Warming Arctic waters: a risk with global impact. Scaling up risk management requires a cohesive international community that works collectively and has the capacity to mobilize resources and establish mechanisms to enforce agreements.

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The role of the international community

When risks exceed national capacity

Global problems call for global players

Unmanaged risk does not respect boundaries. Once triggered, pandemics and financial crises can circle rapidly around an increasingly interconnected globe. Conflicts can quickly spill over into neighboring countries. Droughts, floods, and violent storms can devastate an area, a country, or an entire region. Left unmitigated, climate change is likely to intensify all these risks. Moreover, each of these risks is capable of reversing gains in development and jeopardizing the well-being of generations. The increasing interconnectedness of the world—through trade, communications, travel, information, and finance—has made possible the rapid economic growth that has helped reduce poverty and open opportunities for the developing world. But that same interconnectedness also magnifies the potential impact of these global risks and complicates their management.

No one country or agent acting alone can deal effectively with a risk that crosses a national border. Clearly, risks that spread across and affect multiple countries or generations merit international attention. But international action is also justified when a country-specific shock is simply too large for a country to resolve on its own, even when its implications do not go beyond national boundaries. Managing these kinds of risks becomes a global public good, whose benefits also transcend boundaries, providing a central rationale for collective action by an international community that takes on the task of delivering it. Global public goods benefit all countries and populations, but they are likely to yield the greatest benefit to those countries whose weak infrastructures and limited access to coping tools make them less equipped to deal with the adverse consequences of these kinds of risks.

This chapter looks at the circumstances in which the international community—defined here as a collection of organizations of global cooperation, providers of development finance and expertise, global standard setters, policy makers, global charities, other nongovernmental organizations, global media, and the scientific community—has a role to play in helping people and their governments manage risk and pursue development opportunities (diagram 8.1). The chapter explores what the international community can do that other economic and social systems cannot—and what it should (or should not) do to scale up collective efforts to manage risk. The chapter does not intend to address all possible risks at the global scale, but instead aims to illustrate the common factors that enhance or undermine the effectiveness of actions by the international community. It does so by focusing on five areas of risk: disasters, global financial crises, environmental risks, pandemics, and risks associated with fragile and conflict-affected states (FCSs).

In so doing, the chapter underscores a key message of this Report: risk management requires shared responsibility and actions by various economic and social systems, from households to the international community.
The international community is called on when managing risks requires efforts and public goods that go beyond the capacity of national economic and social systems. It can strengthen national efforts to manage risks that cross borders or generations or that produce outcomes exceeding the capacity of a country to manage alone. Its interventions aim to generate and disseminate global knowledge and expertise that improve risk awareness and the capacity to assess and manage risk, set rules and standards to make negative outcomes less likely or costly, and strengthen coping capacity through quick mobilization of global resources.

These are lofty goals. In practice, the international community has not been very effective in managing risks that transcend boundaries—but it can do better. Too often knowledge does not result in effective action. Less emphasis is put on preparing for risk than on responding to it after the fact. Sometimes, too much weight is placed on avoiding risk rather than on managing it to seize development opportunities. Diverging national interests and risk management capacities undermine cooperation and the effectiveness of global efforts. Scaling up risk management requires a cohesive international community that enables its actors to work collectively by facilitating information sharing, devoting more resources to capacity building, and protecting the most vulnerable. The international community must have the capacity to mobilize resources and establish mechanisms to enforce agreements, even when some countries are unwilling to cooperate, by using its various tools to realign incentives around basic, common goals.

What circumstances call for action by the international community and why?

Countries face many risks that may overwhelm national capacity—some country-specific, others shared; some simple, others more complex; some stemming from natural causes, and others generated by actions of other actors. Regardless of the type and cause, some risks are just too big for countries to handle alone. Beyond the national level, the international community provides assistance, expertise, and collaboration to better manage these risks.

Severe economic and humanitarian crises

Crisis and disasters can put severe strains on people and the systems that support them. The international community can support people where national authorities, usually the first line of support, are overwhelmed by a negative shock that can expose economies to significant volatility, distress public resources, disrupt access to markets, and retard progress in development, as well as where states might be cut off from access to international resources. The international community’s risk-sharing tools can be particularly useful for lower-income countries that are disproportionately affected by economic risks and disasters (as measured in lives lost and damages relative to economic size), given their greater exposure to such shocks, weak institutional capacity, and limited access to insurance, credit markets, and other tools that can mitigate their effects (map 8.1; figure 8.1). Even in developed countries, prolonged periods of uncertainty and weak economic activity following crises can reverse years of economic and development advances and change people’s lives dramatically. The sovereign and financial crisis in the Euro Area and the subprime mortgage crisis in the United States appear to have undone 7 to 12 years of economic progress in several countries hardest hit by the crisis, resulting in unprecedented levels of unemployment and loss of economic and social well-being.

People living in fragile and conflict-affected states face these risks on an ongoing basis. More than 1.5 billion people live in these states, in environments
MAP 8.1 Developing countries in general have suffered higher mortality associated with disasters


Note: The map depicts the extent to which countries experience deaths from disasters, with the number of deaths scaled by population, averaged over the period 1990–2011. Countries are divided into equally sized categories from the most affected to the least affected.

FIGURE 8.1 Damages from a disaster can exceed a country’s annual GDP in developing countries

Source: WDR 2014 team based on data from EM-DAT OFDA/CRED International Disaster Database and World Bank World Development Indicators (database).

Note: GDP = gross domestic product.
typically characterized by corruption and weaknesses in governance and institutional capacity, with minimal access to functioning market mechanisms or governments that can help them manage risk—much less protect them from additional risks. These people make up 15 percent of the world population, but they represent nearly one-third of people in extreme poverty, one-third of the HIV-related deaths in poor countries, one-third of people lacking access to clean water, one-third of children who do not complete primary education, and half of all child deaths.6 State fragility and violent conflict pose significant risks not only to citizens but to global and regional security in an interconnected world. By improving incomes, economic prospects, and the environment for health, security, and education, sustained and well-targeted engagement by the international community can help reduce social and economic tensions that inflame conflict, and instead create an environment that nurtures development opportunities.

**Risks that recognize no boundaries**

Some risks have implications that cross geographical borders—or even generations. The consequences of the risks taken today may not be visible for many years. Given their complexity, individual risk management actions may be insufficient, or even made ineffective by others’ actions. The international community can facilitate risk sharing across countries and generations in cases where managing risks collectively encourages complementarities across individual actions and enhances their impact.

Global financial and economic crises are clear examples of cases where risks may transcend national borders. As the links intensify, problems originating in one country can introduce turmoil and undermine development elsewhere. International integration therefore presents a double-edged sword for risk management: it can create more opportunities for international risk sharing and help countries diversify idiosyncratic shocks, but it can also generate new types of risk through economic and financial contagion. The ongoing global financial crisis that originated in advanced countries, for instance, has dampened growth through close economic and financial linkages across countries and led to a slowdown in the progress toward meeting Millennium Development Goals (MDGs); 50 million more people fell into extreme poverty in 2009 alone and 64 million additional people had become poor by 2010.

Health risks can also cross national boundaries. Increased air travel and trade in goods and services can provide free passage to pathogens that cause infectious diseases, some of which can travel around the world in less than 36 hours.7 Indeed, in recent years, greater mobility of people and goods has contributed to the spread of zoonotic diseases that originate in animals but then transfer to humans. The H5N1 (avian) flu killed 59 percent of the confirmed human cases in Asia and the Middle East during 2003–13. The H1N1 (swine) flu killed an estimated 151,700–575,400 people during the first year the virus circulated (2009).8 AIDS, which also originated in animals, continues to destroy lives globally, although improved treatment has slowed fatalities since 2004; still, an estimated 1.7 million people died from AIDS in 2011 alone, and another 2.5 million contracted the disease. At the same time, globalization and scientific advances have improved understanding of many pathogens, including how they can be detected and diagnosed rapidly to enable disease control. Globalization also supports greater collaboration among scientists and public health officials and enables the media to inform people even in remote areas of risks (see spotlight 7 on managing pandemics).

Global efforts are also essential where risks may evolve slowly, with few immediately visible implications. HIV/AIDS was not detected until well after it had been established in populations around the world. Climate change risk is another example that has been building slowly and nearly invisibly for generations (box 8.1). Climate extremes such as heat waves and heavy precipitation have been increasing for the past 50 years and are expected to worsen as atmospheric concentrations of greenhouse gas emissions reach unprecedented levels, with potentially catastrophic and irreversible consequences.9 While all countries are vulnerable to the effects of climate change, developing countries are disproportionately affected because they have the least capacity to prepare and cope; three-quarters of the people killed in disasters in the past two decades lived in lower-income countries and small island states.10 The global community has a responsibility to help the world’s most vulnerable people and provide broader and longer-term perspectives to tackle these risks.

Risk management actions by one country (or a generation) may also create additional risks and undermine stability and development efforts of others. For example, national policies to promote growth and escape poverty risk may create growing pressures on shared resources (such as oceans, waterways, fish stocks, and the atmosphere), resulting in degradation of resources that hurt other countries and future generations (the so-called tragedy of the commons).
**BOX 8.1 Climate change and implications for development**

Climate change is the rise in Earth’s temperature associated with increased atmospheric concentrations of heat-trapping greenhouse gases such as carbon dioxide (CO₂). The steady rise, dating from the Industrial Revolution, has been attributed largely to human activities, including the burning of fossil fuels and deforestation. New research into climate change suggests that Earth is warmer today than at any time during the past 11,300 years as greenhouse gas concentrations have continued to rise: the concentration of the main greenhouse gas, CO₂, rose from its pre-industrial level of 278 parts per million (ppm) to a daily average of 400 ppm in May 2013, approaching the 450 ppm threshold that corresponds to a likely increase in Earth’s temperature of more than 2°C—the warming level that the international community committed itself to avoid because of its potentially catastrophic and irreversible consequences (see panel a).

The effects of climate change are already visible in widespread melting of Arctic glaciers, rising sea levels, and higher frequency and severity of extreme weather events and natural hazards (see panel b). If concentrations of greenhouse gases continue unabated, a warming of more than 4°C could occur as early as the 2060s, with large-scale impacts on human and ecological systems—including, heightened risk of inundation of coastal areas, spread of infectious diseases, declining water and food security, destruction of habitats for many species, and adverse social and economic consequences of large displaced populations. Climate change is hence a serious threat to development for both current and future generations; the estimated cumulative cost from damage to health, food security, and the physical environment ranges from $2 trillion to $4 trillion by 2030 depending on the climate scenario.

Mitigating climate change is a prime example of a global public good that requires collective action. Collective action is needed because while each country prefers that others supply the good (free-riding on others), each also recognizes that if everyone depended on others to supply the good, the result would be bad for everyone, suggesting that there is an advantage in collective provision. Climate change mitigation faces several important obstacles. First, despite improved confidence in climate models, significant scientific uncertainty remains on the critical warming thresholds (so-called tipping points) and on the magnitude of climate change effects. Second, climate change effects are not uniform across countries, creating diverging incentives for action. The absence of a global authority to enforce cooperation across nations undermines collective efforts, combined with the free-riding problems, as each country hopes that others will bear the cost of climate change mitigation. Third, short-termism and different valuations of ecosystems, biodiversity, and loss of life breed inaction and pass the risk to future generations. Despite general consensus that it is a serious threat, and decades of debate and negotiations notwithstanding, climate change risks are likely to grow until these challenges are effectively addressed.

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**a. Rising temperature and CO₂ concentrations**

<table>
<thead>
<tr>
<th>Year</th>
<th>Temperature anomalies, 5-year average</th>
<th>CO₂ emission concentrations (right axis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959</td>
<td>0.7</td>
<td>420 ppm</td>
</tr>
<tr>
<td>1969</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>0.2</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** WDR 2014 team based on Aldy, Orszag, and Stiglitz 2001; Barrett 2003, 2007, 2008; Cole 2007; DARA International 2012; IPCC 2007; Jacoby, Rabassa, and Skoufias 2011 (for loss estimates); Lenton and others 2008; Marcott and others 2013; Mercer 2011; Stern 2007; World Bank 2009, 2012c; and data from EM-DAT OFDA/CRED International Disaster Database; NASA Goddard Institute for Space Studies Surface Temperature Analysis (database); and Scripps Institution of Oceanography, Atmospheric CO₂ Concentration at Mauna Loa Observatory, Hawaii (database).

**Note:** CO₂ = carbon dioxide.

a. “Other” refers to volcanoes, insect infestations, and complex disasters.

b. “Other weather-related events” refers to floods, droughts, extreme temperatures, and wildfires.
Dams to control water levels and retain water can affect water security for millions of downstream users in neighboring countries. In each of these examples, countries acting in their own interest obtain immediate gain from their actions, while losses from the impact of adverse consequences are not felt immediately. If all countries try to safeguard their own interests, individual actions can collectively cause large damages to all involved, in some cases with irreversible consequences.

Similar beggar-thy-neighbor policies and collective action failures are observed in international finance and trade. National measures to protect the domestic financial system by ring-fencing affiliates of cross-border banks may reduce contagion risks and fiscal costs of a failing foreign bank, but they may also weaken the resilience of the home country financial system, raise the cost of capital and liquidity in both home and host countries, and limit the ability of banks to manage funding risks. Fear of ring-fencing may induce global banks to pull out of other host countries, hurting those with less developed financial markets. Similarly, history points to how international trade collapsed when many countries introduced beggar-thy-neighbor trade policies during the Great Depression. More recently, increased export barriers by exporters and reduced import tariffs by importers during the food price crisis of 2008 caused the world price of grain to jump, forcing other countries to adopt similar measures. These uncoordinated actions turned out to be completely unsuccessful in protecting the poor against the food shock—close to half of the increase in the world price of rice is estimated to have come from countries’ attempts to insulate themselves from higher rice prices.

Not all risks that exceed national borders are truly global, however. Some risks, such as armed conflict between neighboring countries, may affect only a few countries, as may disputes over natural resources, such as those arising from management of waterways. Such risks may be more appropriately or efficiently managed by bilateral or regional institutions that provide appropriate forums, frameworks, and incentives for addressing the risks. The subsidiarity principle may suggest that the risk should be handled by the lowest level of authority capable of addressing the matter effectively, before it becomes a regional or global problem. Regional economic communities are important layers of support in Africa, Asia, and the Caribbean, dealing with risks and creating opportunities through cooperation and development actions in areas such as trade, energy, industry, security, and environment. The global community can step in when risks cannot be resolved effectively by individual countries or such regional bodies. Regional or international courts of justice, for instance, may deal with cross-border disputes that cannot be resolved because of mutually exclusive demands. Treatment of these issues deserves more extensive discussion and analyses than are possible within the scope of this Report.

How does the international community enhance risk management?

The international community supports national efforts to manage risks by addressing some of the key obstacles to effective management of risks that go beyond national capacity: information gaps, limited access to markets and resources, externalities imposed by actions of other actors, and cognitive and behavioral biases. Members of the international community contribute to strengthening the key pillars of risk management defined in chapter 1: knowledge, protection, insurance, and coping (diagram 8.2).

Generating and disseminating global knowledge and expertise

Lack of relevant knowledge is a key obstacle to effective risk management. Knowledge deficiencies become more formidable as risks grow in intensity and complexity and as the uncertainties about their sources, drivers, and potential impacts deepen. Lacking knowledge, countries or individuals may contribute to, or overlook, environmental risks; spread, or fail to protect against, communicable diseases; or take excessive risks in search of high returns. In this context, knowledge becomes a global public good that contributes, or limits damage, to development. The international community plays an important role in supplying it.

International financial institutions (IFIs)—such as the International Monetary Fund (IMF), the World Bank, the Bank for International Settlements, and the Organisation for Economic Co-operation and Development (OECD)—as well as other coordination agencies that accumulate extensive country information and experience, can provide a broad, impartial knowledge base for countries and individuals to draw upon to help bridge gaps between global objectives and national policies on a range of issues. Global knowledge and expertise can act as a guide and tool to raise awareness, especially where national agents fail to recognize far-reaching and longer-term implications of their actions, for them-
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Improving protection through global rules, capacity building, and coordination

Accumulating knowledge about the drivers and potential effects of risks is necessary but not sufficient to encourage appropriate risk management action. Design and implementation of rules, regulations, standards, and frameworks for collective action can provide incentives and guidance to better manage a range of risks that affect multiple nations and generations. Some examples include the global financial sector reforms to strengthen the financial infrastructure and create a more resilient financial system following the 2008 financial crisis;14 the Millennium Development Goals to reduce poverty and address a range of risks affecting development;15 the United Nations effort to encourage preparedness for pandemics and incorporate pandemic response plans into disaster risk management (the Toward a Safer World Initiative);16 and A New Deal for Engagement in Fragile States.17 Several other examples, including those for managing environmental risks, are outlined more fully in table 8.1.

Technical capacity to implement rules, regulations, and standards is necessary for such efforts to succeed. Weak capacity in the veterinary and human public health systems in developing countries, for ex-
<table>
<thead>
<tr>
<th>Goals and results</th>
<th>Underlying reasons for success or failure</th>
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<tbody>
<tr>
<td><strong>Kyoto Protocol (1997)</strong></td>
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<tr>
<td><strong>Goals:</strong> Reduce greenhouse gas emissions of 38 industrial countries as a confidence-building step to reach the goal of the United Nations (UN) Framework Convention on Climate Change (UNFCCC) to stabilize greenhouse gas concentrations at a level that would prevent dangerous interference with the climate. Required a 5.2% cut, on average, in the emissions of industrial countries below their 1990 levels between 2008 and 2012.</td>
<td>Failed to attract broad-based support, ensure compliance (in the absence of an effective enforcement mechanism), and make parties take substantial actions; some of the largest emitters either did not participate (industrial countries such as the United States and Canada) or were not required to cut emissions (middle-income countries such as China and India). Bundled together targets for several greenhouse gases to achieve cost-effectiveness, but at the expense of lowering emission reduction targets. Diverging incentives and interests (no clear self-enforcing common goal): - Perception that an individual country is too small to make a change. - Climate change does not affect all countries the same way; some benefit from it in the short run, while some are hurt more than others. These differences create varying views about benefits and costs of action to mitigate climate change. - Competing domestic policy imperatives, including political factors, and short-term economic considerations; nonparticipation (particularly by developing countries) to avoid hurting growth. - Free-rider problems with costly steps to mitigate climate change.</td>
</tr>
<tr>
<td><strong>Results:</strong> Took effect in February 2005 when the two conditions of ratification were met (ratification by 55 nations and ratification by nations that produce 55% of the emissions). By April 2006, 141 countries had ratified the protocol. Many countries did not meet their targets, however, and actually increased emissions, resulting in a global rise from 1990 levels.</td>
<td></td>
</tr>
<tr>
<td><strong>Montreal Protocol (1987)</strong></td>
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<tr>
<td><strong>Goals:</strong> Protect ozone layer by banning ozone-depleting chemicals (ODCs).</td>
<td>Broad participation: First treaty to reach universal ratification (197 UN nations). It started with 24 signatories and the European Economic Community in 1987, and was eventually signed by many, including developing countries. Addressed the problem by chemicals (source), not timetable (targets). Cost-effective substitutes for ODCs already existed. Negotiations included civil society and scientists to overcome informational barriers; high degree of scientific consensus and evidence provided credibility. Right incentives (and common interests): - Wide recognition that ozone depletion has serious, quickly visible consequences (health issues such as cancer). - Created strong incentives to participate and comply: the treaty set out reasonable plans for implementation with appropriate support coupled with trade restrictions— bans on trade between parties and nonparties in ozone-depleting substances and products containing the substances—to spur compliance. - Recognized importance of developing new technologies using nondepleting alternatives and providing access to developing countries. - Set up a multilateral fund to provide incremental funding to developing countries for transitioning to phase out harmful substances; provided institutional support (a key motivation for the participation of developing countries in the Protocol).</td>
</tr>
<tr>
<td><strong>Results:</strong> Emissions of most depleting substances have been brought under control; signs indicate that the ozone layer will recover within the next 100 years; developed countries have reduced their production, consumption, and emission of chemicals controlled by the protocol by 99%; developing countries by 72% and reductions are continuing. Some increase in some of the chemicals authorized for short-term substitution.</td>
<td></td>
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<tr>
<td><strong>Smallpox eradication campaign (1967–79)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Goals:</strong> Eradication of a pandemic disease that killed 300 million–500 million people.</td>
<td>Broad cooperation achieved. Strong leadership and commitment from the World Health Organization (WHO), backed by political commitment from governments. Financial and technical assistance from developed to developing countries that lacked resources and capacity to eradicate alone.</td>
</tr>
</tbody>
</table>

(continued)
The role of the international community

**TABLE 8.1 Examples of global actions and factors underlying their impact**

<table>
<thead>
<tr>
<th>Goals and results</th>
<th>Underlying reasons for success or failure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Results:</strong></td>
<td>Right incentives that were self-enforcing (no formal enforcement by WHO was needed):</td>
</tr>
<tr>
<td>WHO declared the world free of smallpox in May 1980.</td>
<td>• Costs (about $300 million worldwide) were negligible, compared with benefits: the United States got back its entire contribution in 26 days (in health costs saved)—a benefit-cost ratio of over 400:1.</td>
</tr>
<tr>
<td>First disease eradicated by human effort.</td>
<td>• The disease affected every country (ease of spread with trade and movement of people) with direct consequences; eradication succeeded because smallpox was eliminated everywhere.</td>
</tr>
<tr>
<td>Seen as a unique achievement in the history of international cooperation.</td>
<td>Strong U.S. support (monetary and technical) and other support from U.S. Centers for Disease Control.</td>
</tr>
<tr>
<td></td>
<td>Scientific research showing feasibility of eradication; technical breakthrough (with a new type of needle) lowered the cost of vaccination.</td>
</tr>
<tr>
<td></td>
<td>Surveillance and containment strategy: strong focus on preventing the disease from spreading by seeking and monitoring new cases.</td>
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</tbody>
</table>

**Controlling HIV/AIDS**

<table>
<thead>
<tr>
<th>Goals: Eradication of the disease.</th>
<th>Global cooperation has had some success:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results: Progress in treatment research has decreased the number of people dying from HIV/AIDS.</td>
<td>• In 2010, number of people on antiretroviral treatment in low- and middle-income countries reached 47% of the need, up from 39%.</td>
</tr>
<tr>
<td>The number of new cases of HIV/AIDS has been decreasing since its peak in the late 1990s.</td>
<td>• Number of health facilities in these countries has risen significantly.</td>
</tr>
<tr>
<td>But the number of people living with HIV is still rising.</td>
<td>• About 35% of pregnant women living with HIV in these countries receive care, up from 7% in 2005.</td>
</tr>
<tr>
<td></td>
<td>Treatment 2.0 launched in 2010, aiming at higher efficiency: simplified, more affordable diagnosis and treatment; and integrated, decentralized HIV service delivery.</td>
</tr>
<tr>
<td></td>
<td>Despite availability of prevention, there is a problem of incentives:</td>
</tr>
<tr>
<td></td>
<td>• HIV takes 5–10 years to manifest; people with low life expectancy may not protect themselves and may spread the disease.</td>
</tr>
<tr>
<td></td>
<td>• Promotion of treatment is a double-edge sword—treatment may create an externality and lower the incentive to protect.</td>
</tr>
<tr>
<td></td>
<td>• Limited access to information and protection in low-income countries.</td>
</tr>
</tbody>
</table>


| Goals: Reduce the impact of natural hazards by making prevention a priority at all levels under the coordination of UN International Strategy for Disaster Reduction. | Provide governments with a common set of terms, approach, and platform, facilitating cooperation at the international level. |
| Results: Increasing number of reporting countries. | The structure of the HFA (organized by expected outcome, strategic goals, and priorities for actions) and guidance on its implementation supported development of comparable framework at regional and national levels. |
| Increase in disaster reduction and recovery activities at all levels. More progress needed in preparation. | • Good communication and rising public awareness (various organizations have launched global campaigns). |
| | • Establishment of a scientific and technical committee. |
| | • Progress in implementation (creation of a special representative of the UN Secretary-General for implementation of the HFA). |
| | • Broad participation/acceptance of the framework. |
| | High and increasing damages caused by natural hazards provide strong incentives to reduce the risk. Consequences are concrete and immediate. |

example, has undermined implementation of the International Health Regulations (2005) on surveillance, control, and reporting of contagious pathogens. The international community could help countries build implementation capacity. It could also make periodic assessments of whether national policies and practices have high potential for cross-border spillovers. These discussions could focus on areas where the lack of implementation capacity undermines a country’s ability to conform to global agreements and manage risk effectively.

The international community can provide technical assistance to support initiatives designed to protect against various risks. It can support capacity building to strengthen governance; to build early warning and monitoring systems for infectious diseases, crises, and disasters; and to design proactive crisis and disaster management strategies that reduce the need for costly coping measures after the fact. The IFIs can support the development of markets for debt and reserve management and hedging instruments to manage financial risks, particularly where small or segmented markets can block efficient private sector solutions to risk and prevent the pooling of risk across markets. Specific risk management strategies include developing alternative risk-financing tools such as catastrophe bonds that transfer the risk of a disaster to markets by allowing the issuer to forgo repayment of the bond principal if a major disaster occurs. Weather hedges are another example of an instrument that transfers the risk to financial markets; these hedges are based on an underlying weather index, with payments triggered by prespecified adverse weather events.

An important role for the international community lies in facilitating the collective action and cooperation necessary to supply global public goods. By providing a platform for policy dialogue and coordination among sovereign states (key building blocks of the international community), the international community can promote implementation of agreed rules and regulations that reduce global risks, as well as cooperation that improves development outcomes. Such cooperation could facilitate further liberalization of international trade and capital flows; support strong, sustainable, and inclusive growth, or engage with FCSs on a sustainable basis; and take a balanced approach to risks and opportunities. Cooperation can also limit potential externalities and inconsistencies in implementation that could jeopardize outcomes in a tightly integrated and interconnected world. Some of the challenges associated with securing effective cooperation among sovereign nations are discussed later in the chapter.

**Mobilizing global resources for preparation, mitigation, coping, and recovery**

Countries’ efforts to prepare for risk notwithstanding, crises and disasters do happen, and when they do, significant resources are spent on coping with their consequences and recovery. The international community has a range of risk-sharing tools to help countries deal with extreme (tail-risk) scenarios such as disasters, both before and after the event (box 8.2).

**Offering support for coping.** In their most typical form, international risk-sharing solutions involve direct ex post support from bilateral or multilateral creditors or private organizations. A key driver of this support is the need for timely action to mitigate a sudden shortage of resources (monetary or human) following a severe crisis or a disaster. Direct international interventions can be justified when resources to protect vulnerable populations are unavailable from capital markets, self-insurance, or functioning communities and governments or when the risk that distress and contagion will escalate to other countries is high. Examples include the financial stabilization packages arranged for several Euro Area states, the liquidity provisions to unclog international financial markets during the global financial crisis, the support that 36 donors provided to more than 100 developing countries to control the H5N1 avian flu and prepare for a possible pandemic during 2005–10, and direct humanitarian help to people in FCSs.

Several international community actors play a role in coping. The IMF, the World Bank, and other IFIs, as part of their mandates, pool risk across countries and lend to countries experiencing actual or potential external funding pressure as countries work to restore stability or sustain development spending in the wake of a crisis and correct underlying problems. Remittances from immediate or extended family members abroad provide risk pooling at the family level, allowing for more direct and timely relief in the presence of adverse domestic shocks. Remittances and kinship support are among the traditional coping mechanisms for FCSs, especially when effective government support is not available. Civil societies, including global nongovernmental organizations, combine in-kind transfers with foreign onsite managerial services to deal with local bottlenecks. International investors also boost domestic capacity through portfolio and direct investment flows.
Disaster and climate risk management are increasingly recognized as key priorities for development, and many actors are working to shift the focus from ex post response toward preparation and prevention at all levels of government. At the international level, the UN Office for Disaster Risk Reduction coordinates efforts across the UN system and tracks progress toward the implementation of the Hyogo Framework for Action (HFA) to make prevention of natural disasters a priority. The scientific community, civil society, and international financial institutions, as well as regional intergovernmental organizations that foster regional disaster-risk-reduction cooperation, support the efforts for HFA implementation.

In 2006, the Global Facility for Disaster Reduction and Recovery (GFDRR) was created to forge a global partnership to intensify support for mainstreaming disaster risk management into national development planning. Housed within the World Bank, the GFDRR has helped the Bank move from a reactive approach to a more strategic, long-term approach focused on reducing risk. Bank disaster-related financing doubled from 1984–2006 to 2007–11. The share of funding by the International Development Association for climate adaptation rose from 9 percent to 16 percent, and for climate mitigation rose from 5 percent to 16 percent from fiscal 2011 to fiscal 2012. The Bank supports disaster resilience in developing countries through a five-pillar approach:

**Providing insurance mechanisms.** Besides emergency assistance, international risk-sharing mechanisms include insurance that pools risk and transfers resources from good to bad times. IFIs such as the Multilateral Investment Guarantee Agency offer political risk insurance to reassure foreign investors and promote investment flows to countries as part of ex ante risk management. The IFIs also provide emergency disaster response tools by creating a range of products countries can access with great flexibility and speed, such as the World Bank’s Immediate Response Mechanism and Catastrophe Deferred Drawdown Option (CAT DDO) instrument. Moreover, the ongoing financial crisis facilitated the creation of insurance tools for countries experiencing volatility and instability despite relatively strong fundamentals, such as the IMF’s Flexible Credit Line or the Bank’s Development Policy Loan with DDO.

These tools are also intended to reduce the demand for self-insurance through excessive reserve accumulation—a factor that contributed to global imbalances as external account deficits of systemically important economies widened because of higher demand for reserve currencies. Countries have been reluctant to use some of these tools, however, in part because of the stigma effect of seeking financial help. Finding an efficient design for global safety nets has also been a challenge, given the difficult trade-off between limiting moral hazard and preventing liquidity crises from turning into insolvency. Instead, stronger links among emerging economies triggered interest in regional reserve pooling and swap lines to serve as insurance; however, these schemes are of limited lending power and effectiveness in dealing with covariate liquidity shocks.

**Facilitating regional insurance.** Besides its more direct engagement, the international community can also play a more indirect catalyzing and technical role by helping countries in a particular region pool resources that they can use in an emergency. Such mechanisms bode well for the principle of shared responsibility in managing risk and enhance countries’ capacity to jointly access international markets at a lower premium than they could obtain individually. These facilities are particularly helpful for small states where private markets are nonexistent, small, segmented, poorly functioning, or unaffordable to the most vulnerable, and where access to credit, insurance, and reinsurance markets is limited. Three

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**Box 8.2 International support for disaster risk management**

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The Bank supports disaster resilience in developing countries through a five-pillar approach:

- **Risk identification.** By quantifying risks and anticipating the potential negative impacts of natural hazards on society and the economy, disaster and climate risk assessments can help governments, communities, and individuals make informed decisions about managing risk.
- **Risk reduction.** Anticipatory action can reduce existing risks and prevent the creation of new risks.
- **Preparedness.** Technical assistance and financing of climate services help establish early warning of extreme events. They also increase climate-modeling capacity to design effective adaptation policies.
- **Financial protection.** Advisory services on disaster risk financing and insurance help protect governments, businesses, and households from the economic burden of disasters; increase the state’s financial capacity to respond to emergencies; promote deeper insurance markets at regional and sovereign levels; and support social protection strategies for the poorest.
- **Resilient recovery and reconstruction.** The Bank supports country-led Post-Disaster Needs Assessments, which estimate the impact on people, including development needs, and economic losses following a disaster. The estimates provide the basis for planning recovery and reconstruction efforts.

**Source:** Robert Reid for the WDR 2014.

a. IDA 2012.
Innovative disaster risk financing and insurance (DRFI) solutions are being developed by international financial institutions, in partnership with donors and other members of the international community. These tools are particularly important for developing countries with high exposure to natural hazards, but limited resources, financial capacity, and access to cheap credit and insurance markets. The regional risk-pooling mechanisms discussed below illustrate four key roles the international community can play in advancing DRFI solutions: convening power; promotion of public goods that permit the development of risk market infrastructure; technical assistance and specialized expertise; and provision of initial seed capital, contingent loans, and credit enhancements.

**Increasing access to catastrophe insurance in Southeast Europe**
The Southeast Europe and the Caucasus Catastrophe Risk Insurance Facility (SEEC-CRIF) was launched in 2009 to support development of a catastrophe and weather risk insurance market for the region. The initiative simultaneously addresses three bottlenecks of market development: risk market infrastructure, regulatory framework, and government policy. It provides pivotal public goods, including country-specific catastrophe risk models and a web-based insurance underwriting platform to facilitate the sale of reliable, cost-efficient catastrophe insurance products. The CRIF also helps participating countries incorporate risk awareness, knowledge, and skills related to climate change and disasters into their development policies. The World Bank supports the CRIF with technical assistance and loans to the facility and member governments.

**Providing technical assistance to launch state-of-the-art risk-pooling in the Caribbean**
The Caribbean Catastrophe Risk Insurance Facility (CCRIF) is the first-ever multicountry risk pool to insure against disasters. Sixteen Caribbean countries are members of the facility, which provides them with immediate liquidity in case of a major hurricane or earthquake. Members pay an annual premium depending on their risk exposure. The CCRIF uses risk pooling (through joint reserves and lower reinsurance rates) and shared operating costs to provide coverage at a significantly lower cost than each country would pay acting separately. With technical assistance from the World Bank, the facility tackles the technical, actuarial, legal, fiduciary, and financial engineering aspects of designing and implementing an independent, sustainable facility. The CCRIF, which is funded by participating countries and donors, has provided immediate liquidity funding to governments on eight occasions since its launch in 2007.

**Financing a proactive approach in the Pacific**
Transitioning from relying on humanitarian aid and other ex post resources to more efficient ex ante DRFI requires investment in disaster risk assessment and financing tools—as well as funding to implement the solution (such as paying insurance premiums). The Pacific Catastrophe Risk Assessment and Financing Initiative has invested in the development of probabilistic catastrophe risk models acceptable to the international reinsurance market. The facility provides technical assistance on implementation and advises members on financial solutions to reduce their exposure and to improve financial and economic planning (insurance, donations, reserves, and contingencies). For the sovereign catastrophe-risk insurance pilot launched as part of the initiative in 2013, the Japanese government funded the first and part of the second year’s premium for five participating countries.

**Regional risk-sharing solutions: Promoting financial resilience to disaster risks**

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**How effective is the international community in resolving global risks?**
The international community has made significant progress in addressing risks through knowledge tools. It has put great effort into data collection and risk analysis to improve assessment of risks and has developed innovative tools and databases to analyze risk from adverse natural hazards (box 8.4). It has worked to reduce data and information gaps. In a recent joint effort, for example, the Bank for International Settlements, the Financial Stability Board, and the IMF developed a common data template for markets to use in monitoring excessive risk taking by global systemically important banks and for policy makers to use in assessing systemic risks. The World Organisation for Animal Health has evaluated public veterinary systems in more than 100 countries for their ability to detect and control diseases and reduce contagion risks. The Intergovernmental Panel on Climate Change brings together scientists periodically to review research from around the world and update and fine-tune assessments on the drivers and consequences of climate change; the UN Framework Convention on Climate Change monitors trends in greenhouse gas emissions to inform policy analyses and discussions at national and international levels. IFIs monitor and analyze a wealth of economic, financial, environmental, and developmental data and trends that help inform national policies.

Significant efforts have also been made to apply this knowledge. The international community has put
BOX 8.4 Global efforts to provide tools and databases for assessing disaster risk

By anticipating and quantifying potential damages from natural hazards, disaster and climate risk assessments can help communities, companies, and governments make more informed decisions, such as where and how to build safer schools, how to insulate farmers against drought, and how to protect coastal cities against rising sea levels.

Estimates of potential exposure of physical assets and populations to risk are necessary to develop any risk reduction strategy, as well as for effective emergency response and crisis management in general. Although the most detailed exposure data are available primarily in high-income countries, international actors are working with developing countries to build their own asset exposure inventories. For example, the Pacific Catastrophe Risk Assessment and Financing Initiative has created the largest-ever collection of geospatial information on disaster risks available for Pacific Island countries, with quantification of potential disaster losses from earthquakes, tsunamis, and tropical cyclones. Resulting exposure, hazard, and risk maps and data are shared with policy makers and the public.

The Global Earthquake Model is a global collaborative effort to pool knowledge and provide people with tools and resources to assess earthquake risk anywhere in the world. The goal is to provide a global exposure database by the end of 2013 that contains aggregate information on population and residential buildings. Building-by-building data will be available for a selected number of areas, and the number of areas will increase over time.

Probabilistic risk-modeling techniques are now increasingly used to evaluate uncertainty inherent in complex systems, including natural events. Probabilistic risk modeling is also being coupled with climate change models to assess the likelihood and severity of future hazards, over the time horizons needed for decision making in sectors such as urban planning. A free platform, CAPRA (Central American Probabilistic Risk Assessment), has been developed to use a probabilistic methodology to visualize, quantify, and track sources of risk resulting from a range of hazards in Central America and is being rolled out in other regions.

Data sharing and open systems promote transparency and accountability and enlist a wide range of participants in the challenge of building resilience. For example, the Open Data for Resilience Initiative uses free and open-source software from eight leading international organizations and data providers to enable people and institutions to collaborate on building drought resilience in the Sahel. Similarly, InaSAFE is a free and open-source software that produces natural hazard impact scenarios, providing a simple yet rigorous way to combine data from scientists, local governments, and communities to assess likely effects of future disaster events. The tool was piloted by the city of Jakarta for emergency planning during the 2012 flood season.

Sources: Robert Reid for the WDR 2014.
a. Ranger and others 2011

in place rules and standards to encourage responsible risk management behavior. It has convened experts, national and global policy makers, and standard setters around the world to solve global problems. It has made progress in using risk assessments to generate and communicate predictions and warnings of natural hazards. Improved access to global media and the Internet has allowed rapid sharing of disease intelligence and scientific research on disease control, environmental risks, and financial risks, among others. Early warning systems have been developed for many types of hazards, helping to reduce the number of deaths from disasters. Enhanced monitoring of economic, financial, social, geopolitical, environmental, and technological risks is being used to assess low-probability, high-impact risks to the global system and to push for risk-mitigating policies, including those that would require international cooperation. Global resources have been used when countries faced mounting difficulties that also risked spilling over to others.

But overall effectiveness has been limited. In particular, the international community as a whole could have been more forceful in addressing some of the key risks that cross boundaries. Five years after the onset of the global financial crisis, economies and financial systems of advanced and developing countries remain vulnerable to the risk of renewed tensions, as some underlying economic and structural weaknesses remain unresolved. Negative feedback loops across banking, sovereign, and real risks and competing macroeconomic priorities complicate policy responses. Progress remains limited in arresting climate change, despite substantial available knowledge and emphasis on the dangers of inaction. Progress in preventing and preparing for pandemic risk is limited, even as costly zoonotic disease outbreaks continue to occur (including the recent outbreaks of H7N9 and the coronavirus). The majority of the Millennium Development Goals are not expected to be met by fragile states by the 2015 target date (box 8.5); by that time, these countries also are expected to account for half of the world’s poor. The inability to move forward more aggressively to deal with these risks is costly, taking already scarce resources away from development efforts, in some cases slowing or reversing hard-won development gains and imposing huge costs on future generations.

Several common elements play a role in this poor performance. Insufficient access to available
BOX 8.5 Well-managed risks can unleash development opportunities in fragile and conflict-affected states

International engagement in fragile and conflict-affected states (FCSs) poses considerable risks for donors and implementing partners, who must contend with high levels of insecurity, political instability, weak institutions, and the failure of basic state functions that typically characterize such states. These characteristics undermine the social and economic support systems through which the international community provides support (including the state and local communities and institutions). In these complex and fast-changing environments, outcomes are hard to foresee and control, and the possibility of returning to violent conflict is always present. People’s ability to manage risks is seriously constrained, and the consequences of a risk materializing are often a matter of life and death.

At the same time, international engagement in these high-risk environments can make particularly important contributions to development. Because of the low starting point, effective international assistance can achieve more in these transitional contexts than in most other situations.⁴ Where state-society relations are renegotiated and state institutions redefined, international engagement, including aid, has the potential to provide critical catalytic and transformative support. Moreover, the risks of not engaging can be high—both for the countries themselves and for the international community, if the lack of international assistance allows conflict to continue or resume. In an interconnected world, such conflicts have significant economic and social costs that reach beyond national borders.

High degree of risk aversion
Yet within the donor community and its implementation partners, the emphasis tends to be on avoiding risk, both in where and how donors engage, and within the organizational cultures of donors. Aid flows to poor and fragile countries are volatile and unpredictable. High degrees of uncertainty and information gaps can also lead to overly pessimistic perception of risks and unrealistic expectations for what aid can achieve in short time frames. Concerns about corruption discourage donor and investor engagement. Tighter reporting and accountability requirements and less reliance on local initiative reduce the speed, flexibility, and innovation that are key to taking advantage of short-lived opportunities in these fast-changing situations. These shortfalls are manifested by a lack of progress in attaining the Millennium Development Goals (MDGs) in many FCSs (figure) and in a large number of countries returning to conflict. The absence of active engagement with and support of development over the long term prevents the building of national capacity.

Some change in approach is under way
FCSs and development partners are now concluding that appropriate risk taking is essential for improved outcomes and that a better balance must be struck between risk and opportunity. The 2011 WDR on conflict suggested that poorly designed and rushed donor responses can exacerbate the significant risks in engaging in FCSs, and that risk-opportunity assessments should be used more frequently to see how aid itself might be a risk mitigation measure through its impact on local systems and capacities. The 2011 WDR recommended greater monitoring of government-executed programs, risk sharing through pooled funds, and proactive planning of risk contingencies based on risk-opportunity assessments. The New Deal for Engagement in Fragile States, agreed in 2011 in Busan, Republic of Korea, recognized that the risk of not engaging can outweigh most risks of engagement. It emphasized the need for joint assessments of the specific risks and context-specific, joint donor risk-mitigation strategies. The g7-plus group of states (those affected by conflict and now in transition to the next stage of development) and its development partners have committed to support developing countries’ efforts to strengthen core institutions and policies by aiming to manage, rather than avoid, risk, and minimizing the risk of reverting to conflict through joint efforts of donors and fragile states.

Balancing risks and opportunities requires a parallel focus on contextual, programmatic, and institutional risks and collective
Box 8.5  Well-managed risks can unleash development opportunities in fragile and conflict-affected states (continued)

approaches. Recent research by the OECD provided policy recommendations for donors to match aspiration with action and move from risk aversion to balancing risk and opportunity:

- Establish institutional cultures that encourage appropriate risk taking in FCSs. This would involve setting incentives for staff and implementing partners to consider risks in relation to opportunity and communicate openly about why some risks in FCSs are worth taking, along with devising specific risk-management frameworks.

- Agree on realistic objectives and frameworks for measuring results. Donors and partners should establish such frameworks for measuring results in complex environments, tailored to specific circumstances of FCSs.

- Simplify procedures for the release and delivery of aid. This step would facilitate rapid and flexible responses and transfer of funds to take advantage of the narrow windows of opportunity to influence the course of events.

- Establish a common framework for understanding and assessing risk that ensures focus on people and contextual risks. By conducting fragility assessments, several New Deal pilot countries have sought to develop a joint understanding with development partners and civil society of the causes, features, and drivers of fragility, and of sources of resilience that can form a basis for dialogue and joint risk mitigation strategies.

- Identify options to share risks and maximize collective impact by pooling efforts and funding. Joint efforts can reduce individual actors’ exposures to political and reputational risks and dilute the risk of program failure. Options for sharing risks include pooled funds, joint guidelines, and mutual accountability frameworks.

- Understand and facilitate the role of multilateral organizations as “risk-pooling mechanisms.” Donors need to give implementing partners the necessary scope and means to take risks and respond flexibly. Greater honesty and transparency about exposure to all risks is needed between donors and those they fund, with an explicit focus on building local capacities and a commitment to collectively manage associated risks.

The broader international community could support donors’ efforts to manage the risk of engagement in FCSs:

- It could help donors identify, better understand, and monitor risks specific to the FCS, notably by developing a set of indicators to monitor frequently. The New Deal Fragility Assessments will likely use a common set of indicators that can be applied flexibly to take country context and local needs into account. Better access to such knowledge could inform decision making and prioritization, alleviate risk aversion by the donor community, and identify the local capacities and institutions that need strengthening.

- Contingency plans, early warning, and crisis and disaster management systems could be developed to mitigate the extreme risks facing FCSs, in partnership with multilateral institutions. Targeted capacity-building assistance could strengthen implementation deficiencies, improve institutional capacity, and reduce corruption risks. Development agencies, civil society, and the media could partner in the effort, making wrongdoing costly. Coordinated donor involvement in reconstruction efforts proved useful after the 2004 tsunami in Aceh.

- Both donors and FCSs could do risk pooling with the international community’s help (involving bilateral and multilateral partners). The positive experiences with regional risk-pooling facilities could provide useful guidance. The international community could help mobilize multilateral donor funding and design harmonized proactive risk-management frameworks and by providing political risk insurance in multilateral platforms.


a. Transitional situations may include transitioning from conflict to peace or violence to security.

b. Ongoing case studies by the OECD and the U.K. Department for International Development highlight a number of interesting donor approaches and innovative practices on risk management already being used in FCSs. In Nepal, conflict-sensitive programming is used as a risk management practice that has been mainstreamed across donor operations. Specialized risk management units help pool resources in addressing security, fiduciary, and other risks encountered in operational work. In Somalia, a UN Risk Management Unit was set up to manage fiduciary risk and monitor implementing partners, where limited access and freedom of movement hamper the ability to undertake direct field monitoring.

knowledge, resources, and capacity hamper the accumulation and use of this knowledge to take appropriate risk management action. In some cases, more emphasis is put on avoiding risk than on taking well-informed risk and managing it (as with the international community’s engagement with fragile states). Political economy constraints and lack of proper incentives, accountability, and effective enforcement mechanisms undermine international cooperation.

Problems in formulating and transforming knowledge to action

Continued gaps in information constrain knowledge and action in some areas. Information asymmetries
continue to hamper global efforts to effectively manage risks in the financial sector. Despite the efforts of the global community, some key information needed to identify a buildup of systemic financial risks remains unavailable to markets and policy makers. In countries where financial systems are regionally or globally interconnected, the lack of exposure data across institutions hinders identification of emerging risks and undermines the usefulness of early warning systems to trigger appropriate action. Early warning systems for natural hazards are also of limited use when information is imprecise and is not communicated quickly or clearly, as experienced in some developing countries. Similarly, infectious disease controls are often undermined by weak communication between public health authorities and within the public; delays in detection and diagnosis caused by information gaps lead to late and more costly control measures. Failure to translate scientific knowledge for use by local practitioners also limits the appreciation of, and response to, various risks. While extensive data are available on environmental risks, they remain scattered and lagged, with limited systematic dissemination of the key messages to summon national or global action.

Information asymmetries also affect the international community’s ability to engage effectively in fragile and conflict-affected states, thus undermining their ability to support people’s risk management. Corruption and political risks, which typically characterize these states, undermine the competitiveness and investment appeal of their economies. Insufficient information about the extent of corruption, political risks, and local authorities’ implementation will and capacity adds to donor risk aversion, reduces their willingness to engage, and may focus their attention on attaining results that, while safe, may not help these states strengthen national systems and address peace-building needs. Missed opportunities for engagement (through market access or development aid), in turn, raise the risk that political transition will threaten prosperity and social cohesion and could create a vicious circle of fragility, poverty, despair, continued corruption, and conflict, with costs that can have broader cross-border implications, as observed in the Middle East and Africa. In such circumstances, risk of inaction can be very high.

Many tools designed by the international community to manage complex risks elude countries with limited resources and capacity to understand and implement them. Insufficient resources and capacity make it difficult for countries to access and apply available information and knowledge, afford insurance, reinsure, and take preventive actions. For instance, in the past five years, insurance covered less than 20 percent of total disaster losses in developing countries, on average, compared to about 60 percent in North America, according to SwissRe. Shortfalls in funding the cost of mitigation of, and adaptation to, climate change have been an obstacle to reducing greenhouse gas emissions in developing countries and to reaching agreements in global negotiations. Although climate change risk and loss of biodiversity and resources are global problems, vulnerability as well as efforts to mitigate or adapt to these risks are local, and constrained by national and local authorities’ capacity to implement necessary corrective actions.

Cognitive, behavioral, and political economy factors also get in the way of translating available information into actionable knowledge. Despite widespread availability of information on the evidence of drivers of climate change and other environmental risks, disasters, or the possibility of yet another pandemic, individuals, communities, and governments continue to overlook their potential exposure to what they view as rare or distant events, underestimate the potential cost, and fail to insur or otherwise protect themselves (and others). Similarly, small-probability, high-impact risks are often ignored in the face of short-term challenges, resulting in underinvestment in preventive steps. A recent global survey on climate change found, for instance, a clear indication of short-sighted attitudes to climate change risk and greater attention to what is seen as more pressing and urgent matters facing the world (figure 8.2). These responses suggest that a non-negligible part of the global population discount the future heavily and place a lower value on adverse consequences of climate change, such as loss of biodiversity and increased frequency and cost of disasters.

Deep uncertainty adds to the behavioral and cognitive biases. For example, the push to mitigate climate change risks is undermined by uncertainty about the benefits and costs of taking such action and by a lack of consensus on the critical thresholds (tipping points) for greenhouse gas concentrations beyond which small changes in Earth’s temperature could have catastrophic consequences. The absence of scientific consensus on these thresholds undermines incentives for international cooperation. Recent experimental research suggests that if this threshold could be identified with certainty, and if the relative cost of avoiding it were low, the fear of crossing it could reduce the free-riding behavior of countries and induce them to join in the needed collective action to avoid catastrophe. Deep uncertainty may also undermine the ability to assess complex macro-financial risks. The difficulty of anticipating the com-
plex feedback loops between financial, sovereign, and real sector risks, for instance, has contributed both to the severity of the ongoing global financial crisis and to the challenges in resolving it.

**Perverse incentives that discourage effective risk management**

Emphasis on ex post risk management creates moral hazard. Ready availability of help to recover from a disaster or a crisis may encourage public and private agents to be less cautious in taking risk or in protecting or insuring against it. The ex post availability of disaster aid (given the reluctance to deny help to those who have not taken sufficient prevention measures—the Samaritan’s dilemma) may, in some cases, weaken incentives of governments to invest in warning systems or enforce strict zoning and building regulations in disaster-prone areas, or for individuals to insure or avoid settling in such areas, when other options are available. For governments (or donors), the political reward for well-funded and costly hazard prevention may be seen as small compared with the gain from an efficient ex post response. Similarly, sustained investments in public health systems to prevent pandemics from developing may be crowded out by funding for mitigation programs, such as stockpiling of medications. In finance, the absence of effective cross-border resolution regimes to deal with failing systemic banks and national governments’ tendency to rescue them create moral hazard, encouraging excessive risk taking by financial institutions perceived as too important to fail, and reducing their incentives to self-insure by holding capital and liquidity in line with the risks taken (see chapter 6).

Despite the high benefit-cost ratios of better preparation (see chapter 1), evidence suggests that more emphasis is placed on ex post risk management. This emphasis is evident in donor financing for disasters: of the total development assistance allocated for disaster-related activities between 1980 and 2009, only 3.6 percent ($3.3 billion) was devoted to prevention and preparedness (figure 8.3). By contrast, the estimated economic losses from disasters over the past 30 years amount to $3.5 trillion—with a record $380 billion in 2012. Financial crises also divert resources from growth and development: the cost of direct support from national governments to financial institutions during the 1990 crisis ranged from less than 5 percent of gross domestic product (GDP) in Sweden to more than 55 percent in Indonesia. Since 2008, the cost of direct support and government guarantees to the financial system ranged from about 10 percent of GDP in the United States to more than 50 percent in Ireland. Realization of these contingent liabilities reduces the fiscal room available for social spending (see chapter 7), and makes it more likely that national governments will call for international support when future problems hit. In the health area, the total cost of major zoonotic disease outbreaks reached an estimated $80 billion over 2007–09, compared with an annual estimated cost of $1.9 billion–$3.4 billion to

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**FIGURE 8.2 A 2011 survey highlights divergent national interests and short-sighted views on climate change**

<table>
<thead>
<tr>
<th>a. Those concerned about climate change</th>
<th>b. Reasons for not being concerned</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>Warmer temperatures are good for me</td>
</tr>
<tr>
<td>Europe</td>
<td>Not a problem</td>
</tr>
<tr>
<td>Global average</td>
<td>Will not affect me in my lifetime</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>Technologies will take care of it</td>
</tr>
<tr>
<td>Middle East and Africa</td>
<td>Humans do not cause it</td>
</tr>
<tr>
<td>Latin America</td>
<td>Other more serious and urgent problems</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% of respondents</th>
<th>% of respondents</th>
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<tbody>
<tr>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>20</td>
<td>14</td>
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<tr>
<td>40</td>
<td>18</td>
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<tr>
<td>60</td>
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</tr>
<tr>
<td>80</td>
<td>37</td>
</tr>
<tr>
<td>100</td>
<td>48</td>
</tr>
</tbody>
</table>


a. Percentages equal more than 100 percent because respondents could choose all choices that apply.
build and operate One Health approaches to prevent and control these diseases.34

Myopia about risks may also reduce the perceived urgency for action, while creating tendencies to pass the risk, and the associated cost of today’s inaction, on to others. The costs of climate change mitigation not borne by today’s generation will be passed to future generations when mitigation will likely be more costly and possibly too late to have the intended effect. A 2007 estimate by the Stern Review placed the cost of unmitigated climate change at a permanent annualized loss of 5–20 percent of global output by 2050, compared with a cost of 1 percent to stabilize carbon emissions.35 Fears that other countries will impose trade and travel restrictions may also dampen a government’s willingness to share information on the outbreak of a disease, increasing the eventual cost of stopping it.36 Improprudent government spending raises the debt burden of future generations. And short-sighted domestic political considerations create incentives to delay tough policy measures to resolve a crisis, compounding the cost of an eventual resolution for all countries involved.

Finally, divergent national interests undermine international cooperation and create incentives for inaction in the absence of agreed common goals and standards that are enforceable. Global public goods (such as controlling climate change, arresting exploitation of natural resources, and curbing loss of biodiversity; restoring global financial stability; or containing pandemics) require global collective action by sovereign nations. Collective action depends, first, on recognition of shared interests. If there is no perceived commonality of interests, cooperation is unlikely. Cooperation also fails if there is no “global authority” that can assess global risks and exert coercive sanctions on sovereign countries that fail to take agreed-upon actions.37 Without explicit enforcement mechanisms, international agreements to provide a global public good must rely on voluntary participation, which works only if the incentives are “right” or a “common goal” has been recognized.38 That is, multilateral cooperation works best when national interests are well aligned, or when impediments arising from vested interests or other domestic policy priorities are not overriding.

Reducing greenhouse gas emissions to mitigate climate change and prevent its catastrophic consequences is a perfect illustration of the challenges facing collective action. Climate change affects countries and regions—and even populations within a given country—unevenly, benefiting some and hurting some more than others. Continued uncertainty about the level of climate change thresholds, the perceived unevenness of climate change effects across nations, and competing domestic policy imperatives create diverging incentives for taking mitigation action. As a result, countries have been unable to forge a lasting agreement ratified by all nations, let alone a mechanism to enforce it.39 In contrast,
in two successful examples of international cooperation—smallpox eradication and protection of the ozone layer—common interests helped remove barriers to collective action: everybody was vulnerable to the highly damaging and quickly visible health consequences (see table 8.1). The looming threat of a nuclear war, with devastating consequences for the world, also spurred 189 nations to sign the Nuclear Non-Proliferation Treaty in 1968, which helped contain the spread of nuclear weapons (to fewer than 10 countries), although long-term viability of the treaty remains vulnerable to the presence of several nations with the capacity to build nuclear weapons.  

Diverging incentives and collective action traps also play a role in the slow progress in resolving the ongoing global economic and financial crisis. For example, the Basel III framework designed to strengthen the soundness of the global financial system following the ongoing financial crisis has faced challenges in its formulation and implementation. The desire of individual nations to protect their banking systems has led to divergent views among advanced countries and between advanced and developing countries on the stringency of the new standards and pace of their implementation; some countries have unilaterally introduced stricter national regulations as a result, in effect creating regulatory gaps. Similarly, the efforts of the Group of 20 worked well at the start of the financial crisis, when country leaders supported expansionary policies to restore financial stability and counter economic downturn. Continued cooperation has become more challenging as expansionary policies in advanced countries have stimulated large capital inflows to emerging market countries and complicated their macroeconomic management.

Diverging national interests also contribute to slow progress in resolving the problems facing fragile and conflict-affected states. Concerns about whether the resources devoted to FCSs are used effectively have made donors less inclined to engage, reducing the effectiveness of aid in many fragile states. On the one hand, expectations have risen that aid could help achieve peace-building and state-building objectives. On the other hand, applying the same reporting and accountability requirements as in more stable environments and requiring rapid and visible results often leave limited room for flexibility and innovation, undermining the effectiveness of engagement. While donors have been stressing since 2011 that they have a common interest in ensuring successful engagement with fragile states, they have struggled to adapt their systems for implementation and control to effectively meet these challenges.

The lack of international assistance leaves severe risks to people unaddressed and increases the eventual cost of engagement. Preventing states from falling into conflict can be more cost-effective than responding once they have failed: studies have estimated that each dollar spent on conflict prevention can generate, on average, savings of $4 to the international community. Delayed response can also be very costly in terms of human lives, as demonstrated by recent events in Somalia, where a famine took many lives during 2010–11 despite 11 months of repeated early warnings, with opportunities for early intervention missed because of perceived political risk. In an increasingly interconnected world, the cost of such inaction goes beyond national borders, resulting in increased refugee populations, spread of communicable diseases, crime, conflict, economic losses, and growing pressure on public goods (such as water, sanitation, education, housing, and health services) in neighboring countries that absorb affected populations. One study estimated that sharing a border with a fragile state can reduce a country’s economic growth by 0.4 percent annually.

**Policy implications and takeaways**

The international community has made remarkable progress in providing a range of tools for effective risk management, but much more needs to be done to forge consensus on risks that transcend national and generational borders. In a world with a tight network of interconnections, “global problems require global solutions,” but in the absence of an effective global risk governance mechanism with an international body that has appropriate accountability and enforcement powers over sovereign nations, the international architecture necessary to provide the global public goods and address global risks has not kept pace with the connectivity that glues the world together and the complexities such connectivity creates.

The limited progress made in managing global risks has put into doubt the ability of the international community to foster collective action among a large number of nations with diverging interests, capacity constraints, and incentives to free ride on the actions of others. This collective inaction poses significant challenges to the goals the international community aims to safeguard, from eliminating poverty to restoring peace, building resilience and prosperity, and achieving a more equitable distribution of income around the world.

Does this mean the world should give up on the goal of attaining global solutions and turn its back
on globalization, relying, instead, on individual, national actions to address the complex risks that have been collectively created? Individual and national actions are, of course, essential for any international action to be taken, but more ambitious and coordinated efforts are necessary to change the course and ensure that the whole is greater than the sum of its individual parts. Moving away from global cooperative solutions would be costly for development, especially for developing countries and the poor that have benefited the most from improved access to credit and foreign investment flows facilitated by globalization. The international community has much to lose by failing to cooperate. Taking advantage of the positive steps at the local, national, and individual levels, and building on the lessons learned from the successful examples of international cooperation, the international community should therefore strive to preserve the gains from globalization and continue its efforts to find the right tools, incentives, and institutions to achieve international cooperation.

Successful international cooperation requires a cohesive international community where national interests are well aligned. It requires an international community that has the capacity to mobilize resources and to establish mechanisms that can enforce agreements, even when not all countries are willing to cooperate. That capacity, in turn, rests on the international community’s ability to realign incentives around shared goals and to attract participation of major players capable of achieving progress. The international community can scale up risk management to the extent it can devise innovative mechanisms that have a better chance of securing cooperation with appropriate combinations of knowledge, protection, insurance, and coping tools (table 8.2).

**When incentives are well aligned: Pursue proactive and well-coordinated interventions**

International cooperation works best when incentives are well aligned with a clear course of action. In this case, scaling up risk management requires pro-

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**TABLE 8.2 Policy priorities to improve risk management at the international community level**

<table>
<thead>
<tr>
<th>FOUNDATIONAL</th>
<th>POLICIES TO SUPPORT RISK MANAGEMENT</th>
<th>ADVANCED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge</strong></td>
<td>Improve data quality and availability</td>
<td>Eliminate information gaps on financial institutions and exposures</td>
</tr>
<tr>
<td></td>
<td>Intensify scientific research, improve knowledge on global risks, and step up information/education campaigns to raise risk awareness on importance of preparation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide TA on basic RM tools, EWSs, contingency planning, market/institutional development, communication, governance</td>
<td>Advisory on EWSs, contingency planning, debt/reserve management, hedging instruments</td>
</tr>
<tr>
<td><strong>Protection</strong></td>
<td>Design targeted global rules, regulations, standards, and ensure collaboration through platforms for policy dialogue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financing for disaster prevention and preparedness; mitigation and adaptation; contingency planning mechanisms/EWSs</td>
<td>Facilitate implementation of mitigation/adaptation, contingency planning mechanisms, EWSs</td>
</tr>
<tr>
<td></td>
<td>Vaccination, basic nutrition, education programs, technology transfer, peacekeeping effort</td>
<td>Subsidies/financing of R&amp;D</td>
</tr>
<tr>
<td><strong>Insurance</strong></td>
<td>Contingent credit lines with grant elements</td>
<td>Contingent credit lines including Global Safety Net</td>
</tr>
<tr>
<td></td>
<td>Facilitate regional reserve pool and catastrophe insurance mechanisms</td>
<td></td>
</tr>
<tr>
<td><strong>Coping</strong></td>
<td>Humanitarian, emergency response, and reconstruction relief (e.g., food, shelter, health)</td>
<td>Technical support for emergency response and reconstruction</td>
</tr>
<tr>
<td></td>
<td>Stabilization and targeted development financing</td>
<td>Emergency liquidity/swap lines</td>
</tr>
</tbody>
</table>

Source: WDR 2014 team.

Note: The table presents a sequencing of policies based on the guidance of chapter 2 for establishing policy priorities: be realistic in designing policies tailored to the institutional capacity of the country, and build a strong foundation that addresses the most critical obstacles sustainably and that can be improved over time. EWSs = early warning systems. R&D = research and development. RM = risk management. TA = technical assistance.
active, well-coordinated interventions by the international community. For global risks such as financial crises or pandemics, the risk of rapid spillover in a tightly interconnected world helps align national interests that call for well-coordinated national actions to contain risks at the source. The effectiveness of these actions rests critically on prompt sharing of information and resources, effective coordination of actions, and appropriate capacity and infrastructure to monitor, identify, and prevent problems from arising and spreading beyond national borders.

Knowledge is fundamental to broadening perspectives and addressing the problems when they emerge. Access to knowledge is therefore the first step in boosting risk management capacity. Greater efforts are particularly needed to do the following:

• Narrow existing information gaps and address cognitive and behavioral biases. The international community could increase its own dissemination and communication of data and analysis and facilitate sharing of information and best practices, particularly for countries with limited access to information. More systematic, frequent, and targeted dissemination through knowledge platforms and information campaigns can help build longer-term perspectives on rare, high-impact, or distant risks, raising awareness of the dangers of inaction.

• Reduce the degree of uncertainty about specific risks facing the global system. More resources should be devoted to consolidating and disseminating scientific research that can expand knowledge and reduce uncertainty. Knowledge of the likelihood and nature of complex risks can heighten the ability to assess risks and the need for collective action. As the successful global campaigns to eradicate smallpox and protect the ozone layer demonstrate, partnership with the scientific community and civil society can prompt effective action.47

International community efforts should focus on providing greater resources for capacity building and risk management actions:

• Support capacity building for risk management. The international community can further intensify efforts to assist countries where capacity constraints continue to undermine effective risk management. The efforts could focus on the capacity to design contingency plans and early-warning, monitoring, communication, and disease-control systems; and developing financial markets for catastrophe-risk financing to facilitate private sector risk solutions.

• Ease resource constraints. Financial support from the international community could augment national resources by facilitating and supporting regional risk-pooling solutions. Financing should focus on areas that matter the most and on people most vulnerable to shocks. The international assistance in cooperation with local and national authorities to rebuild infrastructure and establish early warning systems in Indonesia after the 2004 tsunami focused on reducing vulnerabilities to future disasters, whereas slow progress in restoring infrastructure and access to sanitation, treated water, and health care following the 2010 earthquake in Haiti added to vulnerabilities, including to deadly disease outbreaks like cholera (box 8.6).

• Provide appropriate incentives for preparation and limit moral hazard. Taking into account the degree of self-insurance and protection and making financing contingent on adequate risk management could help limit moral hazard. Donor aid to low-income countries and FCSs can be combined with targeted technical assistance to reduce vulnerability to future shocks and strengthen institutional and governance capacity and processes. National and international platforms can be strengthened to assure investors, unleashing capital necessary for growth and rebuilding.

When incentives are not well aligned: Use incremental approaches to global solutions

When major sovereigns are not fully engaged—that is, where progress on fostering collective action has been limited—new ways of thinking about international cooperation are necessary. Where the consequences of inaction are potentially catastrophic and irreversible, as with climate change, loss of biodiversity, or exhaustion of scarce natural resources, lack of full scientific certainty about the dangerous thresholds or tipping points should not be used as a reason for postponing action (cartoon 8.1). On the contrary, preventive action should be taken in the face of uncertainty.48 For these risks, progress can still be made outside a multilateral treaty with full participation.49

The international community could embrace incremental deals and actions by an initially small group
The international community typically provides valuable resources when countries are hit by a massive shock. How those resources are used to support national efforts has an important bearing on the results attained.

Aceh Province, a remote region of Indonesia then struggling with conflict, bore the brunt of a powerful earthquake and a massive tsunami that swept over the Indian Ocean in December 2004. More than 100,000 people in Aceh were killed and over 500,000 were left homeless. With the financial impact estimated at 97 percent of Aceh’s gross domestic product, a special multidonor fund was created, pooling contributions from 15 countries and organizations to coordinate resources to support the national efforts and government reconstruction strategy. The funds helped communities to rebuild houses, local infrastructure, ports, and lost businesses; to offer scholarships to poor children; and to establish disaster warning and response systems in hazard-prone areas. Global efforts focused on helping local communities and the government to build earthquake-resistant homes and implement projects to reduce vulnerability to disasters.

Thousands of miles away from Aceh, a similar disaster hit Haiti, another very poor, fragile island country, where a powerful earthquake in 2010 left around 230,000 dead and 1.5 million homeless, after poorly constructed homes and infrastructure collapsed. The global community rushed to the scene, bringing supplies and vast sums of money. In the midst of this global mobilization, a second disaster hit Haiti, when deficient control measures and infrastructure led to a massive cholera outbreak, killing nearly 8,000—the cholera came from a faulty sanitation system at a base of peacekeeping troops from a cholera-infected region in South Asia. Only a small part of the massive foreign aid reached the government because of donor concerns about the funds’ mismanagement by weak institutions and corruption. As of mid-2013, some 350,000 people remain in temporary housing, with little access to sanitation, piped or treated water, waste management, health care, or education.

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knowledge was crucial in the success of the Montreal Protocol and smallpox eradication.

- Financial and technological incentives. These incentives could help lower participation costs and encourage other countries to join the coalition—particularly developing countries that may be the most affected but have the least ability to cope. For climate change or loss of biodiversity, for example, technology transfers from developed countries could stimulate more environmentally friendly industries and induce the use of cleaner technologies and investments in research and development to devise methods to support climate change mitigation and adaptation and protection of scarce natural resources.\(^{52}\) For example, developed countries made a collective commitment to provide new and additional resources for climate adaptation and mitigation in the 2009 and 2010 climate negotiations, but scaling up funding requires substantial efforts to mobilize existing and new sources of finance.\(^{53}\) International cooperation benefited greatly from such transfers in the eradication of smallpox and the protection of the ozone layer.

- Positive and negative financial incentives. These incentives can also help internalize the cost of externalities created by individual actions (incentives include carbon taxes, cap-and-trade mechanisms, reduced fuel subsidies to encourage more environmentally friendly energy options,\(^ {54}\) or trade restrictions to encourage participation and compliance with agreements). Subsidies could reward companies that undertake research to develop green technologies. Carbon taxes and markets and other incentives to limit emissions are being introduced in many places in recent years, including in China and several U.S. states (see the “Focus on policy reform” at the end of the Report). Larger-scale and coordinated efforts would be needed, however, to make a material difference and avoid economic distortions.

The incremental approach discussed here is not without risks and is clearly a second best to a global solution with full cooperation, in effect formalizing free riding by those outside the coalition. There is also no guarantee that the incremental actions will succeed in scaling up efforts and participation to full global action. But the alternative of waiting until an acceptable deal is reached and all the uncertainties resolved is also not viable, if the irreversible consequences of inaction on key global risks are to be avoided. The international community therefore has a crucial responsibility to take and support the steps necessary to protect the world’s vulnerable populations and its future generations from the costly and irreversible consequences of today’s inaction.
5. Crises can result in sharp output losses, increased debt, large fiscal costs, and average recovery time of two to three years; see Laeven and Valencia 2012.


7. Also see Jonas 2013 for the WDR 2014.


9. IPCC 2012. About three-fourths of the total number of disasters since 1903 have taken place in the past three decades, when the Earth’s temperature started to rise rapidly.


13. Early warning systems are an effective tool for preparation against risks. After the tsunami in 2004, for example, countries in the Indian Ocean region invested in tsunami warning systems. Similar systems have been set up for storms in Bangladesh and Cuba and are connected to a web of public shelters. Subbiah, Bildan, and Narasimhan (2008) calculate very high benefit-cost ratios for systems that warn of storm-related floods in Bangladesh. Also see World Bank and UN 2010.


15. UN General Assembly 2000.


17. OECD 2011a.

18. Examples from the World Bank include development of a platform for a multicountry, multiperil catastrophe bond (the MultiCat Program, in collaboration with Mexico) that transfers risk to private investors and allows pooling of multiple risks to take advantage of diversification benefits; intermediation services to help Malawi protect against the risk of severe drought; and advisory services to help Turkey establish national catastrophe insurance pool for earthquakes; see Mahul and Cummins 2009; Mahul and Ghesquiere 2010.

19. For example, since December 2011, the World Bank Immediate Response Mechanism has allowed low-income countries to rapidly access a portion of their undisbursed investment project balances to mitigate the impact of natural disasters or economic shocks on vulnerable groups and to protect critical development spending. Similarly, the Bank’s Development Policy Loan (DPL) with CAT DDO has a contingent credit line that provides immediate liquidity to IBRD countries in the aftermath of a natural disaster; http://www.gfdrr.org/sites/gfdrr.org/files/documents/DRFI_CatDDO_ProductNote_Jan11.pdf.

20. Examples are the IMF’s Flexible Credit Line, which allows qualified countries to draw on the credit line at any time within a specified window, and the World Bank’s DPL with a DDO, a contingent credit line that allows the borrower country to rapidly meet its financing requirements following a shortfall in resources due to adverse economic events (see the experience of Indonesia, which used the DPL DDO in the midst of the 2008–09 financial crisis to support ongoing access to international capital markets at favorable terms thereby sending a strong positive signal to international and domestic markets about its economic strength). Detailed discussions on experiences with DDO instruments are provided in http://www.managingclimaterisk.org/document/CC_WB.pdf and http://treasury.worldbank.org/web/documents/DDO_MajorTermsConditions_July2013.pdf.


25. UNISDR 2006.


27. Evidence suggests that corruption can lower a countries’ economic growth as much as 0.5–1.0 percent a year and decrease investments in health and education systems, leading to an increase in infant mortality, poverty, and inequality. Standard & Poor’s estimates that in countries with corruption, investors, including donors, have a 50–100 percent chance of losing their investments within five years (up to $30 billion in aid to Africa has ended up in foreign bank accounts; see Transparency International, http://www.transparency.org/).

28. See, for example, World Bank 2009; Aldy, Orszag, and Stiglitz 2001; Barrett 2003.


30. For example, Nicaragua declined to pursue a weather-indexing program after it had been priced in the global reinsurance market, citing, among other things, international assistance following Hurricane Mitch in 1998 as an indication of dependable alternatives (World Bank and UN 2010).


32. Ghesquiere and others 2012.

33. IMF 2012.

34. World Bank 2012a.


36. Brahmbhatt and Dutta 2008 argue that efforts to avoid infection through reduced travel or trade account for 60 percent of the economic costs during a pandemic.


39. See Warner 2013, who discusses these challenges in detail.

40. Campbell, Einhorn, and Reiss 2004; Fitzpatrick 2009.

41. Sheng 2013.

42. Collier and Hoefﬂer 2004; Chalmers 2004.


45. DFID 2005.
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51. See a related proposal by the German Institute for Development 2009.
52. See, for example, Barrett 2003; The Royal Society 2009; World Bank 2009.
53. The agreements required provision of $30 billion in Fast Start Finance for 2010–12 and $100 billion a year by 2020. While the $30 billion goal is close to being realized, the second goal is falling short of the needs, in part because of the fiscal problems in advanced countries. World Bank 2009, 2012b, 2012c; Caravani and others 2012; Schalatek and others 2012a, 2012b.

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Mainstreaming risk management into the development agenda: Selected institutional reforms

The discussion that follows expands on four selected areas where fundamental institutional reforms for better risk management are needed. The four areas cover integrated risk management, fiscal and financial risk management, social insurance and work status, and multinational approaches to address global risks. Why these four? They are by no means exhaustive, but they do represent a framework through which many specific recommendations provided in the Report could be implemented. They discuss innovative solutions to long-standing problems in developing countries. They cut across risks and social systems, using a holistic approach to risk management. Along with the other recommendations in the Report, they can contribute to mainstreaming risk management into the development agenda. The four reforms may require substantial changes in the way national governments develop and implement their general plans.

Reform 1. Establish a national risk board to assess and manage risks in an integrated way

What is the problem? Governments and public agencies often manage specific risks in an isolated manner, which can lead to ineffective formulation and implementation of risk management strategies. For example, while the ministry of finance can create and regulate a health care insurance system to better manage health risks, the usefulness of that system depends on the availability of competent health care providers, which is a responsibility of the health ministry. Shifting from one energy source to another (coal to gas or nuclear) may reduce one kind of pollution but increase other pollutants or security risks.

Such “risk-risk trade-offs” and coordination problems often arise from narrow decisions by risk managers with restricted perimeters of responsibility. Ideally, broader analyses can help risk managers develop “risk-superior solutions” that reduce multiple risks at the same time. Looking at risks in an integrated manner helps define policy priorities and avoids overspending on managing one risk while neglecting others, helping to achieve a good balance between preparation for low-probability but high-impact events (such as earthquakes) and less spectacular risks (such as truck accidents) that are more prevalent and are also costly to society.

Managing individual risks entails both trade-offs and synergies. A multistakeholder approach to national risk management helps identify and capture synergies across risks: for instance, developing the capacity to evacuate populations while taking into account the constraints of available crisis management infrastructure. National risk assessments undertaken in the Netherlands and the United Kingdom aim explicitly at identifying investments that increase the ability to anticipate and manage multiple risks—what the Dutch and U.K. authorities call risk management “capabilities.”

Important trade-offs and synergies also exist across risks or across scales. For instance, providing a public retirement scheme reduces risks for individuals but may increase aggregate fiscal risks. And a watershed that covers multiple municipalities can be managed effectively only in a coordinated manner. An integrated and multistakeholder approach helps deal with these trade-offs and reduces the likelihood of simply transferring a risk of one type to a risk of another type (such as from idiosyncratic risk to systemic risk) or from one agent to another.

Involving more stakeholders (policy makers, industry experts, and academics) in the process of designing a national risk management strategy also makes the process more transparent and less prone to political capture and introduces natural accountability mechanisms. All too often, risks that evolve over long time horizons and the lack of clear indicators of success for risk management limit the accountability of decision makers for their risk management choices. This problem can be addressed, in part, by an independent and multistakeholder entity that analyzes and publishes assessments of risk management practices within a country and that makes expert and policy-relevant recommendations.

What is the solution? A national risk board should be created to provide integrated risk management at the national level. This recommendation builds on analogous proposals, including the national Council of Risk Analysts proposed by Graham and Wiener, and the World Economic Forum’s proposal to establish a country risk officer—similar to the position of chief risk officer that has been created in many multinational companies, notably financial corporations. The board’s expertise should cover the areas of military,
security, and terrorism risk; economic risk; environmental, health, and technological risk; and social risk. It should also consider the actions undertaken by other countries, multinational firms, and the global community.

A national risk board can be set up as a standing (permanent) committee and should have powers to issue “act-or-explain” recommendations directed at the relevant authorities responsible for policy implementation. That is, government agencies and local authorities would have to act on the board’s recommendations or explain why they have decided to discard them.

The board should analyze risks and risk management policies and practices, including synergies and trade-offs across risks or across entities; define priorities in risk management; and make recommendations for appropriate policies to pursue. Many countries already have regular national risk assessments conducted by multistakeholder teams involving various ministries and often including representatives of the private sector and civil society. The Netherlands, Singapore, the United Kingdom, and the United States have undertaken such assessments, and other countries, such as Morocco, are working to set up a national assessment process. But this process is usually carried out by a temporary, ad hoc group that exists only while the assessment is taking place. Moreover, the political relevance and accountability of such ad hoc groups generally have been weak.

Some countries go beyond risk assessments. Some have created multiministry bodies in charge of information exchange and coordination for risk management, but these bodies usually deal with a specific risk—most often natural disasters, as in Peru. Few countries actually have an integrated risk management agency that deals with multiple risks.

One country that does is Singapore, which has a framework, the Whole-of-Government Integrated Risk Management approach, dedicated to avoiding silo effects within the government and to managing risks in an integrated manner. The institutional umbrella of the framework is the Strategy Committee, which is charged with steering and reviewing the implementation of the framework. The committee, which meets quarterly, comprises permanent secretaries from various ministries across government and is chaired by the Head of Civil Service. In addition, the Homefront Crisis Management system includes a ministerial committee chaired by the Minister of Domestic Affairs, which is responsible for crisis management. It is supported by the Homefront Crisis Executive Group, which comprises senior representatives from ministries and government agencies. This multirisk approach is complemented by more sectoral agencies, such as the National Security Coordination Secretariat, which focuses on national security issues. Singapore’s institutional arrangement for integrated risk management involves a great deal of specialization and a complex coordination process that has evolved over time.

For developing countries, a simpler, consolidated arrangement that involves less specificity and specialization in the institutional design and more explicit and robust coordination mechanisms might be desirable. The proposed National Risk Board takes into account such considerations.

How can it be implemented? The board needs to have the required expertise, be credible and relevant, and have sufficient legitimacy. It could either be an advisory body or have powers to implement recommendations, or a combination of both. It could consist entirely of experts or policy makers or a combination of both. There are trade-offs among these design choices, which are illustrated in diagram F1.1. For instance, a board of experts with powers to implement policy could lack legitimacy, especially if it were to implement policies with significant redistribution effects (such as raising taxes to cover disaster insurance premiums). In contrast, a board of experts issuing only nonbinding recommendations could lack relevance to policy making or be unable to influence actual decisions. If the board comprises only policy makers and issues nonbinding recommendations, it could lack credibility. Finally, if a board has implementation powers but consists only of policy makers, it could lack expertise and be vulnerable to political capture. To avoid becoming a powerless body, the board should have sufficient visibility: its chair should be a highly visible policy maker, and its annual meeting should be chaired by the head of government. The board should be held accountable by having to publish its recommendations, by issuing annual reports with policy priorities and their analytical substantiation, and by being subjected to annual hearings in front of a legislative committee.

The appropriate institutional design will depend on the country’s political and institutional context. For instance, rather than establishing an independent government agency, Jamaica, Mexico, and Morocco are considering placing the integrated risk management function within the government structure. Such an institutional design may be practical in countries with an effective and independent civil service, with the national risk board members appointed as expert technocrats with guaranteed positions for periods that extend beyond a political cycle. However, any institutional design should seek to balance legitimacy, relevance, credibility, and expertise (depicted as the balanced region in diagram F1.1).
Reform 2. Create independent fiscal and financial agencies to promote sustainable policies

Establish fiscal councils to promote fiscal sustainability

What is the problem? Very few developing countries have been able to conduct countercyclical fiscal policies. Rather than saving during good times, policy makers typically increase government spending, run budget deficits, and accumulate debt. Over the past five decades, government spending has behaved procyclically in more than 90 percent of developing countries; in sharp contrast, it has been countercyclical in 80 percent of industrial countries. Procyclical fiscal policies have increased output volatility and hindered long-term growth throughout the developing world.

Two main factors explain this procyclical bias in developing countries. First, limited access to world capital markets during recessions forces governments to raise taxes and cut spending in bad times. Second, political economy considerations—including distributional conflicts and information asymmetries—prevent governments from acting prudently during upswings. Competition among multiple power blocs for greater revenue windfalls leads to overspending and overprovision of some public goods. Voters’ perception that their governments are rent-seeking leads to increasing public pressure to lower taxes and increase spending in good times.

By contrast, monetary authorities in several developing countries have succeeded in adopting a credible, predictable, and sustainable regime in the form of inflation targeting. Several developed and developing countries have maintained low and stable inflation, thanks to monetary frameworks that benefit from a clear mandate, independence from political interference, and accountability for policy makers’ actions. A greater institutional push toward transparent monetary frameworks has provided central banks the flexibility to conduct countercyclical policies without jeopardizing inflationary goals. There is need for similar credible, predictable, and sustainable frameworks for fiscal policy.

What is the solution? The codification of flexible fiscal rules in legislation, along with the operation of autonomous fiscal councils, has the potential to restrain policy makers from spending sprees in normal times and to allow for additional (spending) stimulus in crisis times. Given the redistributive nature of fiscal policy, full delegation of policy making to these councils is unrealistic. Fiscal councils can nonetheless shape incentives more effectively than can a process that simply and mechanically follows numerical limits on budgetary aggregates. The councils should have a clear mandate, autonomy to operationalize budget procedures, and the power to monitor compliance with the fiscal rule. Fiscal councils should hold policy makers accountable for their actions and be accountable for their advice and recommendations. To put fiscal councils in place and uphold their powers, broad consensus needs to be built to implement these institutional reforms and encourage policy makers to deliver viable countercyclical actions. Severe crises may provide that opportunity—that has been the case in the European Union with the new Fiscal Compact Treaty and “Two-Pack” regulation proposal. However, establishing these councils requires strong institutional underpinnings. In countries with weak governance and capacity, transparent and comprehensive fiscal frameworks (including top-down approaches to budgeting) would provide a good foundation for more institution building in the future.

How can it be implemented? Fiscal authorities have adopted quantitative limits on deficits, spending, debt, or some combination, to contain fiscal profligacy. However, these numerical limits have restricted countercyclical responses during downturns and have led politicians to circumvent them through the use of creative accounting, such as Stability and Growth Pact rules in the European Union. Rather than imposing rigid numerical limits, fiscal authorities should focus on using flexible procedural rules that target the structural budget balance and provide a blueprint to achieve this target over time. Targeting structural budget balances—as is done in Chile and Norway—can deliver fiscal discipline and endow policy makers with flexibility to conduct countercyclical policies. Before the crisis, in 2007, strong economic performance and sharp increases in the prices of oil and copper allowed Chile and Norway—through their rules—to amass a significant amount of public savings. The general government primary surpluses that year were 11.8 of gross domestic product (GDP) in Chile and 15.7 percent in Norway, providing a comfortable cushion for countercyclical policies following the crisis.

Currently, more than 40 percent of advanced countries and about 20 percent of emerging market have a national fiscal rule targeting the structural budget balance. However, the effectiveness of these rules rests upon their credibility and flexibility: they may lack credibility if not accompanied by budget transparency and clear operational guidance or if they are overly ambitious or unrealistic. Defining a structural budget balance rule can create monitoring and communication problems. Moreover, fiscal rules cannot anticipate every possible contingency. Their flexibility could be enhanced through the design and incorporation of escape clauses that would take into account extreme events (crises, disasters). Fiscal councils can help identify the events that trigger escape clauses and decide on the treatment of cumulative deviations.

Fiscal councils can shield some budget procedures from political pressure, thereby containing the government’s incentives to overspend. Overspending and lack of budget discipline can be traced, in part, to overly optimistic government forecasts. Fiscal councils can produce official forecasts for GDP growth and government budgetary items. The U.K. Treasury (ministry of finance), for instance, has delegated such forecasts to the Office for Budget Responsibility. Forecasting contains its own risks, however. Forecasting errors in uncertain environments can threaten the credibility of the council. The accuracy of the council’s real GDP growth and budget forecasts will be reduced by the greater volatility associated with higher economic uncertainty. Councils will have to be held accountable for incorrect predictions.

By providing independent analysis of fiscal plans and executed policies, councils raise voters’ awareness of the consequences of policy actions. For instance, the Netherlands Bureau for Economic Policy Analysis (CPB) evaluates whether government policies threaten fiscal sustainability. Councils can also evaluate the cost of electoral platforms plans and coalition agreements after elections. Finally, fiscal councils can hold policy makers accountable for choices made regarding the cyclical operation of the rule and define clear legal sanctions before the fact for noncompliance.

Governments have incentives to dismiss the advice of fiscal councils. Councils can be dismantled if their critique of the government is too severe or if they are formed without adequate political consensus—as was the case in Hungary. Fiscal councils need legitimacy, as well as budgetary and political independence, to work effectively and
to avoid political capture. So far, countries have not granted political autonomy to fiscal councils. Councils have had to rely on informal independence acquired through the buildup of reputation over time. Councils with the largest degree of informal independence are the oldest ones—Denmark’s economic council, the Netherlands’ CPB, and the U.S. Congressional Budget Office. Limited resources and budget dependence on governmental offices can reduce the councils’ quality of work—as has happened in Canada and Sweden.

The council board members should be recruited competitively. Reputational costs of bad performance would act as a disciplining device. Nonetheless, members’ idiosyncrasies or dismal performance can affect the work of the entire council. Regular evaluations are warranted to hold council members accountable, including testifying on a regular basis before the legislative body and continuous evaluation by international peer councils or expert groups.

Put in place independent macroprudential supervisors for financial stability

What is the problem? The main difficulties for the financial system are managing systemic risk (stemming from negative externalities and herding behavior among individual financial firms) and avoiding regulatory capture by politicians and the financial industry (chapter 6).

What is the solution? The solution is to delegate the oversight of financial stability to an independent macroprudential committee, possibly under the central bank. In a number of emerging market countries, including the Czech Republic, South Africa, and Thailand, the responsibility for financial stability oversight already has been given to the central bank, while in many others, central banks have implicitly taken on this responsibility. Central banks seem to be best equipped to assume the statutory responsibility for macroprudential policy.

The macroprudential committee should include selected policy stakeholders and independent experts, following the successful example of monetary policy committees. It should use selected indicators of systemic risk to detect excessive acceleration or concentration of indebtedness in the financial sector or the real economy. To manage any emerging excess, the committee would be directly equipped with macroprudential tools or with the ability to recommend actions to other regulators on an act-or-explain basis. The committee should be accountable to the legislative body.

How can it be implemented? A possible role model for other countries, including developing ones, is the United Kingdom’s macroprudential committee—the Financial Policy Committee, or FPC. The FPC is chaired by the central bank governor and includes deputy governors for financial stability, monetary policy, and prudential regulation; the director of financial stability; the chief executive of the Financial Conduct Authority (business conduct regulator); four independent experts; and a representative of the U.K. Treasury, who has no voting rights.

The FPC has the statutory responsibility to identify, monitor, and take actions to remove or reduce systemic financial risk, with the view to protecting and enhancing the resilience of the U.K. financial system. It uses a set of systemic risk indicators to identify and monitor systemic risk. Since mid-2011, it has been equipped with direct powers to adjust the capital requirements that banks must hold (the macroprudential buffer) to mitigate systemic risk. It can also issue act-or-explain recommendations to other policy makers in the financial sector, notably the microprudential regulator and the business conduct regulator, to implement measures to foster financial stability. The FPC is likely to receive more direct tools to fulfill its statutory responsibility.

Reform 3. For debate: Should access to social insurance be tied to work status?

Social insurance (including pensions and health insurance) protects people’s income and consumption in the face of potentially devastating shocks such as illness or life-cycle transitions such as old age. This is particularly true for the most vulnerable segments of the population, which lack the resources and access to financial markets to accumulate savings and purchase private insurance products. A good social insurance system is one that is inclusive, that protects people equitably, that is fiscally sustainable in the long term, and that minimizes disincentives to work, save, and participate in the formal economy.

What is the problem? Many countries have established so-called contributory social insurance systems, financed by mandatory payroll taxes levied on employers and contributions paid by employees. In economies with high levels of formality, this system has been successful in providing insurance to most people. By contrast, in countries with large shares of self-employed and agricultural workers, contributory systems cover only a minority of the population. The traditional approach thus ends up excluding many workers—mostly those who are low-income, are self-employed, or work in agriculture.

To narrow the coverage gap, a growing number of countries have introduced noncontributory insurance, where benefits are financed by general revenues (figure F1.1a). For example, 13 countries in Latin America and the Caribbean have both noncontributory and contributory systems. The introduction of noncontributory systems has helped increase coverage, reducing catastrophic health expenditures and curbing poverty among the elderly. In fact, aside from the former socialist countries in Eastern Europe and Central Asia, only in those developing countries with large noncontributory systems are more than half the households with elderly members in the poorest 40 percent of the population covered (figure F1.1b).

However, combining contributory and noncontributory systems is particularly challenging. For workers and employers at the margin of the formal sector, participating in a mandatory contributory system is not worthwhile. Meanwhile, combined with other factors (such as minimum wages), the additional labor cost levied by the payroll tax for mandatory contributory systems discourages employers from hiring formally—or hiring at all—particularly for low-skill jobs. Thus if the benefits of contributing to social insurance are uncertain and the enforcement of mandated payments is weak, having these parallel systems may undermine both the incentives for employers to hire formally and for employees to seek formal employment. Evidence from Chile, Colombia, and Mexico shows that the interplay of contributory and noncontributory systems has led to declines in formal employment, and there is widespread evidence that smaller, informal firms tend to be less productive and pay lower wages. For workers who move between formal and informal jobs or in and out of the labor force, replacement rates tend to be low, or in some cases they might not be eligible to receive benefits at all. Moreover, workers in countries with rapidly aging populations make contributions toward increasingly uncertain benefits—all of which increases their perception
of contributions as a pure tax on labor, especially in the presence of parallel noncontributory systems. Finally, the rapid aging process taking place in many countries is threatening the fiscal sustainability of contributory systems, forcing governments to transfer additional resources.32

What could be done? One potential solution is to provide basic benefits using general revenues, instead of labor taxes. For health care, user fees could also be levied. The provision of basic benefits would make social insurance similar to other basic public services and recognize its level of priority in public spending. Funding basic social insurance through general revenues would make the insurance more inclusive by breaking the traditional eligibility condition linked to work status. Moreover, it could limit the distortions in the labor market, to the extent that general revenues are collected in a less distortionary way.33

Advanced countries such as Australia, New Zealand, and the United Kingdom rely mostly on universal basic pensions and provision of health care, whereas developing countries such as Mauritius and South Africa rely mostly on noncontributory systems for pensions.34 Several low- and middle-income countries have also begun to offer universal access to health insurance, starting with the poor. China, India, Thailand, Turkey, and Vietnam are a few examples. In all these cases, benefits do not depend on labor taxes and therefore are accessible to people in the informal sector.

How would it work? While provision of universal benefits is desirable, not all countries are in a position to provide them at adequate levels in a fiscally sustainable manner. This is particularly true for countries where the old-age dependency ratio is growing rapidly (figure F1.2). In practice, many developing countries would be able to provide only a minimum level of benefits, possibly to only a targeted population. Thus countries would need to consider their long-term fiscal capacity in relation to their future commitments to decide what level of coverage and benefits would be appropriate. Countries might also choose different ways to raise the necessary revenue. Some countries would have to introduce new taxes or raise existing ones; in other cases, they may be able to reform spending items like energy subsidies or use resource-based revenues where available.

Noncontributory schemes provide crucial protection for the poor. However, if the benefits that can be sustainably offered by noncontributory systems are too basic, additional contributions to health and pension systems may be necessary. If contributory and noncontributory systems do coexist, policy makers should design both systems in a way that avoids creating distortions in the labor market. In some contexts, that implies reforming contributory systems to make contributions voluntary or reducing the mandatory contribution rates. In all cases, contributory systems should provide benefits that are clearly linked to contributions. Incentives to save can have a significant impact, as well, with examples including automatic enrollment, matching contributions, simplifying processes, and lowering information barriers through financial literacy. New Zealand’s KiwiSaver scheme is an interesting example of an automatic enrollment program (with an “opt-out” option) that has increased retirement savings for about half the population.35

![Figure F1.1](image-url) Noncontributory pension programs have expanded coverage in developing countries, especially for the poorest

a. Regional coverage

![Graph showing regional coverage of pension programs.](image-url)

b. Country-level coverage

![Graph showing country-level coverage of pension programs.](image-url)

Sources: WDR 2014 team based on data from World Bank Pensions (database), United Nations 2009 (panel a); and Evans, forthcoming (panel b).

Note: For panel a, coverage rates are for total regional populations; years vary between 2001 and 2012. Organisation for Economic Co-operation and Development (OECD) countries in the figure are high-income countries that have been members of the OECD for at least 40 years. All other countries are grouped into geographic regions. For panel b, years vary between 2003 and 2010. Countries marked in blue have noncontributory programs. GNI = gross national income. PPP = purchasing power parity.
Focus on policy reform

In the absence of a global deal, many unilateral climate action plans to limit greenhouse gases have been put forward in recent years by private actors, civil society groups, and municipal and subnational governments (including in China and several U.S. states). Several countries have introduced measures, including incentives that can limit carbon emissions (table F1.1). These unilateral actions are welcome, but more ambitious and coordinated national and international efforts are needed to make a material difference and to ensure that the overall effort is greater than the sum of its individual parts. Yet some useful international actions, including cooperation to develop and share technologies and improvement in existing financial instruments, have been postponed in the expectation that they will be part of a soon-to-be-signed global agreement, reflecting differing views on who is responsible and incentives to free-ride on potential actions by others and to wait for new, equitable, financing instruments.

What is the solution? For certain global risks such as climate change or biodiversity loss, preserving collective action with full participation is the ultimate goal. In the interim, however, the international community is increasingly embracing incremental approaches that can increase traction toward global solutions. When incentives are misaligned, major sovereigns are not fully engaged, and the consequences of inaction are disastrous, progress can still be made outside a full-participation multilateral treaty. Incremental deals and actions by an initially small group of participants can serve as building blocks for future, comprehensive agreements.

Reform 4. For the international community, embrace incremental approaches that can increase traction toward global solutions

What is the problem? Globalization has contributed to rapid economic growth and to reduced poverty around the world. But it has also made economic, social, and ecological systems more interdependent, generating gains from collaboration, while also increasing the prevalence of cross-border risks, such as climate change, loss of biodiversity, overuse of natural resources, global financial crises, and pandemics. Containing global risks requires timely, proactive, and concerted action because no country acting alone can manage them effectively and achieve the scale required to address them comprehensively. Unfortunately, in the absence of an effective global risk governance mechanism led by an international body that has appropriate accountability and enforcement powers over sovereign nations, the international architecture necessary to address global risks has not kept pace with the complexities arising from increased global connectivity.

The limited progress to reach a global deal in some areas, in turn, has cast into doubt the ability to foster collective action among a large number of nations with diverging interests, capacity constraints, and incentives to free ride. Global negotiations to secure agreements with full participation have stalled—most spectacularly for climate change, as atmospheric concentrations of greenhouse gases have continued to rise, with potentially catastrophic and irreversible consequences. The concentration of the main greenhouse gas, carbon dioxide (CO₂), rose from its preindustrial level of 278 parts per million (ppm) to more than 390 ppm as of May 2013 (hitting 399.91 ppm in Hawaii—a level not seen since 2 million to 4 million years ago). This approaches the 450 ppm threshold level that corresponds to a likely increase in temperature larger than 2°C degree—the warming level the international community has committed to avoid.36

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Reform 4. For the international community, embrace incremental approaches that can increase traction toward global solutions

![Figure F1.2 Increasing coverage will require higher levels of spending in countries with aging populations](image-url)
convincing evidence on the need for urgent action. The 1968 Nuclear nonproliferation efforts of governments, international organizations, nongovernmen-
ted universal ratification during the 1990s through the combined ef-
tuations that can examine complex issues and take concrete ac-
tions. Over time, more public and private actors would be attracted
participants that can examine complex issues and take concrete ac-
tions. Over time, more public and private actors would be attracted

tories and countries). The goal is to
align incentives around a common goal in a group of like-minded
countries (including the U.S. state of California) and countries (Aus-
talania, China, Japan, New Zealand) are using the lessons from Europe’s
Emissions Trading System introduced to meet emission commitments
cost-effectively. Growing coalitions of more than 30 developed and
developing countries include the Partnership of Market Readiness and
the Climate, working on solutions to carbon pricing,38 and the Clean
Air Coalition of the United Nations Environment Programme, catalyz-
ing rapid reductions in short-lived climate pollutants.39

How can it be implemented? Countries, international organizations,
and private sector entities of the international community can form
“coalitions of the willing” (or even better, “coalitions of the working”) that could coordinate, advocate, and take action on some compo-
ments of elusive global risks, such as climate change and the loss of
biodiversity.40 The coalitions should engage the scientific community,
civil society, and media, and rely on information and peer pressure to demonstrate positive action and leadership, while inducing participants to comply and nonparticipants to join in a “race to the top.” International organizations can continue to contribute by offering ways to develop approaches to tackle the problem collectively, by providing platforms for policy discussion and by monitoring, reporting, and aggregating the actions to ensure that incremental steps are heading in the right direction.

For legitimacy and fairness, these coalitions must include actors that contribute most to the problem, as well as those most affected by it. They should start with specific, concrete actions that can set the momentum for subsequent steps. The coalitions should create incentives for others to join over time to bring the coalition to a global scale. Steps could include, as appropriate, promoting technological change that lowers participation costs (such as supporting cheaper ways to cut emissions by providing subsidies or funding for green technologies, or backing technology transfers to developing countries).

Granted, there are risks with this approach—not least because it is a “second best” solution that in effect allows free-riding by those outside the coalition. Incremental deals may fail to scale up efforts sufficiently—or worse, reduce the urgency of global cooperation. Moreover, for certain risks, global collective action is still the only viable approach, given the rapid spillover risks in a tightly interconnected world. For example, once a pandemic is under way, no individual country or region can unilaterally protect itself without global cooperation that enables information to be shared and assists countries lacking the capacity to detect and contain the contagion. Smallpox was declared eradicated in 1979 because it was eliminated in every country through global cooperation; if the disease had persisted in only one nation, all others would remain vulnerable.42 Resolving global financial crises in a highly connected world also requires global cooperation, with well-coordinated policy responses and information sharing: uncoordinated actions are unable to prevent contagion and block movement of activities to less well-regulated and more protected locations that retain systemic risk.

These limitations notwithstanding, the alternative—to wait until a universally acceptable deal is reached—is not viable for global risks such as climate change, biodiversity loss, or overuse of natural resources, if the irreversible consequences of inaction are to be avoided. That is especially the case for those who have done the least to cause the problem but will suffer some of the worst consequences. The international community therefore has the moral responsibility to take and support action on behalf of the vulnerable populations of today and the future. It should buttress the incremental approach with strategic thinking about which specific issues to tackle urgently first, while anchoring its actions to existing global frameworks to demonstrate that incremental and global deals are connected.43

One way to achieve this is to anchor the efforts of the coalition to the goals of the current global initiatives under the auspices of United Nations. Alternatively, an international risk board, similar to the national risk board proposed in Reform 1, could be established, in the form of an international panel on global systemic risks. The panel could invite the scientific and expert community around the world to pool all available knowledge to identify, assess, and manage the major global risks that cross national and generational boundaries in the near and longer term. Through its long-term orientation, interdisciplinary nature, and the participation of global experts, the board could focus on providing credible, reliable, and impartial assessments of the causes, dynamics, and consequences of key systemic risks that pose threats to development. It could also analyze the interactions and prioritize across various risks and systematically bring its analysis to the attention of policy makers and the international community. In so doing, it could provide valuable inputs to the coalition of the willing on the specific issues that require urgent attention and offer credibility and legitimacy to the coalition’s efforts.

Notes
5. OECD 2009.
6. However, in other cases when such a governmental body works with indirect policy tools, such as the monetary policy, an institutional design along these lines could be preferable.
15. Wyplosz 2013.
17. Frankel 2011 shows that the authorities overestimate the persistence of booms and underestimate that of recessions.
23. Lane 2010.
28. The term social insurance typically includes pensions, health, and unemployment insurance. Because most developing countries with social insurance offer only pensions and health benefits, the discussion in this section focuses on these two areas.
29. Evans, forthcoming; Levy and Schady 2013.
32. This is particularly true for “pay-as-you-go” systems, in which the current labor force finances the benefits provided to current beneficiaries.
33. Frölich and others, forthcoming.
34. Holzmann, Robalino, and Takayama 2009.
35. Hinz and others 2013.
37. UNEP 2007.
39. For further details, see http://www.unep.org/ccac.
42. Barrett 2006.
44. Bodies of this sort already exist for specific risks (such as the Intergovernmental Panel on Climate Change, or the Intergovernmental Platform on Biodiversity and Ecosystem Services) but none that consider multiple global risks in a systematic way. See a related proposal by the German Institute for Development 2009.