

# Pathways to a Sustainable Future

**A**ccelerated growth in productivity and income can eliminate poverty and enhance prosperity in developing countries. This growth needs to be achieved at the same time critical ecosystem services are improved and the social fabric that underpins development is strengthened. A close look at what is happening on the ground (chapters 4–8) reveals both cause for concern and cause for hope.

Concern stems from evidence that getting the world on a sustainable path is problematic:

- In many developing countries, productivity is low, growth is stagnant, and unemployment is high.
- The number of people living on less than \$1 a day (1.2 billion) is dropping but it is still a challenge, and more people are living on fragile lands.
- Income inequality is rising. Average income in the wealthiest 20 countries is 37 times that in the poorest 20 countries—twice the ratio in 1970.
- Many of the poorest countries are wracked by civil conflict, with animosities deep and prolonged.
- Stress on the environment is increasing. Fisheries are being overexploited, soils degraded, coral reefs destroyed, tropical forests lost, air and water polluted.
- The financial transfers to address these issues are far from adequate, even though the resources are available.

Hope springs from the genuine progress made already in boosting average per-capita incomes in developing countries and reducing infant mortality and illiteracy rates—and from the greater awareness of the problems that remain. Disparate groups now agree

that the current development path, though possible for a while, is not sustainable. Science and technology are providing some answers, but they will not be sufficient without complementary changes in institutions. The world community, in confronting some of the challenges, is grappling with new strategies and goals:

- Development agencies are shifting to more participatory and holistic approaches with a medium-term perspective, through the Comprehensive Development Framework (CDF) and focused poverty reduction strategies, backed by actions on the ground through partnerships, broader inclusion in the preparation of assistance strategies, and some shifts in lending and grant aid.
- The private sector is more committed to sustainable development, with greater use of triple-bottom-line accounting by firms and greater use of environmental and social criteria by investors.
- Governments and civil society are supporting the Convention on Biodiversity, the Convention to Combat Desertification, the Convention on Climate Change, and the Millennium Development Goals. And civil society is demanding more public and private accountability.

Although encouraging, these advances are small relative to the many challenges of sustainable development. Sustainability requires thinking long term, but acting now—it also requires coordination. This Report recognizes the importance of economic incentives and policies in changing behavior, but it does not focus on specific policies or organizational designs. (Nor does it evaluate projections based on

different policy or organizational scenarios.) Instead it argues that well known and appropriate policies have not been adopted or implemented because of distributional problems and institutional weaknesses, and that sustainable development with faster growth and higher productivity, capable of eliminating poverty and achieving a more just and sustainable development path, requires much stronger institutions. To support improvements in well-being, these institutions would need to manage a broader portfolio of assets and adapt to new problems and opportunities. Technologies and preferences will change, and resource allocation and distribution issues cannot be neatly separated.

Managing risk is important. Not all risks are insurable. Not all irreversible changes are bad, but some are. For the assets most at risk—the natural and social—markets cannot provide the basic coordinating functions of sensing problems, balancing interests, and executing policies and solutions. These types of assets have impacts, good and bad, that extend beyond individual transactions and thus require coordination to promote good spillovers and minimize the bad. This coordination reveals the need for institutions that are capable of organizing dispersed interests, confronting vested interests, and ensuring credible commitments in execution.

This Report shows that rising income can facilitate but not guarantee better environmental and social outcomes by permitting countries to simply “grow out of” pollution or civil conflict. It also shows that low income does not condemn people to a deteriorating environment or social climate. What makes the difference? Public action, through competent institutions.

Mobilizing institutional responses is more difficult for some problems than others. Problems with impacts and risks that are diffuse and long term (such as climate change and biodiversity loss) are less readily perceived and appreciated than those immediately felt and measured (i.e., some forms of local air and water pollution and deforestation). Assets that are public goods or common property goods—such as clean air, forests, fisheries, and water—are a challenge to manage sustainably. The reason is that private property rights are difficult to assign or enforce, or if improperly designed they fragment and undermine the underlying joint functions of an asset—say, an interconnected ecosystem. In addition, the concerns of the poor and powerless are less likely to attract the

attention of society’s many institutions than those of strong and vested interest groups. That is why greater equality in access to assets and voice makes a difference in the kinds of environmental and social concerns that society addresses.

This Report argues that, for countries and local communities, extreme inequalities in assets, power, and voice are corrosive, linked, and self-perpetuating. When the poor lack voice and a stake in society, social assets (such as trust) and environmental assets (on which the poor depend) are eroded, stability is undermined, and the ability to solve economic, social, and environmental problems (that require collective action) dissipates.

As the world comes to resemble a single community, these lessons may apply even at the global level. At the very least, inequality and the lack of hope for the poorest countries will inhibit attempts at solving global problems—not just the current preoccupations with cross-border spillovers of conflict and terrorism, but also the currently unimagined problems that will require global cooperation 20 or 50 years hence. That is why ending global poverty is much more than a moral imperative—it is the cornerstone of a sustainable world.<sup>1</sup>

The next 20 to 50 years are a demographic window of opportunity, created by the deceleration of population growth rates and the decline in dependency ratios. This period will also witness completion of the urban transition in most countries. The demographic transition will permit greater savings if the working age population has jobs and investment opportunities. The urban transition will facilitate income generation, but over the next 50 years it will also require massive investments. Many of these investments are likely to be long-lived—so getting them right by incorporating environmental and social concerns in their design now is critical.

Even the next 15 years (2003–2018) could bring a record period of economic growth in developing countries. Driven by growth in China and India, income in the low- and middle-income countries will almost double—accounting for more than a third of the 60 percent increase in world output.<sup>2</sup> This period offers the opportunity to lay the foundation for inclusive growth—which will require confronting barriers to change. Institutions that can manage the social and economic transitions, by partially compensating losing interests, are much easier to create in rapidly growing economies than in economies

where inclusion requires a battle over stagnant shares.<sup>3</sup> For many countries whether the opportunities generated by new growth are inclusive, or whether they lock in vested interests and exclusive institutions, will depend on decisions taken in the next few years.

### Acting today

This Report outlines actions that can be taken now to improve the ability of institutions to identify, adopt, and implement policies that facilitate growth while addressing critical environmental and social issues.

### *Institutional and sectoral approaches are complementary*

Sustainable development requires action across many sectors and disciplines, including water, energy, health, agriculture, biodiversity, and others. In a companion document, the World Bank sets forth some recommendations and action plans to advance sectoral goals.<sup>4</sup>

This Report takes a different approach—but one intended to complement and support the sectoral perspectives. Its message is that proposing and endorsing a set of action plans are important first step, but realizing them requires an institutional apparatus that cuts across sectors. Achieving all the broad sectoral goals will involve problem diagnosis, decisions with distributional consequences, and coordinated and sustained commitments to action. These functional capabilities require general improvement in coordinating institutions within and across countries.

Making progress on the sectoral issues, for example, requires first a better understanding of local conditions and a better ability to diagnose local problems. Domestic and international institutions will be required to fund and implement R&D where local capacities are deficient. Second, some difficult distributional issues must be resolved: How to divide the water among claimants? How to allocate health resources among preventive, primary, and secondary care? What sort of land uses to permit, for whom, if environmental processes are to be maintained? Without institutions that represent fairly the interests of dispersed and (usually) voiceless interests, institutions affecting these sectors are prone to capture by vested interests, and they are unlikely to implement efficient or equitable solutions. Third, commitment problems loom large. Health and water services often dete-

riorate after costly initial investments for lack of routine funding and maintenance. This speaks to the challenge of organizing beneficiaries for sustained commitments.

This Report shows that even with imperfect institutions it is possible—indeed imperative—to build now on the many institutional innovations already out there that show the way forward.

Many, if not all, of the institutional innovations cited in this Report already show signs of being replicable and capable of being scaled up to meet the challenges ahead. For example, the pilot experience with security of tenure in *favelas* in Brazil is being extended to hundreds of thousands of households. The multistakeholder pilot pollution disclosure programs in China have moved from 2 pilot municipalities to 13; countrywide implementation is currently under discussion. The village initiative in Morocco is being replicated in a dozen other villages. The forest concession program in Cameroon has created a constituency for expanding it to other sectors. There is much creativity under way with initiatives emerging from the public sector, the private sector, and civil society. An enabling environment is needed to encourage such initiatives, to facilitate partnerships, and to help mobilize the resources needed to scale up promising activities within countries, and across countries.

### *Picking up signals early*

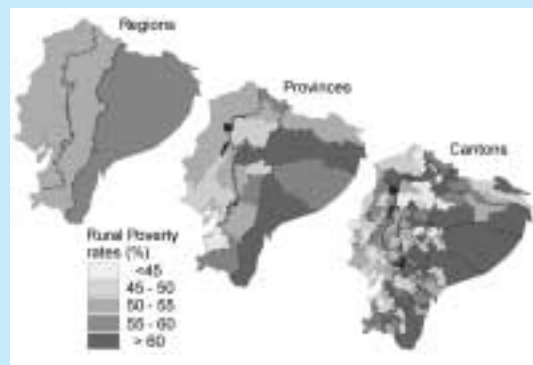
*Being sensitive to early signs of problems, especially from the fringes, is important if society is to avoid costly crises later.* HIV/AIDS is a case in point. In the early stages of the epidemic, HIV/AIDS received little attention since no one knew how contagious it was or the trajectory of future costs. By now, with the evidence available, all countries should have programs to identify the problem early and to stay ahead of the epidemic. The same is true for environmental issues—the status of biodiversity, air pollution, lead in gasoline, or the drawdown of aquifers in arid regions.

*Creating information for constituencies and constituencies for information.* There is a need for significant investment in information and indicators at global and local levels, where this information would find users and audiences. The initiative must go well beyond current attempts to devise indicators of sustainable development, including summary indexes that try to capture sustainable development in a sin-

### Box 9.1 Think spatially

The usefulness of the spatial approach adopted in this Report is evident from the map below. The problem, in this case, is the incidence of poverty in Ecuador at varying scales. Pockets of poverty at the canton level are obscured by aggregation, potentially undermining national level responses.

#### Spatial disaggregation of poverty



Source: Elbers, C., Lanjouw, J. and Lanjouw, P. Forthcoming. 'Micro-Level Estimation of Poverty and Inequality', *Econometrica*, and Demombynes, G., C. Elbers, J.O. Lanjouw, P. Lanjouw, J. Mistiaen and B. Ozler (2002), Producing an improved geographic profile of poverty. Methodology and evidence from three developing countries, WIDER Discussion paper No. 2002/39, United Nations University, Helsinki.

gle headline number. If society is to sustain development, it needs good indicators, but it also needs individuals and groups who demand and use detailed, and quality information to solve problems, and others who produce information to meet that demand. Summary indicators should rest on a solid foundation of supporting data.

Environmental and social problems are easy to misdiagnose when there is a lack of reliable, current, and geographically disaggregated information. For many important aspects of the environment, global conditions or trends are worrisome, but society lacks the detailed data to monitor, diagnose, and manage the problems at local, national, and global levels. Data for the social sphere are similarly limited. For most countries, reliable, up-to-date, spatially disaggregated information is lacking on poverty and many other social concerns (health, education, crime).

These data gaps inhibit understanding of—and consensus on—the impacts of policy reforms, national and international, on poverty in the develop-

ing world. They also impede the formulation and execution of strategies to combat desertification, other forms of ecosystem degradation, and biodiversity loss. And they muddy the discussion of the nature and impacts of global inequality. Fortunately, rapid changes in communication and information technology make it more feasible to gather this information through a combination of surveys, reports from ground observers, and information from satellites and other sensors. As information costs continue to plummet, the scope for expanding the collection of this kind of information is immense. Innovative information systems can track and deter industrial polluters (as in Indonesia's PROPER system) and illegal deforestation and forest fires (as in Mato Grosso's environmental control system).

*Although information provision can sometimes be a catalyst for change, the most effective systems are those that create constituencies for information.* The constituencies may be public agencies that use the information to plan and assess strategies for pollution control, crime prevention, or public health delivery. Or they may be civil society organizations that use information to mobilize dispersed interests. It is demand by users that stimulates and maintains the production of relevant, reliable information.

This Report proposes an intensive global effort to develop and fund a program to fill data gaps, which would include:

- More local poverty, health, and education data linked to national totals
- More spatially disaggregated data on economic and environmental health conditions for the analysis of local problems and impacts
- More coupling of satellite-based remote sensing data with local "ground-truthing" information, to measure the extent and quality of land under different types of habitat or land cover
- More monitoring of soil degradation, its causes and impacts
- More effort at measuring hydrological conditions.
- More investments in geospatial information, such as the availability of infrastructure services, and accurate current maps of road networks
- More coordination and augmentation of national efforts to monitor the Millennium Development Goals, to increase comparability, and to provide desirable levels of frequency and geographic detail.

### Balancing interests

To equitably and efficiently balance interests within a society, two elements are necessary: first, getting everyone fairly represented at the bargaining table; second, facilitating negotiation once everyone is there. For many problems at the level of the community or nation—especially those relating to environmental and social issues—the responsibility lies with the government. But governments vary in their capacity to undertake these tasks. An expanding set of institutional tools can assist or complement governments in balancing interests, and they can assist citizens in ensuring that their governments are fair and responsive in doing so. These tools become even more important at the international level, where they must substitute for government. It is fundamentally difficult to balance interests in heterogeneous societies. But taken together, in a context of increasingly democratic institutions and decreasing costs of information and communication, these tools give some hope.

*Transparency, performance reporting, and accountability.* Often the biggest barrier to balancing interests is an imbalance in the power or influence of parties. Devices for accountability—including transparency and performance reporting—are useful tools for countering the tendency of entrenched interests to capture institutions or to be unresponsive to dispersed or less powerful interests. Providing this kind of information helps level the playing field for negotiation, since less powerful interests will typically have poorer access to information. Performance reporting can also help governments, companies, and other organizations understand the effectiveness and impacts of their own actions, for instance

- *National reporting*—transparency in fiscal affairs, reliability of legal institutions, and adequacy of environmental impact reviews—can all provide the information and incentives necessary to improve governance and the balancing of interests. Examples include the recent International Monetary Fund Codes of Good Practice on transparency in fiscal, monetary, and financial policies, and WTO requirements on subsidy reporting. Another example is the Aarhus Convention—a voluntary commitment to environmental transparency. National reporting requirements under the WTO, multinational environmental agreements, and other international treaties can help nations track and man-

age their own compliance processes and help build confidence among parties to forge agreements.

- *Independent audits of public programs*—especially programs related to the management of public assets, such as land, water, forests, minerals, and fisheries and the regulation of pollution—can deter corruption and promote better management of environmental resources. Regular audits of national environmental assets can be useful in detecting and diagnosing problems. Public ratings of governments' transparency and corruption can affect investment and provide a check on government capture by vested interests. Assessment of the distributional impact of government expenditures provides an essential basis for renegotiating them.
- *Performance reporting for cities and local governments* provides a tool for citizens to ensure that governments are responsive to public needs and are equitably and efficiently implementing agreed-on programs in health, sanitation, water supply, public safety, and other areas of public concern.
- *Performance reporting by private firms*—financial, environmental, and social—helps society to identify actors with disproportionately large impacts, both good and bad, and to understand trade-offs and complementarities between economic performance, and economic, environmental, and social performance.

*Forums and networks for negotiation.* Governments and civil society can seek ways to facilitate negotiation between affected parties. For instance, Colombia's regional environmental authorities have set up structured negotiations between water polluters and water users to help determine tolerable levels of pollution. Participatory budgeting has transformed the budgetary process in more than 80 Brazilian cities. At the international level, the Convention on Long-Range Transboundary Air Pollution forums on air pollution and the Global Environment Facility-sponsored transboundary diagnostic assessments for international waters provide structured means of assessing options. These forums become more effective when they build up social capital through dense networks of trust and information linking technical experts, government officials and legislators, civil society, and special interests.

*Compensation and incentives.* Even win-win outcomes usually have a loser—a party whose losses are



outbalanced by social gains. Basic principles for balancing interests therefore include minimizing the losses, compensating losers, or providing incentives that reconcile private and social objectives.

One way to do this in the environmental sphere is through market-based permits. Where actors have different costs of complying with social objectives, trading rights or obligations can substantially reduce compliance costs for individuals and for society as a whole (see box 8.7). Assignment of valuable permit rights (pollution permits, fishery quotas) is also a means of compensating potential losers and ensuring participation in a reformed system. When the potential losers are wealthy interests, however, there may be an unavoidable trade-off between equity and cooperation.

Certification systems are another means of aligning private and social incentives. Certification of firms helps investors identify companies with better environmental and social performance, thus promoting incentives for more socially responsible behavior. Certification of financial institutions (including private banks, bilateral export-import banks, and multilateral development banks) can promote standards for assessing the environmental and social impacts of investment projects. Certification of products (wood, coffee, fish, beach resorts, garments) can allow consumers and investors to reward firms that employ environmentally and socially sustainable production processes. Certification of diamonds and other lootable commodities can be part of a strategy to avert civil conflict over point-source wealth. Even governments may find it advantageous to participate in voluntary certification schemes. For instance, the Alaska state government applied for, and received, certification by the Marine Stewardship Council for management of its salmon fishery (see box 7.9).

The success of these efforts depends on how they influence producer, consumer, and investor behavior. And that depends on the costs of certification, the proportion of the industry that is sensitive to certification, and the legitimacy, integrity, and reliability of the certification criteria and process.

To become more widespread and effective, certification systems require coordinated international attention on several grounds. First, there are important links to the world trade system and a need for coordination with WTO activities—to ensure that standards are not used to disguise protectionism.

Second, careful attention is needed to monitor the possibility that complying with certification procedures may be too burdensome for small firms. Third, and probably most important, there is a need to ensure the integrity of the evolving certification systems. For these systems to work on a large scale, they will probably require a massive expansion of “markets for honesty.” These are the networks of private auditors and certifiers, and their accreditation agencies, that provide ISO certification, shipping certification, and audits of corporate earnings.

### *Implementing*

Implementing and executing policies and programs requires appropriate institutional capacity. Mention of capacity-building evokes respect and approval—but not always excitement or enthusiasm. It has usually been seen as an add-on to projects and programs with other, more important purposes. It is often identified with failed technical assistance projects that relied heavily on the ephemeral input of foreign consultants. The same is true of monitoring and evaluation, another project add-on that often fails to be executed with rigor or to provide much insight. Yet institutional competence, especially the ability to learn, is crucial to efficient use of development investments and to solving the coordination problems described in this Report.

*Promoting capacity-building and problem-solving in the developing world.* The need to emphasize long-term capacity-building has been recognized for more than a decade.<sup>5</sup> Yet, despite technical cooperation grants of \$201.3 billion over 1990–2001,<sup>6</sup> progress in institution-building in developing countries has been disappointing. Most of those funds, to be sure, have been devoted to project preparation. Such investments may have been effective in achieving project goals through reliance on expatriate inputs, but at the cost of forgone opportunities to bolster local capacity. There are failures, too, in the demand for institution-building. Often, lack of ownership, lack of government interest in bolstering capacity, and pressures for rent-seeking have kept competent institutions from taking root.<sup>7</sup>

Several new approaches could help place learning and institutional development at the core of sustainable development efforts—that is, projects and programs designed around institutional development, rather than vice versa. These approaches recognize

that capacity-building is not accomplished in a few years and thus is not well suited to lending for individual projects or adjustment programs. These approaches also recognize that capacity has a strong social capital component, involving not just people but enduring networks that link policymakers, experts, civil society, and the private sector. And these approaches generate virtuous circles when information and indicators are made available to groups that demand and act on that information.

The new approaches use a variety of new types of learning organizations to stimulate both the demand for and supply of institutional skills; they include:

- *Think-and-do tanks*, policy analytic and action-oriented organizations that build links (twinning) to universities and think tanks in other develop-

ing countries and in the developed world, to government line agencies in their own countries, and to local governments and community organizations working on the ground (box 9.2).

- *Scientific research organizations*, based in the developing world, that combine local and global expertise and help to nurture “policy entrepreneurs” at home in both scientific and policy worlds.
- *Learning networks* for sharing knowledge, such as the Union of Capital Cities of Ibero-America—real-time, demand-driven learning networks run by national and international associations of mayors, local government officials, and city practitioners share experiences among their members and other cities through the Internet and workshops.
- *CSOs for monitoring and evaluating government and corporate performance*. These groups that in-

### Box 9.2

#### Problem solving by think-and-do tanks

Think-and-do tanks fill the knowledge management need for policy innovation by promoting open interaction between academia, government, business and civil society.\* They combine rigorous analytical research with practical policy-oriented analysis. Although new research institutes have spread in developing countries, few have the quality, funding, and prestige to influence development priorities and policy choices. The best ones use their capabilities to innovate and solve problems unique to their country.

- Singapore’s Institute for South East Asian Studies, established in 1968, describes its philosophy as, “linking people, ideas and capital for the purpose of bringing about widespread prosperity.”
- Malaysia’s Institute of Strategic and International Studies, established in 1986, sees its role in a development context, “a country bent on reform and achieving high economic growth needs ideas. Some of the best ideas come from the economically successful countries, and we need to organize ourselves to learn from these experiences.”
- Korean Development Institute, an autonomous institute set up in 1971 with government funding through a \$15 million grant from USAID, reports directly to the president and provides independent advice on long and short-term domestic economic policies, and more recently social development.
- Demos, the United Kingdom’s independent, nonprofit institute established in 1993 to “solve people’s problems,” has an advisory board of successful and innovative business leaders, university professors, notable members of civil society, and a range of former elected officials. Its strong technical reputation gives it good contacts with senior levels of government.

- Brazil’s IMAZON, Amazon Institute of People and the Environment, founded in 1990, a nonprofit research institution, in the Eastern Amazonian city of Belem, is based on the idea that the power of scientists to influence patterns of land use lies in the appropriateness and quality of the information produced and in their ability to make that information accessible to those working on sustainable resource use at regional, municipal, and community levels.

#### Funding and support

The prerequisites for establishing quality institutions are recognition of need, a strong champion in government, availability of core funding, and an independent legal status. Governments dedicated to dynamic development and facilitating the transformation of society recognize the need and rely heavily on problem-solving institutes. Funding of sufficient scale and duration determines the ability of an institute to consolidate analytical strength, maintain autonomy, and achieve a reputation for quality advice. Funding includes public and private seed money, often in the form of endowments supplemented by additional grants from individuals, corporations, philanthropic organizations, donor agencies, and government for particular studies. Institutes that receive all their funding from government must be assured of an independent legal status, reporting to the head of government. Independence is reinforced through the quality of the work, which should be open to scrutiny by the public. The Global Development Network, founded in 1999, provides funding and other support for policy research institutions in seven regional networks spanning the developing world.† It helps build capacity and research expertise by linking these networks of researchers to their counterparts in Europe, North America, and Japan. The

(Box continues on next page).

**Box 9.2 (continued)**

Euro-Mediterranean Network also promotes peer reviewed professionalism. Set up in 2000 with EU funding,<sup>†</sup> it groups 97 economic institutes from 27 countries around the Mediterranean. These networks promote professionalism through funding and peer review of research.

**Other ingredients for success**

A variety of features are important in ensuring that an institute produces good analysis, valued by decisionmakers. Some advice from the institute directors:

- Combine a strong analytical base with a good understanding of on-the-ground realities. Learn by listening to the people the authorities are not listening to (the fringes of society) and by remaining close to the realities of your country. This promotes creativity and relevant policy solutions.
- Attract the best and brightest nationals back to your country to take advantage of the knowledge they gained abroad and their understanding of local culture and traditions to function as cultural translators. Recruit a good mix of people to bring the necessary breadth of knowledge to solve complex problems.

- Open access to senior policymakers is critical, but maintain independence. With autonomy comes responsibility. Make policy recommendations constructive. Garner high-level national support based on the quality and creativity of the work. Seek peer review by publishing articles in professional journals as a means of reinforcing quality.
- Stimulate healthy debate of complex issues by being informative, bringing out the substance behind political programs, evaluating the costs, benefits, options and choices.
- Create a team-based approach—no hierarchy—where experts coach, coordinate the work of others, and the director ensures ultimate quality control.
- Oversee the implementation of your institute's recommendations. This provides valuable lessons and continuously improves your policymaking capabilities.

\* Unpublished background note, "Management knowledge and Innovation & the Role of 'Idea Institutes,'" January 2001, World Bank and Al Akhawayn University, Ifrane Morocco; Grindle (1997).

<sup>†</sup> <http://www.gdnet.org/>

<sup>‡</sup> <http://www.femise.org/Presentation/presentation.htm>

independently monitor and report on government and corporate expenditures and activities have proliferated recently.<sup>8</sup> They can help improve government and corporate accountability, create incentives for monitoring and evaluation within government and corporations, and mobilize public demand for institutional improvements.

- *Mainstreaming monitoring and evaluation functions inside government agencies.* Responding to both internal and public demand for increased efficiency and accountability, some governments are improving internal capabilities for monitoring and evaluating programs and projects.<sup>9</sup>

Donors and multilateral development banks can support the evolution of this intellectual ecosystem of organizations that learn—and apply that learning to improving policies and projects. Donors can support these organizations, through direct funding and twinning arrangements on a large scale. These are long-term efforts that bear fruit over a decade or two as the institutions train people, enhance the prestige of necessary but neglected professions, such as policy analysis, and build dense networks of trust and knowledge. Funding must be committed over periods much longer than traditional projects, and funders must accept that the impacts of these investments, though potentially enormous, will be deferred and difficult to quantify. Donors can also

design projects with learning as a central output, providing hands-on monitoring, evaluation, and implementation experience to learning organizations.

*Expanding the scope of global assessment institutions to address emerging issues.* At the transnational and global level, assessment institutions such as the IPCC have shown their value in forging consensus on the problems and the options for addressing them.<sup>10</sup> More institutions like the IPCC are needed to address the new global problems that continue to emerge all the time. For instance, questions at the intersection of trade and environment are sure to proliferate, as the discussion of product certification illustrates. Trade policy is an area where more systematic analysis of options might help in forging agreements. Deepening scientific knowledge exposes overlooked transnational environmental processes. For instance, there is increasing attention to the global nitrogen cycle and its effect on marine ecosystems. Technical change, too, brings new problems and risks as well as opportunities. Balancing the environmental risks and benefits of genetically modified organisms is a clear example. And social changes require ongoing and forward-looking attention. For instance, intensifying pressures for international migration have far-reaching ramifications. In all of these areas, there is a strong argument for concerted international attention—and for achieving some consensus on the relevant issues.



### Ensuring greater inclusion

*Increased voice and major increases in substantive democratization.* Inclusiveness can be expanded through significant changes in governance that increase representation and accountability, such as empowering local government through well-designed decentralization reforms; electing rather than appointing mayors (Mexico City); replacing military with elected regimes (Cubatão), or empowering groups excluded from decisionmaking—women, indigenous people, and other disadvantaged groups, who may be in the majority (see boxes 3.8 and 7.10).

*Better distribution of access to assets.* Dynamic growth and development processes create more assets and new types of assets. It will be much easier to increase inclusiveness by ensuring that the poor and disenfranchised, as well as the middle class, have greater access to these newly created assets. How? By increasing access to education, which build human capital; by expanding market-based rural land reforms to increase smallholders' access to agricultural land and complementary assets (water, roads, and knowhow); by expanding the provision of secure tenure (protection from arbitrary eviction) in urban slums or other informal urban settlements; by increasing access to knowledge (the new asset frontier). Any remaining need to improve access to assets by redistributing existing assets must be based on carefully designed measures that balance interests so that good institutions that enable people and assets to thrive can emerge.

### Ongoing dialogue: a global vision and accord

To overcome the barriers to solving collective problems more rapidly and systematically requires mutual commitments by developing and developed countries to a bold global vision and accord. This vision requires a massive and steady effort to eliminate poverty and to protect and manage a broader portfolio of assets that will ensure the well-being of future generations.

### A global vision

Today the lessons of history are clearer than ever, for instance:

- Prosperity and well-being, like peace, are indivisible and must be shared if they are to be maintained.
- Two generations—fifty years—are enough to eliminate poverty and to move to a more sustainable development path.

But negotiating this great transformation in the next 20 to 50 years requires a renewed commitment by all countries—developed and developing—to this overarching common vision. The vision is ambitious, but achievable. Many small, poor countries—Denmark, Ireland, Japan, Malaysia, Norway, and the Republic of Korea—have made the leap at different times from illiteracy and mass poverty to literacy and affluence within two generations. They were late industrializers in a global economy already dominated by giants. The European Union shows how the prospect of mutually beneficial integration can induce poorer countries to adopt higher standards of environmental and economic management while the richer ones provide resources and help to boost capacity. The experience of the Dust Bowl in the United States shows how small, individual states could not solve their problems without the migration opportunities offered by other states, or the channeling of knowledge and financial resources from other states that helped to restore economic health over many decades.

The European Recovery Program (the Marshall Plan) after World War II showed how mobilizing resources on a grand scale can build economies and transform enmity into partnership. The architects of the Marshall Plan accepted the challenge of tackling “hunger, poverty, desperation, and chaos” by rebuilding a continent in the interest of political stability, social development, and a healthy world economy. They had learned the hard lessons of history: the Treaty of Versailles ending the First World War in 1919 had imposed unilateral conditions and enforced severe reparations on the vanquished, paving the way for political extremism. The designers of the Marshall Plan avoided these mistakes and paved the way for peace. The Treaty of Versailles courted conflict. The Marshall Plan broke a vicious cycle of poverty and regret; it supported economic reconstruction and social order; and it injected money and ideas to rebuild Europe and herald more than 50 years of unprecedented peace, prosperity, and partnership.

Balancing interests and forging credible commitments for the long haul is difficult at the national level but even more so at the global level. Yet it is increasingly necessary because national action is insufficient to deal with the scale of spillovers (box 9.3) generated by a more interconnected world and global economy. So increased global coordination is necessary to expand the capacity and opportunities of the

**Box 9.3****A big push—to address spillovers and seize opportunities**

The many global challenges are deeply linked—to each other and to local concerns. So are their solutions. Managing global spillovers, both environmental and social, and taking advantage of a window of opportunity over the next 20–50 years, will require a big push by global institutions—and by national and local institutions.

There are important biophysical links among the spillovers.

- Deforestation, an important cause of biodiversity loss, contributes to climate change. Climate change, in turn, puts stress on ecosystem resources, including grazing lands, water resources, and coral reef fisheries that nourish some of the world's poorest people. It transforms grazing lands to desert. And it threatens cities and coastal populations with more storms and flooding.
- Poverty alleviation and global growth are linked to biodiversity conservation. In the poorest countries, good governance is necessary to protect renewable resources and the people who depend on them—and it is a prerequisite for the ecosystem management organizations advocated here. Furthermore, vigorous local and global development may pull farm populations away from forest lands that are marginal for agriculture but valuable for environmental services. So faster development and the creation of better institutions may avert the sacrifice of valuable ecosystems for ephemeral gain.
- Atmospheric greenhouse gas concentrations cannot be stabilized if the poor countries follow the same emissions path as the developed countries—even if the developed countries were to cut their emissions to zero. Global sustainability requires that all countries work together to pursue long-term paths to low emissions. But equity, and international cooperation, require that greenhouse gases be stabilized without jeopardizing the development aspirations of poor countries.
- Trade and other internationally negotiated policies can affect poverty, biodiversity loss, greenhouse gas emissions, and other global environmental spillovers such as nitrogen emis-

sions and toxins. Coordination at the international level and actions at the national level are important to pursue synergies among goals and avoid unintended consequences. Social spillovers, from institutional and environmental weakness, also tightly bind the interests of rich and poor nations and motivate common interests in sustainable development.

- Infectious diseases are a global concern. Urbanization and faster travel speed the transmission of disease, increasing the chances of epidemics. The misuse of antibiotics—overuse in wealthy countries and underuse in poor ones—stimulates faster evolution of microbes, against which there is a diminishing supply of fall-back drugs.\* And human populations—particularly the poor, displaced to fragile lands—are in closer contact with disease reservoirs in forests and wetlands and among domestic animals.
- Poverty contributes to civil conflict and the potential collapse of the state, with transnational impacts. Poverty and the failure of governance are strong risk factors for civil conflict. Nations that experience conflict are at great risk of relapse. Domestic conflicts often have international repercussions, as refugees and violence spill across borders. And terrorism and crime take root in a state vacuum.
- Income disparities create strong pressures for migration, and when these pressures meet closed borders, tensions arise. One study estimates that each 10 percent increase in the foreign-to-local wage difference increases emigration by 1 per thousand population in African countries.† Historically, such labor movements have been powerful avenues of poverty alleviation (chapter 4). But strong migration pressures, combined with a growing population and blocked outlets, lead to tensions and fuel the illegal market in smuggling people, estimated at \$7 billion a year.‡

\* WHO (2001).

† Hatton and Williamson (2001).

‡ NIC (2000).

weaker segments of the global community. A self-enforcing global accord may be required to get the commitment to finance such a scaled-up effort, to build capacity to use the funds wisely, and to take on difficult reforms in developing as well as industrial countries.

***A global accord***

There is growing recognition of the need for mutual commitments and for accelerated improvements in key development indicators. Support for the Millennium Development Goals, which propose to cut the proportion of people in extreme poverty by half by 2015 is now widespread. The goals set ambitious quantitative targets for reducing hunger, increasing primary schooling, improving health, promoting

gender equity, and ensuring environmental sustainability (box 9.4). One calculation puts the cost of meeting just the nonenvironmental targets at \$40 to \$70 billion a year above the current \$50 billion in development assistance. Another estimate puts the cost of reaching the environmental goals over a longer period at \$25 billion per year.<sup>11</sup>

The recent International Conference on Financing for Development in Monterrey also confirmed the need for more aid, trade, and debt forgiveness by industrial countries, in tandem with domestic reforms in developing countries to increase domestic resource mobilization and facilitate foreign direct investment (box 9.5).

The recent proposal for the New Partnership for Africa's Development (NEPAD) is also based on an

**Box 9.4****Millennium Development Goals (1990–2015)**

1. Eradicate extreme poverty and hunger
  - Halve the proportion of people with less than \$1 a day.
  - Halve the proportion of people who suffer from hunger.
2. Achieve universal primary education
  - Ensure that boys and girls alike complete primary schooling.
3. Promote gender equality and empower women
  - Eliminate gender disparity at all levels of education.
4. Reduce child mortality
  - Reduce by two-thirds the under-five mortality rate.
5. Improve maternal health
  - Reduce by three-quarters the maternal mortality ratio.
6. Combat HIV/AIDS, malaria and other diseases
  - Reverse the spread of HIV/AIDS
7. Ensure environmental sustainability
  - Integrate sustainable development into country policies and reverse loss of environmental resources.
  - Halve the proportion of people without access to potable water.
  - Significantly improve the lives of at least 100 million slum dwellers.
8. Develop a global partnership for development
  - Raise official development assistance.
  - Expand market access.
  - Encourage debt sustainability.

Source: [www.developmentgoals.org](http://www.developmentgoals.org)

arrangement in which developing countries take responsibility for improved governance, and industrial countries help through more aid, debt forgiveness, and market access. The Council of the European Union's proposed Global Deal has many of the same elements.<sup>12</sup>

In the spirit of these initiatives and to maintain the momentum of the Millennium Development Goals beyond 2015, this Report calls for extending the following goals:

- To fully eliminate global poverty, and
- To put the global economy on a more sustainable development path by the middle of this century.

The two features added to existing initiatives are a deeper target over a longer time horizon, and a greater focus on institutional development. It will require 10 or 20 years—starting now—to build up the institutions that can help shift trajectories from

**Box 9.5****Outcome of the International Conference on Financing for Development, Monterrey, Mexico**

- Mobilize domestic financial resources for development—by improving governance, macroeconomic policies, and social safety nets.
- Mobilize foreign direct investment and other private flows—by improving the climate for business.
- Make international trade an engine for growth and development—by engaging in a true development round.
- Increase international financial cooperation for development—by doubling official development assistance and focusing it effectively in the most needy.
- Provide sustainable debt financing and external debt relief—by matching financing needs and repayment capacities.
- Address systematic issues—by enhancing the coherence and consistency of the international monetary, financial, and trading systems.

Source: International Conference on Financing for Development, Monterrey, Mexico, (March 2002).

unsustainable to sustainable paths over the next 50 years. Many of these long-horizon initiatives will yield benefits in the medium term in support of the Millennium Development Goals. But because many future problems cannot be foreseen, it is important that institutional foundations be strong and that a process and a framework be developed that are robust in picking up new signals, balancing a broader range of interests, and maintaining commitments to the global vision.

As noted in chapter 1, at a modest 3 percent annual rate of growth, the global economy in 50 years will be four times the size it is now. Will that larger economy generate less environmental and social stress than the much smaller economy does today? Most of the physical capital required for the economy 50 years hence has not yet been created. This provides an opportunity to incorporate inclusiveness and sustainability criteria in new investments now. The potential is there to shift development paths, provided institutions that adapt and implement better policies can be put in place.

For development strategies and development assistance, this means placing a greater emphasis on:

- Identifying vicious circles that keep the pace of growth low and the distribution of assets unequal—and developing strategic interventions to break these vicious circles.

- Investing in projects, programs, and initiatives that bring about better, more inclusive institutions and ensure systematic learning.

Greater inclusion, better information flows, more transparency, and wider forums for balancing interests will help to improve the functioning of global and local institutions to fight poverty and promote sustainability. Investments in global poverty reduction and in greater inclusiveness will help ensure the representation of all interests in the design of the new and improved institutions.

There is no understating the difficulty of these challenges. Nor is there an easy solution. Social inertia is great, and institutional change can take decades. Overcoming the inertia to tackle these difficult problems—the fears and risks of unilateral action—requires coordination. The Report suggests mutually reinforcing ways to catalyze institutional change, to mobilize dispersed constituencies, and to support capacity development. The core components of a global accord include:

- *Building capacity to use resources wisely.* It is now well established that the effectiveness of development assistance—indeed, of all investment—depends greatly on the quality of economic policies and the reliability and capability of market and nonmarket institutions.<sup>13</sup> But there is a lot more to building capacity than technical assistance, as discussed in this chapter's earlier section titled "Implementing."
- *Providing the necessary funding.* Capital markets (foreign direct investment and private financing) can cover much of the funding required to shift to a more sustainable path if appropriate policies are in place. For example, they can cover investment in new and replacement capital (buildings and equipment) to improve energy efficiency and meet the demands of an urban population that will double. But expanded domestic resources and development assistance will be needed to cover the part of these costs that involve the provision of local, national, and global public goods. Institution building is one of these public goods. The estimated funding requirements for the Millennium Development Goals, would not be enough to support a broader and deeper agenda of institution-building. There are some rough estimates<sup>14</sup> of the

resources that can to be freed up say, by eliminating perverse subsidies in industrialized and developing countries and redirecting them to support institutional building and the investment requirements of a shift to a more sustainable path. However, a serious data and analytic effort is needed to confirm this information at greater levels of detail, country by country.

- *Undertaking difficult reforms* for both the developed and the developing world.

### *Main responsibilities of developing countries*

A development strategy that emphasizes inclusiveness, shared growth, and better governance places large demands on leaders in developing countries. They must commit to better economic, social, and environmental management—and thus to better governance. To manage their resources, and what they receive from outside, they need to:

- *Strengthen institutions.* The rule of law and good governance allow families and firms to have confidence—in other words, to save and invest.
- *Broaden inclusiveness in the access to assets.* Schooling, health care, and provision of environmental assets that protect health, market-based rural land reform, and regularization of urban tenure (providing protection from eviction without due legal process) all promote asset generation for the poor.
- *Increase transparency.* An open and verifiable flow of information is important to tighten accountability in government and the private sector through such steps as opening procedures for bidding, strengthening meritocracy in the civil service, and making sure that public and corporate budgeting and resource management are governed by law, open to the public, and under proper oversight institutions.

The success of the reforms would be long term; they would secure opportunities and voice for families and their children so they can save, invest, and engage in their communities. But good policies, to be sustained, will require committed support and the legacy of reversals and stalemates is stunning. Research on aid and policy shows that aid is not worth much without good policies and institutions; in fact, it can even be harmful. Research also shows that good

policies and institutions are essential to growth and development. This Report has argued that often but not always good policies presuppose good institutions, and these take time to evolve. Funds and assistance will not be available without the conviction that there is capacity to use them effectively. But capacity-building requires patient investment to remove critical barriers because its payoffs are large but take time to be realized. Fundamental reforms require better institutions, which evolve slowly. These requirements are interlinked. So developing country leaders need to know that they will have long-term, reliable support from the larger development community. Without such support—and the quid pro quo on reform to support it—many developing countries will remain in cycles of promise and disappointment. With support, these cycles can be broken.

#### *Main responsibilities of developed countries*

Enabling developing countries to develop more rapidly through increased aid, trade, migration, and access to knowledge and technology will place big demands on leaders and voters in developed countries. The actions required of them include:

- *Increase aid and make it more effective.* Developed countries should strengthen the ability of developing countries to pursue sustainable development by providing development assistance that supports public goods and attracts private investment.<sup>15</sup>
- *Reduce debt.* This has started under the Heavily Indebted Poor Countries Debt (HIPC) Initiative, and it is essential to go farther for all developing countries by agreeing on poverty reduction strategies and improving accountability.
- *Open agricultural, industrial, and labor markets.* Developed country trade barriers impede exports from developing countries and undermine the livelihoods of the poor. Unrestricted access to developed country markets in textiles and clothing could yield \$9 billion a year, and access to agricultural markets \$11.6 billion a year.<sup>16</sup>
- *Improve developing country access to technology and knowledge.* Implement incentives to promote the transfer and dissemination of technologies to developing countries—including those for climate mitigation, disease prevention, and agricultural development. Support more research on crops,

vaccines, and adaptation strategies that would improve the livelihood for poor people.

#### *Joint responsibilities of developing and developed countries*

Together the developed and developing countries must address the most urgent problems facing humanity. Their joint responsibility is to *establish a global partnership to set the rules for making rules and the modalities of burden sharing*. As the world becomes more interconnected—environmentally, economically, socially—new institutions and rules must be agreed on and implemented. These will include rules for international trade; rules to avert conflict; rules on migration; rules governing the use of the biosphere; and rules affecting property rights in ideas, technological processes, and genetic information. The consequences will be enduring. If these institutions are to be effective, the rules for making rules have to be fair—in process and in outcome.

There is a role for all actors in the global system: Governments of developing, transition, and developed nations; provinces, cities, and local communities; civil society organizations; private firms; individuals.

- All governments can improve the accountability of public agencies and the provision of information about social and environmental conditions—to improve the ability of the general public and civic groups to identify problems, balance interests fairly, and come up with solutions.
- Civil society organizations can help to aggregate the voices of dispersed interests and provide independent verification of public, private, and non-governmental performance. Academia needs to be recognized as a key actor in learning, monitoring, and evaluating.
- The private sector can advance economic, social and environmental objectives by helping to construct a framework that provides appropriate incentives for firms to be accountable in all three dimensions.

If the global community sees merit in such an accord, the accord's elements will need more careful work over the next few years to develop an implementable program that can adjust to contingencies without undermining the promise of the accord.



### Ongoing dialogue: some open questions

To make more headway on the accord and to define a process and framework that is “fair” will require dealing with some global issues of sustainable development that remain the subject of heated debate. Mentioned here are four important and controversial topics whose resolution has important policy and institutional implications, requiring credible global assessments.

#### *When is consumption overconsumption?*

Concern is often expressed about “overconsumption” in wealthy countries and about the threats to sustainability of increasing levels of global consumption. But what kind of consumption qualifies as overconsumption, why is it harmful, and what should be done about it? Does overconsumption imply that there should be a limit on total global consumption (and that as a result, the already high levels of consumption in developed countries need to be reduced to enable increased consumption in poor countries)? On these questions there is little clarity.

One interpretation of overconsumption is that it refers to the environmental externalities associated with consumption at higher levels of per capita income. For example, carbon dioxide emissions, and their contribution to climate change, are highly correlated with consumption of electricity, home heating, transport services, and energy-intensive manufactured goods—all of which tend to increase strongly with income. In these cases, the *over* prefix is justified, since the externalities are by definition inefficient (there is no balancing of costs against benefits) and usually inequitable (wealthier people impose the damages upon poorer people). But the overall level of consumption is not the source of the problem. It is the combination of the specific consumption mix and the production processes that generates the externality. And for these there are well-established policy prescriptions from public finance.

Another interpretation of overconsumption, much more difficult to document, has to do with social externalities. People judge the adequacy of their consumption—clothing, automobiles, housing—in part against norms set by others. If this is true, consumption takes on some of the aspects of an arms race. What are the policy implications? Mutual restraint is needed (a coordination problem par excellence) to

shift resources from competitive individual consumption to consumption of public goods. But these externalities need to be much better understood before there can be any agreement on the actions to address them.

#### *What is the future of agriculture and genetically modified organisms?*

Despite great promise for improving the agriculture of the poor, biotechnology in general and transgenics research in particular have barely begun to address the problems of the poor. Some applications generate little controversy, such as marker-assisted genetic selection. Others, such as the creation of transgenic organisms, have generated much concern about food safety and potential environmental impacts.

Comfort with the new technology is determined in large measure by societies’ comfort with their scientific and food safety institutions and their feelings about emerging concentrations of economic power in multinational “life-sciences” corporations. Solutions to these complex issues are all playing out against a backdrop of globalization-related uncertainty, which has left many people unsettled over their capacity to control their lives and their environment. It is the rural poor in developing countries who most need access to these new agricultural technologies. The precautionary principle tells us that we should err on the side of caution, look at alternatives, and ensure a fully transparent and democratic process. This requires more clearly sorting what is known from current science from what is not, so that the political process can act more effectively.

#### *How to balance interests and avoid the race for property rights at the intellectual frontier?*

Intellectual property rights (IPRs) is the next generation of assets that can increase or decrease inclusiveness with consequences for the evolution of quality institutions. IPRs represent a compromise between the interests of users, owners, and creators. It often costs very little to duplicate a seed, a computer program, a song, a drug, a blueprint for a printed circuit or a meteorological database. Once these products have been created, their widespread dissemination would bring great consumer benefits. So why not make them available for only the cost of reproduction? Because there would then be no incentive for private actors to create

the information and innovation behind these products. Intellectual property rights such as patents and copyrights, balance these static and dynamic aspects of efficiency.

The Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement under the WTO represents a global strengthening of the rights of producers in terms of users. Its immediate effect will be to increase royalty payments to intellectual property rights holders, who are overwhelmingly in the developed world. One estimate found that full application of TRIPS would increase annual net patent rents to the United States, Germany, and Japan alone by \$31 billion.<sup>17</sup>

Will the emerging intellectual property rights regime be detrimental to the long-run interests of developing countries? The issue is hotly debated. In principle, TRIPS provides a wide latitude for a developing country to fine-tune an intellectual property rights system appropriate to its needs.<sup>18</sup> In practice, developing countries' ability to maneuver may be more limited, and the potential for unequal outcomes is worrisome. While the outlines of the global intellectual property rights regime are clear, many crucial details may not yet be established. Global discussions might address ways for developing countries to strengthen (a) collaborative efforts at patent examination, (b) standards for the breadth and novelty of patent claims, (c) protection of rights to genetic resources and traditional knowledge, (d) global competition policy, and (e) the rationale for public funding and dissemination of census data, environmental and meteorological data, and genetic data. Strengthening the capacity of developing countries to participate in these discussions might also lead to more equitable outcomes.

### *What are the prospects for global migration?*

Global inequality, combined with global demographic trends, will create more pressure for migration. An extensive literature shows that wage differentials drive migration. Fertility rates are highest in places that have the least capacity for absorbing labor. Meanwhile, aging in the developed world will drastically reduce the size of the labor force and increase the demand for low-skilled labor for tasks

resistant to automation, such as care of the elderly. At the same time, costs of migration will decline—especially information costs, but also transport. In sum, there's likely to be a drastically greater supply of, and demand for, international migrants over the next half century.

Dealing with this pressure is a global challenge. There are collective decisions to be made, and every option has costs and benefits. There are many reasons to support both more long-term as well as circular migration (the latter can help speed up learning in lagging regions), but migration remains a politically sensitive issue in receiving countries. There are issues related to assimilation of newcomers—as well as exaggerated fears and misconceptions. The decision of one potential receiving country to restrict immigration has implications for other receiving countries, and for the sending countries. Stresses associated with immigration may be related more to the rate of change than to the level of change. Assimilation processes for immigrants are best measured in decades rather than years. Advance preparation in both sending and receiving societies over the next generation could yield a much preferred world in 2050 compared with one in which no foresight is exercised.

\* \* \*

This Report argues that the lack of assets, opportunity, and effective voice for large segments of the population blocks the emergence of general welfare-enhancing policies, impedes growth, and undermines the potential for positive change. At the national level, it robs us of the talents of those left out in society. And at the international level, it deprives us of the contribution poor countries can make to a more just and sustainable future. A more sustainable development path is more socially inclusive; it enables societies to transform and solve collective action problems. The challenge, now and in the future, is to develop the courage and commitment to manage the processes that underpin human life and well-being and to bring about a transformation that improves the quality of the environment, strengthens our social fabric, and enhances the quality of people's lives. The more people heard, the less assets wasted.