial human and material resources -- often involves a long lead time. In the early stages, long term prevention strategies designed to address underlying causal factors – institutional weaknesses, perceived inequalities and the like -- and to establish better early warning mechanisms, need not be specifically labelled R2P strategies. They are best seen as equally relevant not just to the extreme mass atrocity cases, but to the prevention of violent conflict and of human rights violations generally.

(2) Agreeing on Cases Where the Norm Is Applicable
Identifying and agreeing on cases where the norm is applicable has an important role to play in moving R2P from rhetoric to deed. Clearly defined cases can inform actors' understanding of R2P, educate them on their respective responsibilities, and prompt them to action by emphasizing what R2P means in practice. Moreover, the integrity of the norm and of the R2P consensus clearly depends on the capacity to accurately isolate R2P emergency situations. This involves countering misconceptions about R2P, contesting its wrongful application (as has been done in cases ranging from the cyclone Nargis in Burma/Myanmar, to the Russian assault on South Ossetia in August 2008), and clarifying the type of measures required to protect and halt mass atrocity crimes in given situations. Equally important is the identification and further development of good and best practices. Indeed, member states must now turn towards developing relevant state practice to respond to potential mass atrocity situations.

The power of the responsibility to protect norm to energize effective action in practice depends on it being confined to situations where mass atrocity crimes – genocide, ethnic cleansing, and large scale war crimes and crimes against humanity – are occurring or feared. It is not meant to address the multitude of individual human rights violations, violent conflict, natural disasters, climate change, or other human security threats facing populations. Rather, it applies to a narrow subset of crimes that the international community has recognized as particularly egregious.

To help focus and maintain attention and encourage action a watchlist of situations of R2P concern should be developed and regularly published (desirably by a UN body, or until then by a respected NGO like the Global Centre for the Responsibility to Protect). These are defined for this purpose as country situations where mass atrocity crimes are (a) occurring, (b) are feared imminent, or (c) are feared likely to occur in the readily foreseeable future if preventive strategies are not adopted. This watchlist can be used to generate policy recommendations and mobilize advocacy and action to save lives.

The capacity to understand the onset of R2P crises and to accurately define R2P situations is a fundamental part of the warning-response equation. Although early warning systems have been developed to sound the alert for the risk of civil war, state failure and inter-state conflict, mass atrocity warning has a logic of its own. Early warning for mass atrocity crimes lies at the heart of efforts to prevent and halt genocide, ethnic cleansing, war crimes and crimes against humanity. That is, it aims at preventing or reversing the risk of atrocity crimes, while conflict prevention is aimed at reducing or containing the risk of violent conflict more generally. Remedial strategies vary accordingly. In conflict prevention these include addressing the structural roots of local and regional tensions, and tackling the triggers and accelerators of violence. R2P remedial strategies – although they cover much of the same ground -- would focus on spotting and effectively managing ethnic tensions, detecting and reining in mass atrocity crime incitement and crime perpetration, sharpening the tools for curbing or ending impunity for R2P crimes and serious human rights violations, as well as in extreme cases, the use of coercive force. Medium and longer term R2P tools also include strategies to bolster human rights obligations, the development of impartial and disciplined security and justice sectors, and sensitive and R2P tailored aid and assistance programs, among others.

More knowledge building about R2P within the international community is needed. Past examples of successful R2P measures and action need to be publicized. For example, the way in which the preventive military deployment in Macedonia 1992-1999, the consensual mediation efforts in Kenya in 2007-2008, and the signalling of forceful warnings in Cote d'Ivoire in 2004 helped remove the risk of atrocity crimes stemming from ethnic tensions and violence, should be more widely advertised. This will help nurture the readiness of policy makers to act in future cases through stressing that saving lives is possible, and that the cost of fulfilling the responsibility to protect need not be, as many fear, onerous.

(3) Initiating Action
There is a need for effective mechanisms to provide early warning, conduct any necessary fact-finding, and stimulate decision-makers to take action. These should be further developed within the international system at four levels.

(a) Within the United Nations
The potential of the UN as a multilateral platform for prevention and action has been widely recognized. In terms of reach, legitimacy and potential capacity to mobilize action the UN is ideally positioned. Yet, the painful record of failure, of both individual states and international institutions, in responding to mass atrocity crimes has fostered an urgent demand for timely responses within and beyond the UN. The 2005 World Summit Outcome Document endorsed a unanimous commitment for timely and decisive collective action, in ways that are consistent with the UN Charter. Notwithstanding this, efforts to integrate a comprehensive system of early warning for conflict prevention and mass atrocity crimes within the UN system have consistently failed to materialize. This need was first identified in 1992 by Boutros Boutros-Ghali's *An Agenda for Peace*. A decade and a half later, in his *Progress Report on the Prevention of Armed Conflict*, Kofi Annan regretted the organization's lack of a comprehensive early warning capacity on conflict prevention.

Over the past decades, various departments and agencies have developed incipient early warning mechanisms. These include the Bureau of Crisis Prevention and Recovery within the UN Development Program (UNDP), resourced with the information collected by the Peace and Development Advisors deployed in various countries; the Early Warning and Contingency Section and its HEWS web system at the Office of the Coordination for Humanitarian Action (OCHA), which provides policy-makers with timely reporting on conflict trends, with a particular focus on socio-political events, complex emergencies and slow onset of natural disasters; the special --thematic and country-- procedures assumed by the Human Rights Council, which monitor, advise and publicly report on human rights situations; the briefs and reports produced by the three units of the Situation Centre within the Department of Peacekeeping Operations, as well as the analysis generated by the Department of Political Affairs.

So while early warning initiatives and mechanisms have been developed at various points and levels within the UN system, they remain fragmented and with little or no capacity to influence the decision-making process. As a result, systematic early warning continues to fail, both at the point of processing and assessing the information, and at the point of synapses that is, within the UN's decision-making processes.

Moreover, a specific framework for early warning and early response devoted to situations that can result in mass atrocity crimes is still lacking. Although a key early warning and early action mechanism to address these types of situations was established in 2004,[3] with the creation of the Office of the Special Adviser on the Prevention of Genocide (OSAPG), its mandate is expressed in terms of "genocide" rather than mass atrocity crimes more generally. Even though successive Special Advisers have argued that preventing genocide necessarily implies and requires attention, as well, to ethnic cleansing, crimes against humanity and war crimes, many of which are precursors to or involved in genocide as strictly legally defined, the mandate language has continued in practice to play a somewhat inhibiting role. Discussions are under way to transform the OSAPG into a joint office on Genocide Prevention and Responsibility to Protect, and to incorporate the work of the Special Representative on R2P into the Prevention of Genocide's mandate.[4] The projected reform also includes the setting up of an interdepartmental, inter-agency high-level group that is expected to convene and to assess a set of policy options to respond to R2P emergencies. The creation of such a joint office will ideally allow for monitoring and early warning of situations where the four atrocity crimes are imminent or occurring.

Yet, the effectiveness of the office to bridge the early warning-response gap will largely depend on its capacity to develop close, trusting and beneficial relationships with the various departments, agencies and existing decision-making structures in the Secretariat. While competing and different interests within the UN can lead various departments and agencies in different directions, the joint office can help ensure system-wide coherence by acting as the main convener on R2P matters. This would help bring together all relevant departments and agencies, including UNHCHR, UNHCR, UNDP, UNICEF, OCHA, DPKO and DPA, as well as decision-making bodies such as the Executive Committee on Peace and Security, but most importantly, the Interdepartmental Framework for Coordination on Early Warning and Preventive Action (Framework Team), and the Secretary General's Policy Committee. Without an enhanced capacity to establish a credible information-sharing system and to secure the consideration of its policy prescriptions the joint office is unlikely to succeed.

The early warnings of the office must be primarily directed towards, and received by the Executive Office of the Secretary General (EOSG) - a dedicated inter-departmental, inter-agency mechanism. While the functions of the joint office would need to exercise some prudence in the handling of sensitive information, some measure of public exposure will be needed in order to avoid evasive manoeuvres and failure to pick up important signals. Its early warnings should thus be shared with the Security Council and member states at large. This requires that each of these entities be open to, and solicit information from the office as the main UN mechanism empowered to specifically assess situations from an R2P perspective. The office must be given the staffing and budgetary resources necessary to make it effective and dynamic, in particular in energizing the Security Council to act in appropriate cases. In addition to the office, the United Nations should undertake a review of existing early warning mechanisms with an eye to strengthening key procedures, making redundant ineffective ones, and developing linkages with the office.

The Secretary-General has a key role to play in bringing to the attention of states, and notably Security Council members, situations where crimes are occurring or are imminent. This may involve resorting under his own authority to Chapter VI measures in situations of concern, such as discouraging incitement or encouraging regional action under chapter VII, or making use of the Secretary-General's Article 99 powers to bring "any matter which in his opinion may threaten the maintenance of international peace and security," to the attention of a reluctant Security Council. By putting such situations on its formal agenda, the Council, would in turn, send a clear message to states that it is ready and willing to define a threat of atrocities within a state as a threat to international peace and security. Members of the Security Council need to be prepared to take robust measures to protect populations. This may include the permanent five members (P5) agreeing to withhold their veto in responsibility to protect situations, a call that was strongly echoed in the July 2009 GA debate. All of these adjustments in the working methods and procedures of the Security Council will facilitate a greater ease in initiating action and enhance the likelihood that the responsibility to protect is upheld.

[3]In that year, in an effort to meet the Security Council's request for information and analyses on cases of "serious violations of international law" and on "potential conflict situations" arising from "ethnic, religious and territorial disputes" and other related issues, Secretary-General Kofi Annan appointed a Special Adviser on the Prevention of Genocide. The first Special Adviser was Juan Mendez. In 2007 Secretary-General Ban Ki-moon appointed Francis Deng as his Special Adviser on a full-time basis and at the level of Under-Secretary-General.

[4]Early in 2008 Secretary General Ban Ki-moon announced the appointment of Edward C. Luck as Special Adviser (SASG) with a special focus on the responsibility to protect. The primary role envisaged for the SASG was conceptual development and consensus building, in order to assist the General Assembly to continue consideration of this important issue.

(b) Within Regional Organizations
Regional and sub-regional organizations have an instrumental role in the successful implementation of the responsibility to protect. On grounds of both legitimacy and geography regional and sub-regional governance arrangements are ideally positioned to act on the type of decisions that are needed to prevent future tragedies. The key regional organizations in this respect are the European Union, the Organization for Security and Cooperation in Europe, the African Union, the Organization of American States, the Association of South East Asian Nations, and sub-regional organizations including the Economic Community of West African States, the Southern African Development Community, the Central American Integration System, and the Union of South American Nations. Their proximity to situations where mass atrocity crimes may be occurring or imminent allows them to provide credible and timely early warnings to the United Nations and other actors, and to undertake action to prevent and halt mass atrocity crimes.

In view of this, regional and sub-regional R2P capacities should be strengthened and the constitutional provisions of their respective charters appropriately amended. Early warning and early action capacities need to be strengthened where they exist, and developed where they are absent. Only then will regional institutions be empowered to respond to R2P emergencies where they arise. A case in point is the non-indifference to mass atrocities provision found in Article 4(h) of the African Union's Constitutive Act of 2000 ("The right of the Union to intervene in a Member State pursuant to a decision of the Assembly in respect of grave circumstances, namely war crimes, genocide and crimes against humanity"), and the creation of a Continental Early Warning System linked to sub-regional early warning units in the African Regional Economic Communities, including ECOWAS and ECOWARN.

(c) Within National Governments
Within national governments, institutional focal points should (as discussed further below under 'Mobilizing Political Will') be established for the collection and dissemination of relevant information, and the development and implementation of prevention and reaction strategies as required.

(d) Informally
As has been the case with other human rights norms, setting R2P into motion will also depend on the articulation and mobilization of an effective advocacy network, involving complex transnational civil society and trans-governmental sets of connections, actively engaged in regular exchanges of services and information.[5] Non-governmental organizations like the Global Centre for the Responsibility to Protect, the International Coalition for the Responsibility to Protect and the International Crisis Group have played crucial alarm-bell ringing and energizing roles, and they and similar organizations operating at the regional and national levels should be further supported. Panels of experts, groups of eminent persons, experienced and respected statesmen and –women (including Advisory Boards of these and other organizations, and The Elders group) can be a critical norm-reinforcing voice.

(4) Ensuring Civilian Capability
There is a critical need to build, and have available for rapid deployment as prevention or reaction circumstances require (both by way of Pillar 2 assistance and in the context of Pillar 3 intervention), effective civilian capability in the areas of diplomatic mediation, policing, other civilian support and fact-finding and monitoring missions.

(a) Preventive Diplomacy and Mediation
Diplomatic and mediation capacities within the UN include a) the Secretary General's "good offices" deployed in support of UN-led mediation; b) the Secretary General's special representatives and personal envoys, including the Special Advisor for the Prevention of Genocide and c) the Mediation Support Unit established in 2006 within the Department of Political Affairs, driven by expert knowledge and supported by voluntary contributions. This unit has been enhanced with the setting up in 2008 of a Mediation Standby Team made up of experts who can be swiftly deployed at the request of other UN departments and agencies. The thematic expertise covers a spectrum ranging from security sector reform, to constitutional arrangements and power sharing schemes. Efforts to bolster R2P mediating capacities at both the UN and regional and

[5] Margaret E Keck and Kathryn Sikkink, *Activists Beyond Borders: Advocacy Networks in International Politics*, Cornell University Press, p.2; and Kathryn Sikkink, "From State Responsibility to Individual Criminal Accountability: A New Regulatory Model for Core Human Rights Violations," in Walter Matli and Ngaire Woods eds., *The Politics of Global Regulation*, Princeton University Press, 2009.

sub-regional levels should be widely supported. Such efforts should include the development of directories and rosters of R2P experts, as well as the appointment of panels of eminent persons with the moral standing to address R2P emergencies. The panel of five prominent figures brought together in 2002 as the Panel of the Wise is a model that could be replicated in other regions of the world to tackle R2P crises.

(b) Policing

Responding to R2P emergencies may require the deployment of coercive forces with the expertise to tackle environments characterized by lawlessness and the entrenchment of parallel networks of authority. In contexts like these, the coordination of policing rather than military capacities may be the appropriate response.[6] While it is true that the effective deployment of civilian police capabilities requires minimum conditions of stability and security, it would be equally wrong to expect the military to perform a policing role for which it lacks specific training. Furthermore, many situations may require the military and the police to work hand in hand, but within the framework of separate mandates. Only in this way could an international police force hope to be perceived by the receiving population as a trustworthy presence. Doing so is pivotal because many of the societies where atrocities have been perpetrated have also a record of brutal abuses committed by security forces in which the distinction between the military and the police simply does not hold.[7]

In paragraph 92 of the Outcome Document member states endorsed the creation of a standing police capacity in order to bolster the police component of the UN peacekeeping missions. The development of an international police capability should not only overcome the coordinating and bureaucratic obstacles long faced by efforts to build international military capacities, but should also take into account the challenges mentioned above. While it is true that member states may face fewer domestic political constraints in contributing civilian police capabilities to international peace operations, it is also the case that the weight of training programmes tailored to different domestic contexts can create practical difficulties. In consequence, the prevention and/or halting of mass atrocities crimes may require the development of a cohesive police capability.[8]

In light of the challenges just described, serious consideration should be given to establishing a standing, rapid response-capable Global Police Force. An initiative to develop international police capacities may prove less sensitive than the often argued-for standing military force, and it might be just as useful. The European Union has already moved in this direction by developing an incipient force, the European Gendarmerie Force (EGF), which became operational in 2006. Its objective is to serve as a crisis management force and intervene in civil security situations. It is designed to be deployed in conjunction with, or pegged to, military operations although it can also be deployed on its own in targeted situations. The EGF is designed to be deployed rapidly and can dispatch a force of 800 within 30 days. The proposal for a UN standing, rapid response Global Police Force could follow this example, as could other regional institutions. For instance, in Kenya –a case that has been considered an early R2P test– the deployment of police forces trained in riot control could have been decisive in halting the deterioration of a volatile situation. In other instances, the proposed Global Police Force could take pressure of over-stretched soldiers performing tasks for which they are often ill-adapted. Last but not least, the presence of international police capabilities could provide much needed mentoring for national efforts aimed at police building and reform. For this to happen, the forceful leadership of the Secretary-General, backed by a wide constituency of member states would be required.

(c) Other Civilian Support

In the areas of emergency needs assessment, rule of law support, and civil administration generally – with resources organized (in practice, not just on paper) on a coordinated standby basis by the UN, regional organizations and national governments, and in the context of 'preventive civilian deployment' as well as post-crisis peacekeeping and peace-building.

[6] Graham Day and Christopher Freeman, "Operationalizing the Responsibility to Protect: The Policekeeping Approach," in *Global Governance* 11, 2005, pp. 139-146.

[7] Eirin Mobekk, *Identifying Lessons in United Nations International Policing Missions*, Geneva Centre for the Democratic Control of Armed Forces, Policy Paper No. 9, 2005.

[8] Report of the Panel on United Nations Peace Operations, UN doc. A/55/305 S/2000/809.

(d) Fact-finding and Monitoring Missions
Experience has demonstrated the crucial relevance of human rights monitors and fact-finding missions in situations where R2P crimes might be involved. International organizations have discovered the usefulness of fact-finding missions in the context of atrocities and in the middle of armed conflicts. In Nepal, the UN established a human rights field operation in May 2005 that monitored violations of human rights and humanitarian law, investigated emblematic cases and duly reported its findings. The field operation in Nepal contributed to a dramatic reduction in violations, with summary executions and disappearances nearly eliminated and the release of most political and civil society activists from detention.

Experiences like that in Nepal make clear the need for an effective and readily available standby fact-finding capability at the orders of the Secretary General. The paucity of standby fact-finding capacity has sometimes led to inordinate delays which risk missing the opportunity to stimulate action to reduce tension and prevent conflict. It will be key to develop not only rosters of individuals but also an efficient administration that can put together multidimensional teams at short notice. Such a fact-finding team would need to include, depending on the context, individuals with experience and training in forensic investigation, investigative and analytical skills, deep knowledge of international and national law, and the preparation of evidence that might be later used for international or national prosecutions.[9]

As important as the technical capacity of effective fact-finding missions is the political weight that can be brought to bear on national authorities. As the experience of Nepal makes clear, the political capacity of the Secretary General to overcome the resistance of host governments is critical. One possible avenue to make cooperation with field missions more likely would be a generic request by the UN Security Council to the UN Secretary General to swiftly deploy civilian fact-finding and monitoring missions in situations in which the S-G, including on advice from the Special Adviser on the Prevention of Genocide, believes R2P crimes may be involved.

Similar considerations apply with regard to monitoring missions. It may be worth recalling here that such monitoring missions must be prepared to observe not only the behaviour of the parties to an armed conflict, or the excesses of the actors in the context of mass atrocity crimes, but also the behaviour of any protective forces and personnel sent to fulfil the responsibility to protect.

(5) Ensuring Military Capability
The use of coercive military force may be required in extreme responsibility to protect situations, either by way of Pillar 2 assistance on request (through preventive deployment, or to suppress occurring violence), or Pillar 3 intervention in conformity with the UN Charter. The history of the UN is replete with instances of frustrated efforts to assemble the military force required to fulfil the deployments mandated by the organization. According to the Charter, member states were expected to "make available to the Security Council" armed forces with the purpose of maintaining international peace and security, and elaborate arrangements were created for a 'Military Staff Committee' to supervise these deployments But no standing capability of any kind has ever been created, and ad hoc arrangements continue to prevail.[10]

Peacekeeping operations, most of which are under direct UN command, continue to grow in number and complexity, and for the most part are now formally empowered under Chapter VII to use force as required for civilian protection, particularly in response to 'spoilers'. But full scale peace enforcement operations, requiring traditional war-fighting capability, are now universally seen as the province not of UN 'blue helmets' as such, but specially created 'coalitions of the willing' operating under national command but with UN Security Council endorsement. In the context of extreme responsibility to protect situations – of which Rwanda remains the starkest example – the most obvious need is for a capacity to mount at very short notice 'coercive protection missions' – essentially a 'fire brigade' response capability involving something more than familiar peacekeeping missions, but less than a first-Gulf War kind of peace enforcement/war-fighting operation.

[9] The Office of the High Commissioner for Human Rights has already developed a rapid response team that has the ability to engage quickly in pressing situations, and would be a useful starting point for the development of this capacity.
[10] A detailed and critical overview of the various initiatives and proposals that have been considered to provide the UN with a standing military capability can be found in Adam Roberts, "Proposals for a UN Standing Force: A Critical History" in Vaughan Lowe, Adam Roberts, Jennifer Welsh and Domink Zaum eds., *The United Nations Security Council and War*, Oxford, Oxford University Press, 2008, pp. 99-129.

In order to fill this military deficit, the most immediately practical and widely favoured option is the development of the necessary military capabilities at the regional or sub-regional levels. It is often argued that the risk of conflict spillover creates incentives for regional actors to react. Moreover, in various instances, regional organizations have shown their readiness to move in this direction and have considered the development of military capability to be available on a standby basis. Two cases in point are the European Union (EU) and the African Union (AU). The example set by the African Standing Force, consisting of 5 sub-regional brigades of 3,000-4,000 troops, and expected to be operational by 2010, should be emulated in other regions of the world.

The productive efforts undertaken by some regional organizations, however, should not blind us to a reality in which the actual capacity to deploy troops to the area of operation remains an overwhelming challenge. Although regional organizations can offer a useful alternative, in many instances the fact of the matter is that they are under-funded, under-resourced and under-manned. Moreover, addressing mass atrocity situations depends on the capacity to swiftly respond, and this is precisely where regional organizations tend to struggle. Therefore, the objective of developing and sustaining a rapid reaction capability at the global, UN level, should not be abandoned: it tackles the area in which regional and sub-regional organizations are simply not as efficient as we would like them to be. However, this is in no way to suggest that regional and sub-regional institutions should give up their efforts to strengthen their current capabilities or to develop them in those regions in which they are still lacking. In fact, there must be an effort to bolster their deployment capacity. In the end, for the prevention and halting of mass atrocities, there simply cannot be too many hands on deck.

The crystallization of this UN rapid reaction capability should ideally take the form of a standing rapid reaction force under UN command and composed of volunteers and/or troops contributed by member states. At least 5,000 troops would need to be available, ready to be deployed within 14 to 30 days at most, and hopefully rather less in extreme situations, to protect populations from mass atrocity crimes.

The degree of difficulty in establishing such a capability should not be underestimated, as evidenced by the lack of will to maintain even a much less sensitive global standby facility in the Multinational Standby High Readiness Brigade for UN Operations (SHIRBRIG), which ceased operations in June 2009. But the ongoing attention to the revision of peacekeeping taking place at the UN, with a special emphasis on the protection of civilians, may offer a favourable environment for renewed consideration of a rapid reaction force with a mandate to prevent or halt mass atrocity crimes. Necessary next steps would need to be the creation of a group of supporters to start building the necessary consensus among member states to make this initiative a reality, and in particular generating support for a specific proposal being put forth by the Secretary-General of the UN.

(6) Mobilizing Political Will[11]

The political will to take the necessary preventive or reactive action has to be created by effective peer group pressure from like-minded governments and by bottom-up civil society action, with the media also playing a crucial role. Mobilizing and sustaining it requires, as in every other public policy context--international or domestic--, leadership, knowledge, strategy and process. Focal points are needed to generate the necessary research and advocacy support. In this context support should be given for the further development of the Global Centre on the Responsibility to Protect, and associated regional centres worldwide (on the model now being implemented by the Asia Pacific Centre).

(a) Leadership

Committed, high-level individuals can play a decisive role in preventing and halting crises. The sustained commitment of individual leaders could be fostered through the development of a cohesive, cross-regional group of ministers. A group of ministers (perhaps drawn from the group of cross-regional states participating in the 'Friends of R2P' group already established by UN missions in New York) sharing a common vision and committed to an agreed set of goals, could play a fundamental role in calling attention to situations and collaborating on timely responses to out-breaking crises. The group could share information and analysis about what levers can be used to halt potential perpetrators, and what actions must be taken. Such a group could also mobilize - and exert pressure on - peers within the international community to take the necessary action.

[11] See generally Gareth Evans, *The Responsibility to Protect*, Brookings Institution Press, 2008 (paperback edition 2009), Chapter 10.

(b) Institutional Focal Points
Focal points are necessary within governments and relevant intergovernmental organizations for the collection, analysis, and dissemination of information. The object is to have, readily visible within the system in question, a professional unit whose day-job is the thinking through and pre-positioning of response options, the focusing and energizing of decisions when responses are required, and the overseeing of the implementation of decisions once made. The focal point must have direct access to high-level decision makers and be thoroughly integrated into relevant inter-agency mechanisms. This would aid in ensuring that the appropriate actors receive early warning and policy recommendations, and that should they fail to act, they can be held publicly accountable. The focal point cannot be an isolated entity; it must be firmly enmeshed in the very system that it seeks to influence.

The UN, for its part, has recognized the distinct challenge of calling attention to and mobilizing action to respond to R2P situations. In the annex of his January 2009 report, *Implementing the Responsibility to Protect*, the Secretary-General laid out his approach to enhancing the UN Secretariat capabilities on the early warning of genocide, war crimes, ethnic cleansing and crimes against humanity. The SG set out several tasks and aspects to this action plan, asking the relevant departments, agencies and inter-agency networks in the UN to incorporate considerations and perspectives relating to the R2P into their ongoing activities. The SG also called for inter-agency mechanisms to consider policy options and to ensure system-wide coherence in R2P policymaking within the UN.

(c) Informal Focal Points
The Global Centre for the Responsibility to Protect is one non-governmental focal point that generates analysis of how R2P applies to unfolding situations, seeks consensus among advocates on the need to take action, and appeals directly to the international community through high-level advocacy and media outreach. The credibility of this and other sister organizations like the International Coalition for the Responsibility to Protect depends on their capacity to build and consolidate dense regional networks of partners, analysts and civil society advocacy groups, including regional think tanks, and international organizations that monitor crisis situations such as International Crisis Group, Amnesty International and Human Rights Watch, and a broader coalition of like-minded NGOs such as that which is being coordinated through the International Coalition for the Responsibility to Protect.

(d) Making the Case
The ultimate question is how these channels are used to persuade decision makers in national governments, and relevant regional and international organizations that they do, in fact, have a responsibility to take appropriate action, that is within their physical and financial capacity. The case will need to be made by appealing, variously, to moral imperatives, national interest, and financial and political considerations. The risks to national security, the costliness of enduring conflicts with a cycle of atrocities, and the growing domestic constituencies concerned with abuses no matter where they occur are all important factors relevant in persuading leaders to accept their responsibilities. But the most compelling argument – the one that spurred world leaders to accept the R2P norm in principle in 2005, and which will continue to be crucial in ensuring its practical implementation – remains the sense of a larger duty to rise above the legacy of past failures and never again stand by in the face of mass atrocity crimes.

In the powerful words of the representative of Sierra Leone in the General Assembly debate on R2P in 2009:

> *"The gruelling fate… of several thousands more of amputee compatriots and more than half of a generation of the nation's children abducted from schools to become killing machines and sex slaves leave us with no option but to join the campaign of NEVER AGAIN, and to fight impunity whenever mass atrocity crimes are being perpetrated."*

Global Agenda Council on Human Rights & Protection

List of Members

Chair: **Gareth Evans**, Co-Chair, International Commission on Nuclear Non-proliferation and Disarmament, Melbourne

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Carolina G. Hernandez, Founding President, Chair, Board of Directors and Emeritus Professor of Political Science, Institute for Strategic and Development Studies, Philippines; Vice-Chair of the Global Agenda Council on Human Rights & Protection
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Funmi Olonisakin, Director, Conflict, Security and Development Group, King's College London, United Kingdom
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Monica Serrano, Executive Director, Global Centre for the Responsibility to Protect, USA
Thomas G. Weiss, Director, Ralph Bunche Institute for International Studies, USA

Global Agenda Council on International Security Cooperation[1]

Empowering the G20 on Security Issues

Context

At present, much international security cooperation is *ad hoc*, or managed through either regional security frameworks or the United Nations (UN). *Ad hoc* security cooperation is by nature uncertain and inconsistent. It may also not always involve sufficient countries to make agreed action entirely legitimate to international public opinion. Regional security organisations are often dominated by the relevant regional great power and while they can be effective for specific interventions, may not be best placed to handle security issues with a transnational element to them. The UN has unrivalled legitimacy as an international security actor, though that is being challenged by the absence from its permanent membership of important emerging powers. Seized by so many traditional security issues, the UN Security Council (UNSC) has not been able to develop agreed approaches to a number of transnational security questions.

Proposal

To supplement the work of existing institutions and lend greater pace to international security cooperation it is proposed to empower the G20 to deal with some international security issues, especially those having an important economic and transnational nature to them.

Explanation and Rationale

The membership of the G20 includes all those states that have legitimate pretensions to eventual UNSC membership and has representatives from all regions of the world. It has gained legitimacy in addressing broad questions of economic and financial international governance. The fact that some regional organisations, such as the EU and ASEAN participate, as well as international financial institutions such as The World Bank and the IMF, makes it uniquely qualified to comment and act on broader international issues too.

Just as the G7 came to address security issues, especially in the non-proliferation realm, it makes sense to empower the G20 to address emerging security questions. There would be no point in overburdening the fragile skeleton of this relatively young organisation by imposing on it the duty to handle all, or even most, international security problems. The UN and regional organisations remain important, as would *ad hoc* cooperation in some circumstances. However, there are some transnational security issues, and many with a financial element to them, that might be best addressed by the G20. The issues which it would address would be ones for which no other formal framework exists.

As the security implications of economic and financial issues have grown, G20 expertise in financial and development questions should be mobilised to shape effective global responses to specific security challenges. G20 involvement in certain security questions would also help to prepare the ground for indispensable UNSC reform.

Two areas stand out for early action.

First, the problems of fragile states in various regions can only be mitigated by integrating economic and security strategies. Securing development is an acknowledged priority for the international community, well represented by the G20, and is a goal announced by the World Bank, importantly involved in all G20 work. The task of nation-building in post-conflict societies requires the kind of 'comprehensive approach' that the G20 leadership could inspire.

Second, cross-cutting transnational issues having a financial element could also be addressed by co-ordinated G20 action. These might include developing responses to certain security issues for which there is at present no accepted framework, such as cyberspace and illicit trade. The G20 leadership could endorse the development of acceptable norms and best practice to deal with the evolving challenges of cyberspace security while co-ordinating approaches to organised crime and illicit trade that create insecurity.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

In time, other international security questions could be addressed by the G20, which should be encouraged to develop a consensus statement on the key international security issues that affect international stability at the time of major summits.

Next Steps

To ensure that this proposal is adopted all G20 states would need to be supportive of the goal prudently to incorporate security discussions in the G20 agenda. To facilitate this acceptance, national security advisers to all G20 heads of government should be invited to G20 summits. The presence of national security advisers alongside finance, treasury and development ministers at G20 summits would encourage the needed co-ordination across departments that a comprehensive approach to resolving transnational security and economic issues requires. National security advisers invited would identify priority issues that G20 leaders would endorse for coordinated implementation through the relevant international institutions and national governments, involving as needed, key NG0s and the private sector.

A G20 empowered to address international security issues, without displacing the primacy of the UN, would ensure that the necessary financial, economic and developmental considerations were incorporated in security policy, while equally establishing a platform that would allow for the development of relevant principles, codes of conduct and guidelines applicable to new areas of security. Such principles could then be presented to the UNSC for more formal endorsement and help to advance the modernisation and reform of that institution.

The government of the Republic of Korea could start this process by inviting national security advisers of G20 states to the November summit and developing an agenda that would permit the consideration of some international security issues of wide concern and, in any case, those having a transnational and financial component.

G20 consideration of security issues would give greater visibility to important issues and inspire more coherent approaches both within and between key governments on major international economic and security questions.

A Korean G20 summit that inspired better co-ordination between national security advisers and their financial and economic opposite numbers would be major contribution to international institution-building and serve to fill an important gap in global governance.

List of Members

Chair: **John Chipman**, Director-General and Chief Executive, International Institute for Strategic Studies (IISS), United Kingdom

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Global Agenda Council on Negotiation & Conflict Resolution[1]

A Global Curriculum on Conflict Management

Context

Traditional Approaches to Conflict Resolution Are Failing – At Great Cost to Our World
For the first time in human history, our world confronts both global economic and geopolitical crises. At the heart of these new crises are serious conflicts of great magnitude, spanning issues of security, climate change, and world trade. A failure to deal with these conflicts constructively jeopardizes all of humanity. Conflict in the Middle East, for example, hampers global stability, just as conflict elsewhere in the world affects stability in the Middle East. At core, conflict can now kill greater numbers of people across borders, damage key infrastructures, compromise long-term economic development, and impede our ability to find solutions to urgent challenges.

Illustrative costs of conflict on our world include:

- **Millions of lost lives**. As the global economic crisis continues, the level of violent conflict is projected to increase, especially where poor countries face the realities of increased conditions of impoverishment. The indirect costs of conflict – such as malnutrition, disease, and blocked access to services – are often higher than the direct costs.
- **Trillions of lost dollars**. In terms of economic damage, one report indicates that armed conflict costs Africa approximately US$ 18 billion per year and has totalled at least US$ 284 billion since 1990. Another report suggests that conflict in the Middle East has cost the region US$ 12 trillion over the last 20 years. The United Nations peacekeeping budget and manpower have reached historic highs for 2009-2010: US$ 7.75 billion and 95,731 uniformed personnel.
- **Lost business opportunities**. Conflict often comes alongside political, social, and economic instability, leading many investors to look elsewhere for more predictable returns.
- **Hindered development efforts**. The instability of conflict also drastically impedes the effective dissemination and implementation of development aid.
- **Destabilized governments**. Substantial conflict can jeopardize the rule of law and effective governance structures.

Rationality Is Not Enough
Our world urgently needs new tools to deal with the emotional complexities of modern conflict. In both academia and the "real-world," the dominant paradigm for dealing with conflict is rational and linear problem-solving. However, this approach is grossly inadequate in the context of modern conflict. Most current conflicts are not interstate, but intrastate or regional, involving a complex landscape of historical and politicized resentment and humiliation. Long-standing divisions quickly become fodder for social instability, armed clashes, and all-out war. In our globalized world, reversing these cycles of destruction is no longer a choice, but a necessity.

Proposal

We aim to prevent destructive conflict by launching the basis for a new generation of research and education on conflict management. Our unique collaboration will address crucial regional issues and work through some of the major conflicts that put the entire world at risk.

To advance this mission, the Harvard International Negotiation Program, the World Economic Forum's Global Agenda Council on Negotiation & Conflict Resolution, and the Young Global Leaders will:

- **Construct and disseminate the world's first Global Curriculum on Conflict Management**
  This ambitious curriculum will provide a common set of negotiation tools for current and future leaders around the world. The pedagogical method will combine firsthand accounts of regional and global peacemakers with the latest conceptual thinking on conflict management.

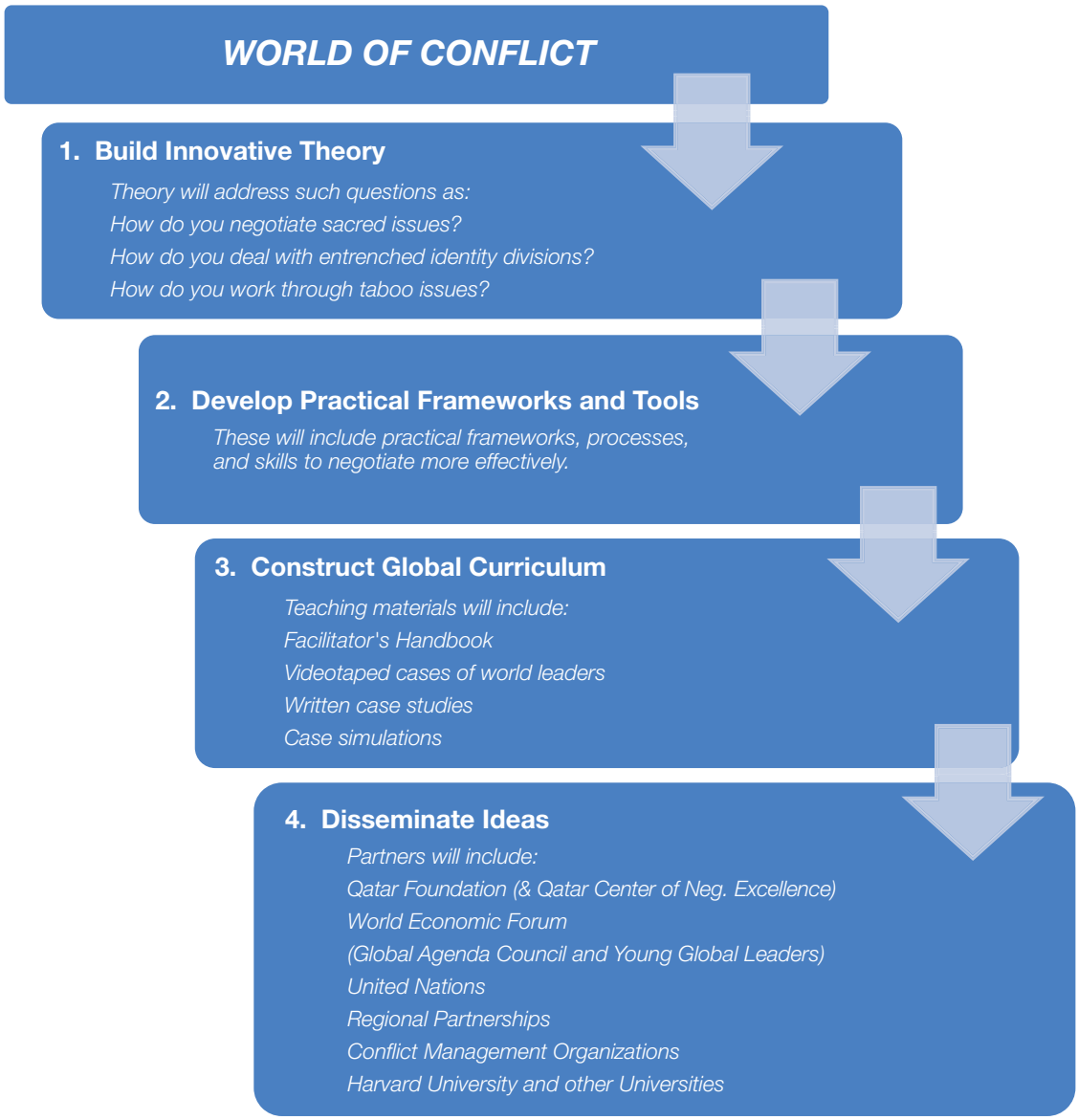
[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

- **Produce a new generation of research to address the emotional roots of conflict**
  To ensure our curriculum addresses core challenges in contemporary conflict management, we will articulate the emotional and identity-based dynamics that perpetuate systems of conflict and peace; develop theory on how to direct emotions and identity toward constructive ends; and test theory through empirical research. This will include both laboratory research on psychological mechanisms of conflict management, including *f*MRI research, as well as field research in conflict zones. We plan to explore such questions as: How can parties negotiate issues deemed sacred and non-divisible? How might one successfully negotiate differences between tribes or transnational groups?

Explanation/Rationale

Goals and Objectives: Overview

We will expand our global impact through a four-pronged programmatic approach to research and education. The chart below highlights our major research and education goals, showing how each phase of our work incorporates the previous one. On the pages that follow, we describe in more detail our research and education objectives.



Global Agenda Council on Negotiation & Conflict Resolution

1. Building Innovative Theory
Our first step is to build a next generation of theoretical frameworks to understand and deal with the emotional and identity-based roots of conflict. We will draw on state-of-the-art research methodologies, including *f*MRI and other tools, to investigate the emotional and identity-based underpinnings of conflict escalation and mitigation. Illustrative research questions include:

How can parties negotiate issues deemed sacred and non-divisible?
How might one successfully negotiate differences between tribes or transnational groups?
How do you negotiate trade agreements when identity-based divisions overshadow cooperation?

2. Developing Practical Frameworks, Tools, and Skills
We will translate abstract theory into practical frameworks, tools, and skills to help negotiators deal with the emotional and identity-based dimensions of conflict. These frameworks will help negotiators to prepare, conduct, and review their negotiations.

3. Constructing a Global Curriculum on Conflict Management
To promote conflict management education around the world, we will work with international partners to build the world's first *Global Curriculum on Conflict Management*. The Curriculum will have two variations: one for current and emerging leaders and a second for youth. It will include innovative ideas on how to negotiate both the substantive and emotional dimensions of negotiation.

The process of building this Curriculum will itself provide a shared mission, fostering a global community committed to the Curriculum's underlying principles. We will develop the Global Curriculum through the following:

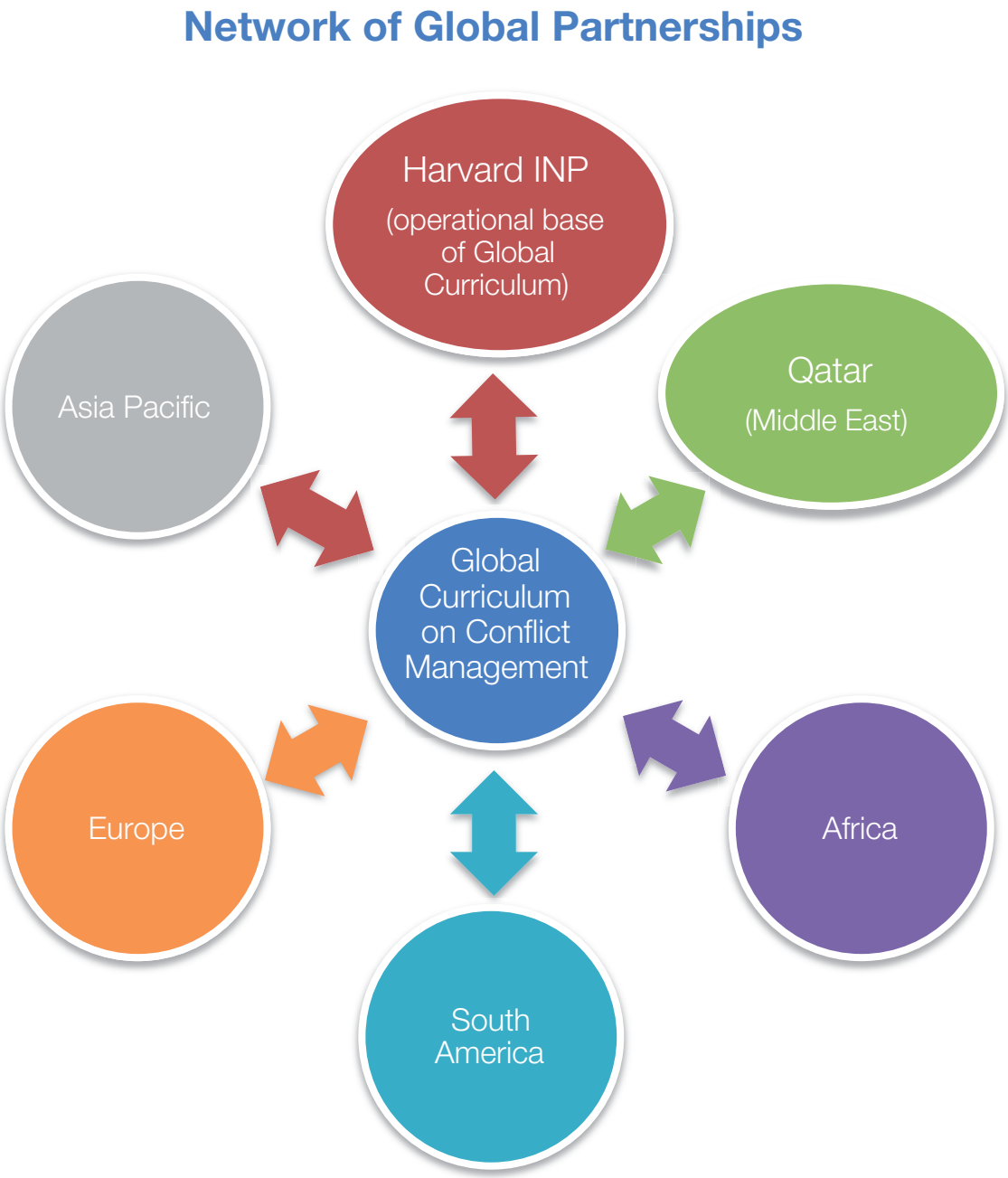
- **A Global Educational Platform**. Drawing upon the direct involvement of leaders in serious negotiations around the world, we will generate new case simulations and capture firsthand narratives. The Curriculum will include *a Facilitator's Handbook* with background materials and a step-by-step approach to implementing activities; *video clips* from global leaders discussing specific conflict dilemmas for analysis; and *case simulations* based upon contemporary conflict dynamics.
- **Innovative Theoretical Frameworks**. We will incorporate cutting-edge knowledge from the Harvard INP and other international centres of negotiation excellence. These frameworks will be useful for effective negotiation in government, business, and societal conflict.
- **Wide-Ranging Partnerships**. Key input and case examples will be drawn from government representatives, business leaders, and security experts, as well as the Forum's broader community, including senior leadership and members of the *Young Global Leaders* **Task Force on the Global Curriculum**. We will involve strategic partners, whose roles will include advising, cultural adaptation, and dissemination.

4. Disseminating Ideas
Harvard INP is forming International Partnerships with premiere institutions to encourage long-term research collaboration and deep investigation into best practices for dealing with conflict management within and between cultures. As our world globalizes, issues of cultural identity become more and more prominent, and international efforts are increasingly needed to clarify best practices for dealing with the emotional and identity-based roots of the inevitable conflicts that will occur.

We will work to jointly build:

- A diverse set of practical ideas that can inform the Global Curriculum and thus better equip the international community to deal with conflicts of a local, regional, and global nature
- A critical global network to spread useful skills to current and future leaders of government, business, and civil society

Network of Global Partnerships



Global Agenda Council on Negotiation & Conflict Resolution

Organizational Structure
This project is operationally based at the Harvard International Negotiation Program (Harvard INP) to ensure the program's sustainability. We have a full business plan identifying the key faculty and staff necessary to launch this project at the global level. Key partners in our effort include the Young Global Leaders (YGL) Task Force on the Global Curriculum

We enthusiastically endorse the Global Curriculum concept and agree to provide input and advice on its objectives, learning outcomes, content, structure, and dissemination approaches; offer case studies from personal experiences in the field of conflict management; and serve as ambassadors to champion the adoption of this curriculum by spreading the word about it on national and international news shows, and in academic circles. We will also encourage business, government, and academic sectors to get involved.

Next Steps

Imagine what our world would look like if key decision-makers from every member state of the United Nations, as well as senior non-state actors, all shared a common framework of collaborative negotiation.

Our aspiration is that, within the next decade, major institutions across the continents implement the Global Curriculum on Conflict Management. We expect to have a web of connections so broad that it would be realistic for the vast majority of global leadership to be equipped with new skills of conflict management – from heads of state to heads of NGOs, religious leaders and guerrilla movements. While violence and intimidation will surely remain, the realization of a common set of conflict resolution methods would create a common language for dealing with difference, and could create substantial momentum toward a more peaceful, stable world.

We have short, middle, and long-term goals. In brief, here is our growth plan over a five-year period:
Immediate Start-Up (within 12 months)
- Create comprehensive plan to further develop and disseminate Global Curriculum
- Initiate Working Group to refine core aspects of Curriculum
- Develop first module of Curriculum for senior decision makers, including video clips of global peacemakers
- Initiate first stage of partnerships, connecting with negotiation faculty and practitioners from diverse locations around the world
- Begin work on case studies with international partners
- Host meeting on Global Curriculum at Harvard with World Economic Forum partners
- Build and refine sustainable business plan
- Engage in development
- Hire core operational team (COE, Development Officer, etc.)

Short-Term (within 24 months)
- Develop new module of Global Curriculum for senior decision makers
- Pilot first module of Global Curriculum
- Develop case studies with international partners
- Build long-term research agenda
- Begin to conduct laboratory and field research on identity and conflict management
- Hold Annual Summit on the Global Curriculum
- Establish mini-grant programme to encourage research to inform the Global Curriculum
- Hire additional core team (fellows, President in Residence, programme assistants, etc.)
- Build relationship with international institutions (e.g., UN)

Middle-Term (within 36 months)
- Continue developing teaching materials (case studies, simulations)
- Engage leaders in the Global Curriculum (through World Economic Forum meetings, Harvard, etc.)
- Begin mini-grant programme to support faculty and student research on core dynamics to accent in the Global Curriculum
- Continue research on emotional and identity-based roots of conflict

- Host academic conference on role of identity in conflict
- Build working relationship with 1-2 International Partners
- Build new institutional and collegial relationships to further integrate conflict management programme into universities, NGOs, international institutions, and industries
- Hire international research fellows
- Continue development efforts for programme and endowed chair

Long-term (within 60 months)
- Continue developing teaching materials & offering seminars on Global Curriculum through the World Economic Forum, Harvard, and other global venues
- Continue research and mini-grant programme
- Build new international research collaborations
- Hold Summit on Global Curriculum on Conflict Management
- Continue faculty and student fellowships/exchanges
- Continue development efforts

The expansive scope of this project provides great opportunity for involvement from:

- Governments and Intergovernmental Organizations – who can provide networks for building and disseminating the Global Curriculum; support its development; provide key input into content needs; and champion these ideas through direct application

- World Economic Forum Member Companies – who can provide networks for disseminating the curriculum among industry leaders; offer input into the Global Curriculum; support its development; and serve as Global Ambassadors for the Curriculum

- Researchers and Educators in Conflict Management – who can provide content input and assist with implementation of the curriculum

- World Economic Forum – who provides core leadership around content, development, and dissemination

Appendices

Executive Summary

Over the past generation, destructive conflict has caused the loss of millions of lives and trillions of dollars. While much has been done to address ongoing violence through peacekeeping and other efforts, much less has been done to prevent violence before it breaks out. This is a major missed opportunity for global development, economic growth, and, ultimately, human survival.

The Harvard International Negotiation Program, the World Economic Forum's Global Agenda Council on Negotiation & Conflict Resolution, and the Young Global Leaders are partnering to spearhead a new generation of research and education to prevent destructive conflict. In both academia and the "real-world," the dominant paradigm for dealing with conflict is rational and linear problem-solving. However, this approach is grossly inadequate in the context of modern conflict, which is primarily identity-based and highly emotionally charged. Therefore, we will conduct research and education on effective processes to address both the rational and emotional aspects of conflict.

To advance efforts to promote effective conflict management, we will:

- Produce a new generation of research to address the emotional roots of conflict
- Construct and disseminate the world's first Global Curriculum on Conflict Management. This ambitious curriculum will provide a common set of negotiation tools for current and future leaders around the world. The pedagogical method will combine firsthand accounts of regional and global peacemakers with the latest conceptual thinking on how to deal with the emotional roots of conflict

Global Agenda Council on Negotiation & Conflict Resolution

List of Members

Chair: **Daniel Shapiro**, Founder and Director, Harvard International Negotiation Program, Harvard Law School, USA

Bertie Ahern, Prime Minister of Ireland (1997-2008)
Louise Arbour, President and Chief Executive Officer, International Crisis Group (ICG), Belgium
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Andrew L. Cohen, Managing Director, JP Morgan Private Bank, JPMorgan Chase, USA
Raghida Dergham, Senior Diplomatic Correspondent and Columnist, Al Hayat, USA
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Steven Killelea, Founder, Global Peace Index, Australia
Geir Lundestad, Director, Norwegian Nobel Institute, Norway
Jehan Perera, Executive Director, National Peace Council of Sri Lanka, Sri Lanka
Jonathan Powell, Senior Managing Director, Investment Banking Division, Morgan Stanley, United Kingdom
Herbert Salber, Director, Conflict Prevention Centre, OSCE, Vienna
Jiro Tamura, Professor of Law, Keio University, Japan
Yan Xuetong, Director, Institute of International Studies, Tsinghua University, People's Republic of China; Vice-Chair of the Global Agenda Council on Negotiation & Conflict Resolution

Global Agenda Council on Terrorism & Weapons of Mass Destruction[1]

New International Architecture: A Global Alliance Against Nuclear Terrorism

Context

US President Obama invited 46 heads of states to attend the Nuclear Security Summit on 12-13 April 2010 in Washington DC. This Summit focused on securing vulnerable nuclear materials and preventing acts of nuclear terrorism. The big idea at the core of this undertaking is easy to state, difficult to accomplish, and necessary for increasing international security.

The international community's best hope of preventing nuclear terrorism is to deny terrorists the ability to procure nuclear materials in order to use them to perpetrate a terrorist attack. If nuclear weapons and materials can be locked down as securely as gold in Fort Knox or treasures in the Kremlin Armory, the international community can ensure that terrorists do not have access to these materials.

In addressing this challenge, the international community has been more successful than is generally recognized. A combination of initiatives including the US-Russian Cooperative Threat Reduction Program, United Nations Security Council Resolution (UNSCR) 1540, and the Global Initiative for Combating Nuclear Terrorism have all contributed to defending against WMD terrorism. But as Mohamed ElBaradei pointed out, "The possibility of terrorists obtaining nuclear or other radioactive material remains a grave threat." [2] By his account, the number of incidents reported to the Agency involving the theft or loss of nuclear or radioactive material remains "disturbingly high".[3]

A terrorist attack using nuclear materials would be the deadliest type of attack and certainly a threat that must be taken seriously by the international community. To that end, we have suggested a series of potential steps and actions that would contribute to engaging more stakeholders, making stakeholders more accountable, and actually securing these materials to a greater degree than they are today.

Proposal

Core principles of our proposal:

- **Demonstrated know-how for securing nuclear weapons and materials to a "gold standard."** As a result of US-Russian cooperation, security upgrades were completed for nearly all of the buildings in the former Soviet Union that contain weapons-usable nuclear material.[4] Experience, technologies, criteria, and best practices learned and practiced by the US and Russia can be the basis for operationalizing UNSCR 1540's obligation that every state take "appropriate, effective actions" to secure weapons-usable material.[5]
- **Advances in nuclear forensics.** Nuclear forensics can help identify the origin of nuclear materials, by classifying and cataloguing unique attributes of the fissile material used in a nuclear explosion, including impurities and "fingerprints" (contaminants and other markers), which assist in identifying the producer of fissile material. While these capabilities now reside primarily in nuclear weapons states, an international depository that could be managed by the International Atomic Energy Agency should be established.
- **Emerging principle of accountability.** There is growing acceptance of a general principle of nuclear accountability according to which all states are accountable for the nuclear weapons and weapons-usable material they produce. A specific policy of nuclear accountability would warn North Korea directly and unambiguously that after a nuclear explosion, if North Korea were identified as the source and seller of the material, it would be held accountable in a manner analogous to its having launched a warhead against the target city. Parties judged negligible for failure to secure nuclear weapons and materials to a gold standard would be judged more culpable.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] IAEA Director-General Dr Mohamed ElBaradei, "Statement to the Sixty-Third Regular Session of the United Nations General Assembly," *International Atomic Energy Agency*, 28 October 2008.

[3] Neil MacFarquhar, "Rate of Nuclear Thefts 'Disturbingly High,' Monitoring Chief Says," *The New York Times*, 27 October 2008.

[4] Matthew Bunn, "Securing the Bomb 2010," *Nuclear Threat Initiative*, April 2010.

[5] United Nations Security Council Resolution 1540, S/RES/1540(2004), 28 April 2004.

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Explanation/Rationale

Realizing these principles in action will require deep and steady international cooperation rooted in the recognition that nations share an overriding common interest in creating a more secure and stable international security environment, which can only be defended with a common strategy. A *Global Alliance Against Nuclear Terrorism* is one way to create international momentum and commitment on this issue.[6]

As the owners of 95% of all nuclear weapons and material, the US and Russia should take the lead in establishing this new organization. The mission of this new Alliance should be to minimize the risk of nuclear terrorism anywhere by taking every action physically, technically, and diplomatically possible to prevent nuclear weapons or materials from falling into the hands of terrorists. The larger aspiration of the Alliance should be the revitalization of the global nuclear order shaped by Five No's: No Loose Nukes; No New Nascent Nukes; No New Nuclear Weapons States; No Role for Nuclear Weapons in International Affairs; as we move towards a fifth, a vision of a world with No Nuclear Weapons. Membership in the Alliance would be open to any state with nuclear weapons or weapons-usable material that was prepared to subscribe to the requirements including securing all its nuclear weapons and material to a gold standard in a manner sufficiently transparent to other members.

Key pillars of the *Global Nuclear Alliance Against Terrorism* would include:
Assured nuclear security: The Alliance would require an unambiguous commitment to the principle of "assured nuclear security." Member states of the Alliance must guarantee that all nuclear weapons and materials in their territories were secured to a gold standard - meaning they are secured beyond the reach of terrorists or thieves. States' practices in securing these materials must be sufficiently transparent, ensuring that leaders of other member states of the Alliance could reassure their own citizens that terrorists would never be able to procure nuclear materials from another Alliance member.

To fulfil the legal requirement of UNSCR 1540, members of the Alliance would commit to operationalizing "appropriate, effective" security standards for securing weapons, materials, and related technologies. This includes the adoption of accounting and transparency measures to ensure such standards are being met.

Doctrine of Nuclear Accountability: If nuclear weapons or materials were to be stolen, member states of the Alliance, which satisfied the requirements for assured nuclear security, met the established gold standard for securing their materials and made their safeguards sufficiently transparent to the other member states, would be judged less culpable. A state that was unwilling to participate fully in the Alliance would put itself on the list of suspect sources for loose and unsecured nuclear materials. Any state found to have knowingly allowed nuclear materials to fall into terrorist hands would face consequences, which could range from financial reparations to military retaliation. Standards for accountability, negligence, culpability, and consequences would be discussed and agreed in advance. Enforcement should be the responsibility of a coalition of the willing.

Counterproliferation: Members of the Alliance would develop joint-action plans to meet the urgent challenge posed by North Korea, Iran, and other potential proliferators. The Alliance would also harmonize member states' campaigns against black-marketeering and illicit exports, not only through enhanced sharing of intelligence, where there have been significant advances since 9/11, but also in aligning domestic legal penalties for infractions, for example, against witting members of the A.Q. Khan nuclear suppliers network. The Alliance could complement current programmes like the Nuclear Suppliers Group and the Proliferation Security Initiative.

Structure/Institutional Reach: The proposed Alliance would go beyond the voluntary declarations of the Global Initiative to Combat Nuclear Terrorism[7] to articulate specific obligations and verifiable actions as the price for specific benefits to being a member state of the Alliance. Specific actions would include levels of security of weapons and weapons-usable materials, transparency to assure others that these levels of security had been achieved, and deposits of samples of materials in a global database for attribution. Benefits of membership would include leaders' participation in the Alliance's annual summit; assistance with technology for securing weapons and materials; intelligence-sharing; an enhanced

[6] This idea was developed in the context of this Global Agenda Council, and its Members have registered their support.
[7] For more information please see the US Department of State website: http://www.state.gov/t/isn/c18406.htm.

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Proliferation Security Initiative to stop the shipment of WMD, delivery systems, and related technologies worldwide; and assistance with post-detonation medical needs and cleanup.

Reinforcing Global Nuclear Order: The Alliance should also become a "guardian" of the global nuclear order with regular assessments of its fragility and by identifying ways to strengthen the regime. In that context, it would take the lead in containing the risks from an emerging "nuclear renaissance" through greatly enhanced safety, security, and transparency requirements; internationalization of the nuclear fuel cycle; and strengthening IAEA authority, information, technology, and personnel.

Additional Benefits: This Alliance could provide a mechanism for dealing with one of the most dangerous potential sources of materials that could be used in a terrorist nuclear device: Pakistan. Pakistan is currently treated as a nuclear pariah that is required to deal in black markets in order to acquire spare parts for its nuclear industry. Membership in the Alliance would bring Pakistan in from the nuclear cold. Were Pakistan to become a member of the Alliance, this could help to reconcile the inherent conflict between legitimizing Pakistan's current status, on the one hand, and providing incentives to secure nuclear weapons and material, on the other. This trade-off seems appropriate.

Risk-based insurance premiums for corporations that reflect nations' success in providing "assured nuclear security" could engage more leaders of the business community in supporting demands for government action.

Next Steps

The Alliance would be an appropriate forum for governments of the civilized world to discuss and operationalize many of the commitments made during the Nuclear Security Summit in April 2010. As a first step, key member states could form working groups to address an issue the international community has so far been dragging its feet to take, namely, implement the obligation states have already committed to in UNSCR 1540 to adopt "effective, appropriate measures to secure all nuclear materials." To maximize the likelihood that nations implement in an observable and enforceable manner "appropriate, effective" security standards, UNSCR 1540 should be embedded in a new institution that requires specific action in exchange for specific benefits. The attached appendix provides a roadmap for how to tackle this task. In the medium-term, the sense of urgency can be built by the US and other like-minded states holding joint intelligence assessments and threat briefings, conducting nuclear terrorism exercises, and sharing databases of related threats and incidents.

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Appendices

Operationalizing UNSCR 1540

Defining the challenge:

Adopted by the UN in April 2004, UNSCR 1540 mandates that all countries provide "appropriate, effective" security and accounting for their nuclear stockpiles. Six years later, there is still no agreed upon definition of what steps states should take to meet this requirement. To maximize the likelihood that nations adopt in an observable and enforceable manner "appropriate, effective" security standards, UNSCR 1540 must be embedded in a new institution that requires specific action in exchange for specific benefits.

Step 1: Creating multistakeholder demand

From the first-ever US sponsored Nuclear Security Summit in April to the May NPT Review Conference, over the next year the dangers posed to the world from nuclear weapons and materials will be high on the global agenda. This provides a unique opportunity to increase multistakeholder demand that all nuclear weapons and materials be secured to a "gold standard."

Step 2: Defining "appropriate, effective"

Since the end of the Cold War, the US and Russia have been working successfully together to secure and eliminate nuclear weapons and materials in the former Soviet Union. The technologies and know-how developed under these joint cooperative threat reduction initiatives could be applied internationally. Starting with these standards, the US and Russia could circulate a joint proposal that defines "appropriate, effective" security standards. Other nations would have incentive to sign this framework agreement in order to reduce their liability in the event that nuclear weapons or materials fell into the wrong hands.

Step 3: Assessing country needs

Security requirements will vary from country to country. At a minimum, states should have standards in place that ensure nuclear weapons and materials are secured against the kinds of threats terrorists and criminals have demonstrated they can pose. Building upon the security arrangements outlined under the US-Russia Bratislava Initiative, teams led by the US, Russia, a multinational coalition of major powers, or the IAEA's Office of Nuclear Security could assess needs worldwide.

Step 4: Putting measures in place

Ensuring nuclear stocks are effectively secured is costly. Financial assistance for upgrading security arrangements could be provided to states bilaterally by the US or multilaterally through the G8 "ten plus ten, over ten" funding, the IAEA, and eventually the Global Alliance Against Nuclear Terrorism. To incentivize states further, "appropriate, effective" nuclear security measures could be a condition of supply by the Nuclear Suppliers Group, and IAEA technical cooperation project funding. In the event of a terrorist nuclear attack, states that have not put such measures into place would be at the top of the suspect list.

Step 5: Sustaining UNSCR 1540

Transparency measures will be required to ensure states are abiding by UNSCR 1540 in an observable manner. States must be required to complete reports that are currently mandated under UNSCR 1540 thoroughly and accurately. The US should intensify efforts to review these reports and to work with others bilaterally or multilaterally to correct deficiencies. Steps taken to implement "appropriate, effective" measures to secure nuclear weapons and related material should be clearly identified and published by every state. In addition, all countries could participate in peer review exercises with experts from the IAEA, the World Institute for Nuclear Security, bilaterally, or on a regional basis as appropriate to the facilities and states in question. In coordination with donor states, the IAEA Office of Nuclear Security could be given the authority and resources to implement UNSCR 1540.

Global Agenda Council on Terrorism & Weapons of Mass Destruction

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8 Ensuring Sustainability

Leadership and Action for a Sustainable World

By Ashok Khosla, Chairman, Development Alternatives, India, and
Caio Koch-Weser, Vice-Chairman, Deutsche Bank Group, Deutsche Bank, United Kingdom

The Sustainability Imperative

Over the past two centuries, the world as a whole has made extraordinary progress on many fronts. People in scores of countries have attained unprecedented levels of health, wealth, and personal fulfilment. The Organisation for Economic Co-operation and Development (OECD) estimates that average per capita income for the world population has risen eightfold since 1820, while population has simultaneously risen fivefold. The average infant born into the world of 1820 could expect to live to 24 years of age; today the statistic is 66 years. Diseases that were for millennia the scourges of whole continents have been conquered. Food production has grown to levels inconceivable even a few decades ago. An ever growing range of products from industry is accessible to an ever growing range of customers. Cheap sources of energy and new technologies have made it possible for large numbers of people to live a life of convenience and comfort on a scale never known before.

The spectacular improvements that have occurred in our lives and material well-being over the past 200 years are the result of a combination of factors that first came together during the Industrial Revolution: scientific knowledge, technological innovation, and the internationalization of market-based institutions.

Yet we are still confronted by a series of interlinked challenges:

- Energy – the International Energy Agency (IEA)[1] predicts an expansion in global energy demand of at least 40% by 2030, with fossil fuels, especially coal, accounting for over 75% of the global increase in energy use between 2007 and 2030. The IEA says this scenario "takes us inexorably toward a long-term concentration of greenhouse gases in the atmosphere in excess of 1,000 parts per million of CO_2 equivalent by 2050".[2]

- Water – the OECD estimates that if present trends continue, nearly 4 billion people will live in areas of high water stress by 2030. Competition is already growing between energy, industry, cities, and agriculture for access to increasingly scarce water resources. This has recently been highlighted by an International Finance Corporation (IFC) report, *Charting our Water Future*.[3]

- Food – the world will need to double food production in the next 40 years to meet projected demand; this will need to take place in the context of increasing water scarcity, climate change, and volatile energy costs and supplies.

- Cities – the United Nations estimates that for the first time in human history, over half of the world's population now lives in cities. By 2050, up to 80% of the global population could be urban,[4] putting increased stress on scarce natural resources.

[1] World Energy Outlook, OECD/IEA, Paris November 2009. Go to www.iea.org for more details.
[2] The International Panel on Climate Change (IPCC) recommends reducing global greenhouse gas emissions to 450 ppm CO_2 equivalent by 2050. The IPCC estimates that 450 ppm CO_2-eq equates to a global average temperature increase of 2 degrees Celsius by 2050, which offers a 50:50 chance of avoiding dangerous climate change. 1,000 ppm CO_2 equivalent by 2050 would equate to the global average temperature rising up to 6 degrees Celsius, which the IEA says would lead "almost certainly to massive climatic change and irreparable damage to the planet".
[3] *Charting our Water Future*, http://www.mckinsey.com/App_Media/Reports/Water/Charting_Our_Water_Future_Full_Report_001.pdf
[4] Ibid.

Ensuring Sustainability

- Transportation – demand for transportation continues to grow. The world's car park is projected to be 3 billion vehicles by 2050, compared to 850 million today. The Asia Pacific region alone will require close to 9,000 new commercial jets within the next two decades.[5] The IEA says that six times the current capacity of Saudi Arabia's oil fields will be required by 2030 to meet this growing demand.[6] The sustainability challenges are daunting.

- Poverty – nearly half of the world's population continues to live in abject poverty, while a quarter of humanity lacks access to electricity.

Managing these interlinked challenges – and finding sustainable growth models as we emerge from the deepest economic downturn since World War II – will be difficult. Going forward, we will need to move to a more sustainable pattern of growth, which takes full account of economic efficiency, social equity, and the economics of nature – and differs from previous models of economic growth both in quality and in composition. Three factors are particularly important for the transformation: technology, institutional architecture and price signals, and social transformation, in particular around education.

Firstly, we are on the cusp of a clean technology revolution, with policy and technological innovation driving a shift to the more efficient use of natural resources, including water and fossil fuels. This, unfortunately, is not happening fast or widely enough to either tackle the stubborn problem of energy poverty in time to help meet the Millennium Development Goals (MDGs), or to deflect greenhouse gas emissions away from a trajectory scientists consider dangerous.

Secondly, our current systems of governance, finance, production, and consumption create perverse incentives for the over-exploitation and degradation of natural capital. These systems and our incentive structures need to be reoriented.

Considerable effort over the past five decades has gone into creating arrangements to lift people out of poverty and to manage systemic global public good challenges, such as the environment. Organizations such as the United Nations (and its various institutions including the World Health Organization, the World Food Programme, the World Trade Organization and the United Nations Environment Programme), the World Bank Group, the IEA, the OECD, and the IPCC now form part of the global institutional architecture. The agreements these organizations have created, such as the Montreal Protocol, the Law of the Sea, the Convention on International Trade in Endangered Species (CITES), the UN Convention on Biological Diversity, the UN Framework Convention on Climate Change, and the initiatives they sustain such as the United Nations Development Programme (UNDP) Human Development Report, the UN Millennium Development Goals, the IPCC Assessments on Climate Change, and the IEA World Energy Outlooks, have acted as key reference points for the international agenda.

The rise of international non-governmental organizations (NGOs) over the past 40 years arguably also reflects the desire of civil society to establish independent checks, balances, and complements to this system. The private sector is also increasingly taking on responsibility to address its own environmental impact through initiatives like the Equator Principles, while investing in cleaner, more sustainable technologies where the price signals are right.

Yet we have still not gotten the institutional architecture or price signals right.

And thirdly, we need a deeper societal shift towards sustainable growth. This will require a change in mindsets that goes hand-in-hand with institutional reform.

[5] Kenneth G Yata, Vice-President, Business Development Boeing (China), in The Peoples Daily, November 20, 2009: "Aviation Industry Looking to Increase in 2010". See also http://www.airlinenewsresource.com/article41064.html.
[6] Statistics from the Global Agenda Council on the Future of Transportation.

Big countries like the US and China have tremendous potential to lead this transformation. But the power dynamics between these two countries – and more broadly, power dynamics between the developed world and emerging markets – are shifting. This adds an additional challenge to the global sustainability transformation.

For optimal results, coordinated, systemic reform is required at multiple levels to facilitate the sustainability transformation. This will require leadership at all levels of government – and it will take time before the world is ready for far-reaching, institutional reforms.

In the meantime, we need increased action from our current international institutions, from multilateral and plurilateral coalitions, and from governments who see developing low-carbon growth plans as fundamental to their own national interests.

But the scale of investment, jobs, innovation, technological development, and deployment required to shift the world system quickly, fairly, and comprehensively to a clean growth paradigm is dimensionally beyond the public sector. More effective mechanisms need to be devised to leverage the financial, technological, and managerial capabilities of the private sector and civil society, and to make a clean industrial revolution actually happen over the next two decades.

A Framework for Action to Accelerate the Sustainability Transformation

The urgency of the sustainability transformation calls for renewed leadership and increased action around the world over the next year. This is particularly true for climate change – which is both an urgent global challenge and an example for how to provide leadership on other global public goods issues. We therefore focus our recommendations primarily on how to accelerate action on climate change beyond the Copenhagen negotiations.

A great deal of the analysis coming out of Copenhagen has been negative, focusing on the fact that no legally binding agreement was signed and no global emission reduction target was agreed, and significant uncertainty has been created around carbon markets. This overly-negative view discounts the real progress that was made last year. In particular, the coalition of those prepared to take mitigation actions expanded to include key developing countries, the Copenhagen Accord expanded coverage to all sectors including those that were left out of Kyoto, and the Accord was drafted at the highest political levels by heads of state and government.

Going forward from Copenhagen, we need to consider new modes for negotiations and ways of providing leadership and achieving results. National low-carbon growth plans will be a vital component of action in the post-Copenhagen world, and all countries should develop these plans. These strategies have the potential to deliver a great deal of abatement around the globe – but can be achieved most quickly and efficiently if inscribed within a broader framework of action.

To unlock action above and beyond what can be achieved at the national level, leadership is needed against three key strategic prongs, which are mutually reinforcing. The first prong seeks to achieve more progress through the UN process, the second seeks action through multilateral and plurilateral coalitions, and the third from the private sector and civil society. The prongs are linked – for example, an initiative developed through the UN process under prong one will have an impact on the policies of specific groups of countries, under prong two, and will catalyse private sector and civil society action in prong three. The interlinkage is similar for action and leadership originating from the other two prongs. What the three prong framework aims to recognize is not where all action takes place but, rather, where initial action and leadership comes from.

1) Prong One: More Progress through the UN Process

This builds on the lessons of Copenhagen – as well as those of other international negotiations including the UN Convention on Biological Diversity – to make more progress through UN negotiations. The presidency of the UN climate change negotiations is passing to Mexico this year, and will pass to South Africa the following year. In order to ensure that the negotiations are progressing at sufficient pace, the Mexican and South African presidencies should put in place clear milestones throughout the year, and should hold negotiators to account for keeping talks on track. If negotiations fall behind schedule, the annual Conference of the Parties may need to be downgraded from a Ministerial event into a more technical negotiating session to avoid repeating some of the less positive aspects of Copenhagen. The same principles of enhanced leadership can be applied to the Convention on Biological Diversity and other international negotiations.

Activities under prong one could include:

- Streamlining and reforming the negotiating process itself
  It may be necessary to revisit the two-track process, with the view to bringing these tracks together. Leadership from the Mexican and South African presidencies will be necessary to make these reforms – but discussion of the format of the negotiating process must not be allowed to curtail real progress in the fight against climate change. To support streamlining efforts, a "Friends of Cancun" network, as proposed by President Calderon at the World Economic Forum Annual Meeting in Davos-Klosters, should be established to advise the presidency. This network could be extended beyond Cancun to provide leadership on climate change in the future. This network can link prong one to prongs two and three, with leadership coming from the international community, government, the private sector, and civil society.

- Reforming the Clean Development Mechanism (CDM) to be ready to extend and scale up international offset markets
  A viable framework for an international offset regime post-2012 will need to be agreed to build certainty in global carbon markets. If we hope to confront the challenge of climate change at reasonable cost, we must scale up international offset markets from about 350 MT of CO2e per year under the CDM to several GT per year. This will require reform of the current project-based CDM to adopt a programmatic or sectoral approach to crediting, with the potential to cluster projects to reach scale as solutions are increasingly deployed in a decentralized fashion. The system will also need to be professionalized, and the CDM Executive Board and Designated Operational Entities will need to significantly boost their own operational resources, as well as their efficiency and effectiveness. Delays in Certified Emission Reduction (CER) issuance and verification need to be addressed, while governance arrangements need to remain robust to ensure additionality and avoid leakage.

- Developing financing arrangements for the Copenhagen Accord that can unleash the international flows of low-carbon funding needed to address climate change
  Agreement is required on mechanisms to disburse the US$ 30 billion of fast start funding for mitigation and adaptation. A particular focus of this work must be on capacity building for small nations to adapt and cope to the global changes that are now overtaking them. Workable ideas for the fiscal, tax, carbon market and private sources of finance to generate the US$ 100 billion of annual financing by 2020 that was agreed in principle in Copenhagen must also be developed, along with disbursement mechanisms. Clear governance arrangements must be put in place, with links between transparency, performance and financing. Activities such as the World Economic Forum Critical Mass Initiative,[7] which will encourage institutional investors such as pension and sovereign wealth funds to place more capital into low-carbon infrastructure finance for developing counties, can be geared to help the UN High Level Advisory Group on Climate Change Finance in these matters.

To illustrate a potential prong one activity that is not climate related, one might refer to the Global Agenda Council on Ocean Governance proposal for the creation of a series of large ocean reserves to help bolster the UN Convention on the Law of the Sea.

[7] This initiative is based upon recommendations from the Global Agenda Council on Climate Change and the Low Carbon Prosperity Task Force. For more details on the Task Force see www.weforum.org/climate.

2) Prong Two: Coalitions of Like-Minded Players

Decisive leadership can be provided and faster progress can be made in smaller coalitions of like-minded countries, provinces, states, and cities in the climate change space, focusing on specific sectors or subsets of issues. Progress has already been made through the G20 and the coalition that has come together around Reduced Emissions from Deforestation and Degradation (REDD+), and there is the potential now to move towards action and implementation within such smaller coalitions.

Activities under prong two could include:

- Operationalizing the REDD+ framework developed by the Informal Working Group on Interim Financing for REDD+ (IWG-IFR)
  US$ 3.5 billion of near-term public financing has been agreed to for REDD+, with particular support coming from the US, UK, Australia, France, Japan and Norway, in the developed world, and Papua New Guinea, Costa Rica, Guyana, Brazil, Indonesia and others, in the developing world. Methodologies are needed to use this money to unlock much broader flows of private finance. The report of the IWG-IFR notes that a phased approach, with an economic incentive structure that alters the balance favouring deforestation and forest degradation and disfavouring reforestation and conservation efforts, is needed. Over the next 15 months, an initiative emerging from the Low Carbon Prosperity Task Force will bring together coalitions of legislators from buyer and seller nations with experts from NGOs and the private sector to design REDD+ policy frameworks and related project pipelines that can attract large and sustainable flows of private sector finance.

- Implementing energy efficiency standards for appliances
  A group of major countries, potentially including the US, EU, Japan, China, and India, should agree to implement uniform energy efficiency standards for appliances. These standards should be developed in cooperation with major appliance original equipment manufacturers (OEMs), to ensure technical feasibility and buy-in from industry. Technology transfer and financing for action in the developing countries should be clearly tied to performance, within a transparent governance structure. Further work on this initiative, involving partners such as the US Department of Energy, the IEA, and the Intergovernmental Partnership on Energy Efficiency Cooperation, will begin during 2010.

- Implementing energy efficiency standards for buildings
  A group of major cities, potentially the C40 partnership, or a subgroup thereof (potentially including Shanghai, Mumbai, São Paulo, Paris, Los Angeles, Sydney) should agree to uniform standards for building efficiency. A set of key benchmarks for performance should be developed, in consultation with major building managers, so that best practice can be assessed across the partnership and key learnings and technologies can be shared. The collective impact of the partnership should be assessed and reported on regularly.

- Developing and deploying a feed-in tariff regime for developing countries
  Developed and developing countries could work together to operationalize the “GET FiT” concept that would provide feed-in tariffs in developing countries – potential partners include Germany, the UK, and South Africa. Funding for “GET FiT” would be provided by developed countries as part of their climate change financing pledges, and would cover the premium price of renewable electricity over and above conventional fossil fuels in developing countries. While middle income countries with established markets and electric power grids stand to benefit most from “GET FiT” in the near term, technical assistance and other instruments can be provided by institutions like the International Development Association (IDA) and/or the IFC to less developed countries to allow them to benefit from the fund as well. Payment will need to be tied to delivery, with robust governance in place.

- Developing offshore wind and the offshore grid
  Governments have awarded nine coalitions of private developers rights to develop 32 GW of new offshore wind capacity in the North Sea by 2020. Coalition partners include SSE Renewables, RWE Npower Renewables, Statoil, Statkraft, Scottish Power Renewables, Vattenfall Vindkraft, Centrica Renewable Energy, RES Group, Siemens Project Ventures, Mainstream Renewables Power, Eneco New Energy and EON Climate and Renewables. The initial development – which is in UK territorial waters – is part of the larger drive to scale up offshore wind in the North Sea and build out the North Sea electric power grid. Scaling up offshore wind can permit the UK, other North Sea countries, and the EU as a whole to meet their renewable commitments – as discussed in the EU Roadmap 2050 study – while building out the grid will improve the resilience of the electric power system, allowing further use of intermittent renewable resources.

- Forming networks on climate change and trade
  The Global Agenda Council on Sustainable Energy has proposed that coalitions of countries, states, and cities could form networks of low-carbon energy and product free trade areas around the world. Within these areas, tariffs and taxes on low-carbon technology and product choices would be removed, and positive incentives would be established for clean industries. This would accelerate scaled markets for low-carbon technologies, products, and services. Discussions are under way with trade experts to fit this idea within WTO rules, with an objective of tabling a detailed proposition before the sixteenth Conference of the Parties (COP) under the United Nations Framework Convention on Climate Change (COP16).

- Cooperating on public-private partnerships for technology demonstration
  Australia, the EU, US, and China are currently cooperating on the development and demonstration of Carbon Capture and Sequestration technology, together with leading players from the private sector. This initiative has the potential to prove an early stage technology at scale, minimizing cost and maximizing global learnings. Once demonstrated at scale, public-private cooperation will need to be reinforced, bringing the new technology down the cost curve as it is deployed around the world.

- Monitoring and addressing glacial melt
  India and China have announced a collaborative research programme on water resources, with particular focus on monitoring the Himalayan glaciers. As part of the two governments' broader climate change cooperation, India's Wadia Institute of Himalayan Geology and China's Cold and Arid Regions Environmental and Engineering Research centre are conducting joint research to protect the glaciers that provide water for more than a billion people. There is the potential to expand this collaboration, both in the Himalayas and in other critical glacial regions around the world.

- Developing low-carbon growth plans
  With support from the Korean government and a coalition of foundations, the Green Growth Institute aims to support countries around the world as they craft their low-carbon growth plans. To date, the Green Growth Institute has supported the development of Mexico's and Guyana's low-carbon growth plans, and they are engaged in conversations with India, Indonesia, China, and Brazil for further work.

To illustrate potential prong two activities that are not climate related, propositions include:

- Protecting coral reefs
  Building on the work of the Coral Triangle Initiative – which is a group of six countries in Oceania that have agreed to develop a roadmap and plan of action to preserve their coral reefs – other groups of like-minded countries should come together to protect their coral reefs. Roadmaps and plans of action must be drawn up, and funding must be allocated to support the aspiration of coral reef preservation initiatives. Potential coalitions include EU member states, which have historical colonial possessions with significant coral reefs, and Caribbean island states.

- Establishing “net positive impact on ecosystems and biodiversity” initiatives
  The Global Agenda Council on Ecosystems & Biodiversity Loss proposes the creation of a series of roundtables involving like-minded nations to develop “net positive impact on ecosystems and biodiversity” initiatives for the main beef, soy, sugar and palm oil buyer and seller nations. These programmes would be analogous to the Forest Stewardship Initiative.

- Managing future water needs
  The IFC and the private sector consortium, “Water Resources Group”, in collaboration with the World Economic Forum Water Initiative, is developing a major public-private coalition involving water scarce countries, international organizations, NGOs and the private sector. Using pilot countries to provide proof points, the initiative will offer bespoke support to governments seeking to undertake coordinated water reform across their energy, agriculture, urban, and industrial sectors. A new entity to organize this work at the global and national levels will be created.

3) Prong Three: Leadership from Corporations and Civil Society

Coming out of Copenhagen, the conclusion is that much more of the initiative and leadership on the sustainability agenda must be provided by the private sector and civil society, with governments responding by putting in place the appropriate enabling policy framework. Iconic and mega-projects, led by the private sector, can be a focus of this work and provide momentum going forward.

Activities under prong three could include:

- Producing clean power in the desert
  The DESERTEC Industrial Initiative aims to produce 15% of Europe’s power from clean sources in the Sahara by 2050. The initiative is a development partnership between a coalition of European companies – including ABB, Abengoa Solar, Cevital, Deutsche Bank, EON, HSH Nordbank, M+W Zander, Man Solar Millennium, Munich Re, RWE, Schott Solar, and Siemens – and the governments and leading companies of North Africa. Concentrated solar power and wind energy from the Sahara will be used to provide power to and promote development in the host countries, and would also be exported and transported to Europe via high-voltage grid connections under the Mediterranean. Governments in Europe and North Africa will need to put the right enabling policy framework in place in order to permit this project to become a reality – potentially including cross-border feed-in tariffs for renewable energy. Financial institutions, including the World Bank’s Clean Technology Fund, KfW, the European Investment Bank, and Caisse des Dépôts, will have a role to play in providing concessionary financing for this mega-project.

- Using alternative fuels in airplanes
  A coalition of 15 airlines and air cargo carriers have come together to purchase hundreds of millions of gallons of alternative fuels. The airlines have signed a memorandum of understanding with AltAir Fuels and Rentech to purchase about 325 million gallons of alternative fuels per year, and there is potential to scale this up going forward. Once the feasibility of this has been proven, governments can put in place mandates and incentives to spread biofuel use throughout the industry. A high degree of transparency will be required for this initiative to ensure that airlines are transitioning to lower-carbon fuels on a life-cycle basis. The coalition should report on the carbon impact of its transition to provide this transparency.

- Developing universal carbon reporting standards
  A joint project of the International Accounting Standards Board (IASB) and the Climate Disclosure Standards Board (CDSB) envisages developing a principles-based international financial reporting standard for corporate climate disclosure, which would be suitable for ultimate adoption by regulators. These universal carbon disclosure principles would be apt for inclusion in company financial reports (such as the Carbon Disclosure Project (CDP) and the related CDSB), starting from a voluntary perspective, but with an objective of graduating to a mandatory universal carbon accounting platform.

- Sourcing sustainable palm oil
  The Roundtable on Sustainable Palm Oil brings together stakeholders including oil palm producers, palm processors and traders, consumer goods manufacturers, retailers, banks and investors, environmental and nature conservation NGOs, and social and developmental NGOs. The Roundtable is developing best practices for palm oil sustainability, and aims to finance catalytic projects in the sustainable space.

- Making communications networks energy efficient
  Green Touch™ is a global consortium organized by Bell Labs whose goal is to create the technologies needed to make communications networks 1,000 times more energy efficient than they are today (www.greentouch.org). Green Touch brings together leaders in industry, academia and government labs to invent and deliver radical new approaches to energy efficiency. To support its objectives, the Green Touch Initiative will deliver – within five years – a reference network architecture and demonstrations of the key components required to realize this improvement. This initiative also offers the potential to generate new technologies and new areas of industry. Governments could reinforce this effort by facilitating the commercialization of new technologies through well-designed patent laws, and by providing political support to the initiative.

National low-carbon growth plans – working in tandem with these three prongs of action – need to be robust, and must collectively deliver the scale of abatement that is needed. A registry with regular reporting could improve the transparency of climate initiatives around the globe, helping us to ensure that they deliver.

Conclusion

The "open architecture" approach to leadership on sustainability we propose – with national low-carbon growth plans working in tandem with our three prongs of global action – will require tight oversight and governance to ensure that the collective impacts add up to deliver what we need. A registry with regular reporting could improve the transparency of the approach.

The greatest advantage of the approach, however, is its potential to generate much more action in the near term as coalitions of leaders from the public sector, private sector, and civil society come together to promote global sustainability.

As we emerge from the financial crisis, we have a unique opportunity to rethink, redesign, and rebuild a more sustainable future of low-carbon prosperity. We also have a real opportunity to make meaningful progress in the lead-up to the Rio+20 Summit in 2012 – which is a true milestone on the path to a more sustainable world. Could this kind of framework help to shape a sharp action-orientated agenda for the Rio +20 Summit? The opportunity is too important to waste.

The authors would like to thank the following contributors to this paper: Mark Dominik, Tom Heller, Sabine Miltner, Jeremy Oppenheim, Pavan Sukhdev, and Dominic Waughray.

WORLD ECONOMIC FORUM

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GLOBAL REDESIGN INITIATIVE

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Global Agenda Council on the Future of China[1]

Climate Change Capacity Building: A Top Priority

Context

The current United Nations Framework Convention on Climate Change (UNFCCC) faces a wide range of challenges that hinder the effectiveness of ongoing climate change mitigation efforts. While the Copenhagen Accord delivered important positive outcomes, such as low-carbon growth plans (LCGPs) and a Green Climate Fund, the accord's commitments remain non-binding in nature and lack an effective means of supporting the implementation of climate change mitigation activities.

While there have been robust efforts globally to develop innovative climate policies, low-carbon technologies, and financing mechanisms, the implementation of these efforts is hampered by a systemic lack of institutional capacity. The Clean Development Mechanism (CDM), the primary financing apparatus under the UNFCCC, for example, lacks a verification system by which financial flows to low-carbon projects are monitored and accounted for. The CDM also lacks a standardized method for estimating investment from available data.[2] Within countries as well, best practices often fail to be advanced because of lack of information, technology or broader institutional capacity.

Moving forward, efforts to address climate change need to focus on building institutional capacity and a systematic approach to measuring, reporting and verifying the financial support and results of climate change mitigation and adaptation projects. *Part of the solution is to foster communication between public and private actors who are already engaged in climate change mitigation efforts. Increased communication on available technologies, mitigation projects and financial streams would lead to a better sense of which practices can be effectively replicated and scaled up.*

A communications platform would be particularly useful for optimizing the impact of low-carbon growth plans on greenhouse gas emissions reduction. Key emerging economies such as Brazil, India, China, South Africa, and Mexico have developed a first generation of such LCGPs. In order to equip each country with the ability to deliver and implement its own low-carbon development visions and goals, a platform or network for the sharing of best practices – on technologies, policy initiatives and financing mechanisms – would be of significant benefit.

Better communication between these governments would help to take stock of each development plan's strengths, weaknesses, and areas in need of improvement. Over time, a combination of data aggregation, energy and macroeconomic modelling, an exchange of best practices, and transparent financial flows could also help to streamline and standardize low-carbon approaches.[3]

Proposal and Explanation/Rationale

The Global Agenda Council on the Future of China proposes establishing a Global Network for Climate Capacity (GNCC). The GNCC would be a Web-based platform, bringing together the public and private sectors to exchange best practices, lessons learned, and technologies, and to build partnerships for developing and scaling up capacity-building projects.

Using wiki applications, the network would consist of two separate sites. The first site would be a moderated site of best practices that would be evaluated on their merits by groups of outside experts. The second site would be an open forum for ideas exchange. Governmental agencies, non-governmental organizations, individuals, corporations, and intergovernmental organizations would all participate. The GNCC would be operated by full-time staff and be accessible to the public for free.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] Jan Corfee-Morlot, Bruno Guay, and Kate M. Larsen, "Financing Climate Change Mitigation: Towards a Framework for Measurement, Reporting and Verification," Organisation for Economic Co-operation and Development and International Energy Agency, October 2009, p.26.

[3] "Low Carbon Growth Plans: Advancing Good Practice," Climate Works and European Climate Foundation, August 2009, p.24.

The GNCC could be financed by a core group of multinational corporations, governments and non-governmental organizations, or placed under the auspices of a pre-existing relevant organization such as the Major Economies Forum.

We envision four major target areas of the GNCC:
- Policy Initiatives
- Legal Infrastructure
- Training
- Opportunities for Business and Technology

Work in each of these target areas would consist of collaboration between multistakeholders, such as intergovernmental organizations (IGOs, i.e. the World Bank, the International Energy Agency, regional development banks), the Green Climate Fund (financed by governments and the private sector), international non-governmental organizations (INGOs), non-governmental organizations (NGOs), corporations, and governments.

Examples of pre-existing capacity-building initiatives that could be shared through the GNCC include:

Policy Initiatives
Many bilateral and multilateral partnerships to design and implement policy initiatives such as low-carbon growth strategies are already under way. The Energy Sector Management Assistance Programme (ESMAP), an affiliate of the World Bank, for example, is assisting six developing countries to "[initiate] country-specific studies to assess their development goals and priorities, in conjunction with greenhouse gas mitigation opportunities, and examine the additional costs and benefits of lower carbon growth."[4] ESMAP has supported the governments of Brazil, China, India, Indonesia, Mexico, and South Africa since 2007 to develop and begin to administer these LCGPs.

LCGP partnerships take on varying forms. Norway, for example, is currently working with Guyana to build a model of implementing policies to prevent deforestation. The government of Guyana, working with Norway and advised by a multistakeholder steering committee, is laying the groundwork for measurement, reporting, and verification, and to secure funding for its proposed approach to avoiding carbon dioxide emissions from deforestation.[5]

One successful example of the type of capacity building that the GNCC could enable is in China. The Innovation Center for Energy and Transportation (*i*CET), based in Beijing, is already working to build the country's first carbon inventory, the China Energy and Climate Registry.[6] The project's goal is to build an online registry to report carbon emissions and energy consumption voluntarily and to make the information accessible for free on the Internet. During the initial phases of the project, *i*CET staff travelled to California and other locations in the United States to learn about already existing carbon registries and their lessons learned.

The registry, modelled after the Climate Registry in California, was launched in April 2009 in Guangdong Province as a pilot project and has gained the tacit support of both local and central government bodies. The project invites both domestic and multinational businesses to join the registry as members and report their energy consumption and carbon emissions. In exchange, the members would have the opportunity to trade best practices and establish themselves as reputable green companies.

The *i*CET report on the project stated that the key lesson it learned from the United States and European experience with carbon registry projects is the need for transparency. As a result, while the reporting for the carbon registry is voluntary in nature, *i*CET stresses transparency and accountability by working to develop an independent and accredited system of third-party verification.[7] As China's monitoring system for greenhouse gas emissions is established, there will also be the possibility of working directly with local government agencies for verification of companies' reporting.

[4] "Low Carbon Growth Country Studies – Getting Started: Experience from Six Countries," Energy Sector Management Assistance Program and Carbon Finance Assist, 2009, p.1.
[5] Karen Ellis, Bryn Baker and Alberto Lemma, "Policies for Low Carbon Growth," Overseas Development Institute, pp.23-24, and "Low Carbon Growth Plans," p.21.
[6] Lucia Green-Weiskel, "Building Carbon Inventories in China," Innovation Center for Energy and Transportation, 2009.
[7] "Building Carbon Inventories in China," p.31.

The work of *i*CET has been funded by several US foundations. A GNCC could enable a faster and more convenient means of communication about US and now Chinese experiences with developing a climate registry at a lower cost to other countries.

Legal Infrastructure
In addition to creating innovative policy initiatives, developing and strengthening a country's legal capacity is critical to ensuring the transparency and accountability of implementing low-carbon projects. Many non-governmental actors have been working with developing countries to provide legal training and strengthen public participation in legal processes.

The Foundation for International Environmental Law and Development (FIELD), for example, is a London-based group of public-interest lawyers who provide pro bono legal training around the world, including in Thailand, Kazakhstan, Nigeria, Chile, Uganda, India, and the Philippines. FIELD has supported small island states with negotiations at the Copenhagen summit and has conducted assessments of public access to environmental information in Uganda.[8] The Centre for International Sustainable Development Law (CISDL), based at McGill University in Montréal, also runs a legal training partnership in sustainable development, based on requests from international organizations, universities and governments.[9] The GNCC would make it easier for other organizations, particularly in the developing world, to find out about such projects and help replicate and expand them around the world.

Training
A sustained implementation of low-carbon strategies will require appropriate training, whether technical, broadly educational, or targeted to implementation and enforcement. Mexico, for example, is incorporating climate change awareness into its formal education system and administering workshops to strengthen the technical knowledge of its public sector workers. In China, the US-based INGO, the Natural Resources Defense Council, has long worked with Chinese officials to develop building energy efficiency codes and then train officials and property developers to encourage enforcement of these codes. In Nigeria, the government is promoting capacity building in environmental management techniques in academic and professional institutions.[10]

Using the GNCC, both governments and INGOs might share their experiences with different training programmes, either using discussion forums or by uploading written and multimedia training manuals.

Opportunities for Business and Technology
Low-carbon development opens a wide range of opportunities for sharing technologies as well as private and public investment. From power infrastructure and building construction, to agriculture and forestry, private sector investment in renewable and low-carbon energy technologies, as well as other mitigation-related technologies, and the sharing of these technologies will be key to successful low-carbon growth.

In forestry, for example, the Carnegie Institution for Science is developing a computer software program called CLASlite, which combines free detailed satellite imagery and analytical methods to monitor greenhouse gas emissions from forest degradation and logging. As of December 2009, there were more than 240 people from 70 organizations using the program in the Andes-Amazon region. Carnegie is also collaborating with Google.org to provide CLASlite on the Web to enable widespread access. However, widespread use of the software has been hampered by a lack of access to satellite imagery data and computational resources for data processing.[11]

As scientists from small and large firms or universities develop new technologies, they could put their ideas on the GNCC site to seek private investment and/or government support. In addition, as the GNCC matures, it could be effective in promoting low-carbon businesses and technologies by facilitating public and private funding to incubate new technologies. This would require greater staff involvement in proactively seeking collaborators and alliances.

[8] FIELD in the World, http://www.field.org.uk/field-projects/field-world.
[9] CISDL projects, http://www.cisdl.org/projects001.html.
[10] "Policies for Low Carbon Growth," p.32.
[11] "Seeing the forest through the cloud," *Google.org Blog*, December 10, 2009, http://blog.google.org/2009/12/seeing-forest-through-cloud.html.

Next Steps

To begin building a Global Network for Climate Capacity, the Council proposes finding an organization to house and be responsible for operating it, such as the Major Economies Forum. Subsequently, the GNCC could begin taking stock of existing efforts in climate capacity building, and invite governments, NGOs and businesses that are already doing work in this area to join. The World Economic Forum with its broad reach into the intergovernmental, multinational and non-governmental sectors could act as a useful launching pad for building this network.

Global Agenda Council on the Future of China

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Global Agenda Council on the Future of Mining & Metals[1]

Developing a Model Framework for Fair Mineral Development Agreements

Context

The extraction and production of natural resources is a key driver of global economic growth, and can impact the lives of people, communities, institutions and countries at many levels and scales over long periods of time. As population growth, urbanization and industrialization continue, particularly in China and other emerging economies, the global demand for metals will grow, making the ongoing development of new projects inevitable.

New natural resource development increasingly occurs in emerging and developing countries where it can play a vital role in the transition from an agrarian to an industrial economy. As new projects typically occur in undeveloped rural areas, the physical, social, transport and administrative infrastructure that follow a project can, under the right circumstances, provide a vital catalytic enabling environment for the establishment and growth of other forms of economic activity.

In order for this to happen, however, development must occur in a way that considers the full social and economic contributions and costs of the project across the entire project life cycle (from the onset of exploration through closure and reclamation), as well as the fair distribution of costs, benefits, risks and responsibilities among the various stakeholders. Governments and communities are increasingly unwilling to allow natural resource development to proceed unless they are convinced that the social and economic benefits to the community and national economy will exceed the costs and negative impacts associated with a project.

Mineral Development Agreements
In many developing countries, mining companies and national governments enter into mineral development agreements (MDAs) covering one or more projects. While intended to lock in a long-term allocation of benefits and obligations over the life of a mining project, to date these agreements have a proven track record of engendering disappointment, mistrust and hostility – they are often alleged to be "unfair" to other stakeholders, not transparent and not consistent with the ideas of sustainable development.

A typical scenario in an emerging country is a development agreement negotiated between the national government and a company that would bring jobs, tax revenues and royalties as "benefits" that reflect a country's share of the resource "rents". These benefits are supplemented by significant multiplier benefits that ripple out from the mine project. Such agreements are usually negotiated during a particular commodity price regime. To ensure stability, they are often inflexible and therefore lock parties in for an extended period of time. Rarely, however, are they founded on a full understanding of the entire mine project life cycle, something that may require a time horizon of many decades during which significant change is inevitable.

Local and national political support is often high in the initial stages because of the creation of jobs and the promise of development. In time, however, conditions inevitably change: commodity prices rise or fall, politicians fall out of office, mine ownership evolves, unforeseen geological conditions come to light, mining costs rise and profits fluctuate. As change occurs, the initial development agreement often loses effectiveness from everyone's perspective, yet mechanisms to allow for change and adaptation are rarely included.

Together, this sequence of events often leads to a loss of trust and respect between the parties: local communities do not feel they are benefiting as they should, even though they carry much of the social and environmental burden. National governments feel their "cut" is not appropriate given that they are the owner of the resource. Demand for a greater share of benefits may increase to the point where the profitability of the operation may be lost.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on the Future of Mining & Metals

The Global Redesign Initiative

This dilemma is directly relevant to the World Economic Forum's Global Redesign Initiative, as a typical MDA has significant implications for a country's management of its natural resource, the fairness of the distribution of tax and royalty income streams, national and local economic development and sustainability, environmental stewardship, governance and capacity building. Unfortunately, while there are multiple resources, models and standards that can be drawn upon to address each of these issues in silo, there does not yet exist an accepted model framework to address this range of issues in an MDA through a process that includes all impacted stakeholders and results in true "stability" over the life of a mining project.

Proposal and Explanation/Rationale

As the result of a dialogue initiated by the International Council on Mining and Metals (ICMM), a group of the world's leading natural resource development companies, the Global Agenda Council on the Future of Mining & Metals proposes to coordinate the development of such a framework, addressing the following dimensions:

- Recognition of the full contributions (direct and indirect) of all implicated interests: national, sub-national and local governments, the company, local communities and civil society, and other impacted stakeholders
- Awareness, respect and protection of the interests of all relevant parties
- Methods to quantify or benchmark the social and economic contributions and costs of the project
- Consideration of the full project life cycle from the onset of exploration through post-mining closure and reclamation
- Fair distribution of costs, benefits, risks and responsibilities
- The need for effective and transparent negotiating platforms and processes throughout the life of the agreement
- Mechanisms to foster long-term trust and respect among implicated stakeholders

This project will be scoped through discussion with representatives of civil society, industry, lending institutions and governments. As a first step, the Council will develop a template for both a negotiation process and a model form of development agreement. These templates would:

- Define requirements for a negotiation process adaptable to a range of conditions
- Specifically address how to identify all key stakeholders and define their role in the process and ultimate decision-making
- Identify available data and inputs needed to allow for informed decision-making and consultation
- Define the substantive elements that such agreements should address to capture the full range of benefits, costs, risks and responsibilities over the project life cycle
- Explore possible mechanisms for the periodic reassessment of the effectiveness of the agreement and the setting of appropriate triggers for the renegotiation or adaptation of the terms of these agreements

The process will examine current business and agreements, and will address relevant standards, tools and research to determine where they can be applied as part of this framework. The Council on the Future of Mining & Metals proposes to partner with the ICMM and other organizations such as the World Bank, multilateral development banks and NGOs focused on economic development and transparency. Stakeholder engagement would occur at various events such as the Forum's Regional Summits in relevant regions, the Intergovernmental Forum of Mining Ministers and additional roundtables (e.g. Mongolia) throughout 2010 and 2011. We also propose to work with the International Bar Association, which is embarking on a similar project to prepare a model form of MDA with specific contract language. Once a template is developed, consideration will be given to possible pilot projects where the framework could be tested in the field.

The goal is to complete work on this project in time to present the results at the World Economic Forum Annual Meeting 2012 in Davos-Klosters, and at the proposed UN global conference on sustainability planned for 2012 (Rio +20).

Conclusion

Broader Ramifications

Ultimately, governments in developing countries will want to end the practice of entering into MDAs and instead adopt comprehensive fiscal and regulatory frameworks that reflect best global practice, promote stability, and engender confidence and a sense of fairness among impacted stakeholders. This MDA framework, if successfully completed, can aid in that long-term process. Once a better MDA framework is in place and in use for a variety of projects in a particular country, the attributes embedded in that framework can serve as the foundation for the enactment of a sound long-term fiscal and regulatory regime.

In addition, our proposed MDA framework can serve as a useful model for all types of economic activity and development in emerging economies. The exact same issues arise is a variety of industries and sectors, including oil and gas, energy, forestry, agriculture, and fishing, as examples. To the extent this project is successful in developing a set of best practices and lessons learned for both the negotiation process and the content of a model MDA, those practices and lessons can be applied in a variety of settings and sectors.

Global Agenda Council on the Future of Mining & Metals

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Global Agenda Council on the Future of Transportation[1]

Sustainable Transport as a Global Public Good

Context

The World Economic Forum's Global Redesign Initiative (GRI) has three main objectives: identify gaps in global cooperation and collaboration; establish the risks associated with not addressing these gaps; and suggest how these gaps can be filled.

The Global Agenda Council on the Future of Transportation has identified a series of gaps in global cooperation and collaboration which, if not addressed properly and immediately, will generate serious systemic risks in the global system. These risks have severe financial, economic, social, and environmental repercussions.

Our proposal puts forth a series of recommendation for a global redesign of the institutional and collaborative framework as it relates to transport. The first background section outlines the vision of the Council on the Future of Transportation in terms of the challenges, opportunities, and risks associated with transforming the transport sector and addressing the gaps identified, and makes a case for sustainable transport being a global public good.

The following sections divulge the core recommendations put forth by this Council: a modification of the international institutional framework to further empower the leading international transport agency; suggestions on how to fill the gap on information and knowledge which often limits the effectiveness of policy decision-making; a request to ensure full transparency in pricing of transport services and associated essentials such as fuel; the display of a series of low-hanging fruits which contribute considerably to the improvement of the transport sector; and recommendations on how to accelerate innovation in the transport sector through novel financing systems, policy incentives, and the establishment of new business models.

Concluding remarks emphasize the size of the challenge ahead and the opportunities at hand which must be taken advantage of in order to minimize the long-term, irreversible risk posed by continuing to handle transport in a business-as-usual manner.

Background: Sustainable Transport as a Global Public Good
Current trends in transport are not sustainable. Two conflicting challenges exist: the need for all of the world's population to benefit from the effective movement of people and goods, and the need to dramatically reduce the negative impacts of transport.

The Industrial Revolution in Europe transformed countries from farming nations to industrial powers in two generations. In the next 40 years, the equivalent of one generation – the working lifetime of today's new graduates – the world has to move from fossil fuel dependence to a low-carbon, global economy, with an additional 2.5 billion population – a low-carbon, global economy in which everyone has convenient and affordable access to the goods and services they require. Sustainable transport should be conceived of as a global public good; it is the means through which cultures thrive through the exchange of ideas, products, and services. As a global public good, transport must be given the attention it deserves.

The rate of change will be unprecedented and can only be delivered if we find ways to enhance cooperation among the different stakeholders and accelerate innovation – cooperate at the global institutional level, at an industry and cross-industry level, and at the national level to align policies and set and reach goals to help shape the outcome of our world to 2050, and accelerate innovation in infrastructure, in products, in services and in behaviour; innovation that is cost-effective, acceptable to citizens, governments and businesses, and that delivers sustainable solutions. This means expanding the range and scope of ideas: tapping into non-traditional sources; enabling more large-scale pilots to iterate and test concepts; and speeding up adoption and increasing scale through the application of new business models. Essentially, what needs to happen is a complete transformation of the way we currently conduct business, conceive of products and services, and live our lives.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on the Future of Transportation

In thinking about the future, we must recognize that the fastest change will be taking place in the developing world. Economic growth is closely correlated with increasing personal mobility and the growth of freight traffic. The most rapid growth in car ownership in the next 20 years is predicted to take place in developing countries. Today, the global car park is estimated to be around 850 million vehicles with a population of 6.5 billion people. On average 12 people in 100 have a car, a number that ranges from 65 per 100 in North America to about 1 in 100 in India and China. If, by 2050, with a global population of 9 billion, 30 people in 100 were to have a car, there would be almost 3 billion cars. By 2030, the International Energy Agency (IEA) projects that 64 million barrels per day of petroleum capacity will need to be developed to replace declining oil fields and meet growing demand. This is the equivalent of six times the current capacity of Saudi Arabia and would require an investment of more than US$ 6 trillion. The volume of freight movement (expressed in ton-kms) is projected to grow by around 150% between 2009 and 2050, with average growth rates in the developing world roughly twice those of developed countries.

Today, the majority of us already live in cities and by 2030 it is estimated that cities will account for over 70% of the world's population. Twenty-five megacities of over 10 million inhabitants already exist. Most are in developing countries, where these huge conurbations are appearing at an unprecedented rate. Personal mobility issues have a strong urban focus in most countries. It is also in towns and cities that the environmental problems of goods movement are at their most acute. Here freight traffic is concentrated in the vicinity of large populations, exposing them to a range of adverse environmental effects. Currently, the combination of traffic congestion and low vehicle occupancy rates in cars means that fuel consumption per passenger-km within cities is now twice that for intercity travel.[2] In turn, congestion significantly reduces productivity, to the point where cities have implemented congestion charging systems to compensate. There is an urgent need to accelerate innovation to enable the movement of people and goods between and within cities in an efficient and sustainable manner. This will demand new models of integration, combining land-use planning, infrastructure, communications, public transport systems and individual urban mobility, while exploiting new, clean technologies. There also needs to be closer coordination of personal and freight movement within urban areas. All this must be done with proper scrutiny of the use of public finances and budget allocations, at a time when national debts are becoming among the world's most pressing concerns.

The Council vision for the Future of Transportation is that, as we move towards a more global civilization, we have the opportunity to create a more sustainable transport system beneficial to all. Common economic, political and environmental paradigms can be applied in decision-making at the international, national and local levels, within both the public and private arenas, to ensure that this system meets worldwide development in a sustainable manner.

Sustainability is central to this vision. It is vital that we expand the economic and social benefits of moving people and goods while reducing the numerous externalities of transport, such as greenhouse gas (GHG) emissions, accidents, traffic congestion, noise, air and water pollution, and related health problems. Other concerns such as energy supply and security must also be addressed. To induce the required behavioural change, it is important that the correct price signals are sent. At present, however, the full costs of transport are not visible to users, nor are the full benefits, leading to decisions about consumption patterns and travel behaviour that are poorly informed. Price distortions in transport markets are currently causing a substantial misallocation of resources.

Transforming the transport sector to meet economic and sustainability challenges involves transitioning to more efficient, low-carbon transport systems. Driving this transition requires priority setting and targeted investment and policy-making. Although significant funds are allocated to transport research and infrastructure development, they are often poorly aligned with public policy objectives and do not adequately support the new business models, innovative practices and international collaboration necessary to transform the sector. This transformation will also require more effective risk management, the more rapid diffusion of innovation and greater incentives for businesses and individuals to use transport more sustainably.

[2] A. Schafer et al. *Transportation in a Climate Constrained World*. MIT Press, 2009.

Opportunities

The transition to a more sustainable transport system will be a challenge, but it will also offer many exciting opportunities.

Concern has been expressed about the cost of achieving the 50% reduction in global GHG emissions by 2050 considered necessary to maintain average temperature increases below 2°C by 2100.[3] In relation to the transport sector, capital costs of developing low-emission vehicle technologies will be high, for example. However, many decarbonization measures in the transport sector also have positive externalities in terms of cost-cutting and higher efficiency rates. They are often self-financing and offer a fairly rapid payback. Further, the net costs of making deep cuts in carbon emissions also need to be put into perspective. It has recently been estimated by the International Monetary Fund (IMF) that fossil fuel subsidies account for 1% of global GDP – fully half of the cost of addressing GHG emissions according to the Stern Review.[4] Eliminating these subsidies and exposing transport users to the "real" cost of fuel would radically change their perceptions and behaviour on a global scale.

Road accidents claim more than 1 million casualties per year and are the greatest single cause of premature death in the world today for young people between the ages of 15 and 29. An effective global mobility system would prioritize road safety and aim to achieve large reductions in accident levels by, for example, improving road maintenance in developing countries, promoting non-motorized transport, tightening drink-driving regulation, and running educational campaigns.

In both passenger and freight transport, vehicle capacity is grossly under-used. Typically 30-40% of truck-kms are run empty because operators are unable to find suitable backloads or are prevented by regulation from carrying them. In public transport systems, this problem is less acute as personal flows tend to be much more balanced, although some urban taxi systems and mass transit systems are characterized by low levels of occupancy, partly as a result of poor regulation. Large potential exists to reduce empty hauls and increase vehicle load factors, thereby cutting traffic levels, congestion, fuel consumption, operating costs and externalities.

The densification of cities and the spread of megacities, with the appropriate urban design approaches, offer the opportunity for more profitable and more effective public transport systems. This, combined, for example, with more bicycle and pedestrian friendly streets, smart traffic management, and the replacement of large high-powered motor vehicles with small electric city cars, could deliver a cleaner, quieter, safer and enjoyable city centre environment.

The rapid development of information and communication technologies has much to offer in supporting the development of sustainable transport. It can facilitate modal shift to public transport, promote car sharing, optimize routing and traffic management to reduce congestion and emissions, raise the efficiency of freight movement, challenge individuals to drive in a more energy efficient and safer manner, and replace unnecessary journeys by making use of teleworking, teleconferencing and Internet shopping. In the media, entertainment and software sectors, digital transmission should increasingly replace the physical movement of freight, while the development of remote manufacturing (using 3D printing technology) also promises to reduce the freight transport intensity of some industries.

While this is not an exhaustive list, it would be incomplete without a comment on the potential beneficial impact of sustainable transport on energy security. Today, more than half of the world's annual oil consumption is used for transport, and automotive transport is 99% dependent on petroleum-derived fuel. For those countries that are net importers of fossil fuels, most of which goes to fuel transport, the increased efficiency of transport does not only benefit the economy and environment, it also reduces dependence on foreign energy sources.

It is clear that radical changes are needed in the way we plan, manage, finance and use transportation. That the most rapid growth in personal mobility will be occurring in developing countries and many cities' transport systems and infrastructure are just in planning phase is a major opportunity. With the right information sharing and support, these cities can be helped to develop more sustainable transport solutions for people and goods, and to be an example to the developed world.

[3] The 50% target is envisioned by the United Nations Framework Convention on Climate Change (UNFCC) for all human activities and has not been disaggregated by sector. The potential for cost-effectiveness of cutting GHG emissions will vary widely by sector and so will and should the magnitude of reductions by sector.

[4] We are fully aware that subsidies are transfers, not an economic cost, and that they cannot be readily compared to the economic cost numbers estimated by the Stern Review.

Challenges
There are many challenges to overcome. The cost of oil and the transport services it powers are likely to become more volatile as it becomes scarcer and more expensive to discover and produce. Higher costs are reflected in higher prices, and this situation is therefore likely to erode confidence in the appraisal of major long-term transport investment projects. Uncertainty about future carbon prices further complicates this process. Low-carbon transport technologies usually offer lower operating costs and healthy rates of return but require major up-front investments, which are difficult for individuals, companies and governments to make at a time of economic recession. It is necessary to build confidence in longer-term financing models, which can deliver capital expenditure now, with high expectation of profit in the operating business – transitioning from Capital Expenditures to Operating Expenditures (Cap-Ex to Op-Ex).

One of the greatest constraints on transport development over the next few years is likely to be the parlous state of public finances in many countries. In an effort to reduce large deficits in their public accounts, governments will be cutting transport budgets and postponing transport investment decisions.

Apart from finance, the two other main requirements are time and behavioural change. Over the next 40 years, dramatic changes in corporate and personal behaviour are needed to realize the vision of the sustainable transport system outlined in this proposal. This will require political will and public support. Both will be strengthened by the accumulation of evidence showing that radical changes to the transport system are necessary and by wider dissemination of best practice.

Risks of Inaction
Continuing to conduct business as usual for the transport sector – in terms of its business models, its energy sources and rate of technological advancement, the mispricing of transport services, fuel sources, and infrastructure costs – poses a serious risk to the world's prosperity.

Gridlocked transportation networks slowing economic growth, pollution causing millions of premature deaths, mounting carnage in road accidents, and steep increases in CO_2 emissions from billions of cars and tens of millions of trucks – all of these scenarios are the possible risks of inaction. They are long term but mounting and irreversible. In the absence of new public policy initiatives and corporate commitments, many of the economic, social and environmental problems of transport will become more acute. The pursuit of sustainable mobility will alleviate these problems as well as contribute to the more general enhancement of living standards.

Delivering the Vision
We can make a difference. Important opportunities exist for improving transport efficiency and improving mobility while reducing negative impacts through regulatory, fiscal, technological, policy and behavioural changes. Exploiting them will require a serious commitment by international bodies and national governments to set and achieve goals and targets. Innovations in system design and vehicle technology are constantly emerging and many more need to be commercialized. Appropriate pricing strategies and incentives need to be applied to induce more sustainable patterns of transport demand. Best practices need to be more widespread and, more importantly, policies need to be aligned.

Developing actionable roadmaps to achieve these goals must be a priority for international decision-makers, given the critical importance of transport for people's economic, social and environmental well-being.

Proposals and Explanation/Rationale

(1) Involving the G20: Adapting the International Institutional Framework to Set Objectives and Targets for Sustainable Transport

Although numerous initiatives to achieve the goal of maximizing access to goods and services within sustainability constraints are under way, the efforts are highly fragmented, with little coordination at the global level. **There is a failure in the global cooperation needed to provide adequate solutions to transport problems.**

This failure must be recognized at the government level by all countries, especially major economies able to lead the coordination effort. Due to its crucial impact on economic development and the nature of the long-term risk it poses, transport must receive a higher level of international attention than it does today in most established bodies. A more adequate international institutional framework must be developed and empowered.

The objective is not to over-regulate but instead to coordinate planning and investments, align policies at the international level and avoid "uncontrolled" development in an effort to promote efficient, responsible development.

Based on the current state of scientific and economic knowledge, it is critical that:
- global policy objectives and targets be set in terms of fossil (non-renewable) fuel consumption reduction, fossil fuel combustion emission reduction, and reducing other environmental impacts (e.g. via global pollution standards) as they relate to transport
- local (and/or regional, global) objectives be set in terms of casualty reduction, toxic emission reduction, noise reduction, economic targets for optimizing transport flows and access to mobility

At a global level it is probably unrealistic to view the United Nations as the only institution that can define all worldwide policies. The rise of the G20 countries as the driving force of global redesign initiatives must be acknowledged: this group is large enough to discuss weighty problems yet small enough to take decisions and execute solutions.

We do not recommend the creation of a new international body to address the challenges described above. Rather, we propose that the G20 draw on the expertise, experience, and consensus-building capacity of the International Transport Forum (ITF) – just as the G7 drew on the expertise of the IEA to base its decisions on energy issues. The G20 could hence provide the ITF with specific mandates to:
- play a leading role in identifying key data and information needed for policy-making and monitoring, and assisting governments in capacity building to collect and analyse such data
- perform and coordinate (with other agencies and with governments) global analyses to assess the current state of transport and highlight global challenges, and identify solutions and pathways towards sustainability
- make recommendations to G20 governments about joint initiatives (objectives and means) and provide guidance for building global/regional/local programmes.

These activities, conducted both on a systematic and in some cases ad hoc basis, would focus on agreed development and sustainability targets in order to:
- promote rational global transport objectives and foster the transformation of the transport sector while emphasizing improved economic and social conditions
- explore inter-relationships between transport and other activities, and assist in the integration of transport planning with other related development areas (economic, social, energy, environment, health, urban planning, trade)
- develop cooperation with G20 and non-member countries to foster rapid convergence in policies and standards as well as cooperation in transport programmes
- foster innovation and education on challenges and best practices

Conditions for Success

Critical to its future success, under the G20 mandate the ITF would continue strengthening an organized link with: 1) international bodies like the IEA and various UN bodies (the World Trade Organization, the United Nations Framework Convention on Climate Change (UNFCCC), the World Health Organization, the United Nations Environment Programme, the United Nations Development Programme and regional bodies), on the public/intergovernmental side. Close cooperation with the IEA in particular is essential, given the critical role of energy in transport; 2) international/regional transport industry organizations for cars (the International Organization of Motor Vehicle Manufacturers, the European Automobile Manufacturers' Association (ACEA), Japan Auto Manufacturers Association, Alliance of Auto Manufacturers), all road users (the International Road Transport Union), rail and bus (the International Union of Public Transport, the International Union of Railways), aviation (the International Air Transport Association, the International Civil Aviation Organization), maritime (the International Maritime Organization); 3) professional transport and logistics bodies (e.g. the Chartered Institute of Logistics

and Transport, the Council of Supply Chain Management Professionals); and 4) standardization bodies (e.g. WP 29, European Committee for Standardization (CEN), International Organization for Standardization (ISO)). Critical also is the implementation of a G20 international ratification system for ITF recommendations. One possibility is to have ITF recommendations be made public either on an ad hoc timing at the request of G20 countries (or a subgroup of countries) or on a two-year basis. Once approved by a certain percentage of G20 countries, recommendations would be proposed for ratification by all member countries. Once ratified, recommendations would take effect in ratifying countries and any other country willing to ratify.

Initial Objectives of the G20 Mandate to ITF

As a first step, the G20 mandate to the ITF could be based on the following suggestions:

- in cooperation with the IEA, make recommendations on dealing with potential global objectives and targets on fuel consumption, and fossil fuel combustion emission reductions within a proactive, economy-wide approach, while improving access to mobility and transport efficiency; establish the business case and propose a process and means by which to move forward, placing special attention on the fastest growing emitting sectors (energy, industry, buildings, transportation)
- make recommendations, propose a roadmap, and establish a business case for pollution standards, achieving near-zero emissions in cities, and achieving near-zero transport accidents and casualties
- provide help in bringing to fruition the four other recommendations made by the Global Agenda Council on the Future of Transportation (while respecting the subsidiary principle):
  - filling the information and knowledge gap
  - proposing more effective use of the price mechanism in transport
  - accelerating affordable innovation
  - harvesting low-hanging fruits
- mobilize all relevant parties towards well-integrated strategies to achieve a balanced development of transport.

In addition, all studies and recommendations should aim to adopt a 30-40 year planning horizon (compatible with structural transport industry transformation and 2050 climate change goals) while putting an emphasis on the short-term decisions required to initiate change as a matter of urgency.

(2) Filling the Information and Knowledge Gap

The Global Agenda Council on the Future of Transportation has identified a gap in basic knowledge and information about transportation at the global and national levels, which impedes the development of evidence-based policy-making.

Improving the quality, efficiency and sustainability of transport requires both reliable transportation data and knowledge of potential solutions. This is currently lacking in several respects. First, there is a lack of detailed information about who, where, why, when, how and for how much people travel. Second, in most countries very little data is collected on the quantities of freight transported by different modes, the efficiency with which it is carried and the structure of the supply chains through which goods move. Third, information about good practice in the management and operation of passenger and freight transport systems is not adequately disseminated both within and between countries. Fourth, in most countries, information about the environmental impacts of transportation is inadequate to support sound decision-making and performance monitoring. Finally, in addition to the aforementioned points which relate to the current gaps in information, there is a need for further research on areas of exploration that are essential for the future of the transportation sector: we need to identify the information that is needed for the future of transportation systems: how much progress can be made through technical and regulatory initiatives, when, with what magnitude, at what cost, with what supply constraints, etc. This is particularly relevant to progress in energy efficiency across the sector.

The Council puts forth two overarching recommendations in this regard: 1) provide the appropriate resources in order for the ITF to compile the key sets of standardized data; and 2) disseminate best practices and lessons learned through an interactive open-source Internet-based system:

1) Filling the Information Gap

Reliable transportation data are a critical prerequisite for making informed policy decisions. An accurate and comprehensive transportation database is required for infrastructure planning, the formulation of regulatory and tax policy, the development of emission mitigation programmes, etc. Most developed countries already have elaborate systems of transport data collection in place and some (e.g. those in the European Union) are subject to international statistical directives. However, this situation is in stark contrast to the paucity and poor quality of transport data in many developing countries. For example, large African countries, such as Nigeria, do not even collect data on the size of their vehicle population. But even in developed countries, statistical data available is usually in physical quantities, not in money terms unlike what is to be found for practically all other economic sectors.

The range of the required data is large and covers both passenger and freight transportation in terms of **vehicle fleet characteristics** (types, fleet sizes, age structure, technical characteristics including fuel economy and fuel types, distance travelled per vehicle); **traffic-related data** (passenger trips and kilometres by mode, internally consistent levels of monetary and time expenditures for transportation, freight ton-kilometres by mode, number of tons transported, commodity type and economic value, transport speeds by mode, vehicle load factors and fuel efficiency); **infrastructure capacity data** (roadway characteristics, land use patterns); **transportation cost, price and tax data** (vehicle operating costs, public transportation fares, vehicle, fuel and road taxes, public transportation subsidies); and **environmental indicators** (pollutant emissions, traffic safety indicators).

This data would be collected primarily for five purposes: 1) to improve the understanding of the patterns of personal travel and freight flow; 2) to measure the utilization of transport infrastructure and vehicle capacity and the potential to accommodate future traffic growth/improve productivity; 3) to assess energy consumption in the transportation system; 4) to monitor the environmental impact of personal and freight movement by different modes; and 5) to calibrate traffic forecasting and investment appraisal models.

We believe that many of the deficiencies in transport data could be corrected if an organization such as the ITF were given the resources to compile more detailed and comprehensive databases. This might be done in the following way:

- Review the current state of data and data collection procedures in countries around the world and define and promote best practice in the collection and reporting of transport statistics
- Identify priority areas for improving data collection, appropriate methodologies for collecting and validating this data (taking into account the costs and cost-effectiveness of different approaches), and systems to ensure international consistency in data collection and reporting methods and standards of data accuracy
- Provide advice, technical assistance, and start-up funding for new data initiatives to countries lacking adequate data collection systems, and encourage international development assistance and carbon finance initiatives to help sustain key data initiatives where warranted[5]
- Establish an international and improving system for monitoring data collection standards to support sustainable low-carbon transportation development
- Support the dissemination of transport data

2) Filling the Solutions Knowledge Gap

In cities and towns around the world, government and citizen leaders seek to find solutions to pressing local problems. All too often standard practices in some cities have proven to be excessively costly, ineffective, or inappropriate when applied elsewhere. This is particularly true in the transportation sector as we fully realize the environmental, land use, and health costs of 50 years of promoting a car-based lifestyle. Conversely, highly effective and low-cost solutions may be well known locally or in certain networks, yet unknown or unappreciated in other places where they could be applicable.

[5] As a point of reference, SLoCaT Partnership activities improve the knowledge on sustainable low-carbon transport, help develop better policies and catalyse their implementation. (http://www.slocat.net/)

In order to overcome this gap in communication the Council recommends the establishment of an online "Solutions Encyclopedia" wiki, a resource available to anyone anywhere with access to the Internet. The goal of this wiki is to become a source for government and private practitioners around the world for information about the solutions and approaches to common transportation and planning problems. These problems and solutions would be indexed (tagged) as to the characteristics of the regions, towns, and cities in which these practices are implemented so that locations with similar characteristics can know the suitability of the particular solutions. The Solutions Encyclopedia will not be a comprehensive how-to guide. Rather, it will identify possible solutions so that these ideas might be researched and considered in more detail in other ways. Further, the content could expand beyond transport, to incorporate other relevant issues such as land use planning, energy efficiency, institutional arrangements, and financing options.

The wiki methodology – where many people make small individual contributions to create a large whole – would mean that the Solutions Encyclopedia inherently fosters cooperation. Networks of experts would exchange views on the issue definition, the range of possible solutions, and the degree of suitability of solutions based on population density, disposable income, infrastructure and other relevant characteristics. City governments with successful best practices (London congestion pricing; Bogota bus rapid transit; Seoul highway elimination) could insert short write-ups as best practices for relevant solution suggestions. The private sector would provide information on the products and services needed to pursue a particular solution (train infrastructure, technical devices, motor wheels, consulting services, etc.).

The first step to realizing a Solutions Encyclopedia is to create a prototype. The Global Transport Knowledge Partnership (www.gtkp.com) may be such a model and a good starting place. The World Economic Forum, through its wide network, would also be ideally suited to undergo this project. The Forum's Global Agenda Councils could provide some of the initial knowledge for the prototype, whereas the Forum's partner companies could provide information on their products and services. Once the prototype is delivering value, partnerships with academic institutions and development agencies (e.g. the Clinton C-40 Initiative, World Bank, etc.) would provide the necessary knowledge and financial support to move from the prototype to a full-fledged service.

(3) Making More Effective Use of Pricing Mechanisms

Three considerations dominate the issue of pricing in transportation. First, prices that reflect all scarcities are a very effective policy instrument. Second, transportation is a sector where market failures abound (externalities, public goods, economies of scale, natural monopolies). Therefore markets and "natural" prices often must be "assisted" by means of financial and policy tools such as taxes and subsidies in order to be effective. Third, transport taxes and subsidies, by virtue of their mere weight, often have major consequences for public finance and income redistribution; such consequences must be taken into account in the design of transport price systems. **The Council on the Future of Transportation identified an important deficiency in the use of pricing mechanisms in transportation globally.**

The overarching recommendation from this Council is that all transport users cover all the costs they impose on society. This is far from being the case presently. In many countries, for example India, China (until recently), and most oil producing countries, fuels are heavily subsidized. They are sold at a price that does not cover oil purchase, transport, refinery and marketing costs, let alone the considerable negative externality costs of motor vehicle use on society in terms of accidents, pollution, noise, and other ills. In contrast, in other places, particularly in European countries, fuel is taxed at a rate of about 150%. In many countries, also particularly in Europe, rail users pay only half the cost of rail transportation. International aviation is entirely free of fuel taxes.

A first specific recommendation is that all "**unjustified" subsidies be eliminated**. It is worth emphasizing that such a measure works hand-in-hand with the need to combat unsustainable fiscal deficits, which has become a pressing need in many countries. This elimination of subsidies need not be brutal and can be gradual: what matters most is that the decision to phase out these subsidies (if perceived as irrevocable) will send a signal to consumers and businesses that energy prices will be rising steeply. "Unjustified" must be understood intelligently: in certain cases, temporary subsidies (to help a new technology take off, for instance) might be acceptable.

A second specific recommendation is that **"all the costs" include the external costs** imposed by transportation, namely: CO_2 emission costs, air pollution and noise costs, congestion costs, and road or truck usage costs. Making users pay for these costs is not the only way to reduce them: motor vehicle air pollution for instance has in developed countries been effectively tackled by means of tightening emission standards imposed upon vehicle producers.

However, increasing prices by the amount of the externalities caused is often the simplest and most effective way to stimulate externality-decreasing innovations, and to reach policy objectives in such areas at the lowest possible social cost. The menu of internalizing taxes is varied.

CO_2 emission costs, which are a direct function of fuel consumption, lend themselves well to a simple carbon tax levied on fuel consumption. Given the travel distance dependence of air pollution, accident, and noise costs, carbon taxes can best be based on vehicle-kilometres travelled. Road usage cost taxes (the physical wear and tear of roads and railway tracks) should be based on the number of kilometres driven and on axle weights. To internalize road congestion, only tolls varying with the magnitude of congestion (which varies by location and time of day) are efficient, provided collection costs and increased public transport congestion remains reasonable.

The redistributive consequences of all these measures must be studied on a case-by-case basis. In many developing countries, aligning prices with costs will in fact redistribute income. In such cases, there is convergence, not contradiction, between efficiency and equity. In developed countries, by contrast, the opposite might well be true. The resulting contradiction must be recognized and mitigated by making the overall tax system more progressive. For example, widespread time-of-day tolling should be accompanied by the provision of better public transport and real-time ridesharing options and a means-tested refundable mobility tax credit or other measures to ensure equitable distribution of benefits and burdens.

International organizations working on transportation and energy, such as the ITF, IEA, and World Bank, must continue to raise awareness on the importance of pricing transport and energy products correctly and provide the necessary technical assistance in order to fill the knowledge gaps and help implement best practices.

(4) Harvesting Low-Hanging Fruits

The Global Agenda Council on the Future of Transportation identified a series of inefficiencies in transportation systems, particularly in developing countries. They result in the under-utilization of vehicle and infrastructural capacity, excessive energy consumption, unnecessary emissions of CO_2 and other pollutants, and avoidable loss of life. Many of these inefficiencies, some examples of which are described below, are caused by poor management and market distortions that can be corrected at low cost:

Phasing Out Fossil Fuel Subsidies

Arguably the biggest low-hanging fruit is fossil fuel subsidies. While this is core to the earlier recommendation on pricing, it is worth repeating here. Despite recent moves in China, Indonesia and Russia to relax the control of fuel prices and allow them to rise, and to reduce fuel subsidies in other countries, a number of states still subsidize and/or keep transport fuel prices at very low levels and even subsidize transport fuels. According to a recent IMF study, fossil fuel subsidies amount to some US$ 740 billion a year worldwide – about 1% of world GDP – causing energy consumption and GHG emissions to be much higher than they would otherwise be.[6] According to IEA/OECD estimates, eliminating fossil fuel subsidies by 2020 would reduce GHG emissions by 10% by 2050. The IMF study estimates that halving tax-inclusive subsidies could reduce projected fiscal deficits by one-sixth in subsidizing countries and reduce greenhouse gas emissions by around 15% over the long run. It is encouraging that the 2009 G20 in Pittsburgh agreed to phase out fossil fuel subsidies, although a firm timetable is still awaited.

[6] Coady, David, et al. "Petroleum Product Subsidies: Costly, Inequitable, and Rising". International Monetary Fund Fiscal Affairs Department, February 25, 2010.

Eliminating fuel subsidies would not only eliminate some price distortions. It would also likely shift demand to less energy-intensive and cleaner transport modes. Promoting public transport could then be considered a complementary policy action, by utilizing budgets no longer allocated to subsidies to implement public transport systems, making the proposition more politically viable. The Clean Development Mechanism could be used to support these complementary actions, thereby accelerating the phase-out of transport fuel subsidies. Higher fuel prices would also encourage higher density land use development patterns to minimize transport distances and costs.

Investing in Road Maintenance
Many roads, especially in developing countries, are not maintained to an adequate level. Low-quality roads often result in lower vehicle fuel efficiencies, higher operating costs, longer travel times and high accident rates. A lack of proper road maintenance is often not caused by scarce financial resources but is rather the result of governments setting the wrong expenditure priorities under political pressure and allocating disproportionally more resources for new road construction, thereby taking away from maintenance budgets. This is quite common in many developing countries. The World Bank has helped developing countries correct the misallocation of public funds between road development and maintenance since the late 1970s. Despite strong technical and economic justification for road maintenance – often showing a rate of return of over 30% – the lack of maintenance is still widespread in the developing world.

Reducing Accidents
Every day, around the world, more than 3,000 people die from road traffic accidents, with 85% of the fatalities occurring in developing countries. Much more can be done, at modest cost, to reduce this huge loss of life. Solutions include a strong mandate in favour of protection equipment such as the use of helmets for motorcyclists (e.g. Vietnam), more severe punishment to drunk drivers (e.g. China), better motor vehicle standards, and better non-motorized transport infrastructure.

Reducing Empty Running Vehicles
Empty hauls are a common phenomenon in transport operations. Some are unavoidable due to the uneven spatial patterns of trade flows and passenger flows. The unidirectional movement of many freight consignments makes it particularly difficult to achieve the balanced loading of vehicles. Regulation, local monopolies, poor service management, and lack of information about available backloads exacerbates empty running.

There are managerial and technological solutions (such as load matching, improved routing and scheduling, and flexible loading and unloading practices). Policy options should also be considered, for example, liberalizing urban taxi markets to minimize empty hauls, breaking local monopolies in freight, and encouraging cabotage and open skies policies. In the logistics sector, the development of online freight exchanges and Web-enabled tendering is helping carriers raise vehicle load factors in both directions. New examples of businesses using technology to reduce “deadheading” by making excess capacity easily known and available for booking are emerging (see www.shiply.com). These forms of e-commerce, however, are currently confined to a few developed countries and needs to be more widely applied, particularly in the developing world.

Providing Training in Fuel-Efficient Driving Techniques
Among the most cost-effective means of improving commercial vehicle energy efficiency is to train staff in “eco-driving” techniques. Average fuel savings of 7-10% have been widely reported as a result of such training programmes. Monitoring and incentive schemes can ensure that these initial fuel efficiency gains are maintained. More sophisticated forms of “driving style” analysis are now deployed to customize training for drivers. Improvements in driving behaviour usually reduce accident rates and fuel consumption, thereby offering a supplementary economic and social benefit.

Promoting Non-Motorized Transport
The environmentally most benign forms of transport, namely walking and cycling, are being displaced by rapid motorization and rendered impractical by suburbanization. An increasing number of cities around the world are now starting to rebuild the non-motorized transport environment because they find that a large share of citizens still travel in non-motorized modes. Conserving existing road space for non-motorized transport is often more cost-effective than creating new dedicated road-space for motor vehicles.

Prioritizing Public Transport
Well-managed, well-operated public transport that is clean, safe, and affordable boosts the livability and quality of life in cities. Higher quality public transit can also dampen the demand for private vehicles as incomes rise, thereby moderating increases in oil consumption and CO_2 emissions. As the 2009 Urban Mobility Report prepared by the Texas Transportation Institute indicates, public transport in the US saved 646 million hours in travel time and 398 million gallons of fuel. Without public transport, congestion costs would have risen 16% to an additional US$ 13.7 billion since 2005. The report also indicates that in the largest urban areas where transit is most available and used, the savings are greatest: public transport in the US saves about 37 million metric tons of CO_2 emissions and 4.2 billion gallons of gasoline every year.

For most developing countries aspiring to the comfort and freedom of car travel, the challenge lies in developing and maintaining the viability of a public transport market. Successful experiences of public transport reversals exist worldwide. Seoul, Korea, tore down its freeway and replaced it with an urban park and bus rapid transit corridor, with time-of-day pricing on key tunnels into the city to manage traffic and support public transport. Bus rapid transit systems such as the one implemented in Bogota, Colombia, demonstrated nearly equal levels of service and capacity compared to a metro system, yet achieved at a fraction of the cost.

Transforming Urban Form and Land Use
Changes in urban form and land use appear to be a significant low-hanging fruit, but probably the most difficult to reap, especially over the short to medium term. Shorter commuting distances and lower levels of private car use offer improvements in transport-related energy use, air quality, and accidents, but require higher-density development. However, the growth of megacities in Asia creates an opportunity to optimize city planning for public transport. Achieving higher density urban development requires a combination of policies including a pricing mechanism for private vehicle travel and the implementation of integrated land use and transport-oriented development practices, which aim to reduce demand for car-based commuting and promote public transport use.

Harvesting the "Low-Hanging Fruits"
There is large potential for low-cost improvements; the above-mentioned examples are but a few promising areas. As with the correction of pricing mechanisms, these "low-hanging fruits" could be more effectively harvested with the help of international agencies such as the ITF, the IEA, and the World Bank, that can provide the necessary institutional capacity and technical assistance to breach the gap in understanding and help spread best practices. The ITF could specifically contribute in providing further insight into the cost effectiveness of some of these suggestions, and assist in the knowledge-transfer from the developed to the developing world. Further, the "wiki" Solutions Encyclopedia and the Word Economic Forum are also ideal platforms to help spread best practices and further knowledge on these low-cost, high-return solutions.

(5) Accelerating Affordable Innovation

Given the urgency of the problems outlined in the previous sections and the need to revolutionize the transportation sector, accelerating the innovation process in all areas of transport – turning ideas into new products, processes and services – is a critical next step. This will require new forms of support and collaboration at all stages of the innovation process from research to deployment. **The Global Agenda Council on the Future of Transportation identified four key areas where progress is required to "accelerate affordable innovation": open data and devices; innovation cities; Cap-Ex to Op-Ex; and Public-Private Partnerships**. Key actions are described below.

Open Data and Devices Using Open Standards
The transport sector can learn from the explosion of innovation related to smart phones, where increasing openness has proved to be an important tool for reducing the skill, cost, and implementation barriers for innovators.

The combination of ubiquitous communications technologies with the new opening up of transportation and location specific data sets is beginning to have a major impact on the transport sector. Access to transit schedules, routes, payment mechanisms, and "next bus" information is now conveniently available for users, in real time. There are many other areas of transport where innovation, to enable sustainable, accessible and affordable mobility of people and goods, is being catalysed by the combination of open standards and devices and the open availability of data: examples include congestion avoidance, the optimization of city deliveries and more complex logistics.

Government procurement can be used as a route to drive greater openness. If major governments require suppliers to use open standards and devices wherever possible and to share non-critical data, innovation will likely accelerate.

"Innovation Cities"
Some types of innovation in the transport sector cannot be undertaken on a small scale, for example where significant changes to infrastructure are required and where there is the need for adoption to achieve critical mass. Demonstration projects of city pod cars, all-electric vehicles, peer-to-peer networking, and real-time ridesharing are all good examples. The success of such ideas is difficult to establish on a small scale, or with an inadequate geographic concentration of users. Such projects could demonstrate success, improve operational details, achieve some economies of scale if specific regions or cities were given the financial incentives to take them on, and enable manufacturers to test at significant scale in different environments, with results shared openly between different locations and technologies through such means as the Solutions Encyclopedia wiki. The international coordination of demonstration also offers manufacturers incentives to bring innovative products to market. Given that growth in car ownership and the need for transport will be growing most rapidly in developing countries, it is critical that developing economies be key participants in these large-scale demonstrations.

Cap-Ex to Op-Ex
Many transportation projects require significant investment in capital-intensive infrastructure and rolling stock for demonstration and deployment, once the R&D phase is complete. Even at the level of the individual consumer, most of the radical automotive technologies, such as batteries or fuel cells, will have higher up-front costs than the internal combustion engines they replace, although the running costs will be much cheaper. In order to encourage the uptake of these new technologies, new business models will be needed so that the consumer pays for the higher capital cost through the life of the vehicle – from conventional leasing to pay-as-you-drive approaches. New industrial alliances will be needed, such as those between electricity companies and fleet owners, to develop business models that turn capital expenditure into an operating expense for the user: Cap-Ex to Op-Ex. Enabling these new business models in a way that triggers the broad shift urgently needed will be critical if we are to accelerate the introduction of essential new technologies. The difficulty of financing the up-front fixed cost investments – by any one individual (in the case of new vehicles), by companies, or by governments – is often prohibitive and prevents adoption of the new.

The real challenge is to find scalable business models for making new technologies, such as the electric car, affordable and accessible in many countries, especially the developing countries, where it is going to be so critical. Policy incentives play a big role in this process, as innovation stands to gain a lot from supporting a consistent regulatory environment. Flexibility in existing licensing structures, for example, has supported innovation and the pick-up of new technology by allowing a more extended use of heavy electric vehicles in Europe.

Public-Private Partnerships
Beyond demonstration comes full-scale implementation. Public-private partnerships have the potential to successfully solve government transportation infrastructure financing requirements. Yet high profile failures, from both the government and private sector perspective, have dampened the desire to engage in public-private partnerships.

Recommendations
Accelerating affordable innovation in transport needs new approaches to support the transformation process and collaboration at all stages of the research, development, demonstration and deployment process.

Open Standards and Data in Government Procurement and Public R&D Funding
In order to ensure that public money is used effectively to accelerate innovation, government procurement should, wherever possible, require the use of open standards, open devices, and the open access to non-critical data relating to the products and services procured. Large companies should be encouraged to adopt these principles for their own products and services in appropriate cases. The same requirements should be included in public grants for R&D to encourage researchers and private companies to share new ideas and data more widely so that they are picked up and exploited quickly, while also providing some level of protection to allow those who have invested money in R&D to get a return on it.

Global Development Fund for City Mobility Pilots

To help accelerate the adoption of new technologies and advances in transportation, and to enable developing economies to be key participants, a global innovation fund is needed, available to regional or city transportation authorities, to conduct innovative sustainable transport demonstrations, delivering challenging and quantified improvement targets, linked to the G20/ITF outputs. This fund would be managed by selected government and/or development banks and available to regional governments for pilots aimed at delivering significant improvements in:

- the public adoption of mass transit as a preferred mode of travel
- the use of alternative fuel and/or electric vehicles (commercial or private)
- new services to reach underserved market segments
- city design/redesign for sustainable mobility
- the use of Intelligent Transportation Systems to improve public safety and security, traffic congestion, and operational efficiency for both people and freight

The pilots would also encourage the formation of new industrial partnerships and test the acceptability and sustainability of new business models.

The global innovation fund would coordinate pilots and ensure the sharing of outcomes in collaboration with the ITF. Transportation authorities would be asked to document details/results of the pilot, and invite all people involved with, or affected by, the pilot to comment on their perceptions of what worked and what didn't from a wide range of different perspectives. The results would be shared as best practices/learned lessons with other regions/cities via the Solutions Encyclopedia wiki.

Support for the global innovation fund might come from the World Bank and the Clean Development Mechanism (CDM) credit system.

International PPP Guidelines

Public-private partnerships (PPP) have the potential to solve transportation infrastructure financing requirements. There is a role for the development banks to play in re-establishing confidence in the PPP approach for major infrastructure projects, for example through continuing to issue publications of guidelines, checklists, and best practices, reflected in a "universal template". Participation by the World Bank and use of the CDM mechanism could help ensure financial security and affordable loans for the large-scale implementation of new mobility solutions such as "pay-as-you-drive" electric vehicle schemes in developing countries.

Conclusion

Sustainable transportation should be conceived of as a global public good and as such must be given proper attention. The state of the transport sector is not sustainable and needs a transformation if it is likely to address the risks that continuing on with business as usual pose to the world's prosperity. Risk factors that need to be seriously considered include transportation's responsibility as the largest consumer of oil; the second largest contributor (24%) to CO_2 emissions caused by fossil fuel combustion and the fourth emitter of total GHG emissions (~13%)[7]; a major contributor to pollution and premature deaths; and an example for the inappropriate allocation of public finances.

The Global Agenda Council on the Future of Transportation believes that there is a great opportunity to generate change through improved coordination, collaboration and communication of the sector's risks, its opportunities, and its challenges. This document presents specific recommendations on five main areas: establishing a new international institutional framework for transport with the aim to set goals and align policies; addressing the existing gap in information and knowledge; implementing the adequate use of pricing mechanisms; acting on simple, inexpensive solutions – "low-hanging fruits" – that promise high impact; and accelerating affordable innovation through the implementation of new business models and novel financing and policy options.

[7] Source: IEA 2009; Intergovernmental Panel on Climate Change (IPCC)

These proposals are not presented without full acknowledgement of the colossal challenge that lies ahead and the difficulties related to implementing many of the recommendations. There is also an earnest recognition of the depth of uncertainty that still exists in many of the issues discussed; many questions remain unanswered and many areas need more research and analysis to provide the clarity required to move action forward.

Yet, the benefits of tackling the issues discussed far outweigh the costs and efforts needed to generate transformation. Numerous things can be done, many of which are actually quite simple and can be very effective. The more complex changes will take longer to come, but even then we must act with a sense of urgency; after all, it is the fate of the world we are referring to and we must ensure that transportation contributes positively to this outcome.

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World Economic Forum Low-Carbon Prosperity Task Force[1]

Task Force Working Group on Adaptation

Context

Adaptation to climate change is a global imperative that must be tackled as a priority in a post-Kyoto accord. The global private sector – which includes not only large multinational and national entities, but also millions of small and medium-sized enterprises, informal sector businesses, small-scale farms and fisheries – will be significantly impacted by climate related changes. There is a potential to unlock significant new and additional actions for adaptation from these private sector actors through well-designed international and national policies.

Understanding and supporting the private sector role in adaptation does not absolve developed country governments of their responsibility to fund international adaptation efforts. Rather, such understanding and support is crucial for ensuring that public funds and associated policy instruments leverage the maximum adaptation actions possible by the private sector and avoid perverse incentives that would promote maladaptation on their part.

Several public policies are required to accelerate and enable these actions, including incorporating the private sector into adaptation planning; strengthening incentives for effective adaptation by business; taking advantage of opportunities for public-private partnerships and mainstreaming for adaptation; and making international frameworks the springboard for engaging business in adaptation. The role of the private sector in adaptation is a relatively new field that requires further analysis and study. Policy suggestions need to be discussed and developed. Specific propositions to help raise additional financing for adaptation efforts will require further exploration and development.

Proposal

The Task Force Working Group on Adaptation recommends the creation of:

- **A major public-private dialogue hosted by developing countries and involving the private sector, international organizations, bilateral aid agencies and civil society that could be launched shortly after COP15**

  This initiative should focus on three key areas:
  - *Development of innovative public-private financing mechanisms for adaptation*: These would build on the successful previous experiences with similar mechanisms such as the Global Fund and Stop TB or the International Finance Facility for Immunization (IFFIm) from the health sector.
  - *Further development of the national policies required to engage the private sector in adaptation*: The aforementioned national policies to catalyse private sector engagement must be further developed; challenge funds to spur private sector innovation for adaptation and public-private partnerships for infrastructure are options that require additional development in particular.
  - *Specific analysis of how to engage the private sector in support of adaptation efforts in least developed countries*: As least-developed countries represent some of the most difficult areas to engage business support for adaptation, there is a need for further substantive analysis to develop the public-private partnership models that can be successful in these countries.

Explanation/Rationale

Even with rapid reductions in greenhouse gas emissions, changes in the climate system will continue to unfold over the coming decades with particularly severe consequences for vulnerable communities in developing countries. Adaptation to these changes is a global imperative that must be tackled as a priority in an international agreement on climate change.

[1] This proposal was taken from the recommendations of the Task Force on Low-Carbon Prosperity published by the World Economic Forum in October 2009: http://www.weforum.org/documents/gov/Environment/TF%20Low%20Carbon%20Prosperity%20Recommendations.pdf
The views expressed here do not necessarily reflect those of all the Task Force Members, nor do they represent an institutional position of the World Economic Forum or its Members.

World Economic Forum Low-Carbon Prosperity Task Force

The global private sector – which includes both large multinational and national entities and millions of small and medium enterprises, informal sector businesses, small-scale farms and fisheries – will be significantly impacted by these changes. This full range of private sector entities are among the primary actors driving forward economic development in developing countries and the main source of investment in these economies.

Public resources for climate change should thus be deployed carefully, recognizing that the much larger scales of private investment to developing countries will need to be realigned to take into account the impacts of climate change. Smartly deployed public finance has the potential to unlock significant new and additional actions for adaptation from the private sector if international and national policies are appropriately designed.

Governments have a range of public-policy mechanisms they can use to support and shape the private sector's adaptation actions, including:

- *Incorporating the private sector into adaptation planning:* National climate-resilient growth plans should consider private sector adaptation needs, the potential for private sector contributions to national adaptation priorities and the necessary instruments for leveraging such private sector engagement.
- *Strengthening incentives for effective adaptation by business:* National policies should strengthen the incentives for business to engage in effective adaptation actions to support their own business operations (through the use of taxes, tax breaks, subsides, standards, and regulations, for example), but also to support governmental efforts to help broader society and the environment adapt as well. Policies in the following areas could also be developed to this end: information disclosure, mandatory insurance schemes, encouragement for businesses to make their value chains more resilient, and the development of challenge funds that can spur business innovation for adaptation.
- *Taking advantage of opportunities for mainstreaming adaptation and public-private partnerships:* Where enabling environments are too weak to influence suitably private sector behaviour, governments should take advantage of opportunities for mainstreaming adaptation into business operations through the direction of broader policies on issues such as public procurement and asset management contracts (for water, energy, transport, etc.). Public-private partnerships could also be developed in areas such as insurance and for the delivery of publicly funded actions for adaptation, especially for infrastructure.
- *Making international frameworks the springboard for engaging business in adaptation:* An international agreement on climate change should lay the foundations for engaging the private sector in adaptation - this will help provide a platform for international initiatives and will help national governments define their own business and adaptation strategies. In addition to incorporating appropriate language in the text of an agreement, international frameworks should support the development of standards to measure the effectiveness of private sector actions as well as innovative financing mechanisms which involve private capital markets.

Next Steps

Begin a major public-private dialogue to further develop public-private partnerships for adaptation. The role of the private sector in adaptation is a relatively new field that requires further analysis and study. Not only do the aforementioned policy suggestions need to be further developed, but specific propositions designed to help raise additional financing for adaptation efforts require further exploration and development.

This proposal is put forward by the participants in the Task Force Working Group on Adaptation, listed in the Task Force on Low-Carbon Prosperity report:
http://www.weforum.org/documents/gov/Environment/TF%20Low%20Carbon%20Prosperity%20Recommendations.pdf

World Economic Forum Low-Carbon Prosperity Task Force[1]

Task Force Working Group on Avoided Deforestation and Land Use Change

Context

Forest-based mitigation offers a substantial win-win abatement opportunity by 2020. Achieving half of the reductions available from terrestrial carbon, mainly through avoided deforestation, will deliver 4 to 5 Gt of abatement by 2020 – around one quarter of the abatement required to reach a 450 ppm trajectory[2]. These efforts are cheap relative to the abatement prize: according to analysis by Project Catalyst, achieving approximately 60% of this abatement by 2020 is likely to be on the order of 15-35 billion Euros with each ton costing well below 15 euros.[3]

Frontloading forest-based mitigation in this fashion would buy time, as currently expensive clean technologies are demonstrated and made ready for large-scale deployment from 2020 onward. Furthermore, investment in forest-based mitigation would create alternative livelihoods and support sustainable development for forest populations, more than half of which live in extreme poverty.

It is clear that public financing will be necessary to build the foundations at the international and national levels for the large-scale implementation of REDD+ activities[4]. This "readiness for REDD+" phase will require 3 billion Euros over five years at minimum for capacity building alone. According to analysis by Project Catalyst, subsequent implementation at scale will cost an annual average of 8-18 billion Euros per year between 2010 and 2020. Some estimates, such as the Eliasch Review, suggest more[5]. The earlier readiness is built, the faster private finance can be deployed to take over this burden from the public sector. Depending upon the project type and geography, and on the scale of demand created for REDD+ credits through carbon markets, the private sector will be able to meet a portion of the financial flows required by 2020.

Proposal

Several policies are required to attract private sector finance to REDD+ activities:

- Parties should include forest carbon in the new climate agreement through a mechanism such as REDD+ and ensure adequate stability of such regulation over the long term
- Within such an agreement, these projects must produce carbon credits of compliance grade that are tradable as offsets and fully fungible with other credits in international carbon markets
- Measurement, reporting and verification (MRV) procedures must be robust and include the use of systems that can ensure reliable calculations of the carbon value of projects
- Forest-based mitigation efforts should be made available for investment at a project level, but placed within the context of national baselines and forest nations' Nationally Appropriate Mitigation Actions (NAMA) Plans
- A risk management framework for this new asset class will be required to mitigate risks such as unforeseen reversal

The development of each of these policies will require a process of extensive dialogue between the public and private sectors. Accordingly, the Task Force Working Group on Avoided Deforestation and Land Use Change recommends the creation of:

- **An international public-private dialogue to "Build REDD+" hosted by key forest nations involving the private sector, international organizations and civil society**
  Launched at or immediately after the COP15 meeting, this process would work to build the international and national architectures required for REDD+ to become an applicable national strategic planning mechanism and to be ready for private sector engagement by 1 January 2013. It would encompass the following workstreams:

[1] This proposal was taken from the recommendations of the Task Force on Low-Carbon Prosperity published by the World Economic Forum in October 2009: http://www.weforum.org/documents/gov/Environment/TF%20Low%20Carbon%20Prosperity%20Recommendations.pdf
The views expressed here do not necessarily reflect those of all the Task Force Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] *Towards the inclusion of forest-based mitigation in a global climate agreement,* May 2009, Project Catalyst.

[3] *Ibid*: note that Project Catalyst analysis calculates the forest-based abatement costs in euros, which is directly reported in the full report issued by the Task Force on Low-Carbon Prosperity. An approximate conversion for the reader could be 1 euro: US$ 1.50.

[4] REDD+, or REDD-Plus, refers to Reduced Emissions from Deforestation and Forest Degradation (REDD) combined with efforts for conservation, sustainable forest management, and enhancement of forest carbon stocks through programmes such as reforestation and afforestation. The proposition here is for this full suite of forest-mitigation up to agro-forestry to be included in a Copenhagen agreement, though the various subsets (REDD, reforestation, afforestation, agro-forestry, *etc.*) can be dealt with through separate mechanisms as deemed appropriate.

[5] *Climate Change: Financing Global Forests*, October 2008, Eliasch Review.

- *Enabling national policies:* to enable forest nations to develop nationally appropriate mitigation action plans or low-carbon growth strategies that incorporate policies to attract private sector finance as soon as possible after "readiness for REDD+" public measures are undertaken;
- *Designing appropriate carbon markets and credit systems:* to develop the designs for forest-based credits, including mechanisms to address the issue of permanence and a risk management framework, taking into account the lessons learned from forestry projects in the CDM and voluntary carbon markets, all ready for business by 1 January 2013;
- *Building robust monitoring, reporting and verification systems:* to develop the necessary level of sophistication of systems required for accurate REDD+ monitoring, reporting and verification, a major public-private initiative is required to develop comprehensive Earth Observation systems and field measurement and monitoring systems to be ready for use by 1 January 2013; and,
- *Developing public-private partnership models for REDD+:* to attract and absorb the necessary levels of private capital through carbon markets, and to attract investor capital in its own right, an international process is required to develop scalable, replicable and bankable models for REDD+ projects across the forested nations, within the next 24 months, including undertaking specific demonstration projects as early actions to validate these models.

Explanation/Rationale

Investment in forest-based mitigation will create alternative livelihoods and support sustainable development. To achieve the necessary abatement, an agreement amongst UNFCCC Parties in Copenhagen should have incorporated forest-based mitigation including REDD+, possibly extending to agro-forestry in the initial phase within a framework for the eventual incorporation of all terrestrial carbon and a long-term commitment to international carbon markets.

Public financing will be necessary to build the foundations at the international and national levels for the large-scale implementation of REDD+ activities. As stated earlier, "readiness for REDD+" phase will require, at a minimum, 3 billion Euros over five years for capacity building, not including the financing required for early actions. In addition to additional official development assistance, several promising options exist for raising public financing, including the rainforest bonds proposal developed by the Prince's Rainforests Project.

Due to the varying capacities of forest nations, the "readiness for REDD+" phase will be longer for certain less advanced nations. This makes it essential that these activities start as soon as possible and be sufficiently flexible to ensure the maximum abatement from forests can be achieved by 2020 and thereafter. The earlier this readiness is created, the faster private finance can be deployed to take over the burden from the public sector. Depending upon the project type and geography, and on the scale of demand created for REDD+ credits through the carbon markets, the private sector will be able to meet a portion of the financial flows required by 2020.

Several policies are required to attract private sector finance:

- REDD+ projects must produce carbon credits of compliance grade that are tradable as offsets and fully fungible with other credits in international carbon markets.
- MRV procedures must be robust and include the use of systems that can ensure reliable calculations of the carbon value of projects.
- Forest-based mitigation efforts should be made available for investment at a project level, but placed within the context of national baselines and the Nationally Appropriate Mitigation Actions (NAMA) Plans of the forest nations.
- A risk management framework for this new asset class will be required to mitigate risks such as unforeseen reversal.

The development of each of these policies will require a process of dialogue between the public, private and civil society sectors to maximize the flow of private financing to REDD+ activities. Alongside financing through the carbon markets, private sector resources and competencies will need to be brought to bear directly on projects at the field level to ensure that REDD+ is implemented at the scale and speed required.

This will require a suite of public-private innovations for REDD+ implementation which can be developed by building upon some of the promising PPP proposals already in existence. The full set of terrestrial carbon, including agriculture and other land-use changes, must eventually be incorporated in the global climate regime, due to both the raw mitigation potential of agriculture and other land use and the strong interlinkages between agricultural expansion and deforestation. An agreement amongst UNFCCC Parties must include a provision for the future inclusion of the full suite of terrestrial carbon.

A major public-private dialogue hosted by forest and developed nations and involving the private sector and civil society is necessary to build the international and national architecture required for REDD+ to be ready for private sector engagement by 1 January 2013, and for early action beforehand. This major initiative would include four pillars focused on the following elements: enabling national policies; appropriate design of credit systems, including addressing the issue of permanence; building robust MRV systems; and developing large-scale PPP models for REDD+, including undertaking specific demonstration projects as early actions to validate these models.

Next Steps

Forest nations should host a major public-private dialogue to build REDD+ architecture by 2013. This forum, which should involve both the private sector and civil society, is necessary to build the international and national architecture required for REDD+ to be ready for private sector engagement by 1 January 2013. This initiative should include four pillars focused on the following elements:

- Enabling national policies to develop the set of forest nations NAMAs, and growth plans that create the enabling conditions to attract private sector finance as soon as possible after “readiness for REDD+” public measures are undertaken
- Appropriately designing a system of forest-credits, including mechanisms to address the issue of permanence and a risk-management framework, taking in to account the lessons learned from forestry projects in the CDM and voluntary carbon markets, and ready for business by 1 January 2013
- Launching a major public-private initiative to develop the Earth Observation and field measurement and monitoring systems required for REDD+ and to ensure those systems are ready for use by 1 January 2013
- Developing viable designs for large-scale PPP models for REDD+, including undertaking specific demonstration projects as early actions to validate those designs and create models that can attract private capital through carbon markets

This proposal is put forward by the participants in the Task Force Working Group on Avoided Deforestation and Land Use Change, listed in the Task Force on Low-Carbon Prosperity report: http://www.weforum.org/documents/gov/Environment/TF%20Low%20Carbon%20Prosperity%20Recommendations.pdf

World Economic Forum Low-Carbon Prosperity Task Force[1]

Task Force Working Group on Energy Efficiency

Context

The important role of energy efficiency in reducing GHG emissions is well understood and well documented. And so are the hurdles to improving energy efficiency. Yet, the initiatives that have been undertaken so far have not been able to initiate the transition to a more efficient economy, with more efficient products, industrial appliances, efficient buildings and an efficient power supply architecture.

To create significant movement on energy efficiency, research now has to move to action. We suggest two levels of architecture to build public-private networks on energy efficiency:

On the international level, the International Partnership on Energy Efficiency Cooperation (IPEEC) was recently launched by the G8+5 to promote energy efficiency worldwide by providing a high-level intergovernmental forum for discussion and information exchange. We propose to add an explicit, new private sector dimension to this partnership to provide an officially sanctioned and supported global platform for cross- and intra-industry cooperation on energy efficiency.

On the regional/domestic level, we propose that a global network of centres of energy efficiency excellence is created, particularly in developing countries. These centres would provide specific policy advice to national governments to help formulate effective policies as well as specific advice and services to businesses and consumers on how to implement energy efficiency measures.

The suggested public-private ecosystem for energy efficiency activity should focus on action. With these networks in place, knowledge on standards for buildings and appliances, on the development of financial products and services, and on the public-private route maps for changing utility pricing models or developing smarter grids can be shared, evolved and acted upon. Success will breed confidence as to the win-win nature of energy efficiency, and actions will spread.

Proposal

The most effective strategy available for quickly shifting the carbon profile of major economies is to scale the application of best available technologies. Improving energy efficiency represents the largest, most cost-effective and immediately available way to mitigate GHG emissions. For example, in the International Energy Agency's (IEA) 2008 *World Energy Outlook*, energy efficiency gains account for over 50% of the abatement potential in its 450 ppm policy scenario[2]. Project Catalyst estimates that investments in energy efficiency could provide 35% of the emission reductions required by 2020[3]. Moreover, most of these reductions could pay for themselves. Recent analysis by the McKinsey Global Institute suggests that 6.5-8 Gt of abatement could be achieved at an average internal rate of return of 17%[4].

[1] This proposal was taken from the recommendations of the Task Force on Low-Carbon Prosperity published by the World Economic Forum in October 2009: http://www.weforum.org/documents/gov/Environment/TF%20Low%20Carbon%20Prosperity%20Recommendations.pdf
The views expressed here do not necessarily reflect those of all the Task Force Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] *World Energy Outlook 2008*, International Energy Agency. http://www.iea.org.

[3] Analysis carried out by Project Catalyst, 2009. Project Catalyst is an initiative of the ClimateWorks Foundation. It was launched in May 2008 to provide analytical and policy support for the United Nations Framework Convention on Climate Change (UNFCCC) negotiations on a post-Kyoto international climate agreement. http://www.project-catalyst.info

[4] *How the world should invest in energy efficiency*, July 2008, McKinsey & Company.

To capitalize more fully on this opportunity for progress, the Task Force Working Group on Energy Efficiency proposes the creation of:

- **A scalable platform to enable worldwide progress on energy efficiency within individual industry sectors**
  Specifically, the May 2009 agreement among G8+5 countries to create an International Partnership for Energy Efficiency Cooperation (IPEEC) at the International Energy Agency[5] should be given an explicit, new private sector dimension, providing an officially sanctioned and supported global platform for voluntary intra-industry discussions and cooperation on energy efficiency within many sectors. This initiative would be aimed at replicating many of the features of the Japanese government's successful Top Runner programme in which various industries were encouraged to make continuous progress towards best-in-class efficiency benchmarks[6].

  Such intra-sectoral cooperation might take the form of creating common measurement and benchmarking methodologies; negotiating arrangements to share or transfer technology; recommending standards for government procurement; establishing industry-wide emission targets, standards and/or product labelling frameworks; or a combination of some or all of the above. The process would be open to companies from all countries.

- **An initiative to create a set of globally-accepted energy performance standards on a limited but critical range of energy-intensive industrial and consumer products, potentially combined with a globally coordinated early retirement programme**
  Implementation of global product energy performance standards would deliver significant energy and financial savings for consumers and businesses and would benefit manufacturers by harmonizing existing national standards, reducing trade barriers and opening up new market opportunities. This initiative could build on the strong experience and learning that has been achieved from the Top Runner programme and other successful standard setting methods in the US and EU on the most energy intensive products. In addition, product energy performance standards could be combined with national measures to promote early retirement of inefficient goods, which could further deliver a win-win effect across the world economy, simultaneously driving lower energy consumption, lower overall costs to businesses and consumers and giving manufacturing activity a boost in critical industries. This early retirement programme could be repeated over time to produce successive waves of improvement within given product categories until the potential for efficiency gains within them with best available technology was mostly exhausted.

  The process would be structured as a business-government dimension of IPEEC, linking the voluntary industry discussions proposed above with the intergovernmental dialogue the IPEEC member governments have already planned to establish.

- **As part of this public-private, standard-setting process, a special sectoral initiative to set standards relating to the retrofitting of old and construction of new buildings**
  The built environment is the sector with one of the highest potentials for energy efficiency reductions[7]. This initiative would seek to implement common energy performance certification and labelling methodologies; adopt and enforce binding zero net energy targets for all new and existing buildings; finance and deliver whole building efficiency retrofits to existing buildings; and drive innovation through voluntary programmes and public funding for research and development.

[5] The International Partnership on Energy Efficiency Cooperation (IPEEC) was launched at the G8 Energy Ministers meeting, which took place in Rome, Italy, on 24-25 May 2009. IPEEC aims to promote energy efficiency worldwide by providing a high-level intergovernmental forum for discussion and information exchange. For the full declaration see
http://www.enecho.meti.go.jp/topics/g8/ipeecsta_eng.pdf

[6] For a comprehensive evaluation of the Top Runner programme, see www.aidee.org/documents/018TopRunner-Japan.PDF

[7] McKinsey & Company estimates the reductions from buildings by 2020 at 2.4Gt (1.7 Gt residential, 0.7 Gt commercial), compared to transportation 0.9Gt, industrial 3.2Gt, and transformation 1.5Gt. Source: *How the world should invest in energy efficiency*, July 2008, McKinsey & Company.

- **A set of regional, energy-efficiency capacity building centres to support the diffusion of best available technologies in developing countries**
  Based on positive experiences of semi-governmental agencies such as the Carbon Trust in the United Kingdom[8] and foundations such as the Energy Foundation[9] in the United States, these centres would provide advice, support and capacity to national governments, especially in developing countries, to help formulate effective energy efficiency policies as well as offer practical advice and technical services to businesses and consumers on how to implement energy efficiency measures.

Explanation/Rationale

The potential for energy efficiency abatement is well recognized and well documented. About half of the emission reductions required by 2020 to achieve a 450 ppm CO_2 pathway can be realized via energy efficiency improvements, if the right policies and measures are put in place. The bulk of the abatement potential can be realized in buildings (residential, commercial and industrial) and products and appliances. Many initiatives have identified ways to unlock the potential in these areas, but these approaches have not led to a transition to the scale required.

Despite the relatively low cost of energy efficiency in comparison to other mechanisms, the required behavioural change will not happen by itself. A step change in a range of public policy measures will be required to unlock energy efficiency's full potential. Left to its own devices, the market will take too long to get there, given the scientific imperative to reduce emissions.[10] The main hurdles that exist are a lack of financing and financing mechanisms, limited consumer and business awareness and knowledge regarding energy efficiency, high levels of lock-in through existing regulations, split incentive structures, and other market failures and inefficient behaviours.

To unlock the potential of efficiency in the *built environment* four key policies are important. These policies may vary per region, but can build on best practices that are available. These policies are:
- Adopt and enforce binding zero net energy targets for new and existing buildings
- Implement mandatory energy performance certification and labelling programmes
- Enable the delivery of "whole building" efficiency retrofits to existing buildings
- Drive innovation through voluntary programmes and public funding for research and development (R&D)

To unlock the potential of energy efficiency in products and appliances, we recommend agreement in principle to implement globally applicable energy performance standards. It is estimated that improved energy efficiency product standards could reduce 2030 annual global energy consumption in the residential, commercial, and industrial sectors by up to 7.5% compared with business as usual, (2.7 Gt CO_2-eq.). About 80% of this energy reduction, equating to a carbon abatement of 2 Gt CO_2-eq., could be achieved in four key product areas: Heating, Cooling, Motors and Lighting.

Although further work is required to establish the precise nature of solutions for individual products, policy-makers should support the creation of an expert body with an international mandate to lead the effort to establish a range of *global product energy performance standards*. The development of recommendations should be a time-bounded process lasting no longer than three years. The new standards could be combined with locally deployed but globally coordinated early retirement schemes that both reduce carbon and costs for industry and stimulate demand for more efficient equipment.

[8] For more information see http://www.carbontrust.co.uk

[9] For more information see http://www.ef.org/home.cfm

[10] McKinsey estimates a ten-fold increase in carbon productivity is required. This corresponds with a productivity growth that would be three times as fast as the industrial revolution. See *The carbon productivity challenge: Curbing climate change and sustaining economic growth.* June, 2008. New York: McKinsey & Company.

It is clear that targeted investment and *new financing mechanisms* are needed. For many reasons existing financial products and approaches are not suitable for energy efficiency investments, mainly because the uncertainty of engaging in new sorts of financing products is higher than the actual level of uncertainty about investment defaults. Redesigning financing mechanisms - for example, by linking loans to property instead of owners and by rating investments according to their guaranteed efficiency performance - has great potential to unlock a much larger volume of private capital.

Encouraging additional investment of private capital into energy efficiency and product innovation is necessary, but not sufficient. Supply-side efficiency improvements from the power sector will need to complement the investments in demand-side efficiency in buildings, products and appliances. Moreover, many of the demand-side improvements will actually be contingent upon energy efficiency improvements in the power supply.

The current power supply system is generally based upon a centralized supply of power, transferred one-way over a nationwide grid. The developments over the last few decades in information technology (IT) and telecommunications, which have placed more pressure on existing power networks, coupled with an increasing trend toward decentralized power generation using renewable energy, as well as the underlying challenges of increasing energy demand and concerns about energy security within what is likely to be a more carbon-constrained world, all point toward a fundamental restructuring of the existing power paradigm. Today's grids, built with yesterday's technology, will simply not be able to meet tomorrow's multiple energy demands.

One of the two key components of the transformation of the energy supply sector is the implementation of *smarter grids*. Using new techniques in IT and telecommunication, building an intelligent electricity grid in itself will reduce emissions related to energy production and grid loss. More importantly, smarter grids can act as enablers for the wider transition to a low-carbon economy. Smart grids can provide information on the performance of energy efficiency improvements to help optimize building retrofits and provide the certainty on cost savings from these improvements, which in turn will help mobilize more investments in this space.

The second key component of a supply-side transition is the *redesign of the utility business model*. Eliminating the profit incentive from increased production for energy utilities will take away the incentive for utilities to simply produce more energy. Combined with the existence of a smarter grid, policies could be introduced that would offer incentives for utilities to invest in end-use energy efficiency. Such a reform would put energy efficiency investments on par with investments in new capacity in the eyes of utility managers, re-creating the industry's business model by making utilities potentially major investors in endues energy efficiency measures.

In all areas of energy efficiency there is much knowledge available. Many of the practical suggestions have been tried and tested. Some isolated examples show great promise.[11] However, it seems that overall there is a lack of coordination of national, regional and local capacity to facilitate the implementation and scale up of widespread energy efficiency measures, outside of specific projects or pilot programmes. In order to mainstream energy efficiency activities we suggest two general directions to build the enabling environment for stronger and more coordinated action on energy efficiency. If these can be built prior to 2013, they can serve to exploit the global emissions reduction (and cost savings potential) that energy efficiency offers.

First, we suggest building a network of domestic or regional centres of energy efficiency excellence akin to the UK Carbon Trust model or the Best Practice Network suggested by ClimateWorks. These centres would provide specific policy advice to national governments to help formulate effective policies as well as specific advice and services to businesses and consumers on how to implement energy efficiency measures.

[11] One example is the Federal Energy Management Program (FEMP), which has helped to reduce the average energy intensity in federal buildings by roughly 25% since 1985; by contrast, the average energy intensity in US commercial buildings has remained more or less at the same level.

Second, at an intergovernmental level, we suggest building on international initiatives that could provide the necessary platforms for scaling up good energy efficiency ideas. The IPEEC, launched at the G8 Energy Ministers meeting in Rome, Italy, 24-25 May 2009, aims to promote energy efficiency worldwide by providing a high-level intergovernmental forum for discussion and information exchange. We suggest that this purely governmental dialogue on energy efficiency should be given an explicit, new private sector dimension, providing an officially sanctioned and supported global platform for intra-industry discussions and cooperation on energy efficiency within many sectors, including the important ones discussed above.

Next Steps

To provide immediate focus, a programme for action must include:

- A public-private initiative to create an international portfolio of ten large-scale, integrated smart grid demonstration (and utility pricing reform) projects across different regulatory regimes
- An initiative to create a set of globally accepted energy efficiency standards on a limited but critical range of energy intensive industrial and consumer goods
- A special sectoral initiative to set regional standards relating to the retrofitting of old and the construction of new buildings

The objective would be to have these elements in place by 1 January 2013, so that a concerted international public-private push on energy efficiency can commence in the first commitment period.

This proposal is put forward by the participants in the Task Force Working Group on Energy Efficiency, listed in the Task Force on Low-Carbon Prosperity report: http://www.weforum.org/documents/gov/Environment/TF%20Low%20Carbon%20Prosperity%20Recommendations.pdf

World Economic Forum Low-Carbon Prosperity Task Force[1]

Task Force Working Group on Accelerating Investment: Developing Countries

Context

Seventy-seven percent of the energy infrastructure that will be needed by 2030 has yet to be built.[2] The IEA forecast that the majority of these projects will be in emerging economies, particularly India and China.[3] Cost estimates vary, but developing countries are estimated to require hundreds of billions of dollars of low-carbon energy investment in the coming 10-15 years to avoid being locked into high-carbon infrastructure for the next half-century. Carbon markets and international offset schemes like the CDM will not be able to deliver sufficient financial flows to meet these investment needs within this time frame. And, while developing economies are justifiably demanding large increases in official development assistance (ODA) from richer countries for this purpose, this is not likely to be feasible at the necessary scale, especially given current levels of public debt among OECD governments and the large funding gap for the Millennium Development Goals they are struggling to close.

Thus, mechanisms are needed to leverage the climate-related increases in ODA that developed countries do provide with larger amounts of long-dated debt and patient equity from private investors, allowing for flows from an international offset market to grow over time. By far the largest potential source of such long-term private investment is institutional investors, such as public and private pension funds, insurance companies, sovereign wealth funds, endowments and private banks. Most institutional investors invest in funds managed by private investment management firms.

This allows them to access a wide variety of investible projects in markets far from their centre of operations, exercise effective governance, achieve targeted "exit" returns and, most importantly, diversify their risk. There is growing interest among such investors in low-carbon infrastructure in developing countries,[4] but the volume of investment by them remains low because of the considerable risks and uncertainties involved and the related fact that few large, diversified funds exist for this purpose.

The investor community has confidence in multilateral and bilateral development finance institutions and values in particular their ability to enhance the creditworthiness of transactions by participating in or providing credit enhancement to investments. Private investors sometimes require the involvement of the World Bank or regional multilateral development banks (MDBs) before they enter new markets and investment classes in a material way. Accordingly, MDBs and bilateral development finance agencies have an opportunity to play a transformational role in stimulating private energy investment in emerging and developing economies if they find a way to scale their credit support for such transactions.

A public-private investment model in which public credit enhancement and regulatory capacity building is combined with private institutional capital has the potential to unlock significant investment flows for low-carbon energy systems in developing countries, far beyond what can be financed directly from foreign aid budgets.

[1] This proposal was taken from the recommendations of the Task Force on Low-Carbon Prosperity published by the World Economic Forum in October 2009: http://www.weforum.org/documents/gov/Environment/TF%20Low%20Carbon%20Prosperity%20Recommendations.pdf
The views expressed here do not necessarily reflect those of all the Task Force Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] *Towards a Global Climate Agreement - Synthesis paper*, 2009, Project Catalyst. http://www.project-catalyst.info

[3] *World Energy Outlook 2008*, International Energy Agency.

[4] For example, the P8 group, which brings together senior leaders from some of the world's largest public pension funds to develop actions relating to global issues and particularly climate change. It is an initiative of the University of Cambridge Programme for Sustainability Leadership and HRH Prince of Wales supported by the Environmental Capital Group, the Nand & Jeet Khemka Foundation and the Zennstrom Foundation. The P8 Group represents over US$ 3 trillion of investment capital.

World Economic Forum Low-Carbon Prosperity Task Force

Proposal

The Task Force Working Group on Accelerating Investment: Developing Countries proposes the creation of:

- **Public-private low-carbon infrastructure investment funds in each developing country region** (ASEAN and Pacific, China, India, Latin America, Middle East/North Africa, sub-Saharan Africa)
  These public-private low-carbon infrastructure investment funds would draw in equity from institutional end-investors such as pension and sovereign wealth funds and use a new generation of public finance (risk mitigation) mechanisms from multilateral and bilateral development finance institutions.[5] An initial, streamlined model (MDB Low-Carbon Challenge Funds) could catalyse up to US$ 10 billion per region per three-year cycle, ready for business by 2011.
  A second, more ambitious model (Regional Low-carbon Cornerstone Funds) could catalyse US$ 50-75 billion per region each three years and could be ready for business before the start of the second commitment period in early 2013. In this way, the increased official development assistance that developed countries provide in connection with a new agreement under the UNFCCC could be structured to mobilize the maximum possible amount of low-carbon financing for developing countries.

- **MDB Low-Carbon Challenge Funds[6]**
  Multilateral and bilateral development finance institutions would bid out preferential access to regional packages of their public finance mechanisms. Leading global (or regional) fund management firms would tender for the bids, explaining how they would leverage the mechanisms on offer to create a new fund (or strengthen an existing one) and generate enhanced investment flows as a result. The credit support packages of development finance institutions would improve the risk/return ratio of projects within these low-carbon infrastructure funds.
  Based on the reputation and track record of the bidding fund manager, institutional investors could join the fund management firm's bid, offering the multilateral finance institution more confidence about its offer. The packages of credit support could also be opened to bids from end-investors themselves, who would select their preferred fund managers to administer them. Fund managers would be paid a negotiated fee to manage the fund. The funds could work on a three-year cycle, and the right to access the public finance mechanisms could be re-tendered every five to seven years. The development finance institutions providing the public finance mechanisms would not be involved in specific investment decisions.

- **Regional Low-Carbon Cornerstone Funds[7]**
  Regional cornerstone funds for low-carbon infrastructure would be created and administered by the IADB, AfDB, AsDB, EBRD and EIB or through establishment of specialized institutions modelled on the US Overseas Private Investment Corporation. They would raise anchor equity (e.g. US$ 5 billion) from major institutional investors as well as official and philanthropic donors and then invite leading global and regional fund management firms to establish low-carbon energy funds, clean infrastructure funds, low-carbon building funds, green-tech funds, etc. by bidding for a distribution of part (e.g. US$ 1 billion) of the anchor equity. These firms would then galvanize their investor network to raise a further US$ 4 billion each from the wider universe of secondary institutional investors who invest in global emerging markets.
  Multilateral and bilateral development finance institutions active in the region would establish an agreement with these funds to provide preferential access to a tailored package of their risk mitigation instruments. Since most of the funds' investments would have infrastructure-style investment characteristics, they could then borrow from banks and debt capital markets to secure at least a 66% debt-to-equity ratio for their project portfolios. In this way, across the five funds, US$ 25 billion of public and private investor equity could finance US$ 50-75 billion of projects on a three-year investment cycle and be re-tendered every five to seven years. During the period 2013-2030, roughly six investment cycles could occur, representing a potential investment flow of up to US$ 300-450 billion in each of the six regions.

[5] As suggested by the UNEP Finance Initiative. *Financing a Global Deal on Climate Change*, 2009, UNEP FI. http://www.unepfi.org/fileadmin/documents/FinancingGlobalDeal.pdf.

[6] This model is introduced in a recent paper by the International Investors Group on Climate Change (IIGCC). The IIGCC is a forum for collaboration between pension funds and other institutional investors on issues related to climate change. IIGCC seeks to (i) promote better understanding of the implications of climate change among our members and other institutional investors; and (ii) Encourage companies and markets in which IIGCC members invest to address any material risks and opportunities to their businesses associated with climate change and a shift to a lower carbon economy. For more information see http://www.iigcc.org

[7] This model has evolved from discussions involving the Nand & Jeet Khemka Foundation and the Environmental Capital Group, with other pension funds and sovereign wealth funds, including the P8 initiative.

Explanation/Rationale

In addition to significant reductions in GHG emissions in the developed countries, achieving low-carbon growth is also crucial to avoid dangerous climate change. For developing economies to grow within a low-emissions trajectory, system transformation will be required in crucial areas such as energy infrastructure, buildings, transport, agriculture and forestry. Such a transformation must begin now. Achieving this transformation will require significant inflows of public and private capital as soon as possible.

Despite welcome progress in the UNFCCC-hosted negotiations on climate change, a transfer of public funds likely will not be sufficient to meet the costs of moving to a low-emissions growth path. Nor, in the short run at least, will the finance available from carbon markets or international offsets. This means that public finance mechanisms to leverage *private* finance on the scale required must be rapidly developed.

Most of the finance required (either for mitigation or for adaptation) will be for investment in new or improved infrastructure. This means these public finance mechanisms must facilitate investment in productive capital with a long life span where costs can be amortized over the life of the assets. The key therefore will be to link these public finance mechanisms to sources of private finance suitable for infrastructure investment - sources of private finance which can offer patient equity1 and long-dated debt, giving time for cash flows from domestic and international sources to meet current capital costs.

Our proposition is that *institutional* private capital posses these characteristics. Some institutions that manage institutional private capital (such as pension funds, sovereign wealth funds (SWF), insurance companies, endowments) are currently less capital-constrained than many governments. If the terms and conditions of the public finance mechanisms are right, some of this private institutional capital could be mobilized on a large scale to help meet low-carbon investment needs in emerging and developing economies.

While some private institutional investment can be mobilized through public finance mechanisms for individual low-carbon infrastructure projects, dimensionally larger capital can be mobilized by establishing investment funds. To get equity investment to scale, multilateral and bilateral development finance institutions should scale up their support for low-carbon focused funds and also develop risk mitigation and other products that support the investments of such funds. This will attract institutional co-investment on a much larger scale.

Initiatives such as the CalPERS Green Wave programme in California, the United States Overseas Private Investment Corporation (OPIC), the UK Private Finance Initiative (PFI) and the strategic climate funds of the World Bank, together provide design inspiration for the sorts of private-public investment models for the kinds of low-carbon infrastructure funds and project financing arrangements that can be constructed.

We set out two potential models that use public finance mechanisms at the fund level to leverage private capital for low-carbon infrastructure investments in developing countries. Both models recognize the transformative role that multilateral and bilateral development finance institutions can play in this process.

- The first model centres on a “challenge fund” mechanism, involving the multilateral development finance institutions, which could mobilize finance relatively quickly. In this model, multilateral (and bilateral) institutions would bid out preferential access to regional packages of their public finance mechanisms. Leading global or regional fund management firms would tender for the bids, explaining how they would leverage the mechanisms on offer to create a new fund (or strengthen an existing fund) and generate enhanced investment flows as a result. Analysis suggests this model could leverage on the order of US$ 10 billion from the capital markets per fund in the short to medium term and that several funds could be catalysed. The model could be ready for business before end of 2011. The funds could work on a three-year cycle, and the right to access the public finance mechanisms would be retendered every five to seven years.

The development finance institutions providing the public finance mechanisms would have a very limited sphere of influence in how the fund manager invests; the focus would be on allowing fund managers to pursue financial objectives in the low-carbon space. Initial success would send an important market signal regarding the potential for private-public investment mechanisms to leverage capital (and also the long-term policy intent of governments). Quick success with this model would also improve liquidity in the low-carbon sector, stimulating further investment interest.

- Our second proposed model could be developed in parallel. It would build on the experience of model one, but would scale up the ambition level. It would consequently take a little longer to construct. To launch its development, a government-led process would be required (perhaps involving the G20, the Major Economies Forum or the UN and, importantly, some key developing country governments). These governments would ask large institutional investors, fund managers and public finance officials to work together to create a new architecture of private-public investment for developing countries.

  The architecture could be developed as follows: With government/UN backing, a suite of privately financed regional investment vehicles, with a public-private board would be created (in this paper, we call them private investment corporations, or PICs). Each PIC would secure US$ 500 million to 1 billion of anchor equity from private institutional investors, creating a cornerstone fund. PICs would bid out portions of these cornerstone funds to private fund managers, perhaps forming five new regional climate-infrastructure related funds as a result. Each fund manager would seek to raise additional institutional capital for these funds, and then lever that capital via both direct co-investment and appropriate debt facilities, such that each fund catalysed in the region of US $10-15 billion (the regional PIC vehicle thus mobilizing US $50-75 billion in total). Multilateral and bilateral development finance institutions would form arrangements with the PICs, so that the new climate-infrastructure related funds could preferentially access risk-reducing public finance mechanisms (as in model one). This would enhance the potential for the various fund managers to leverage their portion of the cornerstone fund with secondary equity and debt.

  Also as in model one, the funds could be managed on a three-year cycle, and re-bid every six years or so. This means the period 2013 through 2030 would allow for about six cycles of each set of PIC funds, potentially mobilizing US$ 300-US$ 450 billion per region by 2030. With PICs in each key developing economy region around the world, model two could play a potentially significant role in closing the climate finance gap, particularly for infrastructure investment in mitigation and adaptation.

The establishment of both models will involve new collaborations between institutional investors, investment managers, and commercial banks, as well as multilateral and bilateral agencies. While they do align investment and business interests, the markets alone will not make these initiatives happen – the processes will require a political move to start them (similar to Green Wave OPIC or PFI initiatives). However, with the support of private investment institutions *and* public financing institutions, the models should gain the confidence of the investor community. This is because they would not be not new investment models; rather they would repackage and scale up proven infrastructure debt/equity investment processes, within proven institutional wrappers. Importantly, private sector expertise will govern, deploy and manage the investment process in both cases: They will be “returns-led” and not “mission-led” initiatives to upscale low-carbon investments.

Our proposals would see multilateral and bilateral development finance institutions playing a pivotal role in both of these private-public models, by using public finance mechanisms both to reduce risks for investors and to catalyse the provision of long-dated debt in both local and foreign currencies. Using public money to help the private sector spread and reduce risk represents a more fiscally efficient means of committing public capital to low carbon programmes in emerging economies. Importantly, as both these models would be regional, market-based funds, their governance will require engagement with both developed *and* developing economy governments.

It is also critical to help governments and industries in developing countries identify and develop large-scale bankable projects to absorb these investment flows. This will require technical assistance and capacity building. Non-financial actors, such as the multilateral and bilateral development institutions and international organizations such as the UN Environmental Programme (UNEP), could play an important role, especially in areas such as capacity building, regulatory and institutional reform, and investment project identification, feasibility and preparation.

Next Steps

We invite the UN or some of the negotiating parties to ask a group of leading investors, financial experts, and industry representatives to work with finance ministers and their officials to develop the ideas contained in this paper and elsewhere. A major public-private climate finance process should be launched. Linked to a suitable international forum, it could progress for 20 months or so until the models are developed and ready to deploy.

This proposal is put forward by the participants in the Task Force Working Group on Accelerating Investment: Developing Countries, listed in the Task Force on Low-Carbon Prosperity report: http://www.weforum.org/documents/gov/Environment/TF%20Low%20Carbon%20Prosperity%20Recommendations.pdf

World Economic Forum Low-Carbon Prosperity Task Force[1]

Task Force Working Group on Accelerating Investment: Low-Carbon Technologies

Context

Low-carbon technology investment globally was about US$ 155 billion in 2008. Recent estimates suggest it could reach over US$ 500 billion a year to 2030 if the incremental costs of moving to a low-carbon energy system are met. The main low-carbon technologies are well known. Some are not yet market ready; others are not yet deployed to scale. This means low-carbon technologies carry an incremental cost versus current energy technologies.

If the world economy transitions to a low-carbon system, the investment opportunities for low-carbon technologies will be large and grow over time as widespread deployment reduces costs. In time they will become more competitive than fossil fuels.

Governments can take some specific actions over the next six to twelve months to accelerate investor interest in low-carbon technology:

- At the international level, parties to the Framework can agree to a second commitment period, including strong emission reduction targets from developed countries and clarity on what major developing countries will do to limit the growth of their emissions.
- The major energy producing and consuming economies can engage in an intergovernmental dialogue on how to remove energy subsidies.
- At the national level, governments can agree to develop Nationally Appropriate Mitigation Actions (NAMAs) and/or Low-Carbon Growth Plans, to provide policy frameworks for accelerating investment in low-carbon technologies domestically.

If governments do signal clear long-term policy intent for low-carbon growth, there are a series of specific actions which the business and expert community can reciprocate in order to accelerate investment in low-carbon technologies, especially in developing economies.

Proposal

The Task Force Working Group on Accelerating Investment: Low-Carbon Technologies proposes the creation of:

- **A public-private initiative to create an international portfolio of 10 large scale integrated smart grid demonstration projects across different regulatory regimes**

  There is a need for public-private partnership investment and risk sharing via a series of proof point demonstration projects to help transcend the current challenges facing the smart grid industry and to clearly illustrate the value proposition to investors and governments. Creating a number of well designed pilot projects 2010 onward across 10 cities in the European Union, China, South Asia and the United States to represent a range of implementing environments, and sharing the learning in an open source platform will enable the smart grid industry to reduce its risk premium on capital and operating costs to a level that makes its investment case more viable.

  Within the 10-city context, linkages to programmes designed to reform the utility business model and implement building standards and electrified transportation networks could also be pursued, creating a set of integrated low-carbon city demonstration projects. As the G20 chair for 2010 and leader of the smart grid technology working group of the Major Economies Forum, South Korea would be well positioned to help catalyze such an international

[1] This proposal was taken from the recommendations of the Task Force on Low-Carbon Prosperity published by the World Economic Forum in October 2009: http://www.weforum.org/documents/gov/Environment/TF%20Low%20Carbon%20Prosperity%20Recommendations.pdf
The views expressed here do not necessarily reflect those of all the Task Force Members, nor do they represent an institutional position of the World Economic Forum or its Members.

- **A public-private initiative to create an international portfolio of up to 25 carbon capture and sequestration (CCS) demonstration projects between 2013 and 2025**
  Demand for coal has been growing faster than any other energy source and is projected to account for more than one-third of incremental global energy demand to 2030. The development and testing of competing CCS technologies could be accelerated through a coordinated series of large-scale targeted demonstration projects over the coming decade. These demonstration projects would be jointly funded by governments and companies, with the financing of the incremental cost for CCS being supported by developing countries, multilateral development banks and available carbon financing mechanisms.

  Partnership arrangements could be struck on bilateral or plurilateral basis among the United States, China, European Union, Australia, South Africa, India and other countries. Once the technical viability of various CCS approaches is better established through this global initiative, developed and developing country governments could consider whether to establish a comprehensive global strategy to deploy the best technologies at scale by introducing into the post-Kyoto framework a sector-based approach on coal-fired power plants and/or including various financing mechanisms such as an international carbon sequestration unit within the Clean Development Mechanism (CDM).

- **A network of regional energy research and innovation centres modelled on the Consultative Group on International Agricultural Research (CGIAR)**
  The Consultative Group on International Energy Research (CGIER) would facilitate applied research programmes on locally-relevant low-carbon energy solutions through open source collaboration among academics, businesses and other actors, similar to the multistakeholder GreenTech model in China. In addition, they could develop full life-cycle views on regional technology innovation, offering regional "pull" models for technology diffusion; facilitate regional intellectual property rights mechanisms, such as patent trading platforms; stimulate research and dialogue on pathways to reductions in harmful energy subsidies; and promote efforts to bring to scale solar photovoltaic (PV) technology (especially across the US, Japan EU, India and China), distributed models of solar PV (especially across India, the Middle East/North African and sub-Saharan Africa) and advanced wind and biofuel technologies. Funding for the centres would be drawn from a range of public, private and philanthropic sources. Their main purpose would be to support nationally appropriate mitigation action plans through the mobilization of multistakeholder networks of expertise both inside and outside the region in question.

- **An informal intergovernmental dialogue on energy subsidies**
  According to recent OECD modelling, eliminating the US$ 310 billion of annual energy subsidies to developing country consumers would reduce emissions in some countries by over 30% by 2050, and reduce global GHG emissions by about 10% by 2050 while at the same time raising economic efficiency[2]. For example, the OECD suggests that energy subsidy removal would lead to an increase in household real income by 2.5% in India and by 0.7% in China by 2050.

  A platform should be created early in 2010 to enable the major energy producing and consuming economies to engage in an informal intergovernmental dialogue, informed by private sector and expert representatives, to develop a potential international agreement on energy subsidies, for formal consideration by Parties to the Conference, or the G8/G20 during 2011 or 2012.

- **An informal international public-private dialogue on the role of nuclear power in the low-carbon economy**
  A platform should be created early in 2010 to enable governments and experts to discuss the role of nuclear power in the low-carbon economy and how the related policy architecture should be designed to reflect its contribution, including the establishment of international procedures frameworks and targets, such as for safety, standardization and security issues.

[2] *Economics of Climate Change Mitigation: Policies and Options for Global Action Beyond 2012*, 2009, OECD.

Explanation/Rationale

This section reasserts the main low-carbon energy technology opportunities on offer; reiterates the enabling policies national governments can deploy to attract investment in these low-carbon technologies; and explores how the private sector can work with other stakeholders to develop business networks, systems and platforms to exploit the emergent low-carbon opportunity space, kick starting a low-carbon energy technology deal flow quickly and to scale. The Task Force looked at the following low-carbon energy technologies: solar (photo-voltaic and concentrated solar thermal (CST); wind (both on and offshore); biofuels (cellulosic, algae, ethanol); nuclear; and carbon capture and storage.

There has been much research on the technical capabilities and the GHG abatement potential for these technologies, including work by Princeton University's Stephen Pacala and Robert Socolow; the World Business Council for Sustainable Development; the IEA, Stanford University and Project Catalyst. Recent microeconomic analysis suggests that the main group of low-carbon technologies will play a pivotal role in GHG abatement – perhaps up to 11% of a deflection of business-as-usual GHG emissions by 2030 and up to 27%, potentially more, by 2050[3]. Consequently, various financial analyses suggest that low-carbon technology investment opportunities could be potentially huge over the next few decades. For example, to achieve the level of emission reductions required by a 450ppm future, clean power technologies will have to be widely spread across the globe, accounting for 60-80% of power capacity additions in most developed countries, by 2030[4]. According to the IEA, the average year-by-year investments 2010 through 2050 required to de-carbonize the world's power sector include, among others, 55 fossil-fuelled power plants with CCS, 32 nuclear plants, 17,500 large wind turbines, and 215 million square meters of solar panels.[5]

Investment in the sustainable energy market to date seems robust – it has in some ways defied the global recession, growing by around 5%, from US$ 148 billion in 2007 to around US$ 155 billion in 2008.[6] Recent estimates suggest it could reach over US$ 500 billion a year to 2030 if the incremental costs of moving to a low-carbon energy system are met.[7]

However, not all clean energy technologies are at the same stage of market readiness. This means that different types of support from national governments and the new international framework will be required at different stages to accelerate their implementation. This makes accelerating investment in low-carbon technology quite a challenging activity for many national governments, especially in developing countries. Governments will be required to develop long-term, consistent and multi-dimensional national policy approaches that encourage low-carbon technology development and demonstration, with complementary links to the global framework. This is a more nuanced approach than simply receiving technology transfers from north to south.

Navigating low-carbon technologies through their various research, development and demonstration (RD&D) stages will also be expensive. It has been estimated that the total global investment needed to reach a mature clean technology portfolio for the next 20 years will be US$ 1.75 trillion, with another US$ 5.25 trillion required between 2030 and 2050. This will require a step change increase in energy technology RD&D of about an extra US$ 10-100 billion per year for the next 15 years.[8]

[3] Project Catalyst suggests nine key technologies (wind, solar PV, solar CST, CCS, geothermal, second-generation biofuels, hybrids, plug-in hybrids, and electric vehicles) have a large and rapidly growing abatement potential of at least 2 Gt, or 3% of business as usual (BAU), in 2020; 8 Gt, or 11% of BAU, in 2030; and 24 Gt, or 27% of BAU, in 2050, perhaps more with concerted policy change and innovation investments.

[4] McKinsey Global GHG Abatement Cost Curve v2.0

[5] *World Energy Outlook 2008*. November, 2008. Paris: IEA.

[6] For more on the state of investment in green technologies, see: *Green Investing: Towards a Clean Energy Infrastructure*. January, 2009. Geneva: World Economic Forum in collaboration with New Energy Finance (www.weforum.org/pdf/climate/Green.pdf).

[7] *Global Trends in Sustainable Energy Investment 2009.* 2009. Paris: UNEP SEFI and New Energy Finance. (http://sefi.unep.org/english/globaltrends2009.html).

[8] Current low-carbon innovation programmes are not adequate to meet the climate change challenge. Despite some very recent increases – notably in the US – public energy R&D funding has fallen by up to 50% in real terms in major developed countries over the last 25 years. Studies such as the Stern review and the IEA's Energy Technology Perspective 2008 have called for a doubling and even quadrupling of public R&D funding from the actual annual US$ 10 billion. Current estimates of private R&D and demonstration funding for low-carbon technologies stand at US$ 13-60 billion. *IEA Energy Technologies Perspectives 2008.* June, 2008. Paris: IEA.

In this respect, setting goals to limit GHG emissions and creating related policies that put a price on GHG emissions are important. They not only help direct new investment to climate-friendly outcomes by making clean technology more profitable, but they also provide incentives for private investment R&D – to accelerate development of the next generation of green technologies. OECD calculations show that policies seeking to stabilize CO_2 concentrations at 450 ppm (roughly 550 ppm CO_2 -eq.) could stimulate a fourfold increase in world energy spending on R&D.[9] On top of these policy signals, public R&D policies are also important, especially in current circumstances when the private sector faces liquidity difficulties in making large-scale new R&D investments. We are already seeing the economic downturn starting to undercut innovation in the private sector, in particular via sharp reductions in venture capital spending and patent filings. This is partly because investment in innovation is essentially pro-cyclical. Additionally, the lower the price of oil and raw materials, the less the immediate pressure to take "green action".

In the longer run, new low-carbon technologies will become cheaper the more widely they become deployed. This means investment opportunities will increase if more RD&D is invested upfront, enabling more of these technologies to move down the learning curve. A report by Project Catalyst estimates that cost reductions of 3-25% for each doubling of volume in deployment are commonly achieved, leading to large reductions in cost over the longer run (the 54% reduction in the cost of solar PV modules between 2000 and 2009 is a good example).[10] Interestingly, in many cases, this means that fossil fuels will not, in fact, be a viable alternative to clean technologies in the long run, as these costs are already mature.[11]

In other words, if governments commit to shifting to a low-carbon economy, considerable policy reforms (in both developed and developing countries) will be needed to accelerate investment in low-carbon technologies, including clear goals to limit GHG emissions and clear prices for GHG emissions. Yet, while necessary, these actions will not be sufficient. Internationally, there must also be a step change of investment in RD&D, as well as investment in the low-carbon technologies that are already market-ready, which will also require public sector commitments, at least in the short run. Overall, scaled up R&D activity holds promise for technology breakthroughs. Recent OECD analysis suggests that in the power sector, for example, such breakthroughs could halve the costs of mitigation by 2050, create new business opportunities and making more ambitious climate policies affordable.[12]

How can governments accelerate investment across the board in low-carbon technologies, especially in the short run? What specific actions can the business and expert community take to reciprocate, in order to help catalyze a step change in investment activity in the low-carbon technology space?

Next Steps

The industry and regional platforms of the World Economic Forum can be used in 2010 through 2012 to convene talks that discuss, design and launch a process to develop networks of low-carbon technology innovation as suggested above, perhaps leveraging the DFID/World Bank Climate Technology Programme. The aim could be for the various arrangements, platforms and centres to be ready for business before 1 January 2013. The process should involve international organizations from the business, energy and financing sectors, a suite of leading universities, business schools, regional/national expert organizations, business associations, think tanks and innovation centres from around the world, and government and international organization officials. The Task Force would seek UN or governmental support to help undertake these discussions over the next 24 months.

[9] *Economics of Climate Change Mitigation: Policies and Options for Global Action Beyond 2012*. September, 2009. Paris: OECD.

[10] *Enabling Technologies for Low-Carbon Growth*, ClimateWorks Foundation, *supra*.

[11] This is particularly true in remote rural areas where large-scale fossil plants and long-distance grid connections are prohibitively expensive, and in cases with distributed generation (e.g., rooftop PV in cities and solar-powered highway lighting) where fossil fuels simply cannot generate electricity economically on the required small scale.

[12] *Economics of Climate Change Mitigation: Policies and Options for Global Action Beyond 2012, supra.*

Inspired by the Consultative Group on International Agricultural Research as a working concept (with its public-private funding structure, its networked applied research agenda and its impact on food security through the deployment of enhanced crop science technology, especially in developing countries), we term this overall public-private-expert push to create new networks of innovation as establishing a Consultative Group on International Energy Research. The network of applied, regional energy research centres envisaged would offer a natural complement to the international policy agenda of the IEA.

Supporting by and linked to this process of developing a regional network of innovation in energy would be the establishment of a suite of China Greentech style initiatives around the world. These initiatives would provide practical sets of issues, hurdles and opportunities for the networks to help address.

This proposal is put forward by the participants in the Task Force Working Group on Accelerating Investment: Low-Carbon Technologies, listed in the Task Force on Low-Carbon Prosperity report: http://www.weforum.org/documents/gov/Environment/TF%20Low%20Carbon%20Prosperity%20Recommendations.pdf

World Economic Forum Low-Carbon Prosperity Task Force[1]

Task Force Working Group on Market Mechanisms

Context

A new international framework should allow national governments to employ market-based domestic policies best suited to their own national circumstances; however, it should also facilitate the linkage of explicit or implicit carbon values established at various national and regional levels. This would enhance the economic efficiency of efforts to combat climate change and stimulate low-carbon investment, especially in developing countries.

A global carbon market will need to be broad, deep and liquid to be effective. This is best achieved through ambitious and coherent national emissions reduction targets; early and effective linking of national and regional schemes; and the development and scaling up of systems for the crediting of project-based and sectoral emissions reductions. Governments need to set a target date for linking existing and emerging emissions trading systems. They must agree on a broad set of principles to ensure that the system design does not impede subsequent linking, and that will ensure the environmental integrity of the system. The most important areas for policy harmonization are target-setting, the use of international and domestic carbon credits, rules for monitoring reporting and verification, mechanisms for avoiding excessive price fluctuations and the role of financial intermediaries.

A new framework needs to encourage greater participation in the carbon markets from unrepresented regions, and should set out the path for participating CDM countries to transition to sector- and national-level targets. Approaches beyond the existing mechanisms could, if well designed, help to deliver emissions reductions in sectors (e.g. reforestation, avoided deforestation, energy efficiency) and projects (e.g. carbon capture and storage) currently not effectively targeted by international climate policies.

Proposal

The most promising ideas that have emerged include:

- *Sectoral approaches:* where emission targets are agreed at a sector level; targets could be set at a national or international level
- *Simplified programmatic CDM:* where establishing additionality is no longer on a case-by-case basis, thereby reducing the project development costs to participants
- *Inclusion of forestry credits (REDD+):* as forest-based mitigation becomes a vital part of a global deal on climate change, incorporating the forestry sector into carbon markets will be important to drive investments into this area

Any new mechanisms should be designed to stimulate and scale-up private sector flows of finance. For example, there should be clarity about the carbon instruments being created through each mechanism and the degree of fungibility of new instruments with existing instruments. Since the private sector is more accustomed to engaging at the project, sub-sectoral and sub-national levels where project boundaries are clear and risks are easier to quantify and manage, one of the critical challenges will be providing well-conceived incentives - commensurate with the different inherent risks - for engagement at the sectoral or national level. While governments have the responsibility for setting emissions reduction targets in line with what the science suggests is necessary to avoid the dangerous effects of climate change, the business community has special competencies relevant to the design of carbon markets and other market mechanisms.

[1] This proposal was taken from the recommendations of the Task Force on Low-Carbon Prosperity published by the World Economic Forum in October 2009: http://www.weforum.org/documents/gov/Environment/TF%20Low%20Carbon%20Prosperity%20Recommendations.pdf
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For this reason, the Task Force Working Group on Market Mechanisms recommends creating:

- **A transparent and structured public-private-expert dialogue to support the development of the rules and institutions necessary to create efficient, linked carbon markets**
  The Carbon Market Dialogue would explore common design criteria to enable linkage and ensure a shared level of environmental integrity across schemes; improvements to the offset market; design approaches for reducing price fluctuations without distorting markets; and use of revenues from auctioning. Launched within the next six months, the Dialogue could report its interim findings into the Conference of the Parties in 2010 and its final conclusions and recommendations, together with a future roadmap for the emergence of an international carbon market in 2011.

Explanation/Rationale

Governments should continue to see carbon markets as a central component of national and international policies to reduce GHG gas emissions, building on what already exists and looking to scale up their coverage as rapidly as possible, while recognizing that carbon markets will need to be complemented by a range of other policies.

To be effective, the emission reduction targets that anchor carbon markets must be set over time frames consistent with the investment cycle, ambitious enough to generate stable market demand, and covering as wide a range of countries and sectors as possible.

A global agreement in Copenhagen on commitments to long-term targets would have provided a clear signal to private investors about the long-term prospects for their investments. However, shorter-term targets that are implemented directly and are effectively enforced will be equally important to build trust in the carbon markets and create immediate scarcity.

An important step in building a global carbon market would be for governments to agree on a broad set of principles to ensure the system design does not impede the future development of a global market. The most important requirements for the linking of markets are a shared level of ambition (target setting); rules for the admission of international and domestic carbon credits; rules for monitoring, reporting and verification; mechanisms for avoiding excessive price fluctuations; and confidence in financial intermediaries. A realistic timeline for the development of a global carbon market should be established.

Mechanisms for generating international carbon credits should be scaled up - in order to stimulate low-carbon investment in developing countries, reduce compliance costs, and smooth price fluctuations, while providing the foundation for all countries to move towards national targets. Well-designed policy-based, programmatic and sectoral approaches can achieve this aim, so long as they are designed in a way that encourages private sector investment.

No new regulatory institutions are needed for effectively functioning carbon markets. Rather, subject to the appropriate regulation, carbon markets should make use of the tools already developed by financial markets to facilitate trading, risk management and reduced transaction costs. These tools include both exchange-based and over-the-counter (OTC) trading, the use of futures and options, and the wide participation of financial intermediaries. In light of the financial crisis, it is important that there is confidence in these financial market tools and the regulation around carbon markets.

Governments should design carbon markets in a way that reduces the likelihood of the kind of excessive price fluctuations that can dissuade long-term investors, but without distorting the functioning of markets themselves. Furthermore, a predictable price of carbon will ensure that the revenue from the auctioning of allowances will be in line with expectations. Mechanisms to achieve this include regular and transparent processes for reviewing targets, the use of reserve prices in allowance auctions, and allowing banking and borrowing between periods.

While governments have the responsibility for setting emission reductions targets in line with what the science suggests is necessary to avoid dangerous climate change, the design of carbon markets and other mechanisms would benefit greatly from the experience and expertise of the business community.

We recommend therefore that a transparent and structured government business dialogue be established to support the development of the rules and institutions necessary to create effective and efficient markets.

Next Steps

The public-private interface is the pivotal point for success in the development of carbon markets. Therefore we propose that a substantive government-business expert dialogue on carbon markets is established to support the development of the design, the rules, and the institutions necessary to create effective and efficient carbon markets, such that the international architecture is “fit for purpose” at the start of the second commitment period. This carbon market dialogue could report its interim findings, together with a future roadmap for the emergence of an international carbon market, to the Conferences of the Parties in 2010 and its final conclusions and recommendations in 2011.

This proposal is put forward by the participants in the Task Force Working Group on Market Mechanisms, listed in the Task Force on Low-Carbon Prosperity report:
http://www.weforum.org/documents/gov/Environment/TF%20Low%20Carbon%20Prosperity%20Recommendations.pdf

World Economic Forum Low-Carbon Prosperity Task Force[1]

Task Force Working Group on Standards and Metrics

Context

Despite the increase in the number of company reports and shareholder requests for information in recent years, climate-related corporate disclosure in mainstream reports remains the exception rather than the rule. The information that is disclosed varies widely in format from company to company, is typically not globally consolidated and has no common public repository or repositories.

In the absence of a generally-accepted reporting framework, comparative analysis by the investment research community and the dynamics of peer and stakeholder pressure through public benchmarking have yet to fully materialize. With shareholders and managers constrained in their ability to assess relevant, carbon related risks, financial markets are unable to fully internalize this crucial aspect of environmental sustainability in the allocation of capital.

Moreover, regulators in many jurisdictions are introducing GHG accounting rules that focus on measurement and monitoring of "direct GHGs", i.e. those emitted directly from facilities owned and controlled by certain companies. A large multinational company operating in Australia, Canada, New Zealand, the United Kingdom, European Union and the United States, for example, is likely to be subject to up to 20 existing or imminent legislative provisions specifically aimed at regulating GHG emissions and energy use. These national differences in approach are producing variations in the quality, quantity and relevance of disclosure, and are fostering uncertainty among preparers about what they should report and how to comply with user needs.

In other words, a lack of comparable, comprehensive and reliable climate-related information from corporate emitters is a significant impediment to the transition to a low-carbon model of economic growth. Fortunately, a *de facto* standard for the preparation of corporate/entity level GHG inventories has already emerged from the cooperation of the business and environmental NGO communities in the form of the GHG Protocol. And work is already underway in these communities through the Climate Disclosure Standards Board to create a generally accepted framework for the disclosure of emission inventories, carbon-related risks and management strategies in the annual reports of corporations.[2] The direct emissions component of this framework is based on the GHG Protocol.

Governments should direct their securities and accounting regulatory bodies to engage in these path breaking processes with the ultimate goal of creating a generally accepted set of international accounting principles that can be adopted by securities and other regulators for inclusion in policy responses to climate change that require monitoring and reporting of climate risks, opportunities, strategies and GHG emissions.

Proposal

The global and shared nature of climate change requires global standards and metrics for monitoring and reporting GHG emissions, climate change risks and opportunities. It also requires mitigation strategies that will support policy responses and produce the consistent, comparable and reliable information essential for the integrity of a post-2012 climate agreement. In order to progress towards global standards and metrics for climate change-related monitoring and reporting, the Working Group calls upon policy-makers to:

- *Engage with business.* Responding to stakeholder calls for information about climate change, business has established commonly used practices, adopted standards and gained insights about climate change-related monitoring and reporting on which leaders can rely for policy-making.

[1] This proposal was taken from the recommendations of the Task Force on Low-Carbon Prosperity published by the World Economic Forum in October 2009: http://www.weforum.org/documents/gov/Environment/TF%20Low%20Carbon%20Prosperity%20Recommendations.pdf
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[2] The Climate Disclosure Standards Board is a consortium of the Carbon Disclosure Project, CERES, The Climate Group, The Climate Registry, International Emissions Trading Association, World Economic Forum and World Resources Institute that, in cooperation with major accounting firms and associations as well as industrial and financial services firms is developing a generally accepted framework for climate change-related corporate disclosure. The first exposure draft of this framework was officially launched for comment on 25 May 2009 at the World Business Summit on Climate Change in Copenhagen, Denmark, see http://www.cdsb-global.org.

- *Rationalize the GHG monitoring and reporting rules introduced by regulators* on behalf of governments to support policy responses to climate change, so as to elicit consistent, comparable and reliable information.
- *Align government and business approaches to monitoring and reporting GHG emissions* in support of mutually reinforcing actions that will help to achieve government-pledged cuts in GHG emissions of 80% by 2050.
- *Focus on monitoring the emission sources that are likely to yield the most significant GHG mitigation opportunities*, in particular through corporate supply chains, product emissions and the use of alternative (low-carbon) techniques and technologies.
- *Lead or form public-private partnerships to manage ongoing development and implementation of universal standards and metrics on climate change-related monitoring and reporting.*

The Task Force Working Group on Standards and Metrics proposes the creation of:

- **A joint project of the International Accounting Standards Board (IASB)[3] with the Climate Disclosure Standards Board (CDSB) to develop a principles-based international financial reporting standard for corporate climate disclosure suitable for ultimate adoption by regulators**
  The output of the joint project should include:
  - A comparative review of national regulatory policy responses to GHG disclosure requirements, drawing upon initial work being conducted by the industrial, accounting, financial and environmental communities through the CDSB;
  - A practical and technical assessment of the complementary effect on standards of the International Assurance Engagement Standard on GHG statements being developed by the International Federation of Accountants through the International Auditing and Assurance Standards Board; and,
  - An impact assessment identifying the types of organizations for which monitoring and reporting is likely to be material and the associated cost-benefit analysis.

- **The Task Force Working Group on Standards and Metrics also recommends prioritization of a global standard for the assessment and reporting of product carbon footprints to enable better transparency of emissions associated with their production and consumption.** While numerous initiatives are already underway in the World Business Council for Sustainable Development (WBCSD)/World Resources Institute (WRI) and the International Standards Organization (ISO), this process could be facilitated by one or more international organizations such as the WBCSD/WRI, ISO, OECD, UNEP or IEA/IPEEC.

Explanation/Rationale

In the fourth national communications under the Kyoto Protocol, 39 Annex 1 territories reported on their GHG measurements to the UNFCCC. In 2008, over 2,000 of the world's largest corporations disclosed information about their GHG emissions and climate risks and opportunities to the Carbon Disclosure Project. The growth, scope and scale of GHG measurement, monitoring and reporting practices bear testimony to the mantra: "What gets measured, gets managed".

Significant progress has been made in refining GHG monitoring and reporting practices. However, the explosion of national and/or regional policy responses to climate change and the absence of global consensus on GHG measurement and tracking mean that reporting fails to produce the consistent, comparable and reliable information that is essential for the integrity of a post-2012 climate agreement. The World Business Summit on Climate Change in May 2009 referred to the need for a "unified, coherent and reliable measurement, reporting and verification discipline for GHG emissions"[4]. The UNFCCC negotiations have identified, through the Bali Action Plan, the need for mitigation commitments and actions that are "measurable, reportable, and verifiable".

[3] The IASB (International Accounting Standards Board) is an independent standard-setting board. The IASB cooperates with national accounting standard-setters to achieve convergence in accounting standards around the world.

[4] *UNFCCC Bali Action Plan, Decision 1/CP*.13. December 2007. Bonn: UNFCCC. (http://www.unfcccbali.org)

Building on conversations with a broad range of business, academia and civil society representatives and on individual input provided by participants in this Working Group, this paper offers a series of recommendations to leaders on how universal standards and metrics on climate change-related monitoring and reporting may be developed. The recommendations respond to Prime Minister Gordon Brown's request for "practical proposals for product, technology and supply chain standards to further drive energy efficiency and lower emissions, including common carbon accounting standards, supply chain emissions calculation methodologies and disclosure processes"[5].

Government pledges to cut GHG emissions by 80% by 2050 in order to avert a 2° Celsius rise in temperature over pre-industrial times must be supported by actions taken by business to track and reduce their GHG emissions. This Working Group therefore *calls for aligned actions by government and business to measure, track and report GHG emissions by reference to universal standards and metrics* that recognize the global and shared nature of climate change. These actions should:

- Establish the common language (or global protocols) necessary for linking carbon cap and trade schemes;
- Align and reflect the reporting needs of preparers and users of information and, in doing so, promote compliance with and utilization of the approach;
- Adopt relevant principles from existing reporting models with which business is already familiar and that provide the clarity and rigour necessary for compliance, assurance and enforcement;
- Provide businesses, investors, consumers and policy-makers with reliable information and confidence to make the decisions and take the actions needed to address climate change and support policy objectives; and,
- Facilitate trust between developed and developing countries and their policymakers through increased transparency on the main drivers and sources of global anthropogenic GHG emissions.

These recommendations call on leaders to:

- Use the shared characteristics that have emerged from business's adoption of existing voluntary and mandatory reporting principles and standards as the starting point for any efforts to initiate or extend GHG monitoring and reporting rules
- Support and incorporate into policy-making the work that is already in progress by business to clarify unresolved aspects of GHG monitoring and reporting
- Rationalize the GHG monitoring and reporting aspects of policy responses to climate change introduced or anticipated by policy makers
- Focus on where the greatest potential GHG mitigation benefits may be achieved by supporting and prioritizing ongoing work by business to develop standards for measuring supply chain and product emissions and indirect benefits from the use of alternative techniques and technologies that could reduce GHG emissions
- Identify how ongoing work to develop universal standards and metrics will be managed beyond the G20 meeting in September 2009, so as to build upon the momentum of the Task Force and the UNFCCC negotiations

The recommendations are designed to support policy-makers in their negotiations to reach a global agreement by accelerating progress towards a universal approach to climate change-related monitoring and reporting that encourages coherence across international markets from which the foundations for a new generation of low-carbon enterprises and markets can be built.

[5] See *Business-Expert Task Force on Low-Carbon Prosperity: Open Letter to G20 Leaders*. " March, 2009. Geneva: World Economic Forum. (http://www.weforum.org/pdf/climate/G20_ProsperityTaskForceLetter.pdf).

World Economic Forum Low-Carbon Prosperity Task Force

Next Steps

The Working Group on Standards and Metrics recommends a joint project could be set up between the International Accounting Standards Board (IASB) and the Climate Disclosure Standards Board (CDSB) to develop a principles based, international reporting standard for corporate climate disclosure suitable for ultimate adoption by regulators. The output of the joint project could include:

- A comparative review of national regulatory policy responses to GH disclosure requirements, drawing upon initial work being conducted by the industrial, accounting, financial and environmental communities through the CDSB
- A practical and technical assessment of the complementary effect on standards of the International Assurance Engagement Standard on GHG statements being developed by the International Federation of Accountants through the International Auditing and Assurance Standards Board
- An impact assessment identifying the types of organizations for which monitoring and reporting is likely to be material and the associated cost benefit analysis

This proposal is put forward by the participants in the Task Force Working Group on Standards and Metrics, listed in the Task Force on Low-Carbon Prosperity report: http://www.weforum.org/documents/gov/Environment/TF%20Low%20Carbon%20Prosperity%20Recommendations.pdf

Global Agenda Council on Ocean Governance[1]

Proposals for Managing Ocean Resources in a Sustainable and Environmentally Responsible Manner

Context

Background and State of the Oceans[2]

Covering over 70% of the world's surface, the oceans provide life-sustaining goods and services to the global population. One in four people on this planet rely on seafood as their primary source of protein.[3] Coral reefs and mangroves provide shoreline protection from waves, storms, and floods.[4] The ocean provides natural carbon sequestration, buffering the impacts of global warming. The ocean has already absorbed about 50% of carbon dioxide (CO_2) produced by humans[5]. Marine organisms and ecosystems also provide most of the oxygen we breathe, raw materials, bioremediation of waste, cultural heritage and identity, leisure and recreation, and global resilience and resistance to disruption.[6] Human reliance on ocean ecosystems will only continue to increase with our rapid population growth.[7]

Ocean Health 2009 Snapshot

- Globally, 63-75% of marine fish stocks are fully exploited, overexploited or depleted.
- SPollution-caused "dead zones" cover 245,000 square kilometres (an area the size of the United Kingdom) worldwide.
- 20% of coral reefs have been lost and another 20% are degraded.
- Sea level rise averages 3.3 mm per year.
- At least 84% of marine ecoregions are impacted by invasive species.
- More than 50% of the highly migratory oceanic sharks and nearly two-thirds of the straddling stocks and the stocks of other high seas fishery resources are overexploited or depleted.
- Roughly 30% of highly migratory tuna and tuna-like species are similarly overexploited or depleted. More than 55% are fully exploited, so that no additional expansion is possible.

Despite our dependence on healthy oceans, human activities are degrading the oceans on a global scale. Over-fishing, pollution, habitat destruction, invasive species, climate change, and acidification all threaten biodiversity, abundance of marine resources, and ecological function of aquatic habitats. No part of the ocean is unaffected by human influence, and 41% of the ocean is strongly affected by multiple human impacts.[8] Over half of the world's coral reefs experience medium to very high human impacts.[9] While the coastlines of the world are receiving the brunt of the impacts, even remote, open ocean and deep sea areas are suffering from effects of shipping, fishing, and climate change.[10]

1 The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

2 This section was contributed by Melissa Bos, Hawaii Seascapes Director, Conservation International

3 FAO 2009

4 Cochard et al 2008

5 Sabine et al 2004

6 Beaumont et al 2007

7 Reid et al 2005

8 Halpern et al 2008

9 Ibid.

10 Ibid.

Carbon dioxide and other greenhouse gases emitted by human processes are changing the ocean as well as the atmosphere. Direct measurements show that the ocean is warming, becoming more acidic, and expanding, leading to sea-level rise, currently of 3.3 mm/year. In addition to all these direct effects, climate change also tends to exacerbate the other human impacts described above. Previously unaffected places are facing new risks, such as melting ice in Polar regions. While this brings the possibility of more economic activity in the Arctic, there will also be environmental risks from increased fishing, shipping, tourism, and drilling for oil and natural gas.

Climate change may impact the oceans in a multitude of other ways as well. Ocean circulation patterns, which distribute nutrients and transport organisms, may change, with important implications for population dynamics and productivity.[11] Climate change is predicted to shift species ranges, and the combination of species invasions and local extinctions is expected to result in a "dramatic" species turnover of 60% of present biodiversity.[12] To complicate matters, the increase in anthropogenic CO_2 is leading to ocean acidification. As the oceans absorb CO_2, chemical reactions lower the pH of seawater, making the oceans more corrosive to the shells and skeletons of numerous marine phytoplankton, invertebrates and fish. Scientists predict that by 2050, erosion of tropical and cold water coral reefs will outpace new coral growth, making many reefs unsustainable.[13] As temperatures rise, tropical coral reefs also face more frequent bleaching, or loss of symbiotic algae, and increased rates of coral disease, both causing greater mortality.

Many commercial fisheries are in decline, threatening both food and economic security worldwide. Globally, about two-thirds of marine fish stocks are fully exploited, overexploited or depleted,[14] as compared to a fraction of that figure 50 years ago. Experts from governments, NGOs, the scientific community, and industry have emphasized the need to reverse the trends of overexploitation and increases in fishing capacity and effort. Despite large increases in global fishing effort, yield across all species and Large Marine Ecosystems (LMEs) has declined by 13% (10.6 million metric tons) since passing a maximum in 1994.[15] According to some experts, 90% of large predatory fish have been depleted from the global ocean.[16] Stock collapse is increasing over time.[17]

Secondary impacts from over-fishing are also of great concern. Over 90% of some seamounts (subsurface features, normally extinct volcanoes in the deep sea) targeted by bottom fishing using highly destructive gear such as trawls, dredges and traps are now covered by bare rock.[18] Few seamounts within fishable range (circa 1500 m) are unimpacted. Each year, 16 billion pounds of bycatch (non-targeted species) are discarded, including hundreds of thousands of marine mammals, sea turtles and seabirds.[19] In many fisheries, once large fish are depleted, fisheries target less desirable and smaller predators and herbivores in a process known as "fishing down the food web". Similarly, once nearshore fish stocks are depleted, fishers travel further and target deeper waters where fish grow more slowly and are more sensitive to overexploitation.

Coral reefs, other critical habitats, and threatened/endangered species are at risk throughout the world due to human activities. Biodiversity loss impairs the ocean's ability to provide food and ecosystem services: as biodiversity decreases, there is an exponential decrease in fishery recovery potential and water quality.[20]

[11] Harley et al 2006
[12] Cheung et al 2009
[13] Orr et al 2009
[14] Worm et al 2009, FAO 2006
[15] Worm et al 2006
[16] Myers and Worm 2003
[17] Worm et al 2009
[18] Koslow et al 2001
[19] Kelleher 2005, Lewison et al 2004
[20] Worm et al 2006

Societal Roots of Ocean Health Decline

Anthropogenic activities are unequivocally harming ocean health, but the underlying reasons why ocean health continues to decline are quite complex. Four key drivers can be identified. First, the oceans are largely a common pool resource, and the lack of sole ownership has led to a global-scale tragedy of the commons. Second, the oceans are understudied and undervalued, as humans have only explored 5-10% of ocean area, and our imperfect understanding limits sustainable use. Third, ineffective governance is caused by piecemeal marine management and lack of political leadership. And lastly, economic policies incentivize short-term profits at the cost of long-term ocean health and human well-being. These factors have caused many to question whether the current regime is sufficient to ensure the long-term protection of biodiversity or preservation of the essential ecosystem goods and services upon which we all depend.

Proposals

(1) Create Large Ocean Reserves on the High Seas

There is widespread support and recognition of the value of effectively managed marine protected areas (MPAs) for areas of particular concern because of their fishery or ecological value. Indeed, world leaders at the World Summit on Sustainable Development committed to establishing representative networks of MPAs, by 2012. Globally, however, barely 1% of the world's ocean is included in any kind of MPA, and a far smaller percentage in no-take reserves. Most MPAs are small, close to shore and provide only partial protection of physical and living resources. Frequently the degree of protection is a compromise with long-standing use traditions (e.g. commercial or recreational fishing). In some cases they are essentially temporary fishery closures to allow recovery of stocks, in others they are intended to shelter reproductive grounds of commercial fishes or to protect areas of touristic or cultural value.

While it is clearly desirable to increase the number of these mainly coastal MPAs and establish them on the basis of good scientific information and clear societal value, they will always constitute a very small fraction of the world's ocean. For MPAs to play a major role in the long-term sustainability of biodiversity, biological production and ecological services in the ocean, very large protected regions, preferably no-take zones that encompass significant habitat space in the coastal ocean, the open ocean and the deep sea, will need to be established. These "large ocean reserves" (LORs) should include areas both within national jurisdiction (the territorial seas or Exclusive Economic Zones (EEZs) of coastal states) and beyond (the high seas and seabed "Area" beyond national jurisdiction), although they will require different governance mechanisms.

In recent conferences (Eighth Conference of the Parties to the Convention on Biological Diversity, 2006), the Convention on Biological Diversity (CBD) defined and adopted seven criteria for Ecologically and Biologically Significant Areas (EBSAs), which can be used to identify potential sites for protection, including areas of the open ocean and deep sea. These criteria are: 1) uniqueness or rarity; 2) special importance for the life history of species; 3) importance for threatened, endangered or declining species and/or habitats; 4) vulnerability, fragility, sensitivity, slow recovery; 5) biological productivity; 6) biological diversity; 7) naturalness. Additionally, five properties of MPA networks were stipulated: 1) ecologically and biologically significant areas; 2) representativity; 3) connectivity; 4) replicated ecological features; 5) adequate and viable sites. Taken together, these considerations would define the highest priority areas for various degrees of regulation and possibly inclusion in representative MPA networks. These important criteria should be applied as widely as possible, but require some prior knowledge of the characteristics and status of a proposed protected region. Here we recommend also that large ocean reserves should be established even in the absence of prior characterization if political, economic and environmental conditions are favourable, on the presumption that biodiversity, productivity and ecological services will be best maintained under a fully protected condition.

Global Agenda Council on Ocean Governance

Explanation/Rationale

The Role of Large Ocean Reserves

The purpose of large ocean reserves would not be limited to the restoration of a specific commercial fishery or preservation of particular known and imperilled habitats or resources (although these benefits might accrue), but for the larger and longer-term goals of protecting the biological and ecological diversity and structure of the ocean, even where those properties may still be largely unexplored or poorly understood. Coastal MPAs are increasingly (and properly) based on an understanding of their ecological characteristics so that they can be designed to be optimally effective in their goals, in accordance with the types of criteria described above. The large ocean reserves we propose here would attempt to define and protect the largest and most varied regions of the ocean (including water column, sea floor, ocean ridges, seamounts, islands, atolls, reefs, coastlines and ice-covered seas) that are politically and economically possible at any given time, representing the various ocean basins and biogeographic regions. Their establishment would be based on the simple and highly precautionary principle that any ocean ecosystem is likely to sustain itself better in the absence of human interaction, particularly given increasing global pressures from climate change and ocean acidification. The values of reserves established in this way include:

- Preservation of biodiversity and community structure in large marine environments
- Reservoirs of genetic, phenotypic and behavioural information and plasticity for future discovery and application
- Sources of repopulation for other regions degraded by human or natural stresses
- Protection of physical and biological habitat from fishing, dredging, mining, dumping and other impacts
- Protection of animal (and plant) populations, spawning and nursery grounds even when we don't know exactly what or where the species are, or their life histories
- Reference areas of natural marine ecosystems for research and comparison with impacted ecosystems
- Natural laboratories to study the response and resilience to climate change and other global impacts in the absence of confounding human stresses

These values are recognized in the two largest national marine reserves created to date, the Phoenix Islands Protected Area (PIPA: 406,000 km^2) and the Northwest Hawaiian Islands National Monument (NWHI: 360,000 km^2). PIPA includes eight uninhabited coral islands which were strongly affected by an El Niño-Southern Oscillation (ENSO)-related bleaching event in 2002. In the absence of fishing and other human pressures, the islands were making a strong recovery in 2009, partly due to intact herbivorous fish populations that controlled algal overgrowth. Each of the islands showed variation in the pattern and rate of recovery, providing an opportunity to compare natural resilience in islands with differing environmental characteristics. PIPA is within the EEZ of Kiribati, and NWHI of the US; both were established by those national governments. A third open ocean reserve was recently adopted in the Southern Ocean near the Antarctic Peninsula south of the South Orkney Islands by the Commission for the Conservation of Antarctic Living Marine Resources. At nearly 94,000 km^2, it is the largest "high seas" MPA yet established, and many of the points given above were highlighted as reasons for its establishment.

Governance Structures for Ocean Reserves

The form of governance of large-scale reserves would depend on whether they fell within national EEZs or international waters. The governance of national MPAs is a mixture of local, regional and national jurisdictions. In the United States, for example, protected areas fall under several federal agencies as well as states, municipalities and tribal groups. Within national waters, action by states, possibly in concert with NGOs or other interested parties, may be sufficient to establish the reserve, as happened with PIPA and NWHI. The governments operating these two reserves have also agreed to share support for monitoring and research. This kind of collaboration could apply to other future reserves that are near each other, or share common needs, effectively knitting them into much larger territories.

Regional mechanisms for cooperation may also greatly assist in ocean reserve development and management. Such a coalition across the Pacific is already under discussion, and this mechanism might serve as an example of a way to protect large areas of ocean, in cooperation with any existing regional structures. Successful exclusion of fishing from national reserves may at times require a mechanism to replace lost fishery revenue to the states involved. For PIPA, this is being done by the establishment of an endowment to generate offsetting income. Sources of this income would probably have to be different for large ocean reserves far from population centres than for smaller ones that can be funded through user fees, such as the Bonaire Marine Park. When the values cited above for ocean reserves are recognized as important enough to

the global community, then one might expect the Global Environment Facility, the World Bank and similar organizations to support them.

Reserves in international waters can be established through stand-alone agreements, as was the case initially for the Pelagos Sanctuary for Marine Mammals in the Mediterranean in 1999. They can also be established through regional cooperation such as in the case of the South Orkneys MPA that was established by the relevant regional fisheries management organization, CCAMLR. However, unlike CCAMLR, many Regional Fisheries Management Organizations (RFMOs) do not have conservation of all living marine resources as an overriding mandate or have formal cooperative mechanisms with a regional conservation treaty and body, the Antarctic Treaty System. A global level mandate and push for establishing international large ocean reserves (see section (5) below on measures to strengthen the UN Convention on the Law of the Sea), and the development of a new global agreement, building on the requirements to protect and preserve the marine environment in the United Nations Convention, could stimulate rapid progress. Funding to support management costs and potentially for revenue offsets would still be needed from international organizations and other donors.

Recommendations

- Set a goal for the establishment of 1 million km^2 of new large ocean reserves in the world ocean by 2012 and continuing efforts after that
- Encourage the establishment and continuing protection of these large ocean reserves in almost any areas of the world ocean where political and economic factors are minimal impediments, and even in cases where the natural environments included are unexplored
- Particularly encourage states in appropriate locations to create these reserves within their EEZs by authority of the national government
- Support and where necessary establish regional cooperative mechanisms to assist in the identification and development of large ocean reserves. Ultimately, the regional mechanisms should be linked into a global partnership
- Urge the funding of endowments to provide income to replace revenues, as from fishing, which developing states or small-scale fishers may lose by establishing large ocean reserves, and to cover ongoing costs of operation. Such funding could stem from the World Bank, the Global Environment Facility and other donor organizations as such investments are for the long-term good of the planet and humanity
- Encourage, but regulate and monitor, the use of large ocean reserves for scientific research relating to natural ecosystems, climate change, and similar studies
- Initiate pilot projects in areas beyond national jurisdiction including a funding mechanism to provide monitoring and surveillance
- Support the broader reforms in ocean governance described in section (5) below, including the development of a Global Framework Treaty Agreement for Marine Protected Areas and Spatial Planning in areas beyond national jurisdiction, consistent with the UN Convention on the Law of the Sea (UNCLOS)

(2) Use Market Mechanisms to Drive Better Management of Fishery Resources

Ocean governance includes not only governmental action, but also various norm-setting activities that occur in the non-governmental and private sectors. A recent development is the use of market incentives (access and price premiums) for companies that meet standards of “sustainability”. These incentives promote beneficial changes in behaviour.

In the context of fisheries, market approaches provide an innovative supplement to governmental action. Market mechanisms engage a whole new class of players as interested parties. Historically, governments made the rules for fisheries management and enforced them. The “consuming buyers,” most especially the buyers whose livelihoods depend on a steady supply of seafood (the processors and retailers), were not engaged in setting or enforcing fishing policies. Today, however, a new attitude is developing in certain regions, so that major buyers are concerned about good fishing practices, in great part because they want to assure the stability of their supplies.

The upshot of this development is that the “major buyers” are engaged in finding solutions, and they are setting norms for behaviour and asserting these norms through “market mechanisms” – they are voting with their wallets in favour of sustainable fisheries.

This development has made significant progress in some markets but on a global scale is in its initial stages. The greatest manifestation of the use of market mechanisms is in northern Europe, but expressions of it are also found in other parts of the world, including the USA, Australia-New Zealand, and Japan. **The effort to shift the procurement of fish to well-managed fisheries should be scaled up substantially, focusing on the participation of major fish buyers (processors and retailers) who can leverage large segments of market share internationally**.

Funding: Promoting market mechanisms as a tool for the conservation of fish resources could produce significant gains at very little cost. No government funding is required, and the only significant category of "costs" involved would be tied to the price of the product, as demand for sustainably-sourced fish may result in some increase in price.

Explanation/Rationale

Examples: There are various approaches using market forces to promote sustainable fishing practices. One of them is certification and eco-labelling, and the leading example of this approach is the Marine Stewardship Council (MSC), a global standard-setting, certification, and eco-labelling programme that engages market forces to incentivize good practice in the fishing sector. The MSC has developed a set of global standards for what constitutes a "well-managed and sustainable" fishery. In applying the standards in the assessment of fisheries, the MSC uses what is known as a "third-party certification" approach; that is, the assessments are performed by independent auditors using objective criteria. If a fishery passes, it is certified as a well-managed, sustainable fishery, and its products are entitled to display the MSC's "eco-label" for the product. The MSC and other organizations promote the purchase of product from MSC-certified fisheries to the "major buyers" (as mentioned earlier, these are the major companies involved in processing and retailing), and the response by these "major buyers" provides preferential market access and in some cases preferential pricing for certified product.

When the fisheries that don't yet meet the MSC standards see the market rewards being given to the certified fisheries, they are incentivized to improve their practices so they can be certified and enjoy the preferences given by the major buyers to certified product.

An illustrative case study is that several major retailers have committed to move their supply base of fish to 100% from fisheries certified as sustainable by MSC. When these major retailers informed their supply chain that they would be transitioning to this goal within a few years, the response has been for many of the underperforming fisheries to seek improvements in their practices so that they can become certified as "sustainable" and thus maintain their commercial relationship with the retailer.

Another approach using market mechanisms involves advisory services provided by certain NGOs to major buyers of fish. For example, the New England Aquarium in the USA has developed a market-based programme that helps to guide the sourcing practices of major wholesalers and retailers who seek professional assistance in selecting fish products from sustainable sources. The market forces that are harnessed in these ways are similar to those engaged by the MSC programme. By choosing fish from sustainable sources, buyers with large market share put economic pressure on fisheries that do not meet the test of sustainability to improve their practices.

A third approach, now in its infancy, involves the evaluation of the performance of treaty-based regional fisheries management regimes with the aim of refusing to make purchases from vessels operating in poorly-performing regimes. This is a more direct form of "purchaser pressure". The International Sustainable Seafood Foundation (ISSF) is a coalition of tuna canners who produce a majority of canned tuna in the USA and Europe, together with an environmental organization, the World Wildlife Fund (WWF). The ISSF urges the RFMOs to follow the scientific guidance of their respective scientific panels in setting quotas, rather than bending to political pressure, and to impose needed conservation and management rules in order to end practices that impair the marine environment. The ISSF uses its buying muscle by announcing that it will curtail or end purchases from certain fisheries managed by the RFMOs unless appropriate actions are taken in response by the RFMO.

All of these approaches engage major buyers (large food companies and retailers) in the effort to move fisheries around the world from the current state of generally poor performance to the level of sustainability necessary to stabilize wild seafood populations.

We urge food companies and retailers – including Member companies of the World Economic Forum – to participate in this innovative approach to "ocean governance" and to utilize their purchasing power to effect positive change in the fishing industry. The buyers can help assure the long-term supply of wild-caught ocean fish with negligible cost involved. And, buyers do not have to get involved in decision-making about what is or is not required to make a fishery sustainable, because the organizations mentioned above have developed processes for judging the sustainability of a fishery. By restricting purchases of fish to those that are certified to be from sustainable sources, strong signals are sent to sub-par fisheries, inducing them to improve their practices in order to achieve the market rewards afforded to fish from sustainable fisheries.

(3) Reforming Fisheries Subsidies
A Benchmark for Integrating Global Trade, Environmental and Development Agendas
Putting an end to over-fishing of the world's oceans remains a fundamental global challenge. Among the acknowledged contributing factors is the continued provision of subsidies. Estimated at between US$ 10-34 billion annually, these subsidies are a major cause of overcapacity of fishing fleets and unsustainable levels of fishing effort. In 2005, under the aegis of the WTO, governments pledged to negotiate and adopt a binding and effective ban on subsidies that contribute to overcapacity and over-fishing. In doing so, however, it also undertook to avoid constraining development and equity objectives for developing countries. As a governance challenge, the problem of fisheries subsidies is an exemplar of the wider problem of how to link trade and environmental sustainability issues – current governance mechanisms have so far failed to achieve coherence between economic and natural resource management policies and policy-making processes. Fisheries offer an ideal context in which to make progress on this issue. No other topic more clearly illustrates the potential for the WTO to play an enhanced global governance role as the world's economy becomes ever more subject to environmental limits and demands for equitable development.

A draft text, issued by the chair of the WTO Negotiating Group on Rules in November 2007, holds the promise of delivering the WTO's first genuine "win-win-win" for trade, environment and development. These rules would sharply constrain the ability of governments to continue underwriting over-fishing while also providing constructive legal and institutional pressures towards improved fisheries management and more coherent industrial and resource management policies. To date, however, agreement has not been reached. While technical progress has continued at the WTO negotiating table – despite the obstacles to completion of the broader Doha Round – the fisheries subsidies problem needs to be brought back into the spotlight and discussed at high levels.

Recommendations: The World Economic Forum plays a significant role in highlighting international economic priorities and convening debate. Recognizing the extraordinary opportunity that the WTO fisheries subsidies negotiations present for advancing meaningful, innovative, and integrated governance in a key natural resource sector, attention and prioritization by the Forum would be highly influential. In view of this we propose that the Forum join us in calling for, or cosponsoring, an inter-institutional dialogue that will facilitate the resolution of outstanding definitional issues for the final text of fisheries subsidies rules and build consensus for effective implementation of the new rules once the Doha Round is completed.

Participants in a first phase of this dialogue would include key officials from relevant multilateral institutions (e.g. WTO, FAO, UNEP, OECD), representatives from multinational companies committed to sourcing sustainable seafood products, representatives from IGOs that can speak to developing country interests (e.g. Pacific Islands Forum, CARICOM, the Commonwealth Secretariat, or the ACP Group of States), and leading thinkers in the field (e.g. WWF). This group would work to build upon the negotiated text that has been developed thus far, in preparation for a second phase of the dialogue discussed below. The outcome would include a set of briefing materials summarizing progress to date and outlining ideas for resolving remaining obstacles. This phase would also include exploration of the potential for ongoing collaboration between the WTO and institutions such as the FAO that are more heavily focused on sustainability issues.

The second phase would include a higher level dialogue with institutional and national representatives whose support will be essential to effective implementation of the new rules. Here it will be important to include senior decision-makers from those nations willing to advocate for effective compromise, as well as those who have been champions for reform or steadfastly opposed to it. Results from these two phases of dialogue would be reported and fed back into the ongoing negotiations on fisheries subsidies within the Doha Round. (Note: An alternative approach would be to collapse both phases into one continuing dialogue that would involve key, senior decision-makers from the start.)

Funding: Although not yet designed or priced in detail, we estimate that this proposal would cost approximately US$ 250,000 to plan and implement. This would include administrative support, preparation of background documents, and organizing and running the meetings. It would also include a provision for supporting some participants' costs for attending the meeting.

Explanation/Rationale

While all parties recognize the importance of the topic, there is a real danger that progress will stall on this key governance issue. It is vital to maintain momentum and we believe that this initiative would be welcomed by the WTO as a means for doing so and provides a rare opportunity for the Forum to play the sort of catalytic role the world needs. Adopting the view that "*change happens one conversation at a time,*" the key benefit of this proposal is that it would help ensure a quality conversation between key institutions that have hitherto struggled to find an effective framework and operational mechanism to work together. Success would pave the way for a massive reduction in global fisheries subsidies with a concomitant increase in the sustainability of fish stocks and in the resource rents that they provide. It could also offer models for the resolution of similar issues in other sectors where a balance between trade and environmental concerns must be found.

(4) Create Global Indices to Measure Ocean Health
The Ocean Health Index: A New Global Index to Measure Ocean Status and Trends
Until now, no integrated framework has existed for setting goals for ocean health and evaluating progress towards meeting them. Recognizing this need, Conservation International, the National Geographic Society and the New England Aquarium proposed creating an Ocean Health Index (OHI). They have been joined by the National Center for Ecological Analysis and Synthesis (NCEAS), the University of British Columbia's Fisheries Centre, Scripps Institute of Oceanography, and other senior researchers from various institutions throughout the world.

The OHI will be a new, quantitative composite index based on indicators drawn from international agreements, intergovernmental panels and other high-level recommendations regarding marine conservation and resource use including the Stockholm Declaration on the Human Environment (UN 1972), the Rio Declaration on Environment and Development (UN 1992a), Chapter 17 of Agenda 21 (UN 1992b), the Multilateral Convention on Biological Diversity (UN 1992c; CBD 2002, 2004) the World Summit on Sustainable Development (WSSD) (UN 2002), the Millennium Ecosystem Assessment (Millennium Ecosystem Assessment 2003a, 2003b) as well as major reports by intergovernmental and international panels (e.g. GESAMP 2001, WBGU 2006, IPCC 2007). Ongoing evaluation of many indicators for those and other projects will benefit OHI implementation.

OHI indicators will measure changes in the intensity of the most critical ocean stressors (climate change, direct exploitation by fisheries, habitat destruction, pollution, invasive species and others), their direct effects on the ocean, impacts on ocean subsidies and services, and consequences for human well-being.

OHI results will be published in a simple, dramatic, transparent and accessible format, maximizing their utility to the public, ocean managers and stakeholders, and energizing transformative change in attitudes and behaviour regarding ocean use and conservation. Trends over time in the value of OHI and its indicators will stimulate deliberate, performance-based ocean improvement by helping managers and the public to 1) identify unfavourable ocean trends; 2) select the most strategic goals and remedial actions to reverse them; and 3) evaluate the success of remedial actions through data-driven outcomes

assessment. The OHI will thus play a focal role in efforts to re-build the ocean's ability to support abundant populations, rich biodiversity, robust ecosystem services and improved human well-being.

Under the guidance of Advisory and Steering Committees comprising leading marine scientists, full-time research teams at the named institutions and elsewhere will work collaboratively to synthesize relevant past and current work on proposed indicators, select locations for detailed regional OHI trials, mine existing data sets from specified locations to determine quality and quantity of data available for indicators, and define methods for weighting, scoring and displaying indicators and incorporating them into a composite index. After testing indicators and performing comparative analyses across different locations, they will launch and publicize a global Ocean Health Index by 8 June 2011, update it as frequently as possible, and assist in media communications that maximize the impact of OHI on improving ocean health.

OHI construction will be strengthened through membership on the OHI Steering Committee of principal investigators from other high-level studies of ocean status that are ongoing or planned including:

- The *International Programme on the Status of the Oceans (IPSO),* an IPCC-like report focused on the ocean, scheduled for publication in 2012
- *A Framework to Assess Ecosystem Health in Support of Ecosystem-Based Management of Coastal-Marine Systems,* an NSF-funded project to develop a concise set of indicators of ecosystem health for coastal marine ecosystems in US waters
- A *Climate-Change Index* recently created by the International Geosphere-Biosphere Programme (IGBP)
- A 10-year global expedition beginning in Spring, 2010, led by scientists from Stanford University and NCEAS, to assess and document how people are affecting the world's oceans by sampling 40-50 locations (polar, temperate, and tropical; pristine to degraded)

Explanation/Rationale

The OHI will thus create larger, broader and more specifically goal-oriented collaboration than currently exists, as well as a more explicit sense of shared purpose. Contribution to the OHI of data and results already being produced for other projects will add value and status to ongoing work. Successful branding of the OHI effort and celebration of participating entities on an OHI website and in lectures, scientific or public forums, written reports, and other presentations will broadly improve opportunities for fund raising, grant writing and recruiting, and may stimulate funding that would not otherwise be available. OHI is currently budgeted at US$ 6 million over the next three years. More than US$ 3 million has already been raised for the project. Additional sources of funding are being actively pursued.

The World Economic Forum could play an important role in helping to publicize and disseminate the OHI results on a regular basis, both to its Member companies and governmental constituencies.

(5) Update and Strengthen Implementation and Enforcement of the Law of the Sea and the Fish Stocks Agreement

Time for an Independent, High Level Review of UNCLOS and UNFSA

Despite recent discussions at the United Nations, the 1982 UN Convention on the Law of the Sea (UNCLOS) and the 1995 UN Agreement relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) have not been able to prevent the decline of many of the world's major fisheries or adverse changes to ocean ecosystems. It is time to find new ways to update and strengthen these two key instruments, and to bring the methods used to implement them into the 21st century.

An independent high-level review of UNCLOS and UNFSA is needed to inject authority, vision and energy into ongoing discussions at the UN on governance and management of the ocean beyond national jurisdiction (the high seas and seabed area). The need to better manage threats and risks to biodiversity, ecosystems and fishery resources beyond national jurisdiction has been recognized by the UN since at least 2002. This collective concern spurred the formation of an *ad hoc* UN working group that met in 2006, 2008, and in February 2010 (The UN Ad Hoc Open-Ended Informal Working

Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction). The UN Fish Stock Agreement is already the subject of an ongoing review: at the UN in May 2010 there will be a reconvening of a review conference on the effectiveness of the UNFSA, which was adjourned in 2006. However, the report prepared for the 2010 meeting reveals that while some progress has been made since 2006, problems with RFMO performance, state compliance, over-capacity, illegal, unregulated and unreported fishing activities, and damage to associated species and habitats persist in undermining the sustainability of fish stocks, biodiversity and ecosystems.

While the UN discussions have prompted states to fill an obvious gap in the high seas legal regime with respect to high seas bottom fisheries, and consolidated agreement on the need to improve implementation and enforcement, governments have yet to tackle the larger systemic weaknesses that undermine sustainable fisheries management and gaps in the international ocean legal regime that inhibit collective conservation measures such as large-scale ocean reserves. These systemic weaknesses include lack of compliance with flag state duties, the "global commons" status of high seas, limited collaborative monitoring and enforcement mechanisms, limited institutional infrastructure for high seas governance, concerns about the equity of resource allocations, and the need for improved cross-sectoral cooperation, e.g. between RFMOs and regional seas organizations. Yet without tackling these larger issues, governments will waste resources chipping away at the edges of problems, and will fail to secure the institutional and legal reforms necessary to ensure sustainable seas for all.

A high level panel of independent experts could be appointed by the World Economic Forum and other prominent partners to conduct the actual review. The panel could be composed of, for example, former heads of state, foreign and environment ministers, security, military and diplomatic and development officials, and marine scientists, political scientists and international lawyers involved in international fisheries and oceans issues. Such a panel would need to be supported by a research team, possibly including experts from the World Economic Forum's Global Agenda Councils on Ocean Governance and the International Legal System, and other non-governmental experts. A series of meetings could be convened to consult with stakeholders representing various sectors, regions and concerns.

Funding: Financial support for the high level panel would be needed and could come from a range of donors, including governments, industry, foundations and international donor institutions, intergovernmental organizations and non-governmental organizations. The estimated budget is approximately US$ 1.5 million for 18 months (at least three meetings of panel members, public meetings in various regions to secure input, secretariat support, research team, publications, communications, follow-up reporting of results).

Terms of Reference: Emphasizing accountability, transparency, and effective management to the standard of real science-based sustainability, the review should create a political mandate to address weaknesses and gaps in the ocean governance system. It should focus on the development of scientific knowledge, evidence-based standards and proper and effective enforcement mechanisms. This necessarily means a special focus on reform of the international fisheries management organizations. The review should also address the need for new legal instruments that would strengthen the ability of nations to create and manage large ocean reserves and other protected areas in the high seas.

Potential terms of reference for the panel could include preparing a report in 12-18 months' time that would: 1) examine key threats, challenges and changes to the oceans in the 21st century and priorities for action; 2) review the effectiveness of UNCLOS and UNFSA in meeting these new conditions, particularly in areas beyond national jurisdiction; and 3) make recommendations to reform governance, redesign institutions, and rebuild collective responsibility for ocean stewardship.

Explanation/Rationale

The principal benefit of the review is that it would secure high-level interest and commitment to updating ocean governance to reflect modern standards of accountability, precaution and sustainability. Right now ocean issues are obscured by a plethora of more obviously pressing concerns, such as counter terrorism and climate change. However, a closer scrutiny by globally respected leaders of the inadequacy of the tools we have to confront illegal fishing, pollution, climate change and other 21st-century threats to food security, ocean biodiversity and ecosystem resilience should reveal the clear urgency and importance of global action to protect the marine environment and establish more effective mechanisms to govern the world's oceans which will assist in remedying many of these other pressing problems.

It should be noted that UNCLOS allows for a review conference (Art. 310) but there has always been a reluctance to unravel the package achieved in UNCLOS between coastal states' rights and navigational freedoms. The problems we now face with protecting the marine environment and biodiversity of the high seas transcend that concern and compel action.

New Global Cooperative Mechanisms for Monitoring and Enforcement to Enhance Compliance
The review should also address the need for new legal instruments that would strengthen the ability of nations to create and manage large ocean reserves and other protected areas in the high seas. To enable the enforcement of these laws and agreements, we call for new global cooperative mechanisms for monitoring and enforcement.

The global nature of modern industrial fishing, shipping and trade require a global response to monitoring, compliance and enforcement. There is a need for a globally coordinated exchange of information, expertise and resources in order to level the playing field, so that irresponsible actors cannot take advantage of weak links and safe havens, such as loosely monitored ports or remote ocean areas. Effective monitoring and surveillance are also essential to secure compliance with large ocean reserves and other collective conservation measures.

In the very short term, with very little money, a great deal could be done to confront a widespread and growing crime of the 21st century – the illegal, unregulated and unreported fishing (IUU fishing). IUU fishing is endemic in both national Exclusive Economic Zones and on the high seas in all ocean basins. It is estimated to be responsible for up to 49% of fishing in some areas, imperilling many already overexploited fish stocks, thereby threatening both food security and ocean integrity.[21] Developing nations are particularly vulnerable to incursions in their waters by foreign vessels ostensibly fishing in the high seas, underscoring the need for cooperative law enforcement across national borders and the high seas. In the longer term, a more comprehensive approach is required to cover the full range of activities at sea that may threaten international peace and security, including environmental and food security.

The International Monitoring, Control and Surveillance Network
The International Monitoring, Control and Surveillance (MCS) Network for fisheries-related activities is a voluntary body based in US National Oceanic and Atmospheric Administration's Office of Law Enforcement. It is currently composed of 50 nations seeking to increase global coordination to prevent, deter and eliminate IUU fishing. However, lack of sufficient funding has hobbled its effectiveness. It currently has projects in West and East Africa, the Coral Triangle Initiative region and Central America and will conduct its third Global Fisheries Enforcement Training Workshop in Mozambique in September 2010. Immediate assistance could transform the voluntary MCS Network into a permanent body with dedicated resources, analytical capacity and the ability to provide training and support to enforcement professionals in all countries in need, and to expand international maritime information sharing protocols and access to key data bases and vessel tracking information.

Funding: IUU fishing costs between US$ 10-23 billion per annum.[22] The costs to deliver an effective international MCS Network are negligible in comparison: approximately US$ 3-5 million per annum (minimum US$ 1.5 million for staff and consultants; US$ 1.5 million for projects, training costs, operational expenses, travel, administrative support and office rental). To make the transition from a voluntary network to a permanent operation, a global trust fund could be established, similar to the Global Trust Fund started by IMO to help states combating Somali-based piracy. Support could come from governments, industry, foundations and international donor institutions, intergovernmental organizations and non-governmental organizations.

[21] MRAG & Fisheries Ecosystems Restoration Research, Fisheries Centre, University of British Columbia, 2008. The Global Extent of Illegal Fishing, http://www.illegal-fishing.info/uploads/ExtentGlobalIllegalFishing.pdf
[22] Ibid.

Explanation/Rationale

The benefits of an expanded IMCS Network are many. The Network currently receives more requests for training (mostly from developing countries) than the current staff is able to facilitate. With increased capacity, the expanded Network will be able to conduct more training in developing countries, leading to more successful prosecution of cases. An expanded Network can help countries strengthen their local surveillance and enforcement programmes, and legal systems and refine their policy, legal and administrative requirements to align them with international legal instruments such as UNCLOS, UNFSA and the new FAO Port State Measures Agreement. And last but not least, responsible fishers and consumers in rich and poor countries alike would benefit as it would free the seas from plunderers who flagrantly flout fisheries laws with little fear of punishment.

Scaling Up to a Blue Ocean Peacekeeping Force
Piracy, terrorism, smuggling and illegal transport of weapons and people across high seas areas present threats to national and international security. The linkages between large-scale illegal over-fishing by international commercial concerns impacting adversely on traditional indigenous local fisheries thereby triggering resort to piracy needs to be addressed and the vicious cycle broken. To effectively manage the high seas, a fully integrated system that enables cross-agency cooperation within national jurisdictions, transnational cooperation across borders, and international and regional cooperation through multilateral arrangements is essential. Ideally it would enable an at sea "Blue Ocean Peacekeeping Force" representing the interests of all nations.

The Role of a Blue Ocean Peacekeeping Force
A dedicated global cooperative mechanism for monitoring and enforcing the laws of the sea – a Blue Ocean Peacekeeping Force – is needed to supplement the IMCS Network described above to combat the full range of maritime criminal activities. It would combine the data, resources and intelligence of law enforcement officials, navies, and coast guards, search and rescue services, and other cooperative maritime surveillance and enforcement arrangements. In addition to its focus on the high seas, it could also enhance the capacity of countries to combat crime in Exclusive Economic Zones, where requested. It could enhance INTERPOL, which covers criminal activities that may take place on land or at sea (piracy, terrorism, smuggling (drugs, humans, wildlife) and pollution) by adding a dedicated oceans presence. And finally it could build links with existing cooperative maritime surveillance and enforcement arrangements such as the Forum Fisheries Agency, Niue Treaty countries, Australia and France cooperative maritime surveillance in the Southern Ocean and others, and provide complementary global coverage.

The idea of a Blue Ocean Peacekeeping Force could be supported by the World Economic Forum and others as part of its wider ocean governance reform agenda. However, as with INTERPOL, a Blue Ocean Peacekeeping Force would need to be established by governments as an intergovernmental organization to ensure access to the full range of governmental and intergovernmental agencies and expertise.

Funding: Again, a global trust fund could be established, supported by governments, industry, foundations and international donor institutions, intergovernmental organizations and non-governmental organizations.

Explanation/Rationale

The principal benefits of the Blue Ocean Peacekeeping Force include pooled resources, shared information feeds, reduced redundancy and vastly increased efficiency and coverage. It would result in a robust respect for the rule of law as well as safer, healthier and more secure seas.

Global Agenda Council on Ocean Governance

Appendices

Executive Summary

Issue Overview

Covering 71% of the planet's surface, the ocean provides many millions of jobs and contributes US$ 100-200 billion to the world economy, in addition to invaluable and irreplaceable services, including biomass and oxygen production, climate regulation, heat storage, and food security (about 20% of the world's population depends on fish for its principal source of protein).

The oceans are in serious trouble, however. Two-thirds of the world's capture fisheries are now fully exploited or depleted and, although some may recover to sustainable levels, many will face still greater pressure from increases in human population and affluence. Twenty percent of coral reefs have been lost through careless human activity, with another 20% degraded and the remainder facing losses of a similar scale over the next several decades. Many species of marine mammals and six of seven species of sea turtles are threatened. Climate change and ocean acidification – both caused primarily by human emissions of carbon dioxide – will create further stress on marine systems, as changes in ocean temperatures, chemistry, sea level and currents cause major shifts in the range, distribution, and reproductive capacity of commercially important species, as well as disruption of important marine ecosystems.

The Global Agenda Council on Ocean Governance believes the inability to manage ocean resources in a sustainable and environmentally responsible manner stands among the greatest failures of international governance and cooperation. A classic "tragedy of the commons," the situation is further exacerbated through misguided subsidies that cause overcapacity and over-fishing. Until recently, there has been an almost total neglect of ecosystem-based principles in the management of wild capture fisheries. There is also a significant amount of illegal, unreported, and unregulated fishing activity, with those responsible facing little threat of sanctions or punishment. Moreover, the policy negotiations conducted under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC) and most national climate change planning to date have neither recognized the central role of the oceans nor given sufficient emphasis to the need for maintaining and restoring the resilience of marine ecosystems so they are better able to cope with climate change and other environmental stressors.

Some positive trends, such as the creation of marine protected areas and various efforts to utilize market mechanisms to direct seafood procurement towards well-managed fisheries, provide some grounds to be optimistic about the future. But these have, for the most part, been small-scale efforts focused primarily on waters within national Exclusive Economic Zones (EEZs). And, although scientific research on the challenges facing the oceans is substantial, it has not yet been harnessed in a way that would provide decision-makers with the key information they need to set prudent policy.

Proposals

(1) Create Large Ocean Reserves on the High Seas

We call for the creation of fully-protected high seas Large Ocean Reserves (LORs) to conserve marine biodiversity and ecosystem functions in the water column and benthos, and to help insure against further degradation of fish stocks. To maintain vital ecological processes, these LORs should be greater than 100,000 square kilometres in size, and they should be protected even if their specific values are not yet fully known. At least one new LOR should be created in each major ocean basin, towards a global total of 1 million km^2 within the next five years. Establishment and management of the reserves could draw, initially, on the legal authority of sovereign nations to govern the activities of their flag vessels and citizens as well as commercial activities in adjacent EEZs and ports (i.e. Nauru agreement). Ultimately, however, stronger mechanisms may be required, which could be designed through the United Nations Convention on the Law of the Sea (UNCLOS) review noted below.

(2) Use Market Mechanisms to Drive Better Management of Fishery Resources

Significant gains have been achieved through certification programmes (i.e. Marine Stewardship Council) and cooperative arrangements between NGOs and major suppliers of fish. The effort to shift procurement of fish to well-managed fisheries should be scaled up substantially, focusing on the participation of major fish buyers (processors and retailers) who can

leverage large segments of market share internationally. We also recommend a coordinated effort to move procurement towards fisheries where good management is in place. To facilitate this effort, international management bodies should be assessed and ranked on a regular basis, with the results disseminated as widely and transparently as possible.

(3) Reform Fisheries Subsidies
The opportunity exists to set significant precedents for incorporating sustainability criteria into international trade decisions through reform of the US$ 10-34 billion spent annually in fishery subsidies. The World Trade Organization (WTO) Doha Round has made progress in formulating negotiated text for ending subsidies that create excess fishing fleet capacity and/or cause over-fishing, while at the same time allowing subsidies by developing coastal states to support the fisheries sector in ways that do not contribute to over-fishing. We call upon the international business community to lend its support for inclusion of a final agreement to reform fisheries subsidies in the Doha Round. We also ask the World Economic Forum to help raise the profile and facilitate dialogue on this issue among relevant Forum and WTO constituencies.

(4) Create Global Indices to Measure Ocean Health
There is an urgent need for timely, transparent indices to show trends over time in ocean health. Results should be published in a simple, readily accessible format on an annual or biannual basis, maximizing their utility to stakeholders. Trends in the value of an ocean health index (OHI) will stimulate deliberate, performance-based ocean improvement by helping managers and the public to (a) identify unfavourable ocean trends, (b) select the most strategic goals and actions to reverse them, and (c) evaluate the success of remedial actions through data-driven outcomes assessment. Several NGOs, working in concert with the scientific community, stand ready to launch this initiative. The World Economic Forum could provide a key venue for disseminating the results of the OHI on a regular basis.

(5) Update and Strengthen the Implementation and Enforcement of the Law of the Sea and the Fish Stocks Agreement
The World Economic Forum and partners should commission a high level, independent review of the two major UN agreements governing the ocean beyond national jurisdiction (the high seas): the Law of the Sea Convention and the Fish Stocks Agreement. The context for these agreements has changed markedly since they were first enacted, placing increased stress on ocean ecosystems and imperilling many of the world's major fisheries. Emphasizing accountability, transparency, and effective management to the standard of sustainability, the review should create a political mandate to address weaknesses and gaps in the ocean governance system. There should be a special focus on reform of the international fisheries management organizations. The review should also address the need for new legal instruments that would strengthen the ability of nations to create and manage LORs and other protected areas in the high seas. To enable the enforcement of these laws and agreements, we call for new global cooperative mechanisms for monitoring and enforcement. These include: 1) immediate support to expand the existing International Monitoring, Control and Surveillance Network to fight illegal, unreported and unregulated (IUU) fishing; and 2) the establishment of a "Blue Ocean Peacekeeping Force" to connect and pool the resources of the global, regional and national intelligence, enforcement and search and rescue communities to stop unsafe, inhumane, illegal and polluting activities at sea.

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Global Agenda Council on Sustainable Consumption[1]

Inspiring and Mainstreaming Sustainable Consumption

Context

A new race is underway to use sustainability as an opportunity to reinvigorate the global economy – a race to create new jobs, provide a platform for innovation, and create the foundation for sustained and sustainable prosperity with secure resources. Sustainable consumption models can provide breakthrough models that leaders will embrace as the basis for long-term success by rethinking their growth strategies, approach to innovation, product lifecycles, and value chains.

The work of the Global Agenda Council on Sustainable Consumption and the World Economic Forum's sustainability initiative rests on a set of simple, but vital, premises about the systemic nature of the challenge of how do we shape an economy that delivers sustainable prosperity for all the world's people. The concept of sustainable consumption will be a key enabler, which cuts across all environment and social issues and all industries and economic sectors. Sustainable consumption and the actions needed to address it will be a means towards the end goal of sustainable and equitable prosperity.

- At its core, sustainable consumption is about new ways to secure commercial success and meet fundamental human needs: the very core of what business at its best is able to deliver.
- Driving sustainable consumption is about more than advocacy, philanthropy or corporate social responsibility; it is also about more than climate change or water.
- It is about fundamental changes in the very products and services that lie at the core of the world's economy; the rethinking of business models, redesigned supply chains; new kinds of consumer choice and behaviour, and the ways society values goods and services.
- It is about more than the actions of any one organization or institution – about deep and broad engagement between governments, businesses, stakeholders, and consumers, within and across value chains, industries and civil society.
- It is about enabling an expanding global population to meet its needs and achieve better standards of living. This will only happen if new consumption models are enabled through business innovation and consumer inspiration, leading to changing consumption patterns in the developed world while creating a model for long-term prosperity in the developing world, requiring a step-change from impacts that are "less bad" towards "net positive" effects of consumption.

The objective of this proposal is to offer immediate, practical ideas on how business and consumers can be engaged on a global level to create both a market push and pull for sustainable products and services, and how government can create an enabling environment that speeds the transformation. In decentralising the control of how we consume away from companies driving profits or governments driving GDP growth, the goal is to engage not the G7 or the G20, but the "G7 billion" – the challenge of engaging every citizen on the planet towards more conscious consumption.

The Global Agenda Council on Sustainable Consumption identified many areas in need of action, broadly consumer inspiration and mobilization, business innovation, and government action. Three specific areas as offering concrete opportunities to generate new insights and catalyse new partnerships are explained in more detail later in this document:

1) From Insight to Action in Rio in 2012
2) Inspiring and Mobilizing Consumers
3) Lifecycle Metrics
4) Innovation Exchange

Consumption: Why Change?

Key insight
Driving innovation to enable sustainable consumption presents an extraordinary competitive opportunity for businesses, as well as an urgent collective action issue for all stakeholders to address.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on Sustainable Consumption

Why sustainable consumption matters

Without a fundamental shift in the way goods and resources are consumed, the world faces the prospect of multiple, interlocking global crises for the environment, prosperity and security. Sustainable consumption is a prerequisite for a more prosperous, safe and equitable global future. The costs of inaction are high.[2]

Pressures on current models of consumption are rising. The world's population is forecast to rise to 9 billion by 2050. Seventy million people are expected to join the global middle class every year between now and 2030.[3] Demand for goods and services should follow. Without sustainable consumption, meeting those demands – and the collective expectations and aspirations that go with them – will become increasingly difficult, with more and more severe consequences.

The world's water systems will become progressively more stressed, while some countries may face "water bankruptcy" as a result of rising populations and changing weather patterns driven by climate change.[4] Global food production will become increasingly inadequate, as an expansion of global population is coupled with a shift in diet of the emerging middle class towards more energy and water-intensive products.[5] Globally, competition for scarce resources will increase. It will become difficult, if not impossible, for developed countries to insulate themselves fully from the social and other consequences this may have in poorer countries. Eventually, competition over access to resources, volatility over the price of resources, and widening global imbalances between the "haves" and the "have-nots" could lead to a popular rejection of economic and political globalization.[6]

Such a dire scenario of the future, extrapolating current trends 20 or 30 years from now, is not inevitable. Technological innovation may help avoid runaway climate change and mitigate the worst consequences of global warming already built in to the world's climate system. The capacity for societies to reinvent themselves in the face of adversity is extraordinary.

But avoiding such a scenario cannot be left to chance. Concerted action is needed to improve the likelihood that prosperity can indeed be achieved for a far greater number of people – with the life and business opportunities that that implies – without environmental degradation affecting the opportunities of future generations. Achieving wider global prosperity within a resource-constrained world is the greatest economic and political challenge of the 21st century.

At present, virtually no country combines a high level of development as measured by the United Nations' Human Development Index with a sustainable ecological footprint.[7]

[2] On the costs of climate change, and the economic rationale for mitigation, see Nicholas Stern, *The Economics of Climate Change: The Stern Review*, 2007.

[3] Middle class here refers to those with an annual income between US $6,000 and US $30,000. World Business Council on Sustainable Development, *Sustainable Consumption Facts and Trends*, 2008.

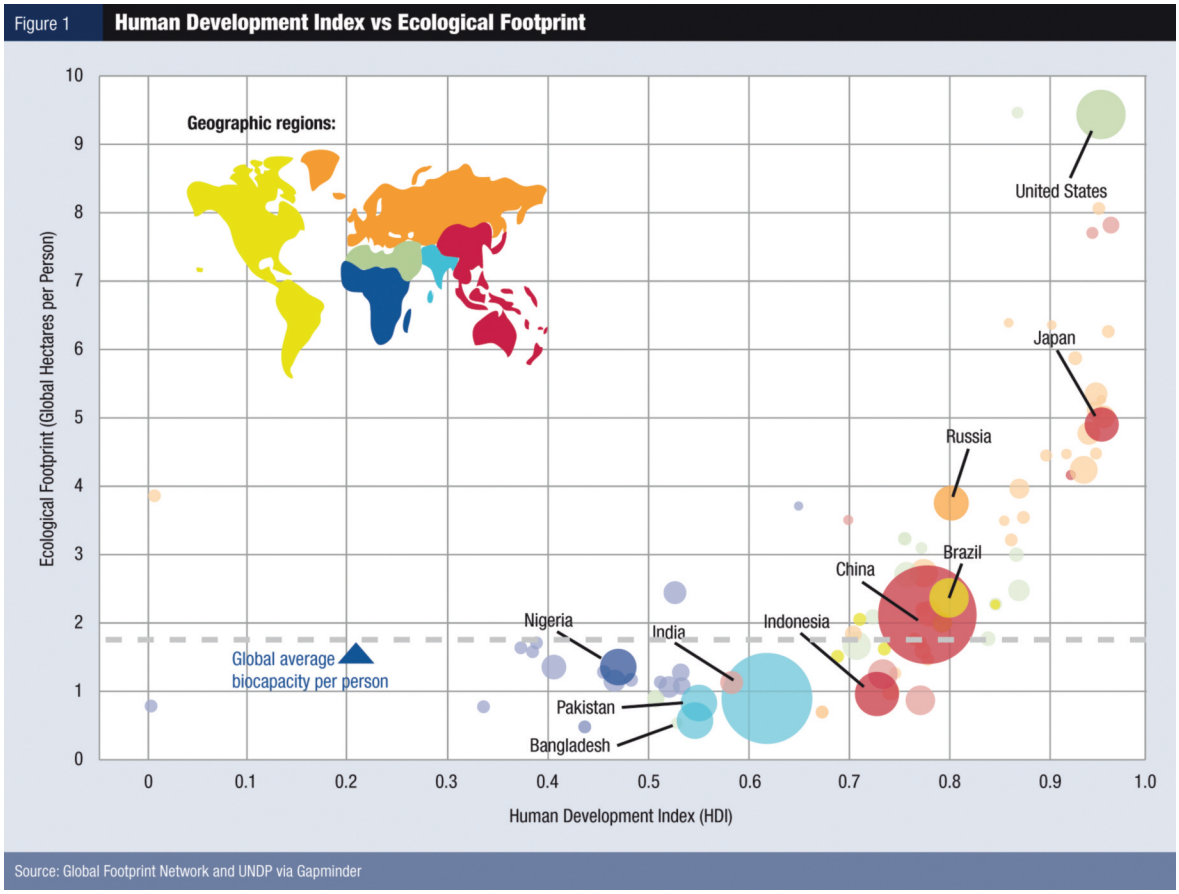
[4] See *Managing Our Future Water Needs for Agriculture, Industry, Human Health and the Environment*, World Economic Forum Water Initiative, 2009.

[5] See Alex Evans' report, *The Feeding of the Nine Billion: Global Food Security for the 21st Century*, Royal Institute for International Affairs, 2009.

[6] Several of these issues have been highlighted in the work of the World Economic Forum's Global Risk Network. See, in particular, *Global Growth@Risk*, 2007.

[7] A sustainable ecological footprint is measured in terms of the world's total biocapacity divided by population. For more explanation of methodology and the figures, see www.fooprintnetwork.org.

Figure 1: Human Development Index vs Ecological Footprint



Why sustainable consumption matters to business

Sustainability is increasingly recognized as being at the core of business success in a fast changing world. With resource economics and consumer choices and needs changing, the businesses that get ahead of the sustainability curve will be the winners in tomorrow's economy.

- ***Driving innovation*:** Businesses are the chief engines of value creation and innovation in society. The challenge of sustainable consumption presents an opportunity to enhance both, particularly when new partnerships and collaborations are opened along the value chain.
- ***Managing resource risks*:** Sustainability matters to business because it reduces exposure to volatile and rising resource prices, to the risk of increased scarcity of resources and to the risk that these (carbon, water, waste) are radically re-priced in the near future. Embracing models of sustainable consumption across the value chain will provide stronger resilience against external shocks.
- ***Shaping the regulatory environment*:** Principles of sustainability are increasingly being incorporated into the regulatory environment. If businesses wish to flourish in this environment, they must make themselves active participants in its construction.
- ***Engaging consumers as citizens*:** The biggest drivers of corporate sustainability investments are consumer concerns, employee interest and government legislation.[8] For business, driving sustainable consumption can be an effective long-term strategy for deepening authentic engagement with consumers and employees.
- ***Engaging consumers as customers*:** Consumers increasingly want to be treated as customers, demanding not only more sustainable products and services, but also greater transparency over sourcing and content of existing ones. At the same time, the speed, spread and changing patterns of use of the media are forcing businesses to adopt pre-emptive strategies to manage their reputational risk on sustainability issues. Engaging proactively with the sustainable consumption is one way of managing these challenges in depth.

[8] See *The Business of Sustainability*, Massachusetts Institute of Technology, 2009.

- ***Capturing opportunity*:** In the end, sustainable consumption matters to business because there will be winners and losers in the new economy, and those that move most swiftly are likely to reap the greatest benefits. Embracing sustainable consumption now offers a pathway to future markets and profitability.

Why sustainable consumption matters now

The world economy is emerging from the deepest global recession in decades. To some extent, the depth of the recession has obscured the extent of the sustainability challenge – in some cases, where investments in improved resource development and management have been cancelled or deferred as a result of recession; it may have made things worse.

The global consumption trajectory remains largely unchanged. According to the World Wildlife Fund, resource consumption could increase to 200% of global carrying capacity by the 2030s.[9] As argued below, incremental improvements in sustainability are not enough. A more fundamental, transformational shift in the way the world produces, consumes and manages value chains is needed.

The appetite for new business models has never been greater. In 2010, therefore, not only are the positive arguments for sustainability enhanced, but so is the opportunity for businesses to rethink the role of sustainability and to reconfigure their organizations to adapt.

Current Trends towards Sustainability and Why a More Fundamental Shift is Needed

Key insight
Despite the recession, moves towards sustainability are accelerating, supported by a shifting consumer agenda, the rise of sustainable investment, increasingly supportive policy frameworks nationally and internationally, and attempts to redefine concepts of value and prosperity, incorporating environmental and other factors. These are positive trends – but even collectively, they are not enough to forestall environmental threats under most scenarios; yet, they also fail to catalyse opportunities for business and other stakeholders.

Shifting consumer agenda

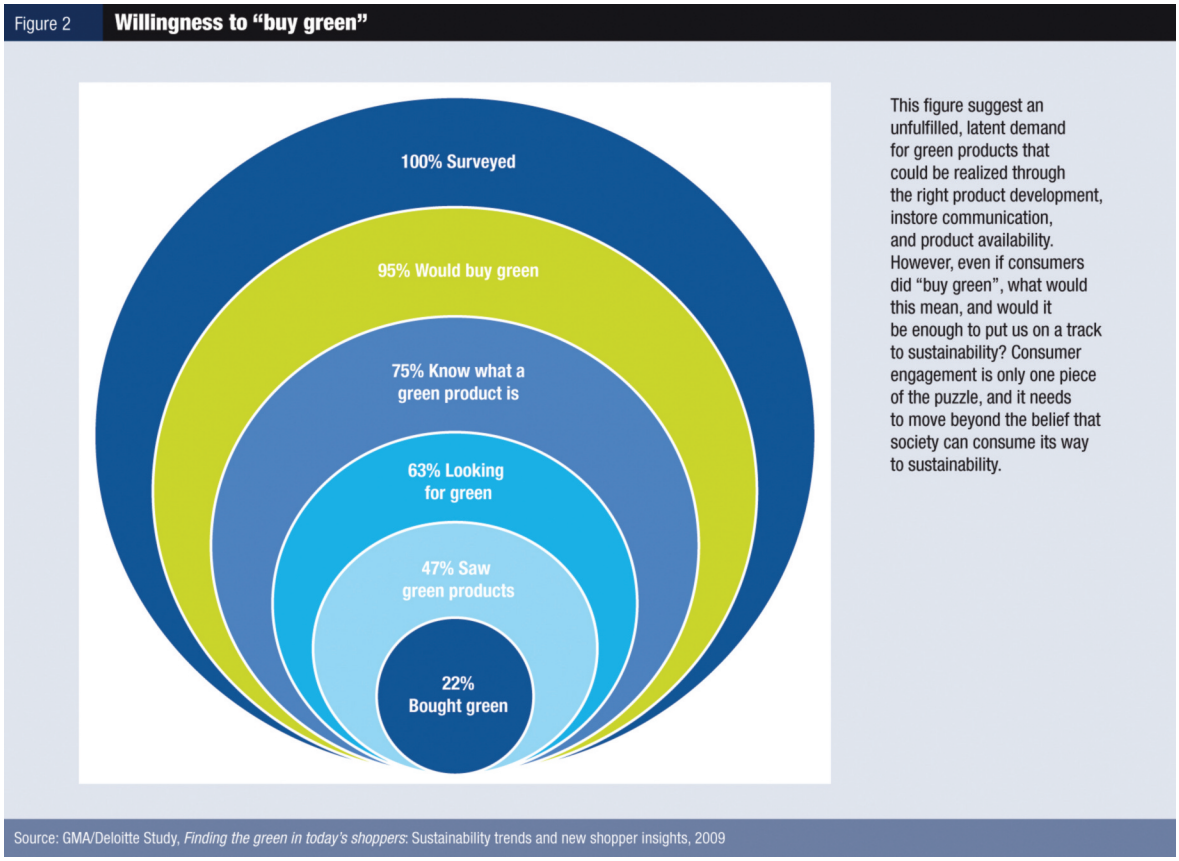
Consumers are becoming more active participants in the creation of the sustainable economy, demanding greater transparency over the origin and contents of the goods they consume, and increasingly aware of the broad sustainability challenge facing the world. This is a necessary but not sufficient first step towards a transformational change in consumption habits.

Part of the challenge is that there is not, as yet, any globally recognized definition of the sustainable consumer. Preferences and levels of consumption vary hugely between different societies, driven by level of income and culture:

- **Rising awareness on the part of consumers in the developed world:** Consumers in the developed world are becoming increasingly sensitive to concepts of environmental harm and sustainability, but consumption levels there are already high. Achieving sustainability implies very substantial improvements in resource use and waste management as well as changes in product types and different models of consumption. A Deloitte study found that consumer behaviour is still principally dictated by price, quality and convenience, rather than by origin of products and sustainability content.[10] Sustainable consumption remains niche. The disconnect between awareness and action is stark. For business models and consumption models to shift fundamentally, all consumption has to become sustainable.
- **Meeting the needs of emerging consumers in the developing world:** The developing world presents both the greatest opportunity for a growing consumer market and the greatest challenge in terms of achieving wider prosperity for current generations without undermining the sustainability of long-term prosperity. The prize is there for the sustainable economy to be built in emerging markets, without entering a phase of high-input/high-output consumption that characterizes the developed world. Attitudes towards sustainability and environmental management are often just as deeply embedded in the emerging and developing world as in the developed world – in some cases, the structures which might allow improved models of sustainable consumption in societies and communities are far more advanced.[11]

[9] WWF, *Living Planet Record*, 2008.
[10] Study conducted by Deloitte LLP for The Coca Cola Retailing Research Council, Europe.
[11] Unilever research conducted by The Futures Company, 2009.

Figure 2: The challenge of shifting from awareness to action, the willingness to "buy green"



The evolving public policy framework on sustainable consumption

A key enabler for a fundamental shift towards sustainable consumption is a workable public policy framework at the national, regional and global level. Here, progress is mixed. Slowly, the sustainability agenda has moved from the outer limits of global public policy discussion – with the controversial 1970s *The Limits to Growth* report – towards its core. The 1980s Brundtland Commission was followed up in 1992 by the Rio summit.[12] In 2002, the Johannesburg Plan of Implementation (JPOI) called for a 10-year framework of programmes to accelerate "delinking economic growth and environmental degradation", leading to the current Marrakech Process on Sustainable Consumption and Production, under the auspices of the United Nations.[13] The gradual institutionalization of sustainability issues in global policy frameworks is welcome, but progress here has been patchy, and awareness among business is insufficient.

Though sustainability is increasingly being linked to existing public policy frameworks on climate change and biodiversity, there is not yet specific global regulation of sustainability. Nor is there global policy consensus on the framework and approach needed. The Marrakech Process is designed to provide a framework for global, regional and national sustainable consumption and production programmes. So far, while all regions have identified priories and programmes, there is great variance in their progress. Only 35 countries worldwide have developed or are in the process of developing their national sustainable consumption and production programmes. In some countries, these programmes represent major progress; but collectively, they are not enough.

- The European Union has taken important steps to promote sustainable consumption, most significantly the July 2008 Action Plan on Sustainable Consumption and Production, expected to significantly boost demand for sustainable products. The EU Ecolabel scheme, set up in 1992, is currently being revised. Green Public Procurement, allowing public bodies to take account of sustainability considerations when purchasing products and services, is a major part of that action plan.

[12] *The Limits to Growth* report has been widely criticized as having failed to take into account technological innovation as a major factor in boosting long-term growth. But the fundamental thesis of the report – of a disconnect between growth and resource availability – was correct. The Brundtland Commission, officially the World Commission on Environment and Development, led to the publication of *Our Common Future*, published in 1987.

[13] More information on the Marrakech Process can be found at http://esa.un.org/marrakechprocess/

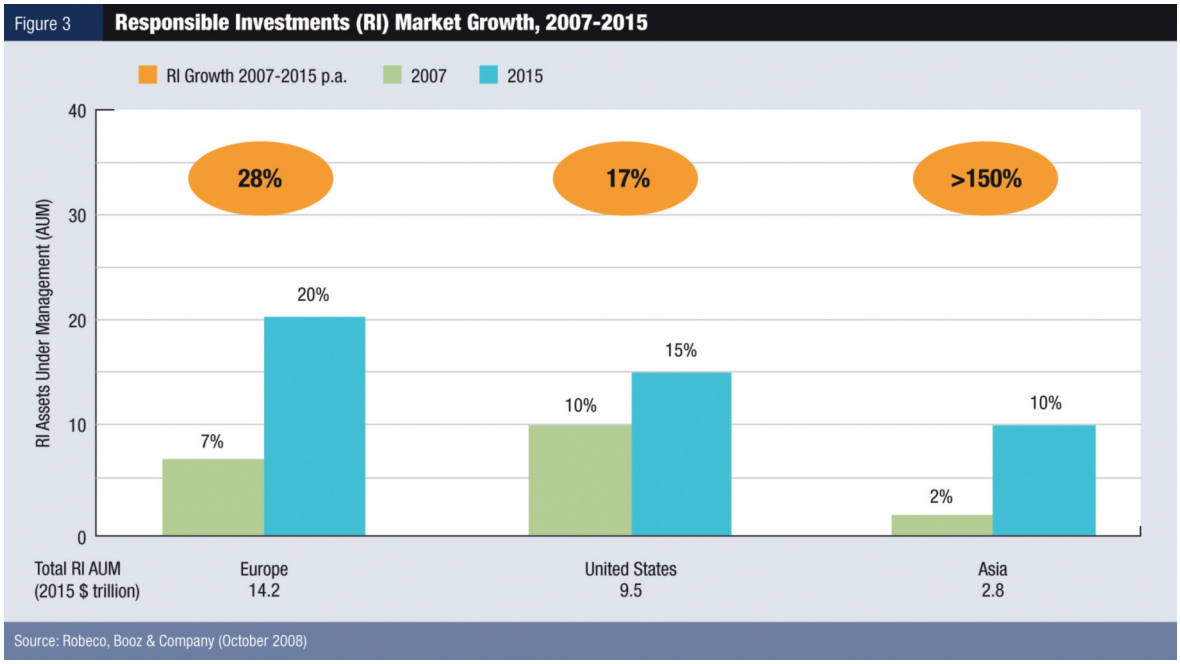
- In Africa, the permanent African Ministerial Conference on the Environment approved a 10-year framework for sustainable consumption and production in 2005, identifying priorities in energy, water and sanitation, habitat and sustainable urban development, and industrial development. Several African countries are pursuing their own programmes, and a pilot project on eco-labelling in Africa is underway.
- In the Asia-Pacific region, several countries have engaged in reform of the tax system, green procurement, enhanced disclosure requirements or product stewardship tools to level the playing field for sustainable products and services. China and India have become actively involved in the Marrakech Process, pointing to the increasing interest of the world's largest growth markets in configuring their economies for sustainable growth.
- In the Americas, while neither the United States nor Canada has adopted specific policy frameworks for sustainable consumption and production, legislation and regulation on environmental issues is increasingly shifting growth models towards sustainability. In Latin America, regional environment ministers have launched a regional sustainable consumption and production strategy.

In spite of pressures from local concerns in more and more geographies and the increasing involvement in global governance processes, the sustainability agenda has not yet become a sufficiently mainstream part of public policy. That process needs to deepen and accelerate.

Redefining prosperity, redefining value

In addition to consumer shifts and public policy, there is a need for money to back the shift to sustainability. The investment community, and the financial means which it represents, is driving sustainability forward. Just as government is beginning to create the appropriate regulatory framework for businesses to invest, sustainable investment could be the financial enabler which allows aspiration to become reality, and which rewards companies for investments made in sustainable infrastructure, products and innovation.

Figure 3: Forecast market growth of responsible investments



At a more macroeconomic level, governments, consumers and businesses are redefining what constitutes prosperity and value. Focus has increasingly shifted from measurable throughputs of resources and purchases of goods to less easily defined concepts such as well-being, welfare and quality of life. Amartya Sen, the Nobel Memorial Prize in Economics-winning economist, has redefined "development" in terms of enhancing life opportunities, choices and freedom, taking higher incomes in developing countries as a necessary but insufficient condition for that to be achieved.[14]

The intellectual argument for broadening measures of prosperity – and for more accurately valuing environmental and other externalities in national and business accounting – has been ongoing for decades. What has changed in recent years is the seriousness with which redefining prosperity has been adopted by governments. The idea of introducing measures of sustainability into measures of national income was boosted in September 2009 with the publication of a report commissioned by French President Nicolas Sarkozy, *The Commission on the Measurement of Economic Performance and Social Progress*.[15] As national accounting standards move towards measures that incorporate sustainability, it is highly likely that the incentive structures that states create – for businesses and for individuals – will shift accordingly.

Is it enough?

Unfortunately, these current trends towards sustainability are welcome but insufficient. The shifts above are focused on incremental, rather than transformative, change. While they may improve sustainability at the margins, they are rooted in a model of consumption that is itself unsustainable. Working within the existing paradigm means that, despite best efforts, incentives for business investment are not sufficient. Collaboration across value chains is deficient. Public policy frameworks are neither ambitious enough nor adequately coordinated at the global level. The shifting consumer agenda is too limited.

Ambitions must be raised, and visions broadened to the system as a whole. Changes in lifestyles and consumption habits will be needed from consumers, not just an expansion of the number of "green" consumers; businesses will need to define new business models, focused on value creation rather than material throughput; and governments will need to institute enabling policies and regulations that price resources at their true cost and measure sustainable prosperity at its true worth for future generations.

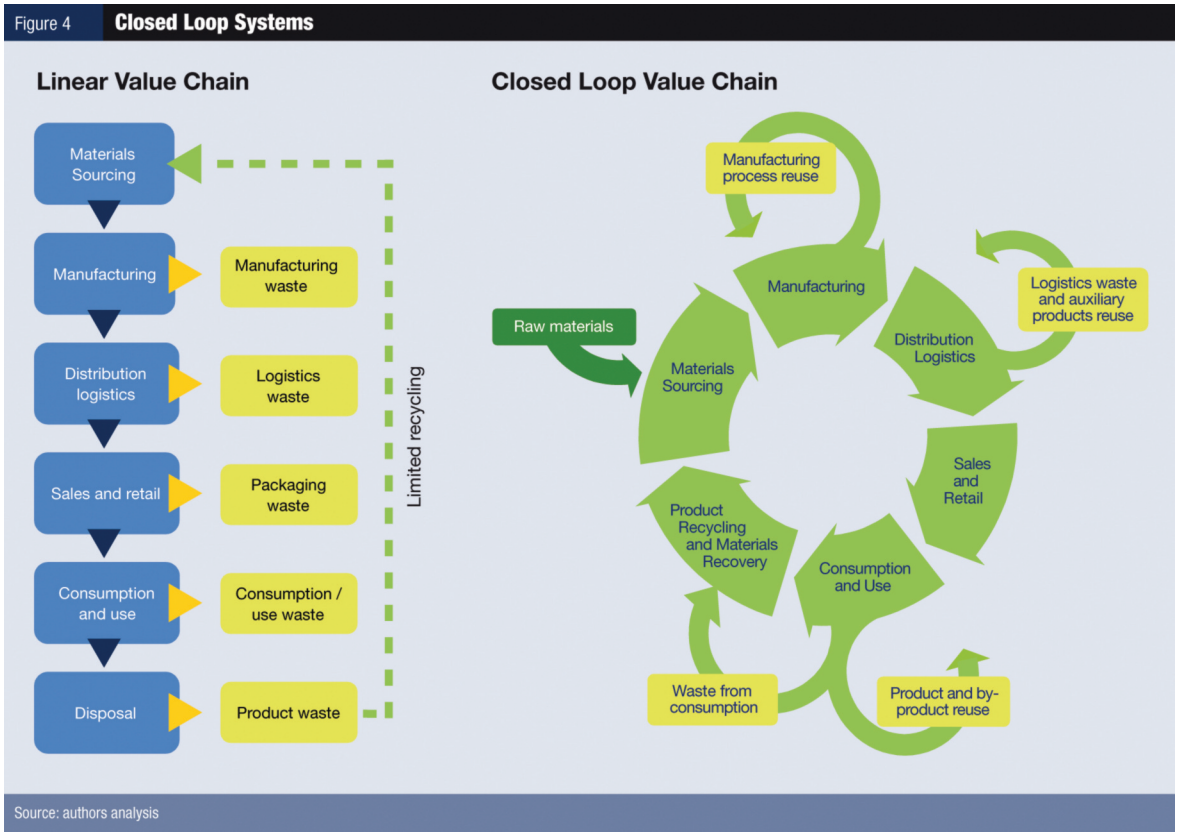
In many businesses, the first steps on the path towards a sustainable future have already been taken, and in some cases substantial investment programmes are already in place. Most of those have involved reducing the resource intensity of production, with clear and rapid gains – in terms of environmental benefits, reduced costs, increased profitability and a leadership position within the business community. But the sustainable future is not just about greater resource efficiency within businesses, or even about greater resource efficiencies within and across value chains. It is not just about making standard business practices "less bad" – it is about mainstreaming those practices which are "actively good".

The old paradigm for the global economy – focused on throughput of resources, consumption of products, limited measures of prosperity and underpricing of externalities – is being discarded. In its place is new thinking which looks not at linear value chains, but at closed loop systems and "cradle to cradle" stewardship. This shift can be seen in the below diagram, which demonstrates a simplified view of a closed loop system. A new normal must be defined, and a path set out to achieve it.

[14] See Amartya Sen, *Development as Freedom*, Oxford University Press, 1999.

[15] An English version of the report is available at www.stiglitz-sen-fitoussi.fr/en/index.htm

Figure 4: From linear value chains to closed loop systems



Proposals and Explanation/Rationale

Where Do We Want to Go? Defining the "New Normal"

Key insight
The challenges of sustainable consumption require rethinking the fundamental tenets of the economy. The world economy must move towards a "new normal", bringing about systemic change in consumption, production and the way in which value is created.

The new normal for the global economy is one in which consumption is decoupled from negative environmental and social impacts, driven by a combination of innovation, evolving consumer values and more accurate product costs. In the end, it is not a world defined so much by scarcity and sacrifice, as a world defined by innovation and a new abundance.

The "new normal" is an economy in which:

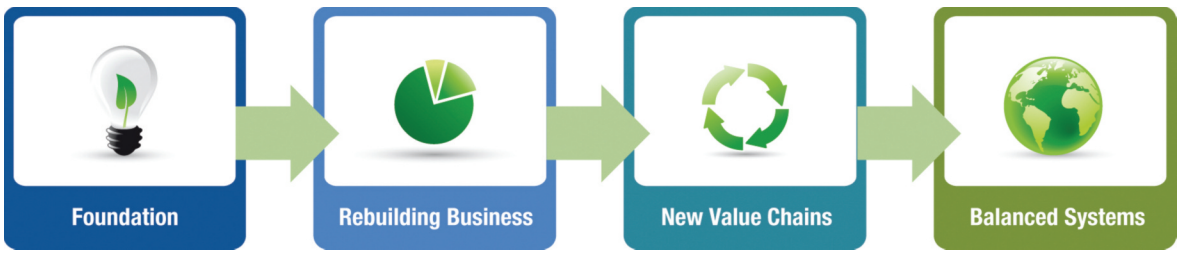
- ***Consumers are the driving force:*** Through more meaningful engagement and co-creation, consumers are positively engaged with the benefits of sustainable consumption to themselves, their families and their communities. They are empowered through meaningful information about products in the marketplace, which has been improved with better metrics and more standardized communication platforms. Consumers view a product as a means to a solution or enhanced experience rather than a product as an end in itself.

Global Agenda Council on Sustainable Consumption

- ***Consumption is about loops, not lines:*** Through better design and life-cycle thinking, consumption and production ecosystems become closed loops, producing no outputs as waste through their life cycle. As such, the concept of waste disappears, as all by-products retain an intrinsic value to feed into other systems. Even food spoilage and waste are minimized and turned into biofuels, compost or animal feed.
- ***Collaboration is a key:*** Companies view the areas in which they collaborate as important as the areas in which they compete. This collaboration happens both along and across the value chain through management, reduction and elimination of impacts that transcend the boundaries of direct control of any single company. Product waste and duplication is improved through interoperability of products.
- ***Core business practices are sustainable:*** Company competitiveness and profitability are inextricably linked with their achievement of sustainability objectives. The depth of this relationship goes to the core values ascribed to products and services, materialized through life cycle design and innovation. Relationships with suppliers and buyers are based on greater trust through which long-term contracts and relationships are emphasized, providing greater traceability of both products and their impacts.
- ***Public policy frameworks support sustainable consumption:*** Governments pursue policies to enhance well-being of citizens and the environment, as much as traditional economic growth. Natural resources such as water or carbon are priced according to their value within the structure of the economy and environment as a whole, while externalities which are currently unpriced or underpriced, such as landfill waste or toxins, are appropriately accounted for through market mechanisms.

This "new normal" is a very different place than we are now, and it will take a series of steps to get there. In 2010, the challenges of balanced business ecosystems seem far off. Getting there involves a difficult journey, but it is not an impossible one. Four practical, achievable steps will help vanguard companies start this process, highlighting the obstacles that must be overcome and the opportunities that can be seized by businesses, leaders and citizens in the process.

The first step is to firm up the foundation, as the current leading business practices of today become standard business practice and sustainability strategy is integrated into business. This is "relative sustainability", where steps being made are important but still incremental from where we are today. The second step is rebuilding business, in which sustainability is integrated throughout the business, new business models are piloted and demonstrated as being viable. The third step, new value chains, is the beginning of a major shift to new business models, in which sustainability is integrated across value chains and entire chains are moving towards zero net waste. The final step leads to balanced systems, in which innovation drives sustainable value chains and value is redefined for all stakeholders. This results in a low-carbon system with closed loops and zero waste both along and across value chains, in which sustainable society and sustainable lifestyles are realized.



A picture of this four-step journey emerged from discussions during the Driving Sustainable Consumption roundtable workshops and different Forum events. When taken in the context of the rest of the Global Agenda Council work, these four steps can simplify the journey and help catalyse action through individual companies and along entire value chains.

Key insight
The key to progress on sustainable consumption will be to engage with all stakeholders to build trust and confidence that a drastic change is the only way forward and so is best to be embraced. This will require concerted effort to engage business, investors, governments, institutions, and of course, consumers at all levels in all geographies.

Global Agenda Council on Sustainable Consumption

From Insight to Action in Rio in 2012

Background

On 24th December 2009 the UN General Assembly passed a resolution agreeing to hold a 'Rio+20' Earth Summit in 2012. This summit would be on the 40th anniversary of the first UN environment conference in Stockholm, 25 years after the Brundtland report, 20 years after the first Rio Earth Summit, and 10 years after the Johannesburg World Summit on Sustainable Development.

The resolution outlines four areas of focus for a UN Conference on Sustainable Development in 2012: Review of Commitments, Emerging Issues, Green Economy in the context of Poverty Eradication and Sustainable Development, Institutional Framework for Sustainable Development. In order to hope for success in any of these four areas, there is a strong need for a better understanding and an honest assessment of the state of sustainability, specifically why previous agreements have not been implemented.

Objectives

Internal and external stakeholders play a major role in steering global policies and shifting to new governance models and strategies required for sustainable consumption. There is a need to focus on internal influences as well as external influences (business, investors, NGOs). Current efforts such as the UN Marrakech Process could be more action-oriented and could better engage with business and consumers to this end. Business pioneers have been able to act and innovate quickly in response to changing landscape of environmental regulation, resource management and consumer pressures.

Also, building on the work of the World Economic Forum's Global Agenda Council on Benchmarking Progress in Society, there is a continued interest in pushing the boundaries of how we measure progress. In 1992 in Rio de Janeiro in 1992 countries committed to moving beyond GDP as their benchmark of progress, an idea that then lay static for more than a decade. The Global Agenda Council on Sustainable Consumption and others engaged in the sustainability issue would like to support the renewed momentum to this point, and ensure that environment and sustainability remain high on the "beyond GDP" agenda.

Deliverables

Build a multi-stakeholder advisory council to advise the United Nations / UNEP in preparatory phases of the 2012 Rio +20 Earth Summit. Such a cross-council group could help prepare the agenda for the Summit, and inspire action through examples and case studies of innovation and transformational change. The structure for such a process might involve a cross-council coalition of the willing who engage in a series of coordinating conversations with appropriate UN / UNEP officials, followed by a preparatory process composed of a series of events bringing innovative practitioners and pioneers of sustainable business models to help inform the planning process and the thinking of ministers and officials from governments and international organisations.

Stakeholders: GAC members and CEOs as key contributors, other CEOs from Forum communities, broader network of select Global Agenda Councils members (Benchmarking Progress in Society, Sustainable Consumption, Climate Change, Water Security, Oceans, Ecosystems and Biodiversity).

Inspiring and Mobilizing Consumers

Background

One of the many barriers of sustainable consumption lies in meaningful and trusting engagement with consumers. While enterprising businesses are forging ahead, they recognize that the key to success will lie in capturing a shifting consumer base demanding sustainable products and services (as well as a shifting voter base supporting a new regulatory landscape). Beyond the greenwash and the marketing is a very complicated and indirect relationship that is evolving in a tentative push / pull, and needs to be mainstreamed.

Global Agenda Council on Sustainable Consumption

Sustainability Portal
Idea developed as a result of discussions between the Global Agenda Councils on Sustainable Consumption and Design

Many consumers wish to behave more responsibly but are unsure as to how to do so. Consumers are often confused by too much data and there is a need to simplify information and inspire consumers through a design-focused view. We propose to develop a portal to provide more information on energy, carbon, water and waste to help consumers to make better choices about products and services.

Over the last four months there have been a series of meetings intended to refine and develop the proposal starting with a joint meeting between Design and Sustainable Consumption council members attending the Annual Meeting in Davos. Following this a small meeting took place at TED with attending council members and a follow up discussion between Aron Cramer, Chair of the Council on Sustainable Consumption, and Tim Brown, Chair of the Council on Design.

The idea
The goal of the project is to inform consumers about carbon content, water use and other sustainability issues in ways that encourage behaviour change by engaging, inspiring and mobilizing consumers. The product will:
- be a portal not a label, accessed via smart phones and the web
- be open source and not constrained to particular data providers
- show the 'green price' or true cost of a product, and offer the choice to offset consumption
- enable consumers to achieve cost savings, better value, and reduced footprint
- focus on developed markets with advanced IT infrastructure and the high 'carbon obesity'

What next
1. Carry out a review of the state-of-the-art
2. Create an initial concept proposal that can be used to attract project sponsors.
3. Identify sources of funding to underwrite a serious design project.

In Davos at the Annual Meeting in 2010 there was a strong presence CEOs from both consumer brands as well as global media and communications companies who vocally supported the need for a shift in the "pull" for sustainable products and services. Still, there were many questions around the role of consumers, consumer education and new business models to accelerate and deepen consumer engagement.

Objectives
The Consumer Engagement workstream will seek to mobilize and inspire consumers to make different choices, and to use products and services more sustainably. This effort will result in stimulation of market demand for sustainable products and services. This will accelerate the development of new business models that will offer more value to the consumer and the environment, as well as top line growth. It will also require a deeper understanding of how to create demand for sustainable products and services, and the respective role of business and governments in this demand creation.

This work will need to go beyond the obvious advocacy work conducted by NGOs, and also beyond the current leading practice engagement strategies of global brands to explore what the engagement strategies of successful companies will be to take sustainable consumption beyond niche markets, niche brands, and niche products.

Deliverables
1) Demonstrate the potential of behavioural change through case studies and secondary consumer research through which to leverage Forum partner companies and GAC experts to create new ideas and models for accelerating consumer-generated demand for sustainable products and services
2) Prototype a consumer information portal (see box) that will enable consumers to access a diverse array of information about sustainability attributes of a given product. This effort will create a new model that will enable consumers to make different choices about products they purchase, and also access information that will enable them to use products more sustainably. Members of the Global Agenda Councils on Sustainable Consumption and Design have agreed to partner in the development of this model, with the goal of creating a prototype that can be launched at the Annual Meeting at Davos in 2011.

Global Agenda Council on Sustainable Consumption

Lifecycle Metrics

Background

Over the fast five years, most conversation with business on an environmental issues will at some point touch on the issue of standards and metrics. “What gets measured gets managed” is a quote often overheard in these conversations, whether about energy, climate change, water or waste. While much progress has been made in measurements at a corporate or national level, many companies are at a loss to measure the impact of their individual products and services, especially when looking beyond just the issue of energy use or carbon emissions.

A high-level review of existing and leading practices was mandated by CEOs and Board-level executives from a broad range of industries (e.g. Consumer Goods, Logistics & Transportation, IT, Basic Industries, Media) at the World Economic Forum’s Annual Meeting in Davos-Klosters, January 2010.

Objectives

The Lifecycle Metrics workstream aims to bring some order and understanding to companies and organisations interested in measuring the broader lifecycle impacts of their products and services. Such a workstream would not aim to reinvent existing efforts, but essentially act as a landscape review of existing supply chain and lifecycle metrics in light of closed loop aspirations, in particular on carbon emissions and energy use, embedded water and waste (i.e. WRI/WBCSD Product Life Cycle Accounting and Reporting Standard, ISO 14040, Water Footprint Network, WRAP Courtauld Commitments). The review will lead to a series of expert recommendations, offering a consolidated approach to lifecycle assessment with a corporate target audience, with potential to be used at a later stage in communications with investors and consumers.

Deliverables

1) A landscape review of existing metrics for measuring environmental impact across value chains through lifecycle assessments, providing direction for a consolidated approach. A draft would be launched at the Annual Meeting of New Champions in Tianjin, China;
2) Informed by this review, the council will work with business to catalyse a deeper conversation on the implications of lifecycle thinking and environmental impact on business strategy, from board and value chain perspectives, with an update in Davos 2011.

Innovation Exchange

Background

The race to a sustainable economy portends some major innovations from both technologies and business models. As we seek to create real impact in terms of meeting needs and delivering value, many cases demonstrate the financial viability of sustainable business models. Such cases also show that failure is a part of learning and longer periods of experimentation may be necessary to achieve scalable and sustainable business models. Exploring what has worked in the past and providing an open space for innovation in the future will provide inspiration for the development of new innovation strategies.

There is currently much duplication of effort in sustainability, and collaboration on shared challenges is a proven way to reduce costs and accelerate innovation. The challenge is to explore how collaborative innovation can expand in a competitive landscape.

Objectives

This Global Agenda Council envisions that the World Economic Forum propose a series of private meetings at its regional and partner events aimed at tapping into innovation and exploring how intellectual property and know-how can accelerate innovation for sustainability. This workstream will build on a piece of research exploring the boundaries of competition and collaborations and how operating within “business ecosystems” along value chains can help foster innovation and overcome legal hurdles.

To ground this high-level dialogue, it is proposed that next steps build on the “GreenXchange”, a platform for licensing IP and know-how as applied to sustainability. This platform was catalyzed through the first phase of the World Economic Forum’s sustainability work and was launched in Annual Meeting at Davos 2009. This workstream will have the dual objectives of exploring how innovation and sharing of information can help all stakeholders win, and how the platform of the GreenXchange can help accelerate this innovation.

Deliverables

1) Brief background paper highlighting some key case studies and good practices, which serves as a starting point for conversation on sharing of IP and know-how.
2) Dialogue series to advance the issues of sustainability and innovation, building trust and understanding among key stakeholders on how intellectual property can be better leverages as part of corporate sustainability strategies.
3) Expanded partner base contributing to the GreenXchange innovation platform.

Global Agenda Council on Sustainable Consumption

List of Members

Chair: **Aron Cramer,** President and Chief Executive Officer, Business for Social Responsibility (BSR), USA

Jean M. Brittingham, Strategic Advisor for North American, Cambridge Programme for Sustainability Leadership, University of Cambridge, United Kingdom
Sonia Chapman, President, Espaço Eco Foundation, BASF, Brazil
David Cook, Chief Executive, Natural Step, Sweden
Ron Gonen, Chief Executive Officer and Co-Founder, RecycleBank, USA
Liz Goodwin, Chief Executive Officer, WRAP, United Kingdom
Ted Howes, Head, Sustainable Business, IDEO, USA
Joichi Ito, Chief Executive Officer, Creative Commons, United Arab Emirates
Hannah Jones, Vice-President, Sustainable Business and Innovation, Government Public Affairs, Nike, USA
Michael Kuhndt, Head, UNEP/Wuppertal Institute Collaborating Centre on Sustainable Consumption and Production (CSCP), Germany
Mindy S. Lubber, President, Ceres, USA
Helio Mattar, President and Director, AKATU Institute for Conscious Consumption, Brazil
Malini Mehra, Founder and Chief Executive Officer, Centre for Social Markets (CSM), United Kingdom
Fernando Nilo, Founder, Recycla Chile, Chile
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Global Agenda Council on Sustainable Energy[1]

Creating a Sustainable Energy Free Trade Area (SEFTA)

Context

Everywhere in the world, the long-term growth of the energy industry has been characterized by distorted policy interventions. These have been aimed at everything from reducing the cost of supply to promoting energy independence, economic growth, social inclusion, job protection or the securing of rents for government. As a result, established energy sources and conversion technologies enjoy substantial unfair advantages over cleaner, more accessible and potentially cheaper new energy technologies.

According to the International Energy Agency (IEA), direct subsidies from governments for fossil fuels amount to more than US$ 300 billion a year in non-OECD countries alone. By comparison, total investment worldwide in clean energy in 2009 amounted to only US$ 145 billion, of which it is estimated that no more than US$ 50 billion took the form of subsidies or support mechanisms of various sorts.

However, fossil fuels also benefit from a second type of subsidy in the form of externality costs borne by the broader economy, rather than by their consumers. Such externalities include the impact of climate and other environmental damage, as well as the public health costs of burning coal and kerosene, and the security risks involved with excessive reliance on oil. Because the various forms of sustainable energy have few if any externalities, the common failure of governments to price externalities inevitably gives an unfair advantage to dirtier forms of energy.

The wisdom of accelerating the consumption of depleting resource should surely be challenged even in the absence of any environmental considerations, however. The OECD and the IEA estimate that just eliminating fossil fuel subsidies by 2020 would cut global greenhouse gas emissions by 10% by 2050.

The second distortion that unnecessarily holds back the growth of clean energy is the obstruction of free trade through tariffs. The best-known example is the tariff imposed by the United States on Brazilian ethanol derived from sugar cane (which is an environmentally sustainable approach, unlike the manufacture of ethanol from corn, generally regarded as unsustainable). However, there are many other examples: China and India both levy import tariffs on wind turbines and on turbine components, as well as on solar photovoltaic components and systems; the EU imposes a tariff on US biodiesel, ostensibly over concerns that US producers were benefiting from US subsidies to beat (subsidized) producers in Europe.

In addition to financial tariffs, there are also non-tariff barriers to trade, in the form of local content rules. The emphasis on the creation of “green jobs” in many government stimulus packages around the world creates a very serious risk of rising tariffs and increases in the use of non-tariff barriers.

Finally, there is ample evidence that the growth in enabling technologies behind sustainable energy, ranging from energy-storage devices to “smart grid” software and hardware, is being held back as countries adopt conflicting standards. Some of these are justified by concerns over collateral environmental damage, such as the destruction of rainforest for palm-oil diesel production. However, in many cases the local standards have no environmental justification, but simply give an unfair advantage to local producers or manufacturers. The resulting balkanized market prevents sustainable energy from achieving economies of scale necessary to survive in an energy industry dominated by well-entrenched and unfairly-supported incumbents.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on Sustainable Energy

Proposal

The goal of a Sustainable Energy Free Trade Area (SEFTA) is to bring together a core group of countries that are prepared to address the three areas of distortion – subsidies, tariffs and standards – in order to significantly spur the growth of the clean-energy industry worldwide. The intention is to start with the G20, but over time to grow membership in SEFTA to include all significant world economies.

At the Pittsburgh Summit in September 2009, the G20 leaders committed to "phase out and rationalize over the medium term inefficient fossil-fuel subsidies". The first part of SEFTA builds on this commitment, providing an operational platform to support the G20 in its implementation. On joining SEFTA, members would commit to creating a public register for all fossil-fuel subsidies; to putting in place concrete plans for short-, medium- and long-term reductions in subsidies; and to reporting on progressive phase-out arrangements. The effort will also include the identification of externality costs to reflect the true environmental, security and health costs of using fossil fuels, and the reporting of progress towards policies to include their prices.

The SEFTA proposal also entails tariff reduction. SEFTA members will agree to phase out tariffs and taxes on clean energy products, services and feedstocks – including, for instance, local content rules on wind farms or import duties on biofuels from waste or from non-food land. The long-term goal is the complete elimination of all tariff and non-tariff barriers affecting sustainable energy. In order to secure progress, members will first agree to the reduction of tariffs on an initial list of products, as well as independent monitoring, evaluation and transparency concerning their country's actual performance. Over time the intention is for this list of products to be expanded.

The final aspect of SEFTA involves common standard-setting. Member countries would agree common standards on technologies and services relevant to sustainable energy, including supply-side technologies such as wind and solar, appliance efficiency standards, and information protocols governing the smart grid. Members also agree to coordinate the development of information protocols for the smart grid. This will ensure larger markets and interoperability. Starting with a modest list of products, countries will in time expand the coverage list as practical. If products are on the agreed SEFTA list, then they can be sold automatically in any member country without further certification, absent a demonstrable safety or grid-stability concern.

It should be noted that in each of these three areas – subsidies, tariffs and standards – there has been significant activity by the relevant specialized organizations, but breakthrough progress has been hard to achieve. The intention behind SEFTA is to incorporate these activities into a coherent programme and provide resources and political backing so that rapid progress may be achieved.

The aim would be to implement SEFTA in a way that is consistent with the World Trade Organization's rules. This will require it to be organized as a "club of clubs" that offers all non-members most-favoured-nation status and the option of membership. This is not dissimilar to the Information Technology Agreement passed in 1996, which by 2007 numbered 68 members covering 97% of all relevant trade.

Rationale

In the abstract, distributed renewable energy is widely embraced. As soon as it comes to the mechanisms to encourage its development, however, the discourse tends to break down between those who believe it should be subsidized and otherwise supported, and those who do not believe it should be given special treatment. The irony is that, meanwhile, fossil-based energy benefits from a host of unfair and entrenched advantages.

In any case, given the failure of the UN's Copenhagen treaty process to produce simultaneous deep commitments to shift the balance away from fossil fuels, and given the parlous state of government finances around the world, the likelihood of significant new large-scale subsidy programmes for clean energy is remote, and a new approach is needed.

SEFTA offers such an approach. It takes as its guiding principle that free trade beats state aid. Instead of trying to bolster renewable energy by doling out endless subsidies, SEFTA takes as its premise that sustainable energy will take off at scale

when energy markets are reformed to be level playing fields, allowing a flood of private capital to be attracted to these green new industries, creating a host of new jobs in the process. This approach is particularly attractive at a time when government budgets are under unprecedented pressure, and will allow for the creation of support across the political spectrum.

A key element of the philosophy behind SEFTA is not to let the perfect be the enemy of the good. For instance, SEFTA acknowledges that few political leaders would sign up to a convention that forces them to remove subsidies enjoyed by a large proportion of their population on a time frame not of their choosing, or that forces them to remove tariff protection from influential constituencies in one fell swoop. SEFTA is more concerned with establishing the correct direction of progress and with transparency, than with the absolute imposition of rigid measures.

By involving only a coalition of the willing, SEFTA overcomes the collective action problem; global consent is not required to forge ahead. Rather than strive for Utopian ideals or top-down global solutions, it builds on emerging consensus and bottom-up solutions (such as the existing G20 vow to end fossil-fuel subsidies and the Copenhagen goal of carbon pricing). SEFTA is consistent with, and indeed is an early example of, the sort of plurilateral “club of clubs” approach advocated by the Global Agenda Council on Trade.

Next Steps/Implementation

To make SEFTA a reality, the first step would be a commitment by G20 leaders. Second would be the establishment of a small Secretariat to provide coordination, information-sharing, communication and verification (it should be noted that the Secretariat would also monitor and verify progress towards the existing pledge to remove fossil-fuel subsidies). In order to be successful, SEFTA must operate under a Steering Committee consisting of finance, trade and industry ministers, as well as environment ministers. The third step in SEFTA’s creation would thus be to convene the first conference of the Steering Committee.

For all this to happen, it would be necessary to build a broad coalition among interested organizations, using multiple forums to drive the adoption of SEFTA in multiple countries. Every opportunity must be used to communicate the potential benefits of SEFTA to a broader public, quite jaded by the disappointments of Copenhagen and Doha.

The core idea of SEFTA has already been floated among several relevant Global Agenda Councils – particularly the Global Agenda Council on Trade – at World Economic Forum meetings in Dubai and Davos, and feedback has been incorporated. To build momentum, under the aegis of the Global Redesign Initiative, the World Economic Forum will need to coordinate three strands of work. First, a panel of experts needs to flesh out and further document the idea, identifying and resolving potential problems. Second, research is required on the benefits that could accrue globally as a result of the creation of SEFTA; experts from the IEA and the United Nations Framework Convention on Climate Change should be requested to help, as should the World Standards Association, the WTO, the OECD and other bodies with relevant expertise. The third and final preparatory workstream consists of mapping out a fast-track political strategy for implementation.

Ideally, the key piece of the political strategy would be in place in time for the G20 Seoul Summit in November 2010. South Korea, the host nation and current head of the G20, has demonstrated strong commitment to trade in clean energy technologies, and might be well disposed to promote the concept of SEFTA. In due course, it is hoped that SEFTA will grow beyond membership by the G20 countries, as other countries feel able to make the same three core commitments on subsidies, tariffs and standards.

Global Agenda Council on Sustainable Energy

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Global Agenda Council on Water Security and World Economic Forum Water Initiative[1]

A New Institutional Arrangement to Help Manage Our Future Water Needs

Context

Over the next 20 years, the global requirement for water will be 40% more than today's supply. An already precarious balancing act to find the water we need for food (on average 70% of the world's freshwater withdrawals are used for agriculture) will be compounded by growing population demands, burgeoning middle class consumption and climate change. The International Energy Agency's predicted 45% increase in energy demand to 2030 will add further stress (currently ~40% of freshwater withdrawals in the US and EU are for the energy sector).

Economic growth fundamentally and irrevocably depends on water. The path to achieving national economic goals and to worldwide recovery and sustainability must include the more effective use and management of water. We do not have enough water if we continue to manage it as we do today (the Organisation for Economic Co-operation and Development estimates that if present ground and surface water extraction trends continue, nearly 4 billion people will face water stress; the UNDP suggests that 56% of India's groundwater is already being used more quickly than it can be replaced; the equivalent figure is 25% for China). But we can have enough water if we manage it better.

The issue is this: *decisions about water management are made at the national level*. Global reports, recommendations and resolutions do not create national action. National water management is characterized by massive institutional fragmentation, and exceedingly difficult political choices. Countries have individual water reform agendas. They are usually inadequately designed, insufficiently resourced, and there is little capacity to implement reforms. How can international cooperation play an effective role in encouraging and backstopping needed water reforms?

Effective reform will depend therefore on the creation of regional, domestic and local coalitions for reform (comprising farmers and agro-businesses, industry, technology, finance, consumers, urban government, media) that will work with finance, planning, and water, food, and energy agencies at the local level. Inclusiveness is essential to drive the political support needed for reform. The crucial decision is a national decision. International cooperation can only support and backstop states that want to make transformations in water resource management.

There are new elements in play:

- The recent launch of the McKinsey Cost Curve analysis has created a basis for grounded dialogue that links investment choices across all sectors with water outcomes. It has attracted some attention and interest which is essential to promoting interest. www.2030waterresourcesgroup.com/water_full (Other instruments exist; still others may need to be invented.)
- Through the World Economic Forum Water Initiative, a group of progressive private sector players have stepped forward to take an active role in finding tools and opportunities to promote such national dialogue. Concrete steps were taken at the World Economic Forum Annual Meeting 2010 in Davos-Klosters.
- Sources of additional finance and technology have signalled willingness to be drawn in, in order to backstop a progressive reform agenda.
- UN agencies, water NGOs, bilateral donors and other long-time advocates of water resource management reform have signalled willingness to be brought in to increase the potential for more productive national dialogue.
- Most importantly, there are indications of national level interest and willingness to embark on the path. Several countries have signalled an interest in looking at the tools proposed by the 2030 Water Resources Group in order to identify the where and how to act, and to get an idea of the overall cost of taking effective action.
- In the real world, water is becoming very scarce in many places. Crises of availability and distribution in energy, food and water are inextricably linked; the way forward for each links to the way forward in all.

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Global Agenda Council on Water Security and World Economic Forum Water Initiative

Critical gaps in international cooperation currently exist:

- There is no international organization for water as is the case for health, weather, agriculture, etc.
- Support for water resource management has not resulted in the creation of powerful local change coalitions – or in enough support for local public authorities to feel empowered to make change. It tends to remain in the above described silos.
- Huge gaps exist in the participation of key actors who manage change in agricultural water use (70-90% of the water abstracted). This participation is vital in the national dialogue process.
- The transnational corporations that trade, process and market food are key. Major agricultural firms and their national affiliates as well as consumer product groups need to be closely associated with this challenge. The choices made by the suppliers in their supply chains set both international and national standards.
- National farmers associations have not been brought into national water dialogues. Yet crop and livestock production abstract and manage the most water. Farmers are thus key.
  - In industrialized economies, national dialogues should take account of farmers' need for incentives to achieve high returns to water and to protect the environmental services provided by water.
  - Any national dialogue in wealthy countries must understand that in **poor developing economies** farmers need to be protected from the destructive terms of international trade that make it impossible for most of them to gain higher prices for their outputs.
- The energy sector is not sufficiently involved. It must be a full partner in national water dialogues.
  - Energy generation is water intensive in term of cooling and process control.
  - The bio-energy and biomass link is politically driven, at least in many parts of the industrialized world, but it should not be dismissed. Its impact on water availability is as profound, if not more so, than the impact on the choice of land use. Even where marginal plants and land are used, there is a water drawdown. The conversion of algae and other biological material into energy seems very promising but the water needed for their use must be factored into the national allocation dialogue.
  - Conversely, national dialogues should prompt changes in the water industry's use of energy at the local and state levels – pumping fresh and waste water, drainage and water table management, desalination, and water distribution in farms and cities alike are dependent on and often wasteful of energy, etc.
- Consumers, consumption and food and agricultural waste offer highly relevant opportunities to save water that is wasted when food is not used. The potential savings actually dwarf the 40% additional water that might be needed to meet the water needs of the future global population. Here it is important to highlight the need for public and private investment in food storage technologies.
- Water to support healthy ecosystems and human health competes with water requirements for food and energy. Arbitrating these and other demands requires highly effective governance and better, readily available information for all areas of decision-making.

A new arrangement, a new coalition that can link a global resource and expertise network to local, national and regional water reform agendas is required.

Proposal

The idea is to **develop a unique international multistakeholder platform, supported by an unparalleled network of public, civil society and private expertise, to help water-stressed countries seeking to transform the management of their water resources.**

Working with the Global Agenda Council on Water Security, Phase 2 of the Forum's Water Initiative will catalyse, incubate and, by the World Economic Forum Annual Meeting 2012 in Davos-Klosters, launch a unique multistakeholder platform that will help interested and committed countries embark on water reform processes.

Discussions and consultations within the international community will be required in 2010-2012 to help institutionally define, frame and locate this new platform or "entity" within the international architecture.

Global Agenda Council on Water Security and World Economic Forum Water Initiative

However, its proposed role will be to:

- Prepare on request unprecedented microeconomic analytics that provide a much needed, clear and common basis for conversations among governments and other stakeholders involved in water reform (building on, expanding, and refining the analytics of Water Pathways' work to include national investigations for other interested countries and create deeper dives – states, sectors, regions, river basins, etc., or sensitivity analyses – exploring the impact of water policy trade-offs or the impact of climate change, groundwater depletion, upstream river diversions, etc.).

  This work area will sustain and develop the work of the Water Resources Group. The Water Resources Group is a unique partnership between the International Finance Corporation, several leading multinational companies and McKinsey & Company, which has developed microeconomic analytics at a national level on water resource constraints, opportunities and management options, for a number of countries.

- Provide a series of neutral platforms that enable governments to engage in inclusive and constructive multistakeholder dialogues on the challenges of water management within the context of broader economic development and to establish pathways forward for reform. A unique part of this process will be to use the analytical work mentioned above to help frame the dialogue on what to do. This will enable water reform discussions to be contextualized and planned as part of the country's wider economic growth strategy, by showing how smart water plans and policies can help mitigate the interlinked energy-food-water (-climate change) challenge.

  This work area will grow and deepen the use of multistakeholder platforms for water reform discussion and water partnership project development, as piloted by the World Economic Forum in India (Indian Business Alliance on Water with CII, USAID, SDC and UNDP), Jordan (Jordan Business Alliance on Water with the Royal Chamber of Industry, the US-Jordanian Chamber of Commerce, USAID, GTZ) and South Africa (Southern Africa Business Alliance on Water with the NEPAD Business Foundation, SDC, USAID).

- Coordinate a network of national and international public-private expert support (technical, financial, project management, monitoring and evaluation) to help government officials and other national stakeholders design and undertake their water reform activities, resulting from the discussions outlined in the above two points.

  This support network can grow organically over time but can be initially drawn from a broad constituency interested in water reform processes, such as:
  - Relevant world-class issue expertise as relevant from across the Forum's Network of Global Agenda Councils, identified and coordinated by the Water Security Council
  - Industry expertise as relevant from across the Forum's 360+ Industry Partner Companies (and 700+ Foundation Member companies), led by the companies in the World Economic Forum Water Initiative Steering Board
  - New technologies and breakthrough ideas from the Forum's Young Global Leaders, Global Growth Companies, Technology Pioneers and Social Entrepreneurs
  - International organizations, aid agencies and development finance institutions, NGOs, think tanks, research centres, foundations and religious leaders forming the Forum's civil society and faculty communities

Explanation/Rationale

A wide range of analyses suggest we are heading for severe water difficulties in many parts of the developing and developed world. For economic growth to be sustained, reform in the way we manage our water needs is urgently needed. As water is inherently a local problem, politicians affirm that water reform is one of the most difficult activities a government can engage in.

The proposal of the Global Agenda Council on Water Security and the Water Initiative therefore aims to "de-risk" for politicians the process of engaging in water reform:

- It is difficult for governments to obtain a comprehensive analysis of the water challenge and potential options for reform that any one country, region or sector faces. This is the unique value of Water Pathways' work. It can help open the water reform conversation, with everyone on the same factual page.

- It is difficult to find a neutral platform for discussion, where government can work alongside other stakeholders to discuss and design a regional, national or local water reform strategy (both as a programme and as a series of specific reform projects). Such a platform is important as it can enable engagement in design and subsequent buy-in to action from a range of important stakeholders (across government, society, industry, international organizations). Agreement on the course of action by all key parties de-risks the reform strategy for government. This is the unique value of the multistakeholder platforms the Forum Water Initiative can help create, as evidence in India, Jordan and South Africa shows.
- It is also difficult today for a government to easily access comprehensive support for undertaking water reform activity, whether it be political support across key stakeholders or much more pragmatic support in the form of finance, capacity building, technology, project management, change management, community outreach or information on new business/project models. A basket of coordinated and bespoke support to governments from a public-private-NGO-expert consortium does not exist. This will be the unique proposition of the new entity: the bundling together of tailored analytical work and neutral platforms for dialogue and planning.

Next Steps

Analyse, Convene, Transform (ACT)
Draw together the comparative advantages of the 2030 Water Resources Group (2030 WRG) and the World Economic Forum Water Initiative in a broad partnership to deliver breakthroughs in water agenda reform action over the next 15-24 months:

- Provide world class analytics to help countries develop fact-based action plans
- Convene multistakeholder networks across the public and private sectors, experts and NGOs, to help governments create a shared vision of the way forward
- Create coalitions of the international and national stakeholders with a momentum for transformation and support the process with resources and expertise

Analyse

- Support new 2030 WRG Case Studies in Ethiopia, Mexico, Mongolia, Pakistan
- Have industry and experts work with 2030 WRG to undertake deeper-dive analysis (technology potentials, cost options) in two or three countries – India (some states), Jordan, South Africa

Convene, Transform
Use and expand existing World Economic Forum public-private water coalitions to become platforms for national action and project implementation during 2010:

- Indian Business Alliance on Water: SDC funded platform; UNDP, USAID, CII, Halcrow, Hindustan Construction Company and Unilever on steering board. State government interactions with Kashmir and Rajasthan; Maharashtra possible. National sector-wide initiatives also under consideration. WRG analytic invited.
- Jordan Business Alliance on Water: USAID funded platform; UNDP, GTZ, Jordanian Chamber of Commerce, American Chamber of Commerce Jordan, Halcrow, The Coca-Cola Company (invited) on steering board. National planning and project development strategies coordinated through the Ministry of Planning and Ministry of Water. WRG analytic invited. Interest from Government of Jordan to expand to a regional coalition.
- NEPAD Business Foundation South Africa Water Initiative USAID funded platform; steering board being built, likely to contain NEPAD BF, SDC, Chamber of Mines South Africa and other agencies. Will undertake national and provincial planning and project development strategies (project pipeline already in development) coordinated through the Ministry of Water Affairs and Environment, South Africa Local Government Association, National Treasury PPP unit. Deeper dive of WRG analytic invited, especially for agriculture. Interest from NEPAD Business Foundation to create a regional coalition – the SADC Water Initiative.
- Potential Mexico Business Alliance on Water, leveraging the World Economic Forum/Government of Mexico collaboration through to COP 16 (illustrating the importance of water in the climate debate as a result) and building on initial discussions the WRG has had with CONAGUA.

Global Agenda Council on Water Security and World Economic Forum Water Initiative

From Insight to Action: Phase 2 of the Forum Water Initiative and the 2030 WRG

Creating a Global Vehicle

Creating a globally recognized "owner" for the ACT process – an incubator that can bridge the gap between the need for analysis, convening and the necessary transformation programme itself, complete with the full engagement of development agencies and country governments – is a critical part of maintaining momentum. Such a global vehicle can support national or regional reform programmes.

This vehicle will be a new style of public-private global network for the international architecture. The proposal will initially be discussed at the World Economic Forum Global Redesign Summit in Qatar, May 30-31.The proposal will be promulgated through Phase 2 of the World Economic Forum Water Initiative, which is scheduled to last two years, from 1 July 2010 to 30 June 2012.

- The World Economic Forum and 2030 WRG partnership will convene international agencies, experts and companies during 2010 to help develop a vision and concept for this new global vehicle.
- A consultant will be appointed to develop a consultation process and a proposition for the global vehicle.
- A roundtable will be scheduled during the UNGA MDG discussions, in September 2010, to discuss a more developed draft proposal.
- USAID finance has been secured by the Forum to support such a process at least to the September UNGA roundtable, as part of a partnership projects agreement. Subject to progress and need, further support will be sought from USAID.
- By the World Economic Forum Annual Meeting 2011 in Davos-Klosters, a developed proposal will be tabled at a high level private meeting. A launch could potentially be envisaged.
- The parallel development during 2010 of country coalitions will provide the proof-points of how the vehicle will work at the national level.

This work will be overseen by a project board. Current project board members are listed below:

Steering Board	Observers
• Cisco • The Coca-Cola Company • The Dow Chemical Company • Halcrow • Hindustan Construction Company • Nestlé • PepsiCo • Rio Tinto • SABMiller • Standard Chartered • Syngenta • Unilever	• International Federation of Agricultural Producers • International Finance Corporation (IFC) • McKinsey & Company • Swiss Agency for Development and Cooperation (SDC) • USAID • WWF

Global Agenda Council on Water Security and World Economic Forum Water Initiative

Appendices

The "Davos Initiative"
This Initiative is the summary proposition developed by the Global Agenda Council on Water Security and the Forum Water Initiative Steering Board in collaboration with the Water Resources Group. It was presented by the Chair and Vice-Chair of the Global Agenda Council on Water Security to participants at the private meeting on water in Davos on 26 January 2010 and was endorsed as a course of action during the 2010 Annual Meeting. It forms the basis of the proposal presented above.

Water Pathways 2030 – A Platform to Accelerate Local Progress of Water Sector Reform
At the World Economic Forum Annual Meeting 2010 in Davos-Klosters, leaders of countries, civil society organizations, multilateral organizations and the private sector agreed that a next step in the water security debate should be taken. It is necessary to move from dialogue to accelerating change. Using the World Economic Forum's neutral platforms and convening strength, the "Davos Initiative" was proposed. The initiative will create an unparalleled network of public, civil society and private expertise on offer as a supporting partner for those countries seeking to transform the management of their water resources.

Building on analytical approaches from the *2030 Water Resources Group (http://2030waterresourcesgroup.com)*, the Davos Initiative will engage with countries in their path towards water reform by helping them to *obtain efficient access to the best available tools, practices, partnership models and policies, build management capabilities, mobilize financial resources*, and *develop peer relationships across countries.*

The Davos Initiative will work in collaboration with a set of countries for whom water is a high priority and who invite the Initiative to partner with them on the journey towards water security. The intention is to draw on knowledge from the public, research, not-for-profit and the private sectors, and to ensure that what is learned in those experiences can then become the basis for similar support in other countries.

The Davos Initiative will follow six principles:
- Create **supportive country level coalitions and networks**, catalysed through partnerships involving members of the World Economic Forum Water Initiative
- **Accelerate change** by using these networks to leverage and amplify existing efforts (rather than creating a parallel entity) and to disseminate knowledge widely
- **Recognize the links between energy, food and water security** and that the smart management of these linkages can create win-win alignments, with positive implications for growth, development and sustainability
- **Incorporate breakthrough ideas from all sources:** technology and engineering companies, financial services partners, social entrepreneurs, aid agencies, international organizations, development finance institutions, civil society, NGOs, community organizations, farmers, think tanks and research centres
- **Leverage deep content experts**, including networks of national and international expertise as well as the Members of the World Economic Forum's Global Agenda Council on Water Security and other Global Agenda Councils
- **Enable countries to highlight collective and individual leadership** in the water space, lessen the political risks of action, and leverage shared intellectual resources across countries

Those meeting at Davos agree to form a working group to develop the frame, content, specific reform activities, governance, partnership and financing arrangements of the new Davos Initiative vehicle. The aim is to launch the new vehicle in 2010.

This proposal is put forward by the Members of the Global Agenda Council on Water Security and the Members of the World Economic Forum Water Initiative (http://www.weforum.org/en/initiatives/water/index.htm)

Global Agenda Council on Water Security[1]

An Informal Framework to Consolidate an (Asian) Wastewater Revolution and a GoogleWater/Wiki

An Informal Framework to Consolidate an (Asian) Wastewater Revolution

Context

The Problem and Exacerbating Gaps and Weaknesses

The problem:

1) The current approach to safeguarding Asian water is philosophically flawed. The attitudes of policy-makers, planners, and investors are notoriously rooted in the logic of "no return, no investment". Environmental sanitation is considered an investment dead end. This flaw needs redressing.

2) A major factor contributing to investment delay is the exorbitant cost of building or extending new systems, especially in major cities. Applying traditional concepts means that miles of pipe are needed to collect carry away and process the water wastes. Significant energy is required to deliver water and to process waste (often 30-40% of municipal energy bills) – so change can bring significant energy savings.

3) With system revision it is possible to harvest energy and resources in the waste. Current techniques and designs render these less accessible through wholesale collection from highly differentiated sources and massive dilution.

4) New technology creates new possibilities – most of them in use, in part, around the world. Membranes create an extraordinary range of possibilities – especially with new system designs:

    i) Promotion and acceptance of "cascading use" – clean water for drinking and personal use, cascading down to grey water, which can be "cleaned enough" for agricultural, urban, and industrial use, which can be "cleaned enough" for recycling or environmental recharge, etc.; sewage, either harvested for energy and/or nutrients, then "cleaned enough" for agricultural or environmental use

    ii) New city installations and refits of older systems designed around the cascading, modular system

    iii) "As small as possible – as big as necessary": the development of prototypes for small cities and urban units; a mosaic of modules in the cities, not uniform design types

    iv) Dissemination of the successful uses of the component model, which will use filters and "clean-enough-for-next-use" technology for a finite number of households/entities

Current systemic exacerbating gaps and weaknesses:

1) There is no international organization for water, as exist for health, agriculture, weather, etc. New ideas must percolate via informal networks. Often the political and financial players are not aware of new possibilities created by new technologies. Engineers talk to engineers; city managers to elected officials, etc., etc. Some creative cross-hatching is needed.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on Water Security

Proposal

A 3-5 year targeted outreach be launched to achieve the widest possible dissemination and adoption of new core water management concepts across Asia, home to about 62% of the world's population
Lessons learned from the Asian experience could move to Eastern Europe, Africa, Central and Latin America. Conscious efforts will be made to link with African and other potential areas for action to facilitate comparable action at a later stage. Its components include:

- A loose Action Alliance formed from those with a high degree of readiness to contribute to the goal, a Secretariat in the Asian Development Bank

- A private sector group, particularly welcome in their roles as technology providers, investment packagers, and major determiners of the technology options offered to/chosen by municipalities

- A quick **knowledge drive** to scale up awareness and capture facts that will invigorate the conversation about wastewater management:
  - Aggressive knowledge build-up and dissemination on the health, environmental impact, energy costs, and benefits of varied models of wastewater management (including different modules and different processing stage outcomes)

- A rapid a**nalytical scan** to determine what stands in the way of an urban sanitation revolution in Asia:
  - What factors make people we wish to influence take risks and innovate, and how can they be added in?
  - If the puzzle pieces already exist, what will it take to make this an idea whose time has come?
  - Who are the main actors in Asia who gather and allocate resources, and who can persuade and influence with success? How do we associate them with this work?
  - Who are the policy-makers, planners, investors, and beneficiary communities?

- A **technology inventory** that will focus on least cost (in terms of money, energy, and water) – the decision to clean sufficiently, not more:
  - Technologies that create "cascading use" as described above
  - Filters, energy sparing devices, re-use devices, reed bed examples – all of it
  - Examples of new, big and medium-sized city installations and refits of older systems designed around the cascading, modular, energy-sparing technologies
  - "As small as possible – as big as necessary": the collection of existing prototypes and the development of new designs, and a mosaic of modules
  - "Information on the successful uses of the component models

- Analysis of elements of **incentives packages**:
  - Financial mechanisms – taxes, subsidies, concessions, etc., to encourage the extraction of resources from wastewater
  - Loans and capital market financing for new solutions
  - Research awards for solutions now: getting pathogens out of sewage and preserving nutrients

- Targets: Annual General Meetings, ministerial conclaves, CEO Water Mandate group, industrial confederations, chambers of commerce, municipality meetings, service clubs, financial analyst meetings, technology and research meetings, companies, etc. Particular targets in the groups that serve cities include: municipalities, utility managers, finance, environment, health, and urban development ministries, national planning agencies, financial services, researchers, NGOs, water organizations.
  - Goal: implant these concepts and make them do-able, reflected in investment plans, financial incentive packages and national and municipal policy, to incorporate environmental sanitation in urban management and base the business model on appropriate technology and costs in the right investment climate

- Actions: A concentrated campaign to change current practices and get on with the task of treating wastewater in Asia and a concerted and upscale **communications package** that moves all of this into a "common wisdom" and "it's time to do this" mind frame

Explanation/Rationale

The pieces exist. A shift in the existing paradigm is needed. Champions to make this happen are essential. Current system managers are not sufficiently aware of change possibilities; current political leadership is unaware of whole new possibilities; current financial institutions work from current concepts of "what is a wastewater system". That 90% of Asian wastewater is untreated reduces the absolute volumes of clean water available for consumption. Current treatment methods moreover are energy intensive, expensive, and very often poorly adapted to local situations in terms of technology and maintenance.

Attitudes, technologies, and costs are a dominant part of the complex set of causes of this situation. Efforts to influence and persuade these constituencies have to be ramped up aggressively. There is sufficient innovation, experimentation, good science and technology and enough concrete examples to change the paradigm with fundamentally different foundation concepts.

Next Steps

- creation of the Secretariat in the Asian Development Bank (which has agreed to host)
- creation of a core group to manage the campaign (strong expressions of interest exist)
- creation of a loose industry support group (not yet begun)
- creation of information packages regarding technology, constraints, incentives, etc.
- creation of high profile events in the margins of important financial meetings
- outreach to municipal authorities, chambers of commerce, etc.
- use of World Economic Forum regional meetings and other events as possible venues for such work
- financial package to support the above activities

In addition, the Global Agenda Council on Water Security puts forward the proposal for a GoogleWater/WikiWater: A Global Water Information and Warning System

Context

A water crisis is looming, but we can't quite see it. As populations and economies grow, water resource constraints become binding on farmers, industries, energy producers and municipalities. Moreover, as the climate changes, so will hydrology, undermining the value of historical knowledge and traditional forms of adaptation. Under these changing circumstances, we need clear, accessible information at the local and regional levels across the globe, in near real time.

Technological advances yield a growing wealth of information on the availability and quality of water resources and on the earth's changing hydrology; a firm basis for this work is in place.
But this copious existing data is not available in accessible forms – and it could be. Think of GoogleEarth's transformation of our knowledge of land realities.
We lack the systems needed to provide easy access to this information and to effectively deliver it to those who depend on hydrology for their livelihoods and businesses.

Proposal

A "GoogleWater/WikiWater" be created with global reach
The World Economic Forum should stimulate a private sector partnership to develop a water information platform with global reach. An information platform can be structured to assemble and disseminate publicly available hydrological information (quantity and quality) and even flood and drought forecasts. The system could be built in partnership with those who collect information (governments, the World Meteorological Organization, the Food and Agriculture Organization, the National Oceanic and Atmospheric Administration) and those who can disseminate it (Internet entrepreneurs, even mobile phone service providers). It would serve a broad range of users, from those who rely on water for production (farmers, water-dependent industries, utilities) to those most vulnerable to the vagaries of water (flood prone communities and subsistence farmers.) Water managers, researchers, humanitarian and development organizations and educational institutions would also benefit.

Global Agenda Council on Water Security

Rationale

The pieces are all there – the need, the information, the technologies – but the connections must be made. A platform can be put together that would yield a great deal more than the sum of these already valuable parts.

The key is to create a platform that is exceptionally user-friendly and a universal "first stop" for information – along the models of Google and Wikipedia – that will be a draw for both information providers and users.

This platform could grow to include:

- **Decision tools**: by leveraging advances in hydrological monitoring and modelling technologies, a powerful system can be constructed to enable better water management decisions, the protection of communities and the productivity of economies.

- **Forecasts and early warning systems**: warning systems could be designed for critical areas to provide potentially vital information to vulnerable businesses and communities.

- **Real time communications tools**: advances in communications technologies can also be built upon to move this information the "last mile", i.e., sending flood warnings to remote areas using SMS.

Next Steps

Taking Action. The convening power of the World Economic Forum can **bring together the key partners** in this endeavour.

- **Internet and communications entrepreneurs** and thought leaders, such as Google, Wikipedia, Qualcomm

- **Information providers**, such as the World Meteorological Organization, the Food and Agriculture Organization, the National Oceanic and Atmospheric Administration, Weather News Incorporated, disaster management and risk specialists (United Nations International Strategy for Disaster Reduction, Swiss Re), universities, research institutes and governments with high functioning information systems

- **Users**, such as agricultural and other water-vulnerable industries, development and humanitarian agencies (the World Bank, the Asian Development Bank, the World Food Programme), in their own right and to reflect the needs of client communities, and governments who lack high functioning information systems

A World Economic Forum-sponsored meeting could be the start. With the right partners in the room and workable models on the table, this missing piece of global information architecture could readily be created.

Appendices

"GoogleWater" Abstract

We need a "GoogleWater". The Forum should host a meeting to explore partnerships to develop a water information platform with global reach – similar to Wikipedia or GoogleEarth. New, regularly updated information and forecasts that integrate climate, water supply, demand and economics are needed at the local and regional levels across the globe, in near real time. Existing data are not available in accessible forms – and it could be. Think of GoogleEarth's transformation of our knowledge of land realities. Publicly available hydrological knowledge (quantity and quality) and flood and drought forecasts are available. The pieces are all there. The system could be built in partnership with those who collect information (national governments, the World Meteorological Organization, the Food and Agriculture Organization, the National Oceanic and Atmospheric Administration) and those who disseminate it (universities, Internet entrepreneurs, mobile phone service providers.) A World Economic Forum-sponsored meeting could be the start. With the right partners in the room and workable models on the table, this missing piece of global information architecture could readily be created.

Global Agenda Council on Water Security

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The Forum of Young Global Leaders[1]

Restoring Ocean Health: 20% of the Ocean in Marine Protected Areas by 2020

Context

The Problem
The ocean provides hundreds of millions of jobs and hundreds of billions of dollars to the world economy, in addition to invaluable and irreplaceable services such as the production of oxygen, climate regulation, carbon sequestration, and food security. However, overfishing, climate change, and pollution are devastating our oceans at an unprecedented rate – depleting ocean life, diminishing the ability of the ocean to provide the above essential ecosystem services, and devastating employment and economies at a planetary scale.

A Major Solution: Marine Protected Areas
Like global climate change, the solutions to the above problems are complex and involve long-term, integrated actions under a new global governance structure. But there are national solutions that work in the short term, such as marine protected areas (MPAs). MPAs are areas in the ocean that are totally or partially protected from fishing – with the goal of restoring marine life and the goods and services provided by them. Highest, fastest yield MPAs are no-take marine reserves, which are fully protected from fishing. Setting aside no-take reserve areas allow marine life to recover significantly within a few years, helping to maintain diverse and resilient ecosystems. Marine protected areas act like savings accounts, providing ecological, social and economic benefits. Like principal with interest, after a few years fish spill over the reserve boundaries, helping to replenish local fisheries. Local economic revenue from ecotourism and fish catches around the reserves increase, reducing poverty (in some cases doubling household income) and helping to achieve Millennium Development Goals (MDG). However, even though the ocean covers 72% of our planet, less than 1% of the ocean is protected, while 12% of our land is protected.

Challenges and Gaps
The main challenges to the creation of marine protected areas are:
- Lack of awareness of the benefits of marine reserves
- Lack of appropriate governance at the national level and on the high seas (outside countries' 200-mile exclusive economic zones)
- Lack of funding to implement MPAs and off-set short-term losses to fishermen until the MPAs provide returns
- Lack of plans to create and monitor MPA networks, from the local to global governance level

Proposal

The Goal: 20% of the Ocean Protected by 2020
The objective of this YGL initiative is to partner with key stakeholders to promote the creation of MPAs in order to help restore the health and productivity of the ocean. Our scientifically conservative but politically ambitious goal is 20% of the ocean protected in MPAs by 2020,[2] of which at least half (10%) would be no-take reserves. We propose to begin the process by focusing on the 200-mile exclusive economic zones (EEZs) of the world's countries. Work on international waters ("high seas", outside of EEZs) should be dealt with in parallel, and will require new international agreements coordinated by the UN Convention of the Law of the Sea.

It is important to note that protection of 20% of the ocean is probably insufficient to ensure the long-term provision of essential ecosystem services. We consider the 20% target as a base milestone – a minimum proportion of the habitat that needs to be set aside while humanity concurrently solves the global climate change crisis, overfishing, and pollution.

[1] The views expressed here do not necessarily reflect those of all the Young Global Leaders or those involved in this proposal's task force, nor do they represent an institutional position of the World Economic Forum or its Members.
[2] A number of scientific studies suggest protecting between 20-50% of the ocean to achieve the goals of preserving biodiversity, enhancing resilience, and helping to replenish local fisheries.

What Would the "20% by 2020" Initiative Do?
The initiative will promote the creation of marine protected areas worldwide with the goal of 20% of the ocean protected by 2020, through the development of pioneering economic models, a global strategic communications campaign, and the engagement of key government and business leaders.

How do we reach 20% by 2020? At the current rate of MPA creation, the 20% goal would not be reached until 2083. Therefore, we need to accelerate the rate of MPA creation. The fastest way is to create large MPAs in places with few to no human populations. However, smaller MPAs in inhabited coastal areas bring direct social and economic benefits to coastal communities in both developed and developing countries. Therefore, the strategy to achieve the 20% goal must involve the protection of the last large ocean wildernesses as well as the creation of smaller MPAs managed by local communities.

We know from MPA case studies that several elements are necessary for success: educating and empowering local communities, transferring resource management authority from a centralized government agency to the local community, and providing the initial capital outlay. We thus propose to leverage the expertise and influence of the World Economic Forum to:

- Develop innovative economic and funding models whereby ocean protection shifts from being a sink of philanthropic and government funds to an investment with economic, social and ecological returns
- Develop and implement a strategic communications campaign to raise awareness about the benefits of MPAs globally
- Engage country leaders to commit to the 20% target, and to make the necessary shifts in governance to empower local communities

Structure of the Initiative
We invite the World Economic Forum to be a key partner of National Geographic Society's Ocean Now partnership initiative. This initiative will be coordinated by YGLs Kristin Rechberger and Enric Sala with important contributions from YGL experts in economics, business, development, communications, design, and governance. The YGL team will lead the creation of tailored economic models, strategic communications, and leader engagement. The initiative will have partner organizations, businesses, and experts in the above areas as well as governments. Ocean Now will convene conservation NGOs (the World Wildlife Fund, Conservation International, the Pew Environment Group, the Environmental Defense Fund, The Nature Conservancy, IUCN, Oceana, the Natural Resources Defense Council, and others) as well as serve as a major communications outlet.

Explanation/Rationale

Benefits of the Initiative



How Will Existing Institutions/Arrangements Have to Adapt?

There are various international efforts related to MPAs. For example, the United Nations Framework Convention on Climate Change Decision VII/28 called for "the establishment by 2012 for marine areas of comprehensive, effectively managed, and ecologically representative national and regional systems of protected areas that collectively, inter alia through a global network, contribute to achieving the three objectives of the Convention and the 2012 target to significantly reduce the current biodiversity loss at the global, regional, national, and sub-national levels and contribute to poverty reduction and the pursuit of sustainable development". The World Commission for Protected Areas-Marine has a mission "to promote the establishment of a global, representative system of effectively managed and lasting networks of MPAs". Several countries such as New Zealand, Fiji, and the Bahamas, have established their own national targets for the creation of MPAs. These actions may provide incentives for similar efforts; however, most MPAs to date have been created on an ad hoc basis, and we are still far from reaching the aforementioned global goals.

We believe that the existing institutions/structures can benefit from a new perspective that is less bureaucratic and decentralized, allowing for the creation of thousands of new MPAs independent of complex top-down approaches that are time-consuming and largely ineffective. The YGL initiative can help by providing a new toolkit for the creation of MPAs that can be replicated worldwide using quick-impact investments with significant returns in the short term.

Other Relevant Proposals
At the World Economic Forum Annual Meeting 2010 in Davos-Klosters, the Global Agenda Council on Ocean Governance proposed to promote the creation of large marine protected areas on the high seas – areas beyond the jurisdictional 200-mile EEZs – in each major ocean basin (Arctic Ocean, Southern Ocean, Indian Ocean, Pacific Ocean, and Atlantic Ocean). The Council suggests areas of a minimum of 100,000 km^2 each, covering a total of 1 million km^2 per ocean basin. This would represent 5 million km^2, equivalent to an additional 1.4% of the global ocean under new protection. The Council on Ocean Governance proposal deals with the high seas, but not with areas within countries' EEZs – as this YGL initiative does. Both initiatives are complementary and they should be coordinated.

Because MPAs have the potential to help reduce poverty and achieve MDGs, excite youth, and affect human health, this initiative should also coordinate with the YGL initiatives on MDGs, Youth and Health.

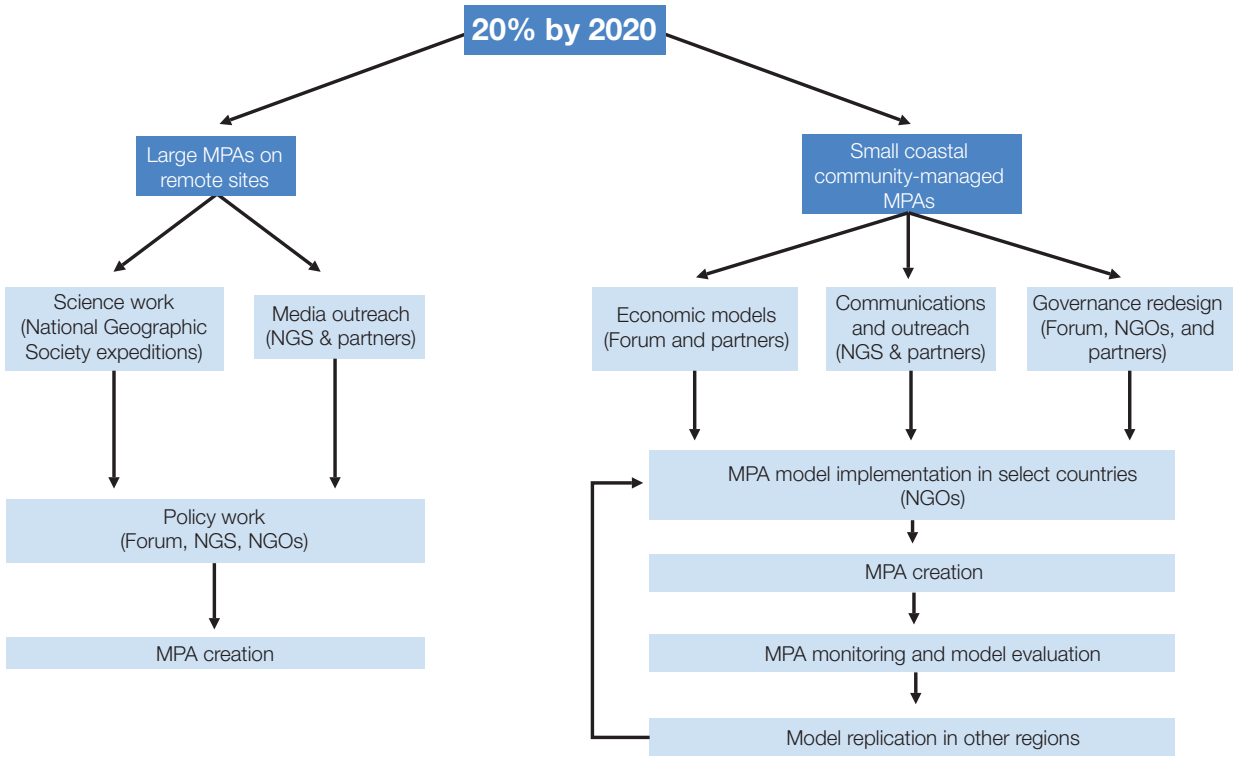
Implementation/Next Steps

Plan and Deadlines
The implementation of the YGL initiative consists of the following steps:

- February-April 2010: Recruitment of interested YGLs and key partners such as major international NGOs[3]
- May 2010: YGL ocean meeting at the World Economic Forum on Africa 2010
- June-September 2010: Development of a global communications strategy to raise awareness about the benefits of MPAs and inspire key stakeholders to take action
  Coordination with WCPA-Marine and other NGOs
- September 2010: Launch of Ocean Now partnership initiative with NGOs, industry and government, led by National Geographic Society (NGS) (and the World Economic Forum?)
- June-December 2010: Development of an economic model for the creation of community-managed MPAs that can be replicated everywhere with small, quick-impact investments – mostly in the developing world. Selection of pilot regions for model implementation. Recruitment of funding and programme partners, and ocean champions
- January 2011: Engagement of country, business, and NGO leaders at the World Economic Forum Annual Meeting 2011 in Davos-Klosters
- 2011: Implementation of the economic model in focus pilot regions
- 2010-2014: National Geographic expeditions to pristine areas to promote the creation of large MPAs
- 2011-2014: Monitoring and analysis of process for creation of community-managed MPAs. Replication in additional regions.

The following graph depicts the process for the promotion and creation of MPAs to achieve the global 20% goal.

[3] At the Annual Meeting 2010 in Davos-Klosters, the YGLs pushed the ocean task force to articulate clear goals for MPAs. While 20% by 2020 is an ambitious target, we believe this necessary for a global redesign of ocean conservation. However, it will require the support and participation of major international NGOs that are already developing significant MPA programmes.



Champions

This initiative will need ocean champions who are leaders of key institutions/stakeholder groups, including country leaders, business leaders (e.g., seafood retailers, shipping industry, tourism), NGO leaders (development, biodiversity conservation), and thought leaders (economic innovation for development). We propose to organize a session on the initiative at the World Economic Forum Annual Meeting 2011 in Davos-Klosters, with the goal of engaging as many key leaders as possible, and with a panel composed of:

- a country leader with global influence whose country is adopting a significant ocean policy including MPA networks, and who could inspire other leaders to follow (e.g., President Sarkozy)
- a CEO of a global retailer corporation that has committed to source only sustainable seafood (e.g., Wal-Mart)
- a CEO of a NGO dedicated to sustainable development (e.g., Millennium Promise)
- a leading economist expert in novel models for environmental resilience/poverty reduction (e.g., Jeffrey Sachs, Geoff Heal, Pavan Sukhdev)
- the head of an international organization dedicated to ocean conservation (e.g., the Director-General of UNEP)

YGLs who have shown interest in the initiative:

- *Economic/funding/development models*: Andy Wales, Christopher Logan, Navin Chadda, Georges Kern, John MacArthur
- *Communications/Engagement*: Natalia Allen, Mina al-Oraibi, Jonathan Harris, Thomas Crampton, Matthew Anderson. Jun Feng, Erik Harras, Eric Anderson, Jens Martin Skibsted
- *Governance*: Cristina Bitar (Chile), Mina al-Oraibi (Persian Gulf), Silverius Unggul (Indonesia), Erik Harras (Mozambique), Uday Khemka (global)

Efforts Already Under Way

There are hundreds of NGOs worldwide interested in the creation of MPAs, but despite their individual efforts, at current rates of MPA creation, the 20% target will not be reached by 2020. For example, the World Wildlife Fund, Conservation International, the Pew Environment Group, the Environmental Defense Fund, and The Nature Conservancy, among others, aim to create large MPAs, including no-take reserves, in several marine ecoregions. WCPA-Marine and the International Union for the Conservation of Nature (IUCN) are central hubs for information and coordination, and are currently developing, in collaboration with UNESCO, lists of marine sites that may be eligible to become World Heritage Sites.

The National Geographic Society is launching an international ocean conservation initiative, which includes the goal of promoting the creation of large MPAs in pristine sites, and smaller reserves managed by coastal communities. NGS aims to convene multiple NGOs to produce a single, consistent ocean conservation message, and communicate it to relevant audiences. NGS will be a major platform for global communication on this initiative. Efforts that are under way within the scope of NGS' initiative, which the YGL initiative can leverage, include:

- Mediterranean Sea – The goal of this project is to engage Mediterranean leaders to commit to 20% of the Mediterranean in MPAs by 2020 (of which at least half would be no-take reserves). France is already proposing this target for its waters. National Geographic and partners will conduct research and produce a film in 2010. H.S.H. Prince Albert II of Monaco has agreed to be a key leader and host a leader summit in Monaco in 2011. Current partners: the Waitt Family Foundation, the Prince Albert II of Monaco Foundation, the Mediterranean Science Commission (CIESM), Oceana-Europe, The Cousteau Society, IWC.

- Pristine Seas – The goal of this project is to survey some of the last healthy places in the ocean to inspire governments to protect them in no-take marine reserves. Efforts under way include the following areas:
  - *Southern Line Islands, Kiribati* – Expedition conducted in Spring 2009 (ocean.nationalgeographic.com). TV show and magazine article to appear in September 2010. Expected government action in 2010. Partners: the Waitt Family Foundation, Google, Conservation International
  - *Isla del Coco, Costa Rica* – Expedition conducted in Fall 2009 (ocean.nationalgeographic.com). TV show to appear in March 2010. Expected government action in 2010. Partners: the Waitt Family Foundation, Google, Oracle, the Walton Family Foundation, The Campbell Foundation, Forever Costa Rica, Conservation International, The Nature Conservancy, Preservación de Tortugas Marinas, Marviva, Fundación Amigos Isla del Coco, Universidad de Costa Rica
  - *Isla Sala y Gómez, Chile* – Expedition conducted in March 2010. Partners: the Waitt Family Foundation, Oceana-Chile, Independientes en Red.

Support for the Initiative

The initiative has already received support from several individuals, foundations and corporations through National Geographic Society's ocean initiative (see above). For example, the Waitt Family Foundation is the lead partner overall; Google is funding expeditions and National Geographic is populating the ocean layer on Google Earth; and Oracle is funding education content creation for school audiences. We require additional funding but, more importantly, new funding models where funders can encourage the NGO groups to work together in new ways (versus compete) to achieve combined conservation goals.

How/Where Can the Proposal Be Showcased beyond the Global Redesign Initiative and the World Economic Forum?

National Geographic Society will showcase the initiative through its media (NGS has a monthly global reach of 350 million people). It will also be showcased by our partners' communication channels, cause-marketing with global corporations, and feature film tie-ins.

Appendices

References/Additional Information

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Abstract

Human activities are degrading ocean life and diminishing the ability of the ocean to provide goods and services that are essential to humans, including food security, climate regulation, and carbon sequestration. One of the essential solutions to this problem is national parks of the sea, or marine protected areas (MPAs), areas set aside where marine life recovers and helps replenish nearby areas, providing economic and social benefits to coastal communities. However, less than 1% of the ocean is currently protected. We propose to promote the creation of MPAs in 20% of the ocean by 2020, as a way to restore ocean health, help reduce poverty, and improve human well-being. This target could be achieved if we develop novel conservation investment models, improve governance, and increase global awareness about the benefits of MPAs.

YGL Restoring Ocean Health Task Force

Kristin Rechberger, Senior Vice-President, National Geographic Society, USA
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The Forum of Young Global Leaders[1]

Transforming Urban Mobility

Context

Why does the world need this?
The world needs to transform urban mobility because the pace of urbanization is accelerating globally. For the first time in history over 50% of humanity lives in cities; this is projected to grow to 60% of world population by 2030 and 70% by 2050, equivalent to 6.4 billion people. People move to cities in search of better lives as urban settings provide greater economic activity and opportunities. Clearly, urban planning and development needs to be stepped up as urban infrastructure and systems already under pressure will prove to be woefully inadequate by 2050 – if they continue at the current pace of development.

Mobility is a necessary enabler that helps rising urban populations prosper and benefit from a city's many attributes. Less commuting time is positively correlated with the economic development of the city itself. However, transportation systems, key components of urban infrastructure, are in multiple ways inadequate to meet the requirements of the future. Some reasons include:

- Congestion is the first and most immediate issue felt by commuters as daily commuting times have been rising dramatically in most cities
- Local pollution and CO_2 emissions caused by transportation are still increasing and threatening health ceilings in cities as well as contributing to greenhouse gases
- Safety continues to be a concern for pedestrians, cyclists and all commuters as traffic-related incidents are increasing although they are preventable
- Accessibility to public transport infrastructure for the disabled and elderly must be improved
- Equity in transportation availability is needed at the bottom of the pyramid

Proposal

Against this backdrop, our Young Global Leader (YGL) Task Force suggests that a more holistic solution to the problem of urban mobility is required. A "system approach" that takes into account all the important issues and needs related to urban mobility is vital. We need new solutions that differ dramatically from those of today. To create new, sustainable solutions, we need to:

- Define urban mobility as a unique field rather than as a subset of ecology, urbanity, and transport
- Prioritize the greening of cities
- Rethink business models/incentives to encourage cross-disciplinary collaboration
- Integrate existing infrastructure, public and private offerings as well as smart grids
- Identify and implement the best features from private and public transport respectively
- Address distinctly different demographic needs across cities and map out city typologies
- Integrate new social behaviour and tools into commuting
- Apply off-the-shelf technologies to spur new solutions
- Bring together distinctly different and relevant fields of expertise and industries to address transportation infrastructure design

The new system approach to urban transportation infrastructure in the 21st century will likely build on and transform the existing infrastructure and provide solutions that are multi-modal and flexible while potentially:

- Making use of high-density fixed systems
- Integrating highly flexible personal transportation options
- Restructuring road infrastructure by adopting high-density combined with flexible solutions
- Providing space exclusive to pedestrian areas in cities
- Providing more space, special lanes and right of passage for non-motorized transport
- Adding exclusive lanes for vulnerable and lower footprint modes of transportation
- Implementing mapping, modelling and dynamic control technologies

[1] The views expressed here do not necessarily reflect those of all the Young Global Leaders or those involved in this proposal's task force, nor do they represent an institutional position of the World Economic Forum or its Members.

Urban mobility conceived and planned holistically in a system approach, with interconnected and equitably-priced modes of transportation, which includes the right incentives and disincentives for different aspects of transportation can result in solutions related to finite resources such as space and energy that are much more efficient and accessible to all sections of society. Additionally, such solutions will reduce travel time and have a smaller environmental footprint. They will also lead to better quality of life and more economic opportunities for all urban dwellers, who moved to the city in search of these advantages.

Explanation/Rationale

What is the current weakness/gap in the existing international system/mechanisms?
Most of these issues are viewed in a silo, whether they are linked to a sub-category of transportation, urban planning or other areas. As such, we are unable to emerge from planning that stresses individual aspects to thinking with a long-term perspective and planning a holistic, interconnected system.

This proposal aims to act as a catalyst in bringing together the various existing stakeholders to recognize the full scope of the issue in detail and to assist them in implementing a long-term, far-reaching, scalable systematic solution to the problem of mobility in an urban context. This will be done by demonstrating and linking the economic, social, sustainability and health benefits so that common ground can be found.

Our approach foresees creating an authority by collecting relevant knowledge, generating new metrics and systematizing the approach. This authority would provide cities with a clear repository for knowledge and arm them with plans for action. We would also attempt to work with one city as a partner in creating such a system, making it a model for future work.

We aim to introduce the voice of youth and call all stakeholders to action by championing this cause as an important contribution in efforts to reduce the carbon footprint associated with mobility while offering tangible economic, social and health benefits to citizens and cities alike.

How is our proposal structured? Who is responsible for it?
We will gather and package existing knowledge and put it into an actionable format, and identify a champion to take the idea forward.

What will the benefits of the proposal be?
Cities and citizens will benefit in a multitude of ways as described above. Cities adopting this approach will also address a critical bottleneck in their development and gain tangible economic and social benefits.

Next Steps

Contemplating the implementation steps necessary to formalize the idea of an authority, and brainstorming on its potential structure, our Task Force envisions coordinating with the MIT initiative and Volvo's efforts in the area of urban mobility. We are planning a presentation in India at the urban convention hosted by Reuben Abraham. Currently our potential supporters include: Shai Agassi, Reuben Abraham, Adrian David Cheok, Natalia Allen, Kristin Rechberger, Erik Charas, Silverius Onte, Jan-Olaf Willums, and Barry Appleton.

Appendices

Abstract
Cities are growing exponentially and today's existing urban transport solutions are not adequate for current circumstances or for the increasing urban population of tomorrow. While some sporadic efforts towards better urban transport planning exist, none is conceived as a holistic and sustainable system and will thus fall short of the long-term requirements. We need to systemically deploy non-toxic, flexible, safe, multi-modal, efficient, equitable and carbon neutral means of urban transport to improve safety, reduce localized concentrated air and noise pollution and reduce congestion and travel time. We must create a powerful authority and establish the field in its own right, rather than treating the issue as a subset of city or transport planning, in order to create alternatives by cross-industry collaborative efforts and/or new incentive structures.

UN HABITAT – Global Report on Human Settlements 2009 – Fact Sheet 4
As cities build freeways, more car traffic follows. On the other hand, emphasizing transit traffic could enable roads to become an important part of the sustainable transport system. Streets can be designed to favour pedestrian and cycle traffic. In doing so, cities become more attractive and business-friendly.

Roads are used for many purposes, not just maximizing vehicle flow. The emphasis is on achieving efficiency by maximizing the movement of people, not cars, and on achieving a high-level of amenity and safety for all street users. Gender needs to be considered in all stages of public transport planning. For example, many developed countries' recognition of women as the main users of public transport and the multipurpose nature of their trips has led to some innovative design solution. Many stations and terminals in cities (such as Tokyo, Japan, and Maryland, USA) now contain grocery stores, childcare centres and improved public toilets.

Volvo Research and Educational Foundations
http://www.vref.se/thefutprogramme.4.46d8812211a06b927e780008414.html
The Future Urban Transport (FUT) programme – how to deal with complexity – is a research programme financed by the Volvo Research and Educational Foundations (VREF). The overarching aim of VREF is to contribute to the development of sustainable transportation systems.

The Forum of Young Global Leaders

YGL Transforming Urban Mobility Task Force

Siddhartha Lal, Managing Director and Chief Executive Officer, Eicher Motors, India
Jens Martin Skibsted, Founding Partner, Skibsted Ideation, Denmark

9 Building Effective Institutions in an Empowered Society

Global Institutional Reform

By Ngaire Woods, Professor of International Political Economy, University of Oxford, United Kingdom, and Kishore Mahbubani, Dean, Lee Kuan Yew School of Public Policy, Singapore

Introduction

Many millions of people suffer as a result of the failure of governments to effectively cooperate to handle new global challenges (climate change, financial crises, pandemics, etc.), to foster and enhance global norms and values, and to work together to achieve goals that none could achieve acting alone. The World Economic Forum's Global Redesign Initiative (GRI) strives to identify ways to overcome these failures, including through innovative collaborations between the public and private sectors.

This essay focuses on the ways global institutional reform might assist in these solutions. We propose a series of measures to achieve four global institutional reforms:
1) rebalancing representation in existing institutions
2) refocusing global cooperation
3) transforming information systems at each level of institutional cooperation
4) better harnessing collaboration with private and non-governmental actors in global governance

Why Global Institutional Reform?

Global institutions exist to facilitate cooperation among governments, firms, and other social groups. They might simply be shared rules or norms. They can also be formal international organizations which help governments, firms, and other groups share information, build up technical expertise, forge shared norms or rules and make decisions to act upon them, monitor compliance, and (very occasionally) assist in enforcing mutually-agreed rules.

Across the Global Redesign Initiative many potential solutions to institutional failures have emerged. Some seize on the possibility of harnessing new technologies not just to provide technical solutions, but to provide new ways for sharing information, creating consensus, and making decisions. Others focus on either resetting goals, or inventing new global agencies.

How should we adjudicate these ideas? A useful test of solutions is offered by the Global Agenda Council on Design, who argue that successful solutions need to be "simple, clear and honest", inspiring to people, collaborative (inclusive of those who need the solution), context sensitive, and sustainable. Sometimes solutions will need to be transformational, costly and game-changing.

What we observe among the Global Agenda Council proposals are three different starting points. Some are arguing to **"reboot the international system"** because existing institutions have failed so utterly that we need to start again. In this vein it has been proposed that governments should convene a new global conference and create a modern equivalent of the Atlantic Charter and the Bretton Woods institutions. For example, a new multidisciplinary global institution has been proposed to foster accountability in public health and issues of sustainable environment; a new global rule of law facility has been proposed to provide opinions and advice on immediate regulatory and legislative needs at the international level.

We do not believe that a fundamental reboot is plausible. Sixty years ago, new international institutions were created after an economic crisis and a major world war. Crucially, two very powerful states emerged, each of which was willing and able to play a leadership role in setting up institutions of cooperation; the United States

in the Western alliance; and the Soviet Union in the Soviet bloc. By contrast, in 2010 the world sits in a period of transition in which the remaining superpower, the United States, is fading in both capacity and willingness to play the hegemonic role in respect of institutions. New Asian powers are rising, like China and India. Both the West and Asia must learn to work together in new partnerships to reform global governance.

A different starting point is to **"embrace a new bottom-up system"** since modern communication technology permits a more participatory, spontaneously emerging, horizontally-oriented networked citizens' order which could either reinforce or replace traditional institutions. For example, the Council on the Future of Government's suggested Global Citizen Engagement Initiative proposes using digital brainstorms, citizens' juries, policy wikis, social networks, and mass collaboration monitoring as a way to overcome the disconnect between citizens and their governments. The Forum of Young Global Leaders' Civic Eyes project proposes using new technologies to empower citizens around the world to ensure free and fair elections by adapting crowdsourcing technology for NGOs to use in election contexts. We build these ideas into our comments below.

Finally a call to **"reform existing institutions"** is argued by those who believe that international organizations offer the best chance of ensuring some international cooperation. With some changes, existing institutions would permit necessary collective actions to be taken, and further norms to be forged. For example, the UN General Assembly (UNGA) can continue to drive the new norm creation process by legitimizing new norms as it did with "the Responsibility to Protect" norm at the 2005 UNGA.

Harnessing the Changing Politics of Global Governance

We favour an approach to institutional reform which recognizes and builds upon changes already under way. To this end we would highlight several important innovations that have been occurring in recent years in global governance:

A new form of **competition by emerging economies,** such as China, has spurred the traditional "rule-makers" in global governance to rethink relations with what were once the "rule-takers". There is now near universal consensus that the voices of the "emerging economies" have to be heard and factored into global decision-making. **Bottom-up social initiatives** have begun to show real results, such as BRAC in Bangladesh. **Regional initiatives** among governments have developed at an unexpected speed in Asia (such as the Chiang-Mai Initiative), and Africa (such as the Economic Community of West African States - ECOWAS). New resources and new ways of working have been injected by **private foundations** (such as the Gates Foundation) and their collaborations with governments such as in the Global Fund for HIV/AIDS, malaria, and tuberculosis. **New technologies** have been harnessed to make information more reliable, accessible and useable (such as in the monitoring of infectious diseases).

We believe that these forces can be harnessed to reshape international and regional institutions so as to better facilitate the kinds of cooperation required, through four sets of measures. The first of these is focused on the way states cooperate with one another.

1) Rebalancing International Organizations

The recent financial crisis highlighted that representation in existing international organizations is anachronistic, and that this impedes cooperation. Emerging economies were vital to managing the crisis, yet under-represented in the Group of Seven (USA, UK, France, Germany, Italy, Japan, and Canada), the International Monetary Fund (IMF), the World Bank (WB), and the United Nations Security Council (UNSC). For this reason a G20 was convened in November 2008 in place of what normally would have been a G8 meeting. Newcomers were let into the cockpit of global economic governance, and they included: Argentina, Australia, Brazil, China, India, Indonesia, Mexico, Saudi Arabia, South Africa, Korea, and Turkey. However, many countries are still excluded. For poorer developing countries this might well mean they are yet further marginalized from global decision-making, since the emerging economies have their own interests to represent and less incentive to

voice a collective Southern view. One solution to this is for smaller countries to use networks among themselves outside of the G20 as well as within and across the G20 to ensure they stay informed, and have some means of influencing the agenda.

Should a further formal rebalancing of representation in international organizations take place? We argue that there are three possible payoffs which could be reaped:

- A **legitimacy payoff**: Institutions forge norms and make rules which work because most member countries believe and accept them as legitimate.
- A **responsiveness payoff**: The evidence in financial standards demonstrates that if governments are not party to the formulation of rules, they are less likely to implement them. Most basically, as noted by a non-G20 official criticizing the G20 at the World Economic Forum Annual Meeting 2010 in Davos-Klosters, "It is hard to implement rules made by the G20 that nobody has even informed us about."
- A **transition payoff**: Power in the world economy is in transition. The rising powers are countries that are globalizing fast and as a result will increasingly seek to use international institutions in the future. The opportunity exists now, before a clear new hierarchy emerges, to create more balanced, effective structures.

We do not argue that rebalancing existing international organizations is all that is required for greater effectiveness. We see equal scope in the rise of new, more voluntary groupings of states, about which we will say more below. However, we would highlight some concrete practical steps towards further rebalancing.

The G20 is in essence a crisis-management group rather than a new institution of global governance. It exists because organizations with formal powers necessarily have rules which constrain their speed and size and make them unwieldy. That said, the G20 has exercised authority to create a new institution (the Financial Stability Board), and rules and agreements (on IMF resources, and a framework for financial regulation) and, for this reason, we argue urgently to ***introduce reporting to larger constituencies of countries outside the G20 (whether formal, as per the IMF, or informal, as has happened in the UN Security Council and in the World Trade Organization)***.

In the IMF, reforms have been under way but details of further changes have yet to be announced. A recent high-level panel led by Trevor Manuel made useful suggestions. We would reinforce three kinds of changes being discussed, specifically:

- a new process for allocating and changing the voting rights of members in the IMF should be agreed upon by all members
- all 24 Executive-Directors on the IMF Board should be required to represent more than one country (at present eight countries take one seat each and the remaining 177 countries are squashed into 16 chairs)
- the full membership of the IMF should be involved in a fully meritocratic and open selection process for the Managing-Director and senior staff, making them accountable to all countries (not just the EU and USA), and a Board member should chair Board meetings

The WB has been lagging the IMF in reform. However, a recent high-level panel headed by Ernesto Zedillo made several important proposals that would rebalance governance in the World Bank. These include:

- increase to at least 50% the voting rights of developing countries in the International Bank for Reconstruction and Development (IBRD)
- more heavily represent International Development Association (IDA)-borrowing countries in the IDA for responsiveness, and give specific weighting to donors by contribution
- engage the full membership in a fully meritocratic and open selection process for the President, making him or her accountable to all countries (not just the USA and EU)

The UNSC has been lagging both the IMF and WB in reform. The UNSC is incapable of making incremental changes. It, therefore, faces a real danger of losing legitimacy. An urgent effort is thus required to secure a consensus on some key principles, including:

- the permanent seats in the UNSC should be occupied by the great powers of today, not yesterday
- the privilege of veto powers in the UNSC should be balanced with equivalent responsibilities
- the UNSC should be held accountable for its performance

The measures above could ensure better equipped international institutions in global governance. However, we also see scope for new, more voluntary associations of countries cooperating together around specific issues. One such proposal involves bringing together a core group of countries that are prepared to address three obstacles to free trade – subsidies, tariffs and standards – in order to provide a significant spur to the growth of the clean-energy industry worldwide. The Global Agenda Council on Sustainable Energy's proposal for a Sustainable Energy Free Trade Area (SEFTA) would overcome the present-day disadvantage in the trade in sustainable energy. It would consist of a voluntary club of nations and be entirely consistent with current international trade law.

Another proposal, put forth by the Global Agenda Council on the Future of the Internet, addresses Internet security through voluntary arrangements among public and private actors who would participate due to self-interest. The core idea is that users would create mirroring sites to reveal data attackers are attempting to take offline. Users would participate in their own self-interest, to benefit from the kind of reciprocity we see on the high seas where private parties will respond to an SOS without any obligation to do so – indeed, even if they are business competitors to the firm owning the ship in distress. Assistance is given in large part because any ship knows that should they be the ones in trouble next time, others will help them: "So long as no one knows ahead of time who will be the next target, it can make sense to band together."

Adding to these examples are the initiatives being pursued at the regional level by groups of countries, such as the Asian countries' Chiang-Mai Initiative, which pools reserves among the ASEAN+3 countries.

We see collective action shaped through voluntary associations of countries, either because they share mutual purposes (the Sustainable Energy proposal) or for purely practical reasons of reciprocity (the Internet mirroring proposal), or a combination of the two things (the Chiang-Mai arrangements), as an important complement to the rebalancing of existing institutions. At the same time, we would argue that reforms of formal organizations must be undertaken alongside a refocusing of their mission as described next.

2) Refocusing Global Cooperation

A surge in global interdependence has led many to argue for more global governance. In reality many problems have regional, national or sub-national solutions. We argue that global action and cooperation must be better focused on those areas where it is vital, in other words where progress at the national or regional level would not be possible unless there were global cooperation.

Global cooperation is not easy. It must not be squandered or misdirected into activities that could be achieved in more direct ways. For example, when United Nations agencies seek to expand their activities in-country in the hope of adding some value or improvement, they ought to be subjected to a sharper threshold test. International cooperation – through an international institution – must be a *sine qua non* to achieving the sought improvement. The implication is that international institutions could be focused to a greater extent – mandated and funded properly – to achieve positive actions where these are a *sine qua non* to progress. In other areas, many activities and exercises in monitoring, reporting, and coordinating, should be cut.

UN specialized agencies offer an important example. What they bring to international cooperation – as UN agencies – is a long-standing structure and process for achieving agreement among countries of the world that can, through the United Nations, speak with a collective voice, act collectively, or bind themselves to agreed standards. There are issues on which one or more of these attributes is crucial. We give three examples: peacekeeping, cooperation to alleviate poverty, and speaking collective truths, for example on human rights. In each area, a refocusing on cooperation-critical goals and a cutting back of other activities could lead to greater effectiveness.

In **peacekeeping operations in post-conflict areas**, the United Nations carries a critical imprimatur of legitimacy which no other grouping of countries enjoys. This is not just because of the impressive capabilities of UN Peacekeeping Operations (UNPKOs), nor because dollar for dollar they outperform units from North Atlantic

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Treaty Organization (NATO) or European forces, although their effectiveness is important. The UN imprimatur enables PKOs to enter war-torn countries with some claim to impartiality and, because of this, a better chance (if not squandered) to win the trust of populations. For these reasons international peacekeeping in post-conflict situations is cooperation-critical. That said, UNPKOs remain under-funded and under-equipped. The great powers still remain allergic to creating permanent peacekeeping forces that would be readily available for any new emergency. As the legendary UN authority Sir Brian Urquhart, former Undersecretary-General of the United Nations, said: "A fire brigade that habitually arrives after the house has burned down does not inspire confidence or long maintain its credibility. Rapid reaction is the key to dealing effectively with most emergencies. This is particularly true of the outbreak of violence that the United Nations is now often called upon to deal with." The UN's current system for launching operations was described by Kofi Annan in 2000 as sometimes "compared to a volunteer fire department, but that description is too generous. Every time there is a fire, we must first find fire engines and the funds to run them before we can start dousing any flames. The present system relies almost entirely on last-minute, ad hoc arrangements that guarantee delay, with respect to the provision of civilian personnel even more so than military. Although we have understandings for military standby arrangements with member states, the availability of the designated forces is unpredictable and very few are in a state of high readiness. Resource constraints preclude us even from being able to deploy a mission headquarters rapidly."

More robust international arrangements could also strengthen regional action. For example, although efforts have been made in Africa to substitute UNPKOs with African PKOs, the results have been decidedly mixed. For example, the African Union (AU) PKO was deprived of badly needed equipment in Darfur, a problem that could be resolved with innovative arrangements to ensure UNPKOs provide the "backbone" of expertise and equipment while being supplemented by regional forces, like AU PKOs. Innovative collaboration between UN and regional PKOs and greater participation by developed countries may lead to more cost-effective and sustainable solutions to "failed states". At the same time, it is important not to slip into what David Malone once provocatively labelled as "peacekeeping apartheid", whereby the richer developed states contribute money but no troops or equipment. The Permanent Members of the Security Council provide far less support than in previous periods. Although the UK and France, and to a lesser degree the USA and Russia, provide some military observers, China is the only Permanent Member currently contributing significant numbers of personnel, mostly in logistics and engineering. As explained eloquently by Jean-Marie Guéhenno, past Undersecretary-General for Peacekeeping Operations: "It is clear to me that peacekeeping works best when the membership shares a common vision, remains engaged with national actors and views the peace operation as a common endeavour of the international community."

More robust peacekeeping could be achieved by cutting less cooperation-critical activities and ensuring the UN has the peacekeeping budget to develop long-term strategies and capabilities.

Cooperation to alleviate poverty offers an example of proliferating global cooperation, not always focused on those global actions without which progress would not be possible. The presence of countless agencies (UN, bilateral donor, and non-governmental) in the capitals of poor countries, "operationalizing" their mandates, has been widely accepted as costly and counter-productive. Much of this can and should be cut. However, the use of the United Nations to forge and express the **Millennium Development Goals** demonstrated the way international cooperation can be used to overcome collective action problems, setting mutual goals instead, and a framework around which actions can be measured. Similarly, the IMF and World Bank have been criticized for their detailed, costly, and time-consuming conditionalities and in-country work. As powerfully revealed in the recent crisis, their focus needs to be on preventing and managing global crises that no individual country can foresee, prevent, contain, or manage on its own.

Finally, UN agencies play an important role in "**speaking truth to power**", such as on issues of human rights, global health, or global security. For example, in managing the HIV/AIDS pandemic, individual governments had to face uncomfortable political issues about the rights and treatment of communities subjected to discrimination. The United Nations, through UNAIDS, became a voice for an evidence-based rather than a discrimination-based approach, disseminating guidelines for legislators and parliamentarians across the world

on protecting the rights of disenfranchised populations vulnerable to HIV and on best practice programmes for educating sex workers and their clients on prevention. This role in telling governments what they needed (but did not necessarily want) to hear, was one for which the UN's unique status was critical. By contrast, the expansion of UNAIDS into countries to compete and overlap with other agencies involved in setting up programmes is not cooperation-critical. It is precisely the kind of activity that fails the threshold test we propose for refocusing international organizations.

In sum, to make international institutions more effective, we would refocus them on cooperation-critical goals and reduce the non-critical activities (using a stricter threshold test) in which they are engaged. Within institutions such as UN specialized agencies, this would imply a subsequent reorganization focused on delivering a narrower set of goals.

3) Transforming Information Systems to Empower

Up to this point, we have mainly been focused on cooperation among states. However, equally crucial for good governance is the relationship between states (and the institutions they create) and peoples. New technologies make information more accessible and public response more immediate. The availability and better use of data in indexing, benchmarking, monitoring, and evidence-based policy-making makes stronger accountability possible and helps build (or rebuild) trust between citizens and institutions at both the national and international levels. This means that international institutions can and should be better informed and more responsive, collecting information from a much wider range of sources. It also means institutions can play a better role as transmitters of high-quality information to a wide range of groups.

Change has already occurred. Traditionally, international organizations pooled information from government sources and fed it back to those same member governments. The World Health Organization has transformed this model in its Global Outbreak Alert and Response Network (GOARN), which pools human and technical resources to identify, confirm, and respond to dangerous outbreaks. The network includes scientific institutions in member states, medical and surveillance initiatives, regional technical networks, networks of laboratories, UN organizations (e.g. UNICEF, UNHCR), the Red Cross (International Committee of the Red Cross, International Federation of Red Cross and Red Crescent Societies and national societies) and international humanitarian non-governmental organizations (e.g. Médecins sans Frontières, International Rescue Committee, Merlin and Epicentre).

Other international institutions have been slower to harness wider sources of information. Yet almost every international institution is charged with monitoring and collating information, whether it be for the UN Secretary-General, IMF surveillance, WTO Trade Policy Reviews, or World Bank country reports. It strikes us as vital that each of these international organizations begin to look creatively at how it can transform information by collecting it from a greater variety of sources, and consciously thinking through how the information can empower constituencies served by the organization.

Some promising proposals are worth investigating. For example, one group of NGOs seek to create the world's first integrated framework for understanding what is happening to oceans. An Ocean Health Index (OHI) has been proposed by a group including Conservation International, the National Geographic Society and the New England Aquarium, joined by the National Center for Ecological Analysis and Synthesis (NCEAS), the University of British Columbia's Fisheries Centre, Scripps Institute of Oceanography, and other senior researchers from various institutions throughout the world. Their proposed Index would draw indicators from international agreements, intergovernmental panels and other high-level recommendations regarding marine conservation and resource use, including the 1972 Stockholm Declaration on the Human Environment, the 1992 Rio Declaration on Environment and Development, Chapter 17 of the United Nations' 1992 Agenda 21, the Multilateral Convention on Biological Diversity, the World Summit on Sustainable Development, the Millennium Ecosystem Assessment, and major reports by intergovernmental and international panels (e.g. GESAMP 2001,WBGU 2006, IPCC 2007).

Building Effective Institutions in an Empowered Society

Information is critical to good governance. New technologies make it possible for international institutions to go beyond governments as sources of information, seeking and collating data from a much wider range of sources. The same technologies also make possible the sharing and publication of information in ways that empower those who can hold international institutions and other actors to account. We see moves in this direction as crucial to positive global redesign.

4) Better Harnessing Collaboration

Governments are not the only key to global problem-solving. Other groups have always been a part of addressing international problems. Today, other groups are increasingly visible in global forums. The potential benefits from harnessing wider cooperation are increased resources, more innovative methods of analysis and implementation, and wider political support. To cite one example, in public health, the creation of the Global Fund for HIV/AIDS, Malaria, and TB – a form of public-private partnership – successfully mobilized new funding, new information, and new engagement by a wider range of stakeholders.

Risks that can result from collaborations between the public and private sectors do exist and these are worth spelling out up front. One risk arises when the opportunity to work together results in attempts to manipulate or to exploit a privileged position for gain, which economists refer to as “rent seeking”. A related risk is “regulatory capture”, where private interests seek to distort public efforts to regulate so as to increase their own private gains. An unfortunate example of this came to light in 1997 when global tobacco companies were forced to disclose internal documents that revealed they had so distorted efforts at regulation that their participation in international negotiations was subsequently banned.

The key to harnessing public-private collaboration is to ensure that there are genuine mutual goals to be achieved, that the collaboration is well structured, open, and transparent, and that it engages powerful and well-informed parties with an incentive to achieve the mutual goals. There are several areas in which such collaboration has been proposed. For example, as suggested by the Global Agenda Council on Energy Security, a “Global Energy Forum” could bring the input of the private sector to help reinforce the International Atomic Energy Agency’s existing intergovernmental group, bolstering its ability to create and use information metrics, to improve best practice benchmarks as technology improves, and to set minimum standards on certain energy products.

Another promising area lies in intellectual property, where the process of debate and rule-making needs to be opened up to involve governments, businesses, universities and other research organizations, consumers associations, and so forth. One innovative proposal from the World Economic Forum’s Young Global Leaders that has arisen from this kind of dialogue is to create a “Global Responsibility Licence”, which would permit the use of patents for humanitarian purposes. The authors of the proposal aspire to “unlock intellectual property to benefit the one billion poorest people in the world without requiring companies to give up their rights to exploit their intellectual property for other commercial uses”.

Conclusions

Four Elements of Successful Redesign in a Phase of Power Transition

The sudden upsurge of global challenges like climate change, financial crises, pandemics and trade protectionism has increased calls for better global governance. Yet international institutions and cooperation seem to be foundering. Four sets of measures could help reverse this.

First, formal international organizations need to be rebalanced to reflect a new configuration of power. We have proposed specific measures in respect of the IMF, the World Bank, the G20 and the UN Security Council. At the same time, it is vital that voluntary and new associations of countries emerge to deal with problems in more regional or issue-specific ways.

Second, international institutions need to be refocused on issues that are cooperation-critical. The costly and time-consuming process of getting governments to act together should not be squandered on activities that could be achieved at a regional or national level. The United Nations should focus its resources on far fewer activities, each of which meets the threshold test of being essential for progress on that issue. We discuss peacekeeping in fragile states, poverty alleviation, and the "speaking truth to power" role of the United Nations.

A third element of redesign is to transform information systems at each level of institutional cooperation. New technologies make it possible to collect information from a wider set of sources, and also to disseminate information in ways that empower communities to hold others to account. We see great scope for a transformation in information systems in traditional international organizations, as well as in innovative new forms of governance.

Finally, harnessing collaboration with private and non-governmental actors is key to transforming governance in some areas. We highlight the promise of well-structured, open, and transparent collaboration that engages powerful and well-informed parties with an incentive to achieve mutual goals.

WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

GLOBAL REDESIGN INITIATIVE

Proposals

Global Agenda Council on Benchmarking Progress in Society 571
Global Agenda Council on the Future of Government 581
Global Agenda Council on the International Legal System 593
Young Global Leader Civic Eyes Task Force 597

Global Agenda Council on Benchmarking Progress in Society[1]

Fostering Better and Sounder Data for Improved Evidence-Based Decision-Making

Context

The current economic crisis has dramatically highlighted the importance of an evidence-based approach to decision-making, as a necessary condition for good governance and transparency. Reliable and wide-ranging data and indicators are key to ensuring policy decisions are based on solid ground and decision-makers are fully accountable to citizens. These, in turn, can fully understand the rationale of these decisions while monitoring and tracking their effectiveness and impact over time.

Progress of society, interpreted as an increase of people's well-being, is the general driver of decision-making. The definition of progress and the identification of best practices to benchmark it in a rigorous and comprehensive fashion are two separate yet related crucial issues to be addressed in the context of this paper and of ensuring an effective use of benchmarking results for better decision-making. In this sense:

- Measuring progress should go beyond economic indicators and include, whenever possible, wider measures of well-being, taking into account social, environmental and governance dimensions among others. These wider measures of well-being can usefully complement the more traditional Gross Domestic Product (GDP)-based ones, by providing insight into different dimensions of progress. Also national institutional and cultural environments should be taken into account in defining progress.

- Data on societal progress should be collected according to common quality and ethical standards to which public and private data producers and benchmarking institutions should feel committed. A global system should be put in place to facilitate cooperation in proper indicator selection, regular data collection, consistent methodologies, and ease of comparison and benchmarking. Moreover, it should call for increased transparency at the national and international level, striving to reduce data manipulation and censorship. It should also support improved official statistics as well as data collection and compilation efforts outside of government agencies.

- Governments, as well as other stakeholders, all over the world should fully recognize the importance of evidence-based decision-making and promote the collection and timely disclosure of sounder and more comprehensive datasets, without trying to interfere or manipulate data for political reasons. Simultaneously, in order to be a meaningful tool for decision-making, benchmarking results should be made salient and understandable to decision-makers and to the general public.

Part 1 of this paper examines in more detail the current situation with respect to the three issues highlighted above, identifying gaps and shortcomings yet to be tackled, while Part 2 provides a number of recommendations from the Council on Benchmarking Progress in Society on solutions and mechanisms to address the gaps highlighted.

Part 1 – The State of the Art and Gaps in International Cooperation

Although there is increasing awareness of the need for better indicators and more rigorous data collection as a precondition for meaningful evidence-based decision-making, a number of shortcomings continue to be present in all of the three dimensions mentioned above. Identifying them is a crucial step in view of defining remedial actions and policies going forward.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on Benchmarking Progress in Society

Comprehensive Definition of Progress

Over the last 20 years, several proposals have been made by institutions, individual scholars and research centres to develop comprehensive measures of "well-being", "quality of life" and "sustainable development", among others. Criticism of GDP as the primary yardstick of societal progress has increased over recent few years and, a growing number of composite indicators, or dashboards of indicators, have been developed around the world.[2]

Among the major attempts to define progress in a comprehensive way, the Catholic Church has addressed the issue in its *Populorum Progressio* Encyclical, stressing the need for a "thorough examination of every fact of the problem – social, economic, cultural, and spiritual"[3].

The OECD has been very active in promoting the discussion on this issue, launching a process in 2004 which lead to the Istanbul Declaration on Measuring and Fostering the Progress of Societies. This declaration, as well as the recent Report of the Stiglitz Commission (released in September 2009), proposes "shifting the focus of our current measurement system from the metrics of market production to a system that genuinely focuses on people's well-being and how it changes over time (progress)."[4]

Building on international and Member States efforts, the European Commission has published in August 2009 the Communication "GDP and Beyond: Measuring progress in a Changing World", stressing the need to improve data and indicators to complement GDP and identifying a number of actions "to develop more inclusive indicators that provide a more reliable knowledge base for better public debate and decision-making".[5]

All of these efforts seem to point to a number of conclusions:

- It is important to have policies guided by well-being measures as well as benchmarks of non economic policy goals, such as health, education, and environmental sustainability.
- Progress is a concept which can vary from culture to culture, even though it may have some collective meaning within a culture. In this sense, consensus on a unique definition of progress is not necessarily a realistic or desirable goal; rather countries and all relevant stakeholders should be able to count on a set of indicators capturing different aspects of well-being among which they can choose to track progress, the way they mean it, over time.
- As a consequence of the above point, it is very difficult (or impossible) to capture the complexity of our societies in a single composite indicator. Therefore, sets of indicators including both subjective and objective measures of well-being shared by relevant stakeholders need to be used.
- Last but not least, simplicity of implementation and general data availability is of paramount importance in efforts to benchmark societal progress worldwide, to mitigate the risk that new, sophisticated measures, would end up being available for an exclusive and richer set of countries, leaving scores of developing countries out due to data problems.

Sounder and Comparable Indicators

An important challenge for meaningful data-driven decision-making has to do with the actual quality and availability of the data. A few issues can be highlighted in this respect:

- Robustness/integrity of the data, collected both by official and non-official sources
- Comparability of data at the international level and across time
- Timely data availability and coverage, especially due to lack of resources made available to statistical authorities
- Lack of strong institutional mechanisms/common standards at the global level to ensure the quality of the data collected by different institutional sources and to promote benchmarking and the collection of different types of indicators

[2] Among the first in posing the challenge of transcending GDP were Nordhaus and Tobin at Yale almost 40 years ago, who developed the MEW (measure of economic welfare) (Nordhaus, W. and J. Tobin, 1972. Is growth obsolete? Columbia University Press, New York). They were followed by other efforts, such as in Daly, Cobb and Cobb in the mid 1990s, with their index of sustainable economic welfare (Daly, Herman E. and John B. Cobb, Jr (with contributions by Clifford W. Cobb) *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future,* Boston, Beacon Press, 1994). More recently the World Economic Forum has worked with the Yale Center for Environmental Law and Policy and the Center for International Earth Sciences Information, Columbia University, to produce an updated Environmental Performance Index (http://epi.yale.edu).

[3] Encyclical of Pope Paul VI on the Development of Peoples, March 1967

[4] Measuring and Fostering Well-Being and Progress: The OECD Roadmap, October 2009.

[5] COM(2009)433.

Starting from the first point above, there are often *major flaws* in data collected both by official and non-official sources, be they hard or more qualitative indicators. In particular, for official sources, this phenomenon affects developed and developing countries alike and it is not exclusively due to capacity or underdevelopment issues. Unfortunately, political considerations and corruption do play a role in some cases. Examples of data manipulation for political reasons abound both at the national and international level: One can just mention the debatable official data for Greece, Myanmar and Argentina. Addressing this point calls for enhanced efforts by international organizations and national governments towards improving data compilation methodologies and making official statistics sounder and free from political interference, as stated in the Fundamental Principles of Official Statistics, endorsed by United Nations in 1994.

Indeed, data on subjective aspects of people's life and the functioning of the economy and institutions are an important compliment to official hard data and often capture important dimensions, more qualitative in nature, such as the quality of the investment climate, governance standards, respect of the rule of law in a given country, or citizens' well-being. But the collection of non-official data, notably soft survey data, on these issues should be improved and subjected to more stringent quality criteria. In particular, this applies to "global surveys", which can play an important role in capturing in a uniform way data otherwise missing or difficult to collect: These surveys should be encouraged and supported, but their methodologies need to be made as sound as possible.

Another problematic area has to do with *data comparability* across countries or across time by the same organization using different methodologies. Often official data collected in one country are not strictly comparable with those collected elsewhere because of differences in definition and collection methodology. The lack of international comparability hinders the main interest of benchmarking exercises for decision-makers, i.e., to compare one's national performance in areas of interest to one's peers in order to identify comparative weaknesses and strengths, international best practices and design more effective policies towards the given goal, and ultimately progress. Obviously, adopting policies on the basis of non-comparable analysis is unlikely to further advances towards national objectives.[6]

A related concern is *data availability* at the official and non-official, as well as at the national and international, levels. Two main dimensions here can be underlined: The lack or scarcity of credible statistics and data on dimensions which are important to measure progress (governance, security, education quality, life satisfaction among others) and the huge gaps for specific sub-national or national values of selected hard indicators. Thus, one can often observe incomplete international data series, making international comparisons hard and not fully relevant in key areas of the public agenda, such as poverty levels in most African countries.

Lastly and somehow at the roots of the three flaws referenced above is the weakness of existing *institutional mechanisms* in: a) promoting and generalizing benchmarking and b) canvassing that data collected by official and non-official sources respect common standards of quality worldwide and are as free as possible from political or private (business) interferences. This type of international mechanisms would help addressing measurement gaps in important dimensions of progress, promote transparency and further the rigour and comparability of statistics across countries.

Data for Knowledge Building and Decision-Making

As discussed above, a rigorous quantitative approach to decision-making facilitates a more systematic and successful pursuit of societal goals, including better healthcare, education and environmental protection. However, the ability to reap the benefits of evidence-based decision-making (i.e., better problem specification, easier issue spotting and trend tracking, reduced uncertainty, emphasis on outcomes, greater capacity for comparative analysis and for best practices identification) largely depends on the quality of the data and their careful interpretation. Metrics selection needs to be carried out very carefully to ensure that the right issues are tracked, proper indicators are used, and conclusions are systematically drawn. Data should not be collected or framed in a misleading fashion in order to validate a preconceived policy objective or to justify ex post a policy choice.

[6] This same issue can also be found, to a lesser extent, at the national level, across sectors or among data capturing the same dimension, issued by different organizations following different methodologies

Also, even if concerted efforts are undertaken to improve data availability, quality and timeliness as per above, one constant will remain: Any set of statistics and data for the global benchmarking exercise will be subject to margins of error. Therefore, it is imperative to be much more transparent and precise about the extent of uncertainty surrounding each data set. New techniques and initiatives, such as those in governance indicators, illustrate the feasibility of estimating margins of error, and the importance of so doing for interpretation, analysis, and decision-making.

In a nutshell, there are three essential steps for an evidence-based policy model: a) the development of relevant and quantifiable measures to assess policy performance and draw comparisons for best practices identification; b) data analysis to spotlight and adequately prioritize problematic areas and potential solutions; c) estimation of margins of error (and sensitivity analyses to highlight critical assumptions) associated with official and non-official statistics and data.

Missing elements to implement this model include political commitment and adequate funding. In this sense, a coherent strategy requires addressing three broad areas:

- Harnessing new technologies[7] and investing in data collection, analysis and dissemination. In many cases the data collected by statistical agencies either does not include enough information to adequately assess policy or sufficiently measure important outcomes. For these reasons, data collection should keep pace with advancements made in the understanding of outcomes as well as in statistical methodology. The risk related to data unavailability is to miss cause and effect correlations and maintain existing policy gaps.

- Focusing on results, by setting outcomes (rather than inputs) as goals, measuring policy performance and comparing results among peers. It is in this area that a commitment to avoid incentives to manipulate the data to fit a certain benchmark or to conform to peers is especially important. When there is a failure to commit to a standard or when data quality is challenged, a system should be developed to make this knowledge as transparent as possible.

- Developing systems to ensure that data are used to guide policy priorities and solutions. Data availability does not unfortunately guarantee its optimal use by decision-makers. An updating of decision-making processes and a change/transformation of mindsets within bureaucracies are also required.

A key element to catalyse and generalize evidence-based decision-making has to do with data dissemination at large and with mechanisms/ways to make data easily understandable and relevant to decision-makers and the general public alike, without diluting its quality. Individuals, business people and opposition parties which are data-literate can monitor/question government's actions and policies on the basis of solid evidences and can sharpen the debate over policy choices. In addition, public support in favour of more transparent information can push for methodological shifts in decision-making. Stronger global institutional mechanisms, as mentioned in the section above, could also play a key role in this sense, enhancing data dissemination and accessibility at the general level and creating support and momentum for evidence-based decision-making.

Lastly, it is also important to remind and factor in the potential downsides of evidence-based decision-making, as follows:

- Good quality data does not replace thoughtful analysis, especially if there is no immediate way to quantitatively capture the critical issue under examination. In this case, underlying assumptions/factors that are not reflected in the data should be borne in mind at the analytical stage. Data does not reveal the optimal policy choice.

- Metrics should be carefully selected to ensure that they accurately represent key issues and promote desired outcomes.

- Because of the imperfections in any data framework, assumption and source, their limitations should be openly acknowledged, including through disclosure of margins of error. Where possible analysts should triangulate, using multiple independent sources of data.[8]

[7] Recent advances in information technologies are decreasing the financial burden of collecting, storing and analyzing data and treating missing data.

[8] On a related note, if all data becomes widely available, the risk that it is used in ways that intrude on privacy (e.g. medical records shared with employers or insurers) or support policies that infringe basic human rights should be controlled.

Proposals and Explanation/Rationale

Part 2 – Recommendations
In the following, we outline recommendations on possible remedial actions that could help bridging global governance gaps in benchmarking progress, highlighted in Part 1 of this paper.

Comprehensive Definition of Progress
The considerations made in Part 1 highlighted the challenges involved in defining and effectively capturing progress of societies. Surely a definition of progress that aims at providing a reliable quantification needs to encompass phenomena like *change* over time (from one situation to another), *positive* impact on social well-being (if we are not better of, there is not progress), *subjectivity* and *valuation* (the notion of improvement may change between individuals and societies, and also over time).

The work done by recent efforts to develop measurement frameworks in this area (Stiglitz commission's Report, OECD Global Project on Measuring Progress of Societies, European Commission's Communication among others) shows some convergence towards a definition of societal progress as an increase in "equitable distribution of quality of life for the present and future generations", taking into account social, environmental and governance dimensions among others. It is also recognised that a useful definition of progress should: be a multi-dimensional measure; include subjective assessments of current conditions and changes; allow describing change by taking into account stocks and flows; be focused on indicators and variables relevant to each individual society.

On the basis of the above, the Council considers that the above mentioned frameworks are good starting points in building more comprehensive indicators capturing different dimensions of well-being and progress and puts forward the following three recommendations:

1) Well-being Indicators
A collaborative effort should be made by data producers and all relevant stakeholders to develop relevant data using the "societal progress framework" elaborated by the OECD and the Stiglitz Commission.[9] Funds should be provided to national statistical offices to develop high-quality measures for the domains not yet covered. As for the data capturing different dimensions of well-being that are already available, a further effort to publicize them and make them more widely known and relevant is required. This can be done through the web platform detailed in the recommendations to the second gap on sounder and comparable indicators.

2) Collaboration among Official Statistics and Non-Official Data Producers
Considering that some areas related to well-being require further work and that some advances in this sense have been made in non-official statistics, official statisticians should be encouraged to enter in the field of well-being and collaborate more closely with non-official data producers.

3) World Economic Forum WELCOM Platform and the "Measurement Agenda" of the Global Agenda Council
The WELCOM platform should be used to foster collaboration among those Global Agenda Councils that intend to develop new measurement tools and the Council on Benchmarking Progress in Society could facilitate their interaction, also pointing to good practices that exist both in other Councils and elsewhere. This would lead to the identification of the "measurement agenda" of the Global Agenda Council network, which could in turn contribute to the creation of larger sets of indicators capturing different aspects of societal progress.

Sounder and Comparable Indicators
In light of the shortcomings facing data producers and users in terms of sound and comparable indicators, discussed in Part 1, the Council would like to put forward the five following recommendations:

[9] See www.oecd.org/progress and www.stiglitz-sen-fitoussi.fr.

1) Information Charter
As the actual quality and availability of data is a precondition for meaningful analyses, benchmarking, knowledge building and decision-making, the "Information Charter" developed by this Council should be applied by official and non-official data producers. Also its use should be promoted by those institutions (foundations, governments, among others) that fund statistical data collections and developments.[10]

2) *Core and Expanded Sets of Indicators*
For international benchmarking, a well designed set of indicators, including official and non-official data, must be put forward for measuring societal progress. The spectrum of indicators will include hard data (e.g., production, financial flows), as well as objective and more subjective measures from well crafted questions from surveys on experts, firm managers, and citizens. For each module (material well-being, governance, safety, equality, etc.), appropriate indicators would be identified. The proposal is to develop two different sets of indicators:

- **Benchmarking Progress in Society (BPS) core set**. For feasibility of concrete and as comprehensive as possible implementation, also requiring periodic measurement in all key dimensions, the set of core indicators to benchmark society ought to be circumscribed. The approach should aim at parsimony in the number of dimensions and indicators for each dimension. Trying to incorporate every dimension and available indicator related to societal progress would be unwieldy.
- **Expanded set of non-core discretionary Indicators (the BPS++ set)**. Wealthier and more sophisticated countries may quickly be able to implement a more complex and broader set of indicators. Developing a broader set of policy relevant metrics ought to be encouraged, without hampering the push towards more universal coverage of policy progress on issues such as alleviating poverty, promoting education, enhancing public health and protecting the environment, of the simpler set of core indicators outlined in the previous item. This more sophisticated prong (the BPS++) will obviously be less universal than the BPS Core set (since for many countries implementation is unrealistic in the near future), and thus more discretionary. Yet it will enable countries for which data is available to have a more sophisticated set of measures, and also take into account with more latitude for particular measures that are culturally specific. At any rate, the BPS++ would build upon the BPS core. Thus, the aim would still be for the BPS core to apply universally as a starting point for uniformity of coverage (as per previous recommendation).

3) Transparency and Precision about Imprecision in Indicators
Indicators will continue to exhibit margins of error, even as efforts to improve them take place. This means that margins of error in all data (whether called hard, objective or subjective) need to be taken much more seriously than heretofore. In turn, this implies that special effort is required to estimate the uncertainty for each data set, country estimate and aggregate. And such uncertainty needs to be disclosed. The estimation and disclosure of the margins of error will signal what type of inferences in terms of comparisons across space and time can be made with statistical confidence, vs. what inferences cannot. Such estimates on the uncertainty for the various variables will also help in the selection of the most efficient core set of indicators (BPS core).

Further, a particular source of uncertainty about datasets is that often their methodologies are not spelled out clearly, or even fully disclosed, and even when they are, at times strong assumptions are made on prior conceptual issues. Mechanisms and incentives should be put in place to elicit much better disclosure about these methodological issues in each dataset, as well as techniques to assess the extent of uncertainty (including confidence ranges/plausibility intervals from sensitivity analysis and/or estimation of margins of error).[11]

[10] When discussing about quality and availability of data, special attention should be devoted to developing countries and the fact that many key statistics are unavailable, out of date, and/or highly unreliable in many of them, notably in Sub-Saharan Africa. Moreover, statistical authorities crucially depend on periodic and well conducted household surveys for these statistics, yet both the reliability and periodicity of such household surveys is subpar in dozens of countries. As a result, poverty data is wholly unreliable and a decade or more out of date in some countries, for instance. Concerted international initiatives to improve the quality, timeliness and periodicity of household surveys in many countries (notably to improve poverty data and social indicators), as well as to provide technical assistance resources to low income countries with deficient statistical bureaus are required.
Also the identification of key institutional partners would be important in the next concrete stage on this issue (UN stat, Eurostat, WIDER, World Economic Forum, World Bank, Ibrahim Foundation, DfID, among others).

[11] For starters, full disclosure of the methodological details and ability to estimate uncertainty for the data could be a criterion for eligibility into the BPS sets. Further, the proposed web platform under recommendation 5 below could also give importance to highlighting this issue, and how each dataset performs on this methodological disclosure and uncertainty dimension.

4) Improved "Global Statistical Framework"
The existing global situation in the statistical industry features, among others, excessive fragmentation: there is a multiplicity of global and regional institutions duplicating each other's work, putting undue burden on national systems and making it difficult to correctly identify the relevant indicators for benchmarking progress, and to promote the methods for their compilation. Also the existing global statistical system is heavily governmental in its composition, a factor which limits its ability to be neutral in assessing official statistics and to appreciate the importance of and so promote non-official statistics.

The creation of an Expert Committee on Benchmarking Progress is proposed under the auspices of the World Economic Forum. It could be a modified or enlarged version of this Council and would include experts from academia, official national and international statistical offices, think-tanks and data practitioners. Among its main tasks, it would make considered assessments and pronouncements on issues relating to the methods used to identify and produce statistical indicators for benchmarking progress by both official and non-official sources at national and international levels as well as the adequate dissemination and use of these indicators. This committee would promote the collection of data on societal progress according to common quality and ethics standards and the Information Charter to which public and private data producers and benchmarking institutions should feel committed and would facilitate cooperation in proper indicator selection and collection, among others.

5) Creation of a Global Statistical Portal on Societal Progress
A global and open web platform should be developed by the World Economic Forum or another relevant institution/s. In such a platform, data and metadata concerning different dimensions of progress produced by both official and non-official providers could be uploaded, validated, visualized and analysed. It should include user-friendly country scorecards as well as relevant information to ensure quality assessment according to the "Information Charter". The web platform could be guided in its development by experts from the Council and other relevant stakeholders, complementing IT and subject matter experts. It could include highly interactive tools for downloading and visualizing data, country comparisons, and progress over time, and could also feature a wiki for experts and users throughout the world discussing data quality and integrity issues. The portal could build on existing initiatives, notably the OECD's newly launched Wikiprogress portal (www.wikiprogress.org).

In the next stage priority should be given to discussing with the principals of such ongoing initiatives whether the main BPS objectives outlined above (suitably adapted and finalized after further work) would be consistent with the open nature of such existing (or developing) portal.

Data for Knowledge Building and Decision-Making
As underlined in Part 1, in the policy domain often critical choices are made on the basis of "expert opinion", or worse yet, guesswork rhetoric, and emotion. This is quite different than what happens in the business world, where a focus on quantitative performance measurement has long been understood as fundamental to good management. Using data also as a driver of decision-making makes sense for a number of reasons. For one, it helps reduce uncertainty about problems that are by their very nature, complex. Numbers permit patterns to be spotted and trends to be traced, allowing the possibility of finding correlations, identifying causal linkages, building models and forecasting future effects. In short, data can make the invisible visible, the intangible tangible, and the complex manageable.

Empirically based decision-making is critical for another reason: intuition is often wrong. It is becoming increasingly clear that intuition can "top up" data and analysis, but it cannot replace it. As such, governments, like most large businesses, should gather and use data as a foundation for decision-making. Data, moreover, helps us move beyond the practice of assessing policy success based on "inputs". Too often in the past, policies have been judged based on how much money has been spent, the number of projects launched, or interventions completed – rather than on whether policy goals have been met.

The recommendations included in the two sections above are important building blocks to facilitate and generalize evidence-based decision-making by improving the soundness, comparability and availability of as comprehensive as possible progress indicators. While the recommendations with respect to the definition of progress and sounder indicators would help providing decision-makers with an extensive and solid set of data and evidences on which to base their policies, the web platform outlined in recommendation 5 in the section above could provide the civil society at large with an important tool to monitor and compare policies against concrete data, ultimately promoting accountability.

Therefore, with respect to the gap in global cooperation for knowledge building and evidence-based decision-making, the Council reiterates the recommendations formulated with respect to the definition of progress as well as sounder and more comparable indicators. Also two additional specific recommendations are put forward:

1) Showcasing Best Practices in Evidence-Based Decision-Making
Not all areas of decision-making lack empirical foundations. Airline safety, for example, has long been data-driven, relying upon national and global databases of system and component reliability that are constantly updated and available to national regulators in an open-access framework. Such a system has enhanced safety, protected passengers, and helped manufacturers design better products. The same is true also at the more general level: different governments and decision-makers around the world display different practices when it comes to decision-making which could be more or less evidence-based[12].

A compilation of best practices in evidence-based decision-making should be put together by the Expert Committee proposed in recommendation four in the section above or another relevant institution/s. This compilation will provide an extremely useful instrument to policymakers willing to improve their practices and make them more evidence-based. The collection of best practices could be showcased and displayed in the web platform above.

2) "Coalition of the Willing" for Evidence-Based Decision-Making
The World Economic Forum or another relevant institution/s should promote and support the creation of a "coalition of the willing", in which selected governments engage themselves to use actively and in a generalized way the BPS or the BPS++ sets identified in recommendation 2 of the section above as targets for their progress-enhancing policies and as a way to track advances over time. These countries will spearhead a more generalized use of data to drive and monitor decision-making. On a related note, the above institution/s, in collaboration with relevant international organizations and non governmental organizations, should organize an international award among countries where the ones which consistently base their policies on evidence and data (ideally the BPS or BPS++ sets) will be officially rewarded and presented as best practices countries. The award should be widely publicized and its outcomes extensively displayed on the web platform and in the press (thanks to a specific media strategy which will have to be put in place).

Building effective governance is more important than ever. The recent food, energy, financial and economic crises have shown how difficult is to make decisions anticipating future development and risks. Data can play a fundamental role in improving decision-making at all levels. But not all data are equally reliable and can be used to make decisions. Data can be manipulated or presented just to support a particular position or policy. Building democracy in the information age requires high-quality data and an enhanced "statistical literacy".

At the same time, the demand for policies that address and improve the overall well-being of people is growing in both developed and developing countries. Recent efforts to develop comprehensive measurement frameworks based on the concept of "societal progress" have reached important conclusions. The shift from indicators of "production" to indicators of "equitable distribution of quality of life for the present and future generations" is now possible and should be encouraged.

The proposals made by the Global Agenda Council on Benchmarking the Progress in Society can help in addressing all these issues. They represent an interesting "package" to address them from new methodological, institutional and communicational perspectives. Benchmarking progress using a new paradigm based on people's well-being, relying on solid data produced by both official and non-official data providers, presenting these data in a friendly way and improving the overall use of these data for decision-making could provide a fundamental contribution to a new model of global governance and, ultimately, to a more equitable distribution of quality of life for the present and future generations.

[12] A tough-minded approach to decision-making should insist on having all programmes monitored continuously against empirically defined benchmarks and goals. It should also insist on redeploying the resources if they do not measure up.

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Global Agenda Council on the Future of Government[1]

How Collaborative Networks Can Take Us to the Next Stage of Joint Value Creation in the Public Sphere and Address Some of the Most Pressing Challenges of Our Times

Context

Governments as Actors and Subjects

Over the last few years - as is customary in times of crisis - debates have flourished about how to improve our collective ability to address common issues through better governance, institutions and mindsets.

Faced with global issues in areas as diverse as climate change, finance, water, energy or migration, the international community is faced with the urgency to 'get its act together', be innovative enough not to repeat the mistakes of the past (or prolong complacency), and not 'throwing the baby away with the bath water' by dismantling or weakening existing institutions too hastily.

Governments are central to this debate, both as actors and as subjects.

No global redesign project can be conceived or deployed without a significant overhaul of our collective thinking about governments, nor without significant changes in the way governments should function.

This 'push side' of government change (upgrading governments to better address global issues) is compounded by a 'pull side', whereby various groups, institutions and entities emerge as credible competitors of 'traditional governments' in an increasing number of their areas of competence. This phenomenon stems from the conjunction of two major forces, namely:

- The growing influence of technological innovation: e-government, social networks have already altered the way in which public services are accessed and delivered, as well as how government officials can be elected, and how government positions can be challenged and influenced; citizens around the world now have the potential to become more engaged in policy-related debates, and to make their voices heard[2] in local, national and global discussions. This new component of the global landscape – made possible by the Internet, and strengthened by the emergence of global social networks – is to be reckoned with when one tries to identify the trends, opportunities and challenges associated with building better governments; and,
- The growing visibility of various forms of government, either broader than nation-states governments (international institutions, or more amorphous entities such as the G8/G20, and even regional institutions such as the European Union) or more local such as those of states, regions, provinces, and increasingly cities.

Against this new and rapidly changing background, and in the face of growing global and systemic challenges, the institutions and governments inherited from the 19th Century (dominated by the importance of stabilizing nation-states borders) are losing relevance and effectiveness.

How do all these phenomena affect our ability to address current and future global issues? How can government be reshaped and rejuvenated to help us do it? What initiatives should be launched immediately to demonstrate the importance and value of such reshaping and rejuvenating? Those are the main questions which this paper tries to tackle.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] An important difference must be flagged here between 'making one's voice heard' and 'being part of the action'; as will be discussed later in this paper, without the latter, the former may create increased frustration among citizens, and reinforce their view that their governments do not act according to their citizen's interests.

We address these questions in four parts. We first offer some background on how an action-oriented approach to discussing the future of government finds a strong justification (and urgency) in one of the frameworks proposed in the latest Davos debates on the Global Agenda, i.e. that of the *'four lacks'*. Secondly, we focus on the major threats hanging over our current governments, and some of the major forces contributing to their re-shaping. Next, we offer 'reasons to hope' by identifying the distinct opportunities at hand to turn such threats and challenges into a 'government renaissance', and describe two major and complementary initiatives that should be launched immediately to illustrate the validity and positive power of this approach. Finally, we outline practical 'next steps' on how these initiatives can be launched, sponsored and carried out successfully and rapidly.

The Future of Government, a Central Pillar of Global Redesign
The complexity and interdependence of current global issues makes it particularly daunting to formulate any analytical or policy framework that would be relevant to reflect and act on them, and identify the corresponding 'governance gaps' that need to be filled.

Among such frameworks, the one discussed at the World Economic Forum Annual Meeting in January 2010 is particularly relevant when discussing the future of government. Nicknamed the 'four-lacks model' by his initiators, it identifies as a possible root of the current global governance issues (and of the urgency to address them) a combination of the following four lacks:

- Lack of trust
- Lack of incentives
- Lack of institutions
- Lack of time

When considered through this powerful sieve, the future of government reveals some of its most challenging aspects.

Lack of Trust in Existing Governments
Diminished trust from citizens affects all levels of government: national, local and international. It is particularly striking in democracies, where trust is a lynchpin of representation and delegation.

In an increasing number of countries, **national governments** are perceived as (a) either too far from their people's daily and immediate concerns to provide the direct, simple and fast responses expected by citizens, or on the contrary (b) too tightly linked to such short term concerns to guide their countries to higher levels of performance and well-being in the longer run, especially when subject to electoral deadlines.

The rapid development of multiple sources of information (including blogs, tweets and other unverified ubiquitous downpours – spontaneous or not) contributes to this diminished trust in at least two ways. On the one hand, it tends to bring to the fore any information about mistakes or errors (true or alleged) attributed to governments or their individual members. On the other hand, because the deluge of information available to average citizens is both overwhelming and largely unverifiable, it feeds a perverse kind of phenomenon, by which the un-trustable nature of information is passed on to its object: governments are seen as un-trustable.

To some extent, **local governments** seem to be less affected by this global wave. Trust on local governments in often equated with trust in local government officials, who can be seen, met and evaluated more directly (i.e. through fewer levels of intermediation).

As far as global issues are concerned and **higher levels of governance** involved, the lack of trust seems to increase with the complexity of the issues to be addressed. The experience of the European Union, and the difficulty faced by its members to raise popular enthusiasm about its major objectives (e.g. the Lisbon agenda) is also largely a trust issue. Overall, the large majority of the world's nations have long felt excluded from major decision making bodies such as the G-8 (a trust gap which the G20 can only hope to fill in part), or even multilateral institutions such as the World Bank and the International Monetary Fund for example. Even 'universal bodies' such as most institutions of the United Nations system have not proved able to escape this diminished level of trust, for three major reasons:

1) **They are intergovernmental institutions**. This means that those institutions themselves (by mandate and by design) are actually the secretariats of intergovernmental bodies in which national governments express their views, and negotiate acceptable compromises (generally adopted by consensus). As a general rule, such exercises lead to 'smallest common denominator' solutions, whereby each government tries to protect its national interests while minimizing its own commitments. A typical example is that of the World Trade Organization, in which the common goal (free trade with appropriate safeguards) is continuously confronted with a contradictory set of definitions of what the 'legitimate interests' of individual countries are[3].

2) **They deal with global issues**. Over the last couple of decades, such issues have gained visibility in the eyes of average citizens, both because they were affecting their daily lives more directly than in the past (trade being one example) and because new ways of exchanging information (typically the Internet) made it possible to (a) bring the complexity of such issues within the reach of large communities, and (b) mobilize constituencies and pressure groups across national borders, giving new strength and new significance to non-governmental organizations (NGOs). Paradoxically, as a growing number of international organizations were trying to give a voice to NGOs, frustration (and mistrust) increased on the side of average citizens, as they realized that 'having a voice' did not necessarily entail 'having power'.

The combination of those two elements (immutability of IGOs' mandate and functioning on one hand, and increased interest and mobilization from NGOs and individual citizens on the other) has increased the lack of trust both vis-à-vis the institutions mandated to address global issues, and vis-à-vis the national governments of which they are composed. One of the latest examples of this growing mistrust was the 'Copenhagen syndrome' generated by the UN Conference on Climate Change (December 2009).

Lack of Incentives

Addressing global issues efficiently will require stronger engagement from citizens, corporations, and governments worldwide. Providing clear, coordinated and consistent signals to markets and decision makers will be a vital instrument in this context.

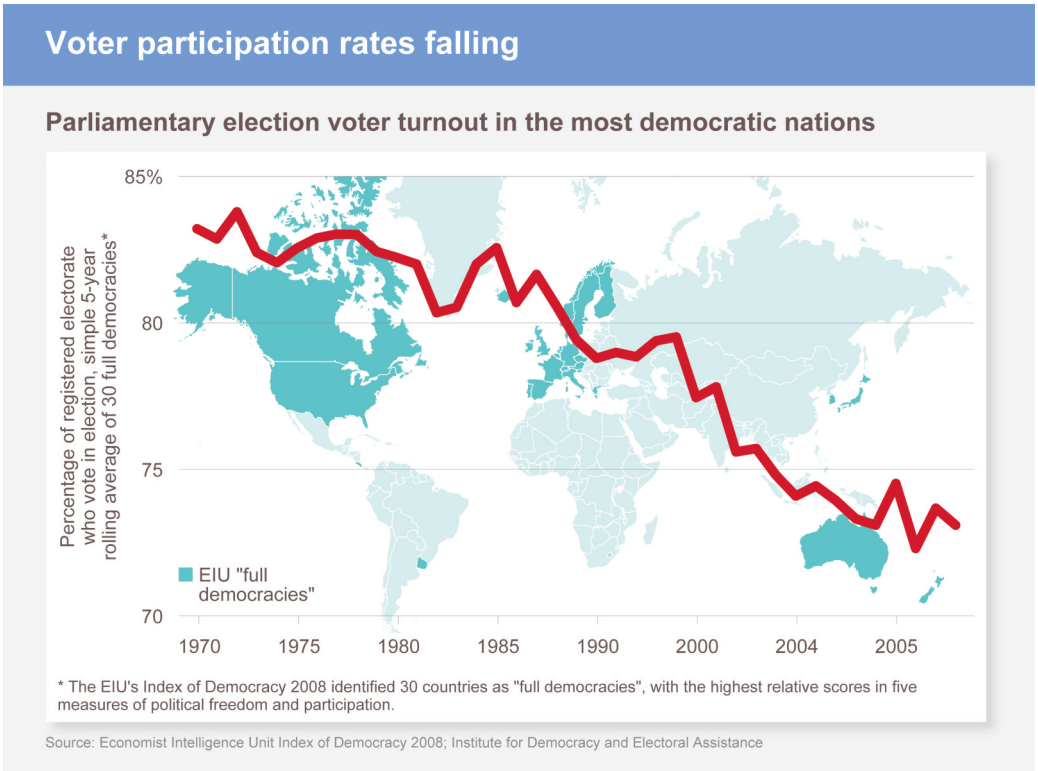
One of the incentives that is utterly lacking, has to do with recreating a global appetite for the joint creation of public values by citizens and governments.

As all recent studies confirm, democracy is losing ground. This trend is not so much a result of how many political regimes call themselves democracies (or consider democracy as either a principle of government or an objective) but rather the outcome of a steady decrease in citizen's interest for participating in the electoral process.

What could be the incentives to be provided to revitalize citizens' engagement to address global issues? Such incentives would fall under four major headings.

- Make governments more relevant: If people consider that their votes matter in shaping their future, participation in the policy process is likely to increase
- Make governments more transparent, and accountable (facilitate knowledge sharing, access to data, disseminate good/bad practices): If people trust their governments better, they will also engage more often and more productively
- Make governments more efficient (e.g. through e-government): Lighter, cheaper, user-friendly, quality-oriented government and government services will translate in higher respect and positive attitudes of citizens vis-à-vis their governments
- Make the process more rewarding for citizens: Establish open and permanent channels of communications to collect and exchange ideas, opinions and feed-back on policy matters

[3] Some of these contradictory definitions can even come from the same country, making the task of its delegation even more delicate within (or between) particular inter-governmental organizations. In one of the sessions in which he participated at the World Economic Forum Annual Meeting 2010 in Davos-Klosters, the Director-General of the WTO, Pascal Lamy, referred to the example of exports of poultry from developing countries: some animal rights advocates would like the WTO to adopt rules preventing the trade of chickens raised in cages judged too small; farmers in poor countries would argue that this is disguised protectionism, since they do not have the economic means to change their traditional ways of production.



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Lack of Institutions

In the case of governments, this 'institutional lack' can be considered a paradox, since one of the major criticisms made to existing governments is precisely the over-abundance of institutional layers, and the growing 'disconnect' between local issues and national/global ones. The explanation lies in the fact that existing institutions were built to meet the needs of the societies in the 19th and 20th Centuries and they no longer meet the needs of today's society.

In order to identify ways in which government (as opposed to governments) can be improved, it is important to define this 'lack of institutions' as a lack of mission-specific, efficient, respected and innovative institutions.

For example, intergovernmental institutions often suffer from a lack of recognition, and a general perception that they are plethoric, bureaucratic, dominated by politics, and suffering from mandate overlaps[4].

Complementarities[5] between the three major layers of governments (inter-national, national and local) should be at the core of such a debate. The current growth of citizens' interest in city-management, and the parallel increase in cities' visibility and relevance as players on the global scene should be considered as critical elements in this respect.

Lack of Time

As will be explained in greater detail later, the identification and implementation of new ways to govern is critically urgent. For governments, the future is now.

[4] It was suggested during the World Economic Forum Annual Meeting2010 that those institutions should be encouraged to define their mission in a statement of five words. There is little doubt that if such an effort is genuinely pursued, it will lead to productive debates inside and between many international organizations.

[5] Other wordings could address similar issues between the various levels of governments. For example, in a European Union context, a favourite concept would be that of 'subsidiarity'.

This urgency results from the combination of emerging major global issues on the one hand, and of a fast-growing triple disconnect on the other:

- Disconnect between citizens and government
- Disconnect between legitimacies. Ss more players are given a voice, debates becomes richer but more complex. Governments are still needed as 'choice makers'
- Disconnect between what is feasible and what is being done/used. An increasing number of innovations are user-driven. In all areas where technology absorption is rapid and wide-spread (e.g. social networking) citizens are 'ahead of institutions'

The Threat

Our governments are in danger of becoming irrelevant.

As we attempt to achieve new models of global cooperation, citizens of the world may feel one or more steps further removed from negotiations and decision mechanisms. Furthermore, massive opportunities may be missed to make full use of the imagination, dedication and determination that people are ready to invest in solving the world's problems. If this growing disconnect between governments and citizens is not fixed rapidly, there can be no legitimate, accountable and trusted global cooperation, problem solving or governance.

Four "inconvenient truths" about government:

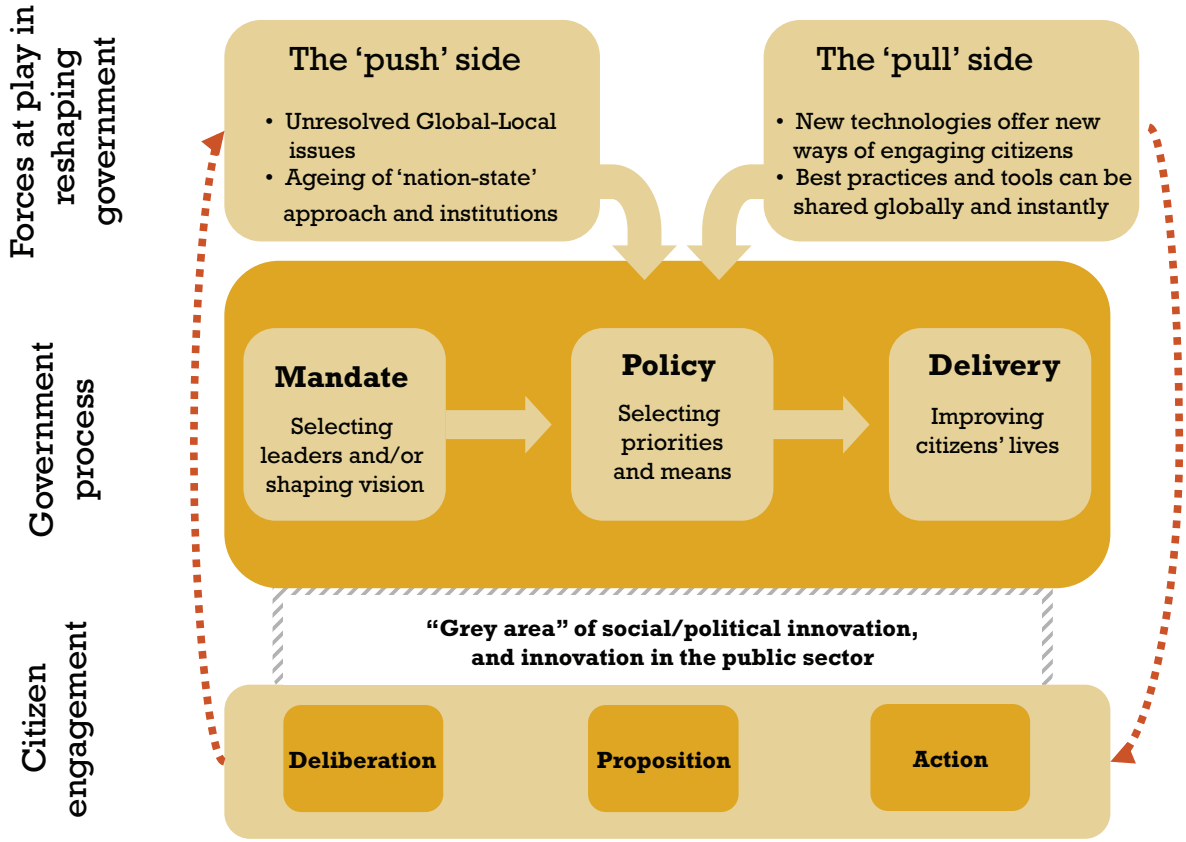
- *The future of government is no longer what it used to be*. Basic "public functions" have already been redefined through the irrepressible growth of both private sector and civil society involvement in public affairs. Local governments (especially at the city level) grow in importance and relevance, not just to identify and address local issues but, more and more often, to mobilize local energies in the face of global challenges. Innovative government has ceased to be an oxymoron and government has ceased to be synonymous with "central government," as governance is increasingly understood as a continuum from local to global.
- *The future of government is about the joint creation of public value*. Around the world, governments are faced with new demands, new expectations and a fast growing array of new technologies and tools to address them. A historic possibility exists for governments, business and citizens to "seize the moment" and identify priorities and actions by which the world as a whole can benefit from the changes at play, and re-invent government as a tool for the joint creation of public value. This requires radically changed mindsets.
- *The future of government is less and less in the hands of governments alone.* Technology (Internet social networking in particular) has empowered ordinary citizens with new tools to challenge both leaders and wannabes about their ability and willingness to address public concerns. Such tools offer new possibilities to re-engage citizens in public affairs while contributing to higher degrees of inclusion, participation, transparency and accountability.
- *Better government should not be limited to one sub-set of the world.* At this point in time, democracy may not be the objective that all governments of the world would want to pursue. Yet, the opportunity to use all available tools to improve the quality and value of government should be within the reach of all countries. This will not be realized as long as discrepancies remain between the haves and the have-nots of modern communication tools and capabilities. A global effort for better government must hence be accompanied by a strong and coordinated effort to bridge the digital divide on a global scale.

Proposals and Explanation/Rationale

Daunting as they may seem, the challenges outlined above are not without solutions. A number of recent trends and experiences actually point to practical ways to turn such threats into a government renaissance. They basically rely on the combination of two major positive forces, namely (1) the growing interest of citizens for addressing policy and global issues and engaging in related debates and actions, and (2) the quantum leap made by information technologies and information networks.

The two proposals made below should be seen as practical ways to make optimal use of the current 'grey area' of social/political innovation, and of innovation in the public sector. At the same time, they aim at filling possible growing gaps between citizens' ability to talk on one hand, and their ability to take part in local, national and global action on the other hand.

Considering the two main forces (pull and push) described earlier, a possible representation of the institutional and practical context in which such proposals are being made could be the following:



Credits: B. Lanvin/INSEAD

The issues identified above will not be solved overnight. However, action is now urgent: If the disconnect between citizens and their governments is allowed to grow any bigger, unique opportunities to attack global issues may be missed, and socio-political tensions may grow out of hand, as expectations about better, more transparent and more accountable governments will not be met.

The two proposals presented here are only a first step towards a fundamental revisiting and re-tooling of government action at the local, national and global levels. It must be underlined that a precondition to their successful implementation is a change in the current mindset of governments; from their traditional roles of administrators and manager, they have to accept new responsibilities as leaders and facilitators of societal transformation.

Two main actions need immediate global support from decision-makers, public and private.

(1) Launching the Global Citizen Engagement Initiative (GCEI)

Why Now?
Governments, in collaboration with other stakeholders, need to launch a new paradigm to engage the citizens of the world to co-innovate the 21st Century through mass collaboration. This is now possible, thanks to the emergence of a new medium of communications, appropriate for a new generation of young people who have shown that they want to be engaged in the world. This is now necessary to address the demands of the global economy and society.

The goal is not to replace existing institutions. This initiative will help them; it does not supplant representative governance, it enhances it. But it also enables existing institutions to unleash public value, catalysing initiatives and unleashing human capital in the world. However, the leaders of current institutions will need to change their whole operating model to interact with their citizens.

How?
Around the world there are lighthouse examples of the next generation of citizen engagement. The Global Citizen Engagement Initiative will include ideation tools like digital brainstorms and town hall meetings: decision-making initiatives like citizen juries and deliberative polling; execution tools like policy wikis and social networks within government; and evaluation programmes through mass collaboration monitoring systems to enable citizens to keep governments accountable and evaluate government performance. Governments can begin immediately to launch pilot citizen engagement initiatives, to experiment, learn and build momentum for the new model.

The Goal: Redesign the Operations of Government to Embrace the Digital Age
Governments need to move beyond service delivery (and e-government initiatives) to transform themselves into platforms, providing open information and data to enable networks of public, private, civil society organizations and citizens to self-organize to *create public value*. When governments become platforms they change the way they orchestrate capability to create and deliver services – ultimately changing the division of labour in society for economic and social development and social justice. Governments at the national and local levels as well as international bodies need to embrace concepts such as the "wiki-workplace" and crowd sourcing as ways to improve collaboration across silos, increase the metabolism of government and cut costs. Rather than fighting the tools of the 21st Century as many governments do, they should adopt these tools as standards to transform their operational performance. To that end, governments and intergovernmental institutions should lose no time to create appropriate internal mechanisms and relevant skills to use and manage these new tools.

(2) Launching a Digital Marshall Plan - Global Social Inclusion

The leadership must facilitate the new playground and arena for growth, sustainable development and innovation across all sectors of society. In so doing, they must ensure that no country or group of citizens is left behind.

Because the biggest opportunities to improve performance, delivery and engagement rely on citizens and all institutions being connected to the Internet, governments in every country need to launch programmes to bridge the digital divide. World leaders should launch a global initiative to take broadband to every corner of the world – a Digital Marshall Plan. This infrastructure can enable the adoption of collaborative innovation and new business models required for economic growth and development. It is required for the new architecture of government and the new models of governance. It would help develop better warning systems for disaster and crisis prevention and for preventing problems in the global economy. It would enable new forms of global cooperation and governance. The costs will pale in comparison to the benefits.

Next Steps

The Methodology: Lighthouse Projects cum Champions
Under the respective headings of the two proposals above, a small number of 'lighthouse projects' should be launched. Such projects would act initially as 'proofs of concept', but also as a starting point for additional 'bottom-up' initiatives contributing to their improvement, scaling-up and replication.

The definition of a lighthouse project includes the following central elements:
- Relevant: the project should include elements to engage citizens at various levels (local, national, global)
- Visible
- Rapidly implementable (1-12 months) – use of Web 2.0 tools will be a priority area
- Cost-effective
- Replicable/scalable

In terms of substance, those lighthouse projects would have the following common objectives and characteristics:

- They will aim at stimulating citizens' engagement in all types of relevant areas, such as policy/decision making, service design, service delivery, and evaluation/accountability.
- To facilitate project implementation, the issues to be addressed should be 1) in small number (one per project would be ideal), and 2) selected to cover and combine various levels of citizens' engagement (i.e. one global issue – e.g. climate change, one about a national debate – which could include exchanges of experiences across border -, and one municipal issue, for example)

For each of these projects, credible sponsors and supporters should be identified. Support/sponsorship may include ay or several of the following:

- Financial support
- Donations in kind (equipment, communication time, services, for example)
- Visibility/advocacy
- Hosting

Global Citizen Engagement Initiative

Sponsors/champions could include:

- One or several countries/cities eager to host/harbour the project[6]
- One or several major companies interested in demonstrating the powerful positive effects of their technologies/services[7]
- One or several inter-governmental institutions to support the initiative as part of their mission; they could include United Nations entity (UNESCO, ITU, UNDP), the World Bank Group, the European Commission, and various Foundations
- Recognizable faces (charismatic leaders, media/entertainment figures)

Digital Marshall Plan

It is clear that this second proposal (Digital Marshall Plan) will require the practical and significant involvement of major global players (such as Telcos, IT leaders and development institutions such as the World Bank and regional development banks); however, demonstration effect can be generated by replicating some of the lighthouse projects of Proposal One 'Global Citizen Engagement Initiative) in un-connected or under-connected parts of the world, through the deployment of local solutions.

Implementation Modalities and Time Frame

The project(s) will identify (through preliminary consultations, for which the help and support of the Forum would be critical) potential participants and sponsors (see above) for each of the projects. If 4 or 5 projects can be identified, this would mean a total of between 20 and 25 countries/cities, five or six major companies, and about as many 'charismatic leaders and porte-paroles'. Tools (preferably web 2.0) will be imbedded in the projects to allow continuous monitoring (tweets, blogs, WELCOM, for example), and final evaluation. Typical lighthouse project(s) would be implemented in 1 to 12 months, depending on their nature, scope (ambition), and the resources available to them[8].

[6] Among the governments and countries potentially interested, one may think of Qatar, whose authorities have carried out successful efforts to modernize their government through intensive use of IT. Other possible candidates could include Switzerland, Tanzania, Korea, Canada, Finland, Estonia and (obviously) Singapore; major cities (London, Barcelona, Shanghai) should also be considered, as well as local governments. Ideally, all projects considered here should involve/connect a small number of communities (countries/cities) to demonstrate the power of connecting in real time. Having 4-5 countries/cities involved in a lighthouse project sounds like a reasonable and manageable target.

[7] Possible champions could include large global IT players such as IBM, Intel, Microsoft, SAP, Google, Oracle/Sun or Cisco, for example. Emerging giants of the Web 2.0 world, and/or dynamic companies from emerging economies could also step up to the plate and become formidable champions.

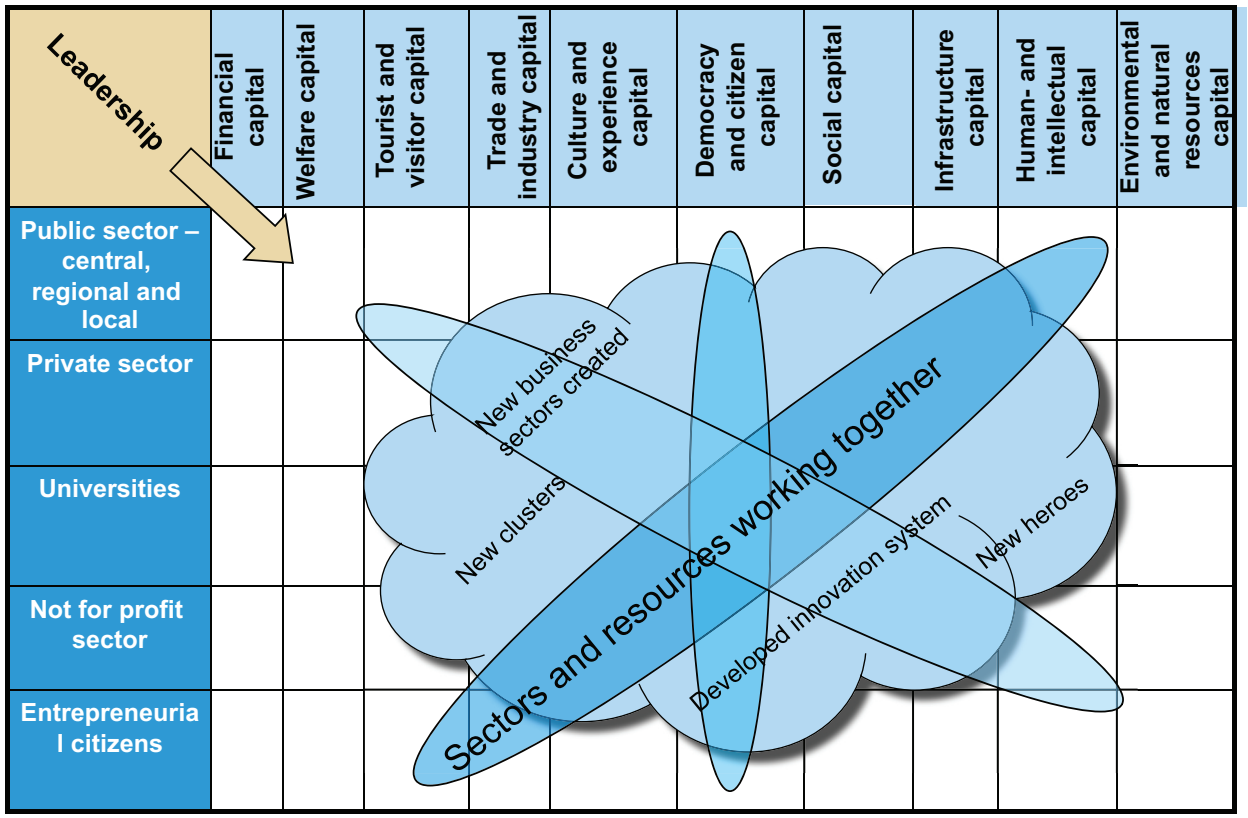
[8] Possible inputs required could include for example project coordinators and leaders, resource persons to provide know-how for the utilization of web 2.0 tools, volunteer facilitators at the community level, hardware, software and Internet connectivity for those communities lacking the connectivity tools (especially in developing countries), and possibly some resources for travel for communications.

Appendices

Making Full Use of the "Glocalization" Concept

Glocalization is about building relationship capital in a structured way and create opportunities for the societal entrepreneurs to take action on a new collaborative playground involving all sectors of society – private, public and not for profit. A digital (virtual) platform that will open the doors for real time hands on collaboration.

> Entering in to a new dimension and reality requires flexibility in definition of sectors resource streams, for being able to adapt and embrace new business and industry logic. We note that the future values will created in between already existing areas forums, industries and sectors. A kind of in-between management must be developed on a new uncharted territory. It is an interface of professional focus and different sectors of society attracting people with visions for the future and a more robust and functional society build upon rust. Below is a prototype of a value matrix:



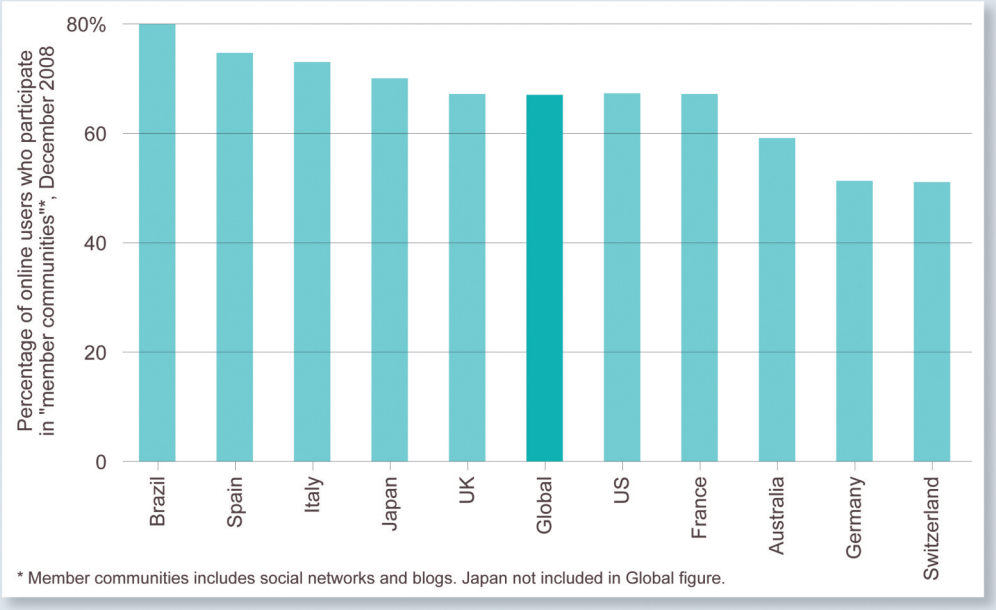
Credits: J. Sturesson/PricewaterhouseCoopers

The challenge now is to:

- Lower the friction for collaboration between sectors and increase the speed of collaboration
- Increase the knowledge density in the collaboration of the future

Two-thirds of the global online population participate in social networks or blogs

Participation in online member communities



Source: "Global Faces and Networked Places" (March 2009), Nielsen Online, Netview, Home and Work Data

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Global Agenda Council on the International Legal System[1]

A Global Rule of Law Facility

Context

An effective, relevant trusted international legal system is essential in a complex, globalizing world. It provides the framework in which rules for the behaviour of nation states and other international actors, including individuals and corporations are developed, implemented and enforced. These rules exist in various forms, including treaties, acts of international organizations, and customary norms of international law. Without such a system of rules, international cooperation as we know it would cease. For the most part, the rules in many areas of behaviour continue to attract widespread support and operate effectively.

Yet the system is not adequately addressing new challenges where legal cooperation is required at or within national, regional or global levels. These shortcomings include:

- insufficient support for the rule of law (at national and international levels) and a rules based international legal system
- perceived inadequacies of global multilateralism and deficiencies in rule-making (climate, marine conservation, Doha, etc.)
- absence of effective enforcement mechanisms
- significant regulatory gaps
- reform initiatives tending towards a 'one-size-fits-all' approach
- unclear principles for determining the level – as between national, regional or global – at which rule-making should occur
- inadequate scope for creative 'out-of-the-box' thinking

The upshot is a growing perception that the system is often unresponsive to new needs, undemocratic, unrepresentative of stakeholder diversity, and insufficiently accountable. This undermines the rule of law ethic. There is an urgent need to reinvigorate the rule of law ethic by credibly and creatively addressing the legal dimensions of new and evolving situations as well as acknowledged weaknesses in the international legal system that make it no longer "fit for purpose" in areas where progress in international cooperation is critical. Many initiatives could be undertaken to redesign parts of the international legal system, comprised as it is of an amalgam of legal regimes (domestic, regional and global). Any initiative should aim to promote 21st century relevance, empower the disenfranchised and address these other negative perceptions.

In addition, the complexities that globalization brings to many issues – poverty, terrorism, financial instability, environmental degradation, human trafficking, corruption and money-laundering, to name several – necessitate that any initiative to redesign a component of the international legal system should seek to enhance arrangements for anticipating serious challenges and addressing them in ways that are more effective while being perceived as fair and worthy of support from diverse affected stakeholders. One model that worked (reasonably well) in constructing legal responses to pressing challenges was the Badinter Commission, established in 1991 to provide the Conference on Yugoslavia with immediate legal advice and non-binding opinions on immediate and pressing issues. Over time many of the solutions suggested by the Commission, which comprised the presidents of five constitutional courts, were adopted, even if some were not met with immediate approval.

In short, the Council on the International Legal System believes there is a need to enhance legal advisory support on an *ad hoc* basis on pressing issues of the day, identifying creative solutions in a manner that also contributes to the promotion of the rule of law ethic at the international level.

[1] The views expressed here do not necessarily reflect those of all the Council Members, nor do they represent an institutional position of the World Economic Forum or its Members.

Global Agenda Council on the International Legal System

Proposal

To this end, the Council recommends the establishment of **a Global Rule of Law Facility.** The Facility will provide opinions and advice on immediate and urgent regulatory and legislative needs at the international level, whether bilateral, regional or global, with a view to contributing practical solutions, enhancing the international law-making process, and improving implementation and enforcement of rules, including at the national level. The Facility will comprise independent persons appointed by a group of representative chief justices (or equivalent high judicial officers), taking into account the need to ensure different areas of expertise, a fair representation of female and male members, and the representation of multiple stakeholders. Where the Facility is asked or, on its own initiative wishes, to provide advice in an area where it does not have expertise, the Facility will be free to seek the participation of relevant independent and reputable experts on an 'as needed' basis.

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The Forum of Young Global Leaders[1]

Civic Eyes

Context

> *Everyone has the right to take part in the government of his country, directly or through freely chosen representatives.*
>
> *Everyone has the right of equal access to public service in his country.*
>
> *The will of the people shall be the basis of the authority of government; this will shall be expressed in periodic and genuine elections which shall be by universal and equal suffrage and shall be held by secret vote or by equivalent free voting procedures.*[2]

Article 21 of the Universal Declaration of Human Rights recognizes that having a right in the way one is governed is a human right. Since the Declaration's adoption in 1948, the right to vote, and to participate in a free and fair election, has been reaffirmed in major international human rights treaties such as the International Covenant on Civil and Political Rights.

To guarantee, in practice, the right to not only a vote but to a free and fair, election takes work – by governments; international, regional and national nongovernmental electoral monitoring organizations; the media; political parties; and, importantly - but often overlooked – individual voters. Election monitors are an important piece of this puzzle. Election monitors help prevent fraud and manipulation, and shed light on electoral deficiencies and/or perceived fraud. Often election monitors are invited into the country by the host government and are affiliated with one of several international non-governmental organizations. These monitors are often flown into the country in the days or weeks preceding an election and leave shortly thereafter. Several weeks after the election, these groups typically produce a report expressing their collective judgment as to whether the election was "free and/or fair." None of these organizations, however, focus on empowering every individual voter or employ these new technologies to accomplish their work.

Proposal

Civic Eyes is not intended to replace traditional election monitors. Rather, Civic Eyes will complement and enhance the effectiveness of traditional election monitoring and bolster the electoral-monitoring process by empowering all citizens to serve as election monitors. Civic Eyes will work with local, non-partisan NGOs to mobilize the citizenry to take responsibility for monitoring their own elections. To do so, Civic Eyes will employ new technologies that enable real-time reporting of election anomalies that can then be immediately addressed. Civic Eyes intentionally intends to work with local NGOs to build capacity and when elections are completed, those capabilities remain behind.

Civic Eyes will deploy cutting-edge technology to allow all voters the opportunity to monitor their own elections and ensure their right to a free and fair election is respected. Civic Eyes technology will allow voters to report problems that they encounter at the polling place via SMS/GPS linked texting, Facebook, Twitter, and other resources. New open-source technologies in "crowdsourcing" allow for swift aggregation of data from multiple sources and map them in near real-time so that problems can be quickly identified, publicized, and corrected.

[1] The views expressed here do not necessarily reflect those of all the Young Global Leaders or those involved in this proposal's task force, nor do they represent an institutional position of the World Economic Forum or its Members.

[2] *Article 21, United Nations Universal Declaration of Human Rights Adopted December 10, 1948*

The foundation for this technology – developed by a Kenyan company Ushahidi – has been successfully used in Haiti to map crisis information from multiple sources in near real-time (see www.ushahidi.org). Ushahidi is an open source platform designed to crowdsource, aggregate, and map crisis information from multiple sources in near real-time. Sources include text messages, Twitter, Facebook, blogs, media sources, email, and web-based submissions. It also allows for uploading of GPS-located video and photography. Ushahidi's distinguishing feature is the ability to not only track realtime information but to offer a contextual layer by aggregating, categorizing, and mapping what has been reported. Working with the US State Department, FrontlineSMS, InSTEDD, Thomson-Reuters, and others, Ushahidi introduced the 4636 SMS short code to allow anyone in Haiti to send free text messages with their location and need – with advertising through local Haitian radio stations. Ushahidi launched its platform at 8 pm EST on Tuesday, January 12, 2010, with a situation room at the Fletcher School at Tufts University with a team of 100+ volunteers working to filter and map incoming reports.

Civic Eyes will combine the technology of Ushahidi with the experience of Young Global Leaders working on citizen participation initiatives in elections in Argentina, Mozambique and Venezuela. In Argentina, during the June 2009 presidential elections, an awareness raising campaign registered 12,000 votes via SMS text to report their answers to the following questions: (1) Were there ballots for all candidates available?; (2) Had poll workers been appointed before the election?; (3) Did she or he manage to vote within 30 minutes? (4) Did all political parties have election monitors? All information was reported in real-time at the Planetarium of Palermo in Buenos Aires and immediately reported to the media and political parties. Numerous anomalies were identified and quickly corrected, including a lack of ballots at numerous polling stations – these have been compiled in a final report from Civic Eye. The incumbent former president lost by 1% of the vote.

In Mozambique, the Citizen Reporter effort assigned an SMS number for the reporting of problems at polling stations, which fed information into a Ushahidi-enabled website. The project was conceived and implemented by the Newspaper @Verdade, currently the biggest newspaper in the country, owned by a YGL. And in Venezuela, the *Supertestigos* (Superwitnesses) initiative mobilized and trained over 100,000 citizens to ensure most voting locations had a superwitness present during the whole voting period. 13,000 people were assigned to a fixed location during the 2009 election and over 100,000 certified as superwitnesses during the period 2006-2009. The effort was led by Sumate, an organization founded by a YGL, and resulted in over 2,400 anomalies reported (20% of the monitored sites reported at least one anomaly).

In addition to providing the technology to support an engaged citizenry, Civic Eyes will also provide training and technical assistance to local non-governmental organizations seeking to enhance the transparency and accountability of elections. Civic Eyes will also assemble and shares best practices based on real-world experiences with these new technologies. As far as we are aware, there are no other relevant World Economic Forum/Global Agenda Council proposals with which Civic Eyes dovetails or competes.

Next Steps

Civic Eyes' five year vision is for it to become the pre-eminent organization employing new technologies to create a global movement of citizen election monitors with a cutting-edge model, expert training programmes, and a permanent presence.

In a much more detailed strategic plan, available upon request, Civic Eyes has outlined for itself several measurable five-year goals. Specifically, within five years, Civic Eyes will:

- Provide the training and technical assistance to deploy new technologies for engaging citizen election monitors in 2-4 elections annually
- Encourage its technology solutions independently to be adopted by NGOs in 2-4 elections annually in countries that are not targeted by our efforts
- Work with its technology partners to complete and improve consistently improve open-source crowdsourcing software solutions for citizen election-monitoring
- Provide a detailed guide for NGOs for implementing these solutions locally, including best practices and case study examples aggregated over time
- Develop and implement training programmes for NGOs in how to create and sustain citizen election monitoring programmes

- Develop and implement training programmes for adapting and using these new technologies
- Have a paid staff and fully-equipped office
- Have a diverse and international Board of Directors, with a well-functioning committee structure that includes a fundraising committee and annual fundraising targets for individual Board members
- Have a strategically targeted and more functional Board of Advisors that can provide support to the organization on a range of issues

Our strategic plan also includes a clearly sequenced timeline of actions relates to the strategies for achieving each of these goals.

Civic Eyes will shortly be incorporated as a Washington DC-based nongovernmental organization and it will apply for charitable status as a registered 501(c)(3) non-profit organization under the United States Internal Revenue Service Code.

To be effective, it is critical that Civic Eyes partner with the most relevant technology companies and non-governmental organizations. As previously indicated, our leading technology partner will be Ushahidi. But we have already met with and received preliminary indications of interest from Google, Facebook, and Twitter. It has also been suggested that Civic Eyes meet with World Economic Forum Members InfoSys and Benentech as well and we intend to meet with both those organizations.

With respect to non-governmental organizations, Civic Eyes already has meetings scheduled with the presidents of the National Endowment for Democracy (NED), National Democratic Institute (NDI), and International Republican Institute (IRI). We also intend to meet with the International Foundation for Electoral Systems (IFES) and the Global Network of Domestic Election Monitors (GNDEM). Together, IFES, IRI, and NDI created a Consortium for Elections and Political Process Strengthening Corsortium (CEPPS), funded by the US Agency for International Development (USAID is currently also run by a Young Global Leader). It is our goal to become a so called “second tier” partner for CEPPS, working in collaboration with the aforementioned groups which jointly provide support for democracy building and free and fair elections.

We wish to enlist the support of World Economic Forum to enhance the credibility of this effort, attract new and relevant partners, and amplify the importance of this new initiative.

Conceived of and launched by a group of Young Global Leaders, the concept for Civic Eyes was solidified and key partnerships were developed at the World Economic Forum Annual Meeting 2010 in Davos-Klosters. It would therefore be quite fitting that this new initiative be embraced by the World Economic Forum as furthering its mission to improve the state of the world.

The Forum of Young Global Leaders

Appendices

Abstract
One of the most important political rights is the right to free and fair elections. Among other factors, an election is considered "free and fair" if it is free of fraud, manipulation and voter intimidation. Monitoring elections by international and domestic observers is an effective tool for encouraging transparency and preventing fraud as well as bringing to light, post-election, flaws and deficiencies experienced. Elections in most countries are monitored by the government holding the election, the media, and local and international NGOs.

Citizens, however, the people impacted the most by an election, generally play a much more limited role in guaranteeing a free and fair election. It is time that election monitoring itself be democratized and that all citizens be empowered to not only vote, but to report problems that they witness via text messaging and other social networking resources. Specifically, new open-source technologies in "crowdsourcing" allow for swift aggregation of data from multiple sources and map them in near real-time so that problems can be quickly identified, publicized, and corrected. Based on the experiences of World Economic Forum Young Global Leaders (YGLs) in Argentina, Mozambique, and Venezuela, we intend to create a new non-profit, non-governmental organization, to be known as Civic Eyes, whose mission is to deploy new technologies to empower citizens around the world to ensure that their right to free and fair elections is respected.

Civic Eyes will engage in three general activities. First, it will adapt existing crowdsourcing technology for election contexts. Second, it will work provide training and technical support for adapting and deploying this technology to local NGOs. And third, it will aggregate best practices and regularly update the methods it employs As a result of these efforts, we expect to see mass participation in election monitoring become the norm and, in so doing, enhance accountability, transparency, and citizen engagement.

Potential Members of the Board of Directors
It is anticipated the Board of Directors will consist of a core group of Young Global Leaders (YGLs) who have had experience with citizen-empowered election monitoring efforts in Argentina, Mozambique, and Venezuela, other YGLs, and others with an interest and substantial capability to contribute to the building of the new organization.

Given the organization is still being formed, there remains substantial opportunity to include additional people. The initial group will likely include:

- Kristen Abrams, International Pro Bono Counsel, DLA Piper LLP
- Laura Alfaro, Associate Professor of Business Administration, Harvard Business School (Costa Rica)
- Brian Behlendorf, Co-Founder, Apache Software Foundation and CollabNet (United States)
- Erik Charas, Founder, @Verdade and Founder and Managing Director, Charas LDA (Mozambique)
- Alan Mendoza, Executive Director, Henry Jackson Society (United Kingdom)
- Andy Freire, CEO and Co-Founder, Axialent (Argentina)
- Jared Genser, Partner, DLA Piper LLP and President, Freedom Now (United States)
- Pierre Gentin, Managing Director and Head of Litigation, Credit Suisse Securities LLC (United States)
- Fatemeh Haghighatjou, Former Member of the Majlis (2000-2004) and Visiting Scholar, University of Massachusetts at Boston (Iran)
- Maria Corina Machado, Founder, Sumate (Venezuela)
- Alvaro Rodríguez Arregui, Founder and CEO, Ignia (Mexico)
- Mabel van Oranje, Executive Director, The Elders (The Netherlands)

Profile of Technology Partner USHAHIDI
Ushahidi, which means “testimony” in Swahili, is a website that was initially developed to map reports of violence in Kenya after the post-election fallout at the beginning of 2008. The technology was used to map incidents of violence and peace efforts throughout the country based on reports submitted Internet and mobile phones. The initial deployment of Ushahidi had 45,000 users in Kenya and was the catalyst for us realizing there was a need for a platform based on it, which could be use by others around the world.

In its alpha form, Ushahidi was tested and deployed with 11 different organizations directly, including the International Center for Transitional Justice (ICTJ), Peace Heroes, Kenyan National Commission on Human RightsExternally, Al Jazeera during the Gaza war, Vote Report India (to monitor the recent local elections), and Pak Voices (to map incidents of violence in Pakistan). Ushahidi’s goal is to create a platform that any person or organization can use to set up their own way to collect & visualize information. The core platform allows for plug-in and extensions so it can be customized for different local needs.

The beta version platform is now available as an open source application that others can download for free, implement, and use to bring awareness to crisis situations or other events in their local areas.

The Forum of Young Global Leaders

YGL Civic Eyes Task Force

Laura Alfaro, Associate Professor, Harvard Business School, USA
Eugenio Burzaco, Founder, Fundación Fundar Justicia y Seguridad, Argentina
Andy Freire, Managing Director, Axialent, Argentina
Jared Genser, President, Freedom Now, USA
Pierre Gentin, Managing Director, General Council Division, Credit Suisse, USA
Maria Corina Machado, President, Asociación Civil Súmate, Venezuela
Alvaro Rodriguez Arregui, Co-Founder and Managing Partner, IGNIA Partners, Mexico
Aleh Tsyvinsk, Professor of Economics, Yale University, USA



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