

This Report has focused on the large disparities across people, groups and countries—disparities that coexist with and worsen environmental degradation and loss of ecosystem services that the world's poor depend on. Yes, the challenges are massive. But in several respects conditions today are more conducive to progress than ever. Global public awareness is higher, and the new calls for democracy sweeping parts of the world augur well for reform.

Taking the debate further entails bold thinking, especially on the eve of the 2012 UN Conference on Sustainable Development (Rio+20). This Report advances a new vision for promoting human development through the joint lens of sustainability and equity. For that vision to become a reality, institutions must be strengthened, capacities enhanced, policies reformed and democratic governance fortified.

The vision calls for an expansive rethinking of the role of the state and communities—and their capacity to identify and exploit emerging opportunities. Building on the insights of Amartya Sen and the key principles of the human development approach, this vision stresses an approach to sustainability and equity rooted in inclusion, participation and reasoned public debate, while recognizing diverse values, conditions and objectives.

Beyond the Millennium Development Goals the world needs a post-2015 development framework that reflects equity and sustainability: Rio+20 stands out as a great opportunity to reach a shared understanding about how to move forward.

This chapter proposes key reforms at the national and global levels:

- At the national level it stresses the need to bring equity to the forefront of policy and programme design, and the potential

multiplier effects of greater empowerment in the legal and political arenas.

- At the global level it calls for greater resources to be devoted to pressing environmental threats and for more equitable representation of disadvantaged countries and groups in accessing finance.

Concerted actions can bring equity and sustainability closer to the centre of human development. Too often development plans invoke unnecessary trade-offs—sacrificing a healthy environment or equitable distribution of wealth for the sake of economic growth. Implicit is the notion that one aim is a luxury, less important than the other. Power imbalances and political constraints loom large. And too often the plans are incomplete, not designed to promote equity. But policies can maximize the synergies among healthy communities, healthy economies and a healthy environment.

The chapter reinforces the central contention of this Report: that integrating the approaches to sustainability and equity can produce innovative solutions and concrete guidelines to promote human development.

Business-as-usual is neither equitable nor sustainable

The conventional focus on maximizing growth has been associated with a model that ignores the environmental impacts and externalities of economic activity. This is true in a command and control system (the former Soviet Union), in a liberalizing socialist economy (China in the 1990s) and in fairly free market economies (Australia and the United States over much of the 20th century). Especially since the Second World War, accelerations in economic growth have been carbon-intensive, and economic regulation has been scaled back. As chapter 2

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shows, untrammelled growth without regard for the environment has brought the world to the point where the concentration of carbon dioxide in the atmosphere already exceeds 350 parts per million and is heading to levels that risk multiple catastrophes.

In the face of daunting environmental challenges that endanger prospects for continuing progress in human development, concerted global action too often falls far short of what is needed. This chapter reviews the scale of the challenges and points to a fundamental contradiction: business-as-usual is neither sustainable nor equitable, but attempts to move forward are beset by political economy constraints. It proposes key principles for countries to promote change and then addresses key elements at the global level.

Worsening environmental degradation could soon break the 40-year pattern of convergence in human development across countries. Consider the potential trade-offs between economic costs and environmental damage given today's technology and carbon intensity of production. Simulations for this report suggest that if no country or region is prepared to bear a loss of more than 1 percent in total future income, or more than 5 percent of its income in any five-year period, carbon dioxide levels will trigger a temperature increase of 3°C above preindustrial levels by 2100.¹ But a temperature rise above the 2°C threshold would be catastrophic for many developing countries,² as chapter 2 describes. So, we highlight the potential outcomes of alternative paths and a framework to induce global cooperation. Systematic thinking about how to share the costs of adjustment and promote greener growth is critical, alongside concerted public action to support innovations in technology and enhance voice and accountability.

A fundamental rethinking of the conventional growth model is well under way. The 2008 global financial crisis and its aftermath reinforced the growing consensus that deregulation went too far and that the pendulum should swing back.³ Indeed, compounding the economic failures of conventional policies are the other costs they can introduce—such as greater inequality and environmental

degradation. As chapter 1 argues, lessons from the recent financial crisis can be applied to the potential effects of climate change (see box 1.1). More active public policy is critical, not least because development must be decoupled from carbon emissions and the true value of ecosystem services should be incorporated into national development plans. The good news is that there is growing recognition, or rediscovery, of industrial policy—of proactive policies and interventions to restructure an economy towards more dynamic activities—even at such institutions as the World Bank, long a proponent of free market approaches.⁴

Overcoming pervasive market imperfections requires, among other things, internalizing the externalities in decision-making and in some cases creating markets where none exist—as for some ecosystem services. Because of the costs and risks created by greenhouse gas emissions, the loss of ecosystem services due to environmental degradation and underinvestment in innovations, more support should go to promoting innovative renewable energy technologies. If firms underestimate the long-term benefits of investing in new technologies or if they cannot appropriate the benefits, they will invest less than is optimal socially and globally.

As chapter 4 shows, well designed, well implemented incentives can elicit change. For example, Japan's 2009 buy-back system for residential rooftop photovoltaics promoted investment and provided incentives for customers to reduce electricity use. Similarly, tax incentives have encouraged renewable energy investments in Canada, Denmark, India, Sweden and the United States.⁵ But price-based incentives, especially for scarce resources, need careful calibration to avoid impoverishing or excluding already disadvantaged groups.

A key constraint to public action on environmental problems is lack of awareness. About a third of the world's people seem unaware of climate change, and only about half consider it a serious threat or know that it is caused at least partly by human activity (see box 2.5 in chapter 2). But even with raised awareness, serious political constraints would remain—in other words, our collective failure to act also reflects the complexity of the politics and the power

of groups opposing change. Chapters 2 and 3 show how many countries and communities most affected by climate change lack power and influence. So understanding these constraints is a vital first step in framing strategies with a real chance of meaningful change.

As chapter 4 discusses, national planning processes are critical, but capacity constraints and siloed approaches can limit effectiveness. In the western Balkan countries, for example, a major barrier impeding implementation of climate change mitigation policies is the lack of national coordination mechanisms.⁶

It is clear that equity issues go well beyond developed versus developing countries—and beyond mitigation costs alone—to the burden of adjustment. Procedural justice requires that all parties be able to participate effectively⁷—some of the groups that lobby nationally, including those pushing for more equitable policies for women and indigenous peoples, also merit a voice on the global stage. Similarly, global environmental finance and governance mechanisms must be informed by principles of equity and fair representation that go beyond country governments.

Rethinking our development model—levers for change

The required transformations involve a progressive approach that integrates the pillars of sustainable human development. Due consideration must be given to differences in country contexts: one-size-fits-all thinking is rarely effective when formulating policy or implementing programmes. Proposed here are two major avenues to guide such efforts—one is the integration of equity concerns into policy and programme design and evaluation, the other is empowerment in the legal and political arenas. For each avenue the chapter sets forth basic principles and highlights the experiences of selected countries.

Integrating equity concerns into green economy policies

The need to integrate equity concerns more fully into environmental policy is a major theme of this Report. Conventional

assessments are often silent on the winners and losers of a policy or programme.⁸ But distributional aspects require explicit consideration because effects on the poor or the rich might differ from average effects—and sometimes from intended outcomes. It is important to consider differences between the rich and the poor, between men and women, among indigenous peoples and across regions. Such considerations are consistent with the stated objectives of green economy policies, but they warrant a sharper focus in practice.

Integrating distributional aspects into cost–benefit analysis has long been recognized as important⁹ but has rarely been practiced, resulting in neglect of equity in project and policy analysis. In the absence of transfers, policies and projects that pass cost–benefit tests might not make everyone better off—and might even reduce the welfare of some groups (box 5.1). But appropriately valuing environmental and resilience-promoting benefits is difficult. This is true especially of the ecosystems for which the value of services is not fully known.

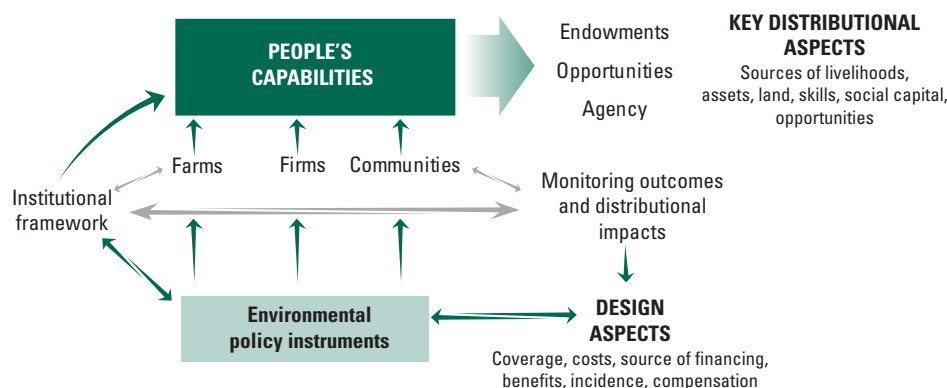
The distributional analysis of economic policy reforms has advanced in the past decade—examining effects on the well-being of different groups, especially the poor and vulnerable. The World Bank has supported many such analyses, though sometimes the timing is too late to inform decision-making or policy-makers fail to adequately incorporate the results of such assessments.¹⁰ And distributional analyses still tend to be restricted to income, using conventional economic tools and focusing on such transmission mechanisms as prices and employment. Because such analyses can miss important parts of the picture, we propose that the approach be expanded and deepened.

Key principles

Environmental regulations and subsidies can affect people’s capabilities as individuals, family members, workers, entrepreneurs and farmers (figure 5.1). Policy can affect people’s endowments, opportunities and agency—and through them the distribution of a range of assets.

Equity issues go well beyond developed versus developing countries—and beyond mitigation costs alone—to the burden of adjustment

FIGURE 5.1
Integrating equity into policy design



Both vertical and horizontal equity are important. Vertical equity looks at the treatment of individuals across the distribution—for example, how a tax on gasoline would affect people at the bottom of the distribution differently from those at the top. Horizontal equity relates to differences across groups or areas.

Key priorities for integrating equity into green economy policy design include:

- *Mainstreaming the nonincome dimensions of well-being.* Building on the Multi-dimensional Poverty Index could broaden understanding of disadvantage and highlight the impacts of policy changes across all dimensions of deprivation. For instance, higher charges for water could reduce access, harming health, while more expensive kerosene could push households back to using biomass for cooking, bad for health and the environment.
- *Understanding direct and indirect effects.* Direct effects can be followed by a second round of indirect changes (see box 5.1).
- *Considering compensation mechanisms.* Countries with well developed tax-and-transfer systems can use income tax schedules or social benefits to offset negative effects. For example, South Africa provides an income tax deduction for communal and private landowners who set aside land with high biodiversity value and manage it as a protected area.¹¹ But where such systems are less feasible, alternative compensation or exemptions are needed.
- *Understanding the risk of extreme events.* However small the probability, it is essential to consider the huge adverse consequences of extreme weather events, especially for the most vulnerable—and to reduce the risks.¹² Such analysis may reveal that investing in land use planning and ecosystems can be a cost-effective buffer for

BOX 5.1

Distributional impacts of policies to cut pollution

Current discussions often raise concerns that policies to reduce pollution can be regressive, but rarely is systematic impact analysis brought to bear. The type of analysis needed can be illustrated for a carbon permit system such as cap-and-trade—which raises the price of products that use fossil fuels intensively, such as electricity. It draws attention to first- and second-round effects:

1. Everyone faces real income losses, but the effect is regressive if low-income households spend a higher fraction of their income on these goods.
2. If technologies are capital-intensive, a mandate to abate pollution can induce firms to substitute capital for polluting inputs, depressing demand for labour and relative wages. Low-income households receive a larger share of their income from wages, so they may again be more affected.
3. Unemployment may be concentrated among certain regions, industries and groups, such as coal miners. When the industry shrinks, workers with industry-specific human capital lose that investment, while premiums go to skilled workers in renewables and other energy-efficient technologies.

These effects raise important empirical questions to be investigated case by case. Research in Organisation for Economic Co-operation and Development (OECD) countries points to few truly “green” skills and suggests that most green jobs resemble familiar occupations. This is good news for displaced workers in developed countries, but it warrants investigation elsewhere.

Low-skilled workers are more likely to be displaced by carbon taxes. In OECD countries these workers stay unemployed for longer after job losses than do higher skilled workers and are less likely to find employment that pays as well. So, governments need to watch out for adversely affected groups when implementing environmental regulations, particularly when regulations will affect already disadvantaged groups. Policies must include redistributive and backstop mechanisms to avoid these problems.

Source: Fullerton 2011.

vulnerable groups against climate risks, as demonstrated by mangrove restoration in Viet Nam.¹³

So, rather than accept or reject an individual policy, it is important to consider a range of designs and to determine which can improve outcomes for equity. There are always constraints in data, analysis, capacity and time, so flexibility is needed in meeting the main goals.

Stakeholder analysis is critical. Political economy factors and the influence of various actors can affect both design and implementation of policy. For instance, the oil industry in the United States spent almost \$1.5 billion on federal lobbying in 2010.¹⁴ And in Tanzania the proposed reform of charcoal production, trade and use highlights the needs and influence of dealer-transporter-wholesaler networks.¹⁵ Policy design and implementation must address such influences and their likely impacts.

Institutional arrangements must guard against rent-seeking and official corruption—and more than this, against distortions of scientific facts, breaches of principles of fair representation and false claims about the green credentials of consumer products.¹⁶ Countries need industrial policies that support inclusive green growth while being mindful of the pitfalls and challenges of state promotion of selected types of economic activity. The features of a new industrial policy are relevant for policies to reduce the carbon intensity of development—limited incentives to new activities, automatic sunset provisions (so that the subsidies are temporary) and clear benchmarks for success. This requires the right institutions, a political champion and systematic deliberations that engage the private sector.¹⁷

Country experience

More countries are using distributional analysis to inform environmental policy design. South Africa's plans to introduce environmental taxes as part of its fiscal reforms were informed by stakeholder analyses of likely quantitative and qualitative effects.¹⁸ Viet Nam announced new taxes following impact assessments simulating price and sectoral effects.¹⁹

Policies to drive structural change, such as pollution pricing, will inevitably have winners and losers. Some companies will claim unfair adverse impacts. Policy measures to respond to such concerns, such as exemptions and compensation, can be costly, and the distributional impacts need to be understood. Alternatives, such as more effective consultations and public communications, should also be contemplated.²⁰

Consumption and production profiles can shape distributional effects. Two examples from the energy sector:

- Ghana's electricity sector was draining the government budget. In 2002 public utility company deficits approached 11 percent of government spending, or 4 percent of GDP. Distributional analysis found that subsidies benefited mainly middle-class urban customers: only 7 percent of the rural poor used electric light. The lack of rural electrification in the poorest northern regions warranted reducing subsidies, raising public awareness of energy efficiency and increasing efforts to improve market efficiency.²¹
- In Lao PDR, which experienced rapid expansion of access to modern energy services after the late 1980s, key equity aspects were incorporated in programme design. A "power to the poor" component provides interest-free credits to connect poor households to the grid, benefiting female-headed households in particular. Local communities and rural households also receive support for electricity use for income-generating activities.²²

While some insights can be drawn from such interventions, the effects are always context-specific and require local analysis.

Data constraints can limit understanding. The joint analysis of human development and equity impacts requires individual and household information, as well as qualitative data, to build statistical capacity. This underlines the importance of continuing to improve disaggregated data, especially in developing countries.

Ex ante assessments need to be followed by results monitoring. In rural Bangladesh home

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solar power systems were estimated to displace kerosene use equivalent to 4 percent of total annual carbon emissions.²³ Surveys showed that solar subsidies—amounting to almost \$400 million and allocated through a private microcredit agency—were progressive when accurately targeted, because the bottom two income groups spent about three times more on kerosene than the top two. Benefits also included better lighting, good for children’s education, and reduced indoor air pollution, with benefits for health.

Empowering people to bring about change

This Report argues for empowerment to bring about greater equity and environmental benefits—and as an important outcome in itself. What does this mean in practice? Consider two spheres where enhancing voice and representation has important links to sustainability—the legal, with enabling institutions and rights to a clean and safe environment, and the political, with more participation and accountability.

A clean and safe environment—a right, not a privilege

That all people, born and yet to be born, have the right to a clean and safe environment is a powerful idea, grounded in the framework in chapter 1. Despite the slow progress in securing such rights globally,²⁴ constitutions in at least 120 countries address environmental norms or the state’s obligation to prevent environmental harm.²⁵ And many countries without explicit environmental rights interpret general constitutional provisions for personal rights as including a fundamental right to a clean, safe and healthy environment. That right derives from people’s rights to bodily health and integrity and to enjoyment of the natural world.

Amartya Sen, Martha Nussbaum and others have noted a close relationship between the capabilities approach and rights-based approaches to human development.²⁶ But unlike the idea of freedom or capability in itself, an acknowledged human right also incorporates corresponding obligations. Notwithstanding such obligations, human rights

are not equivalent to legal rights, although they can motivate legislation and thus provide the basis for legal action. Some rights are procedural—as with the right to information discussed below—and must encompass both opportunity and process aspects.²⁷

Constitutionally recognizing equal rights to a healthy environment promotes equity because such access is no longer limited to those who can afford it.²⁸ And embodying such rights in the legal framework can influence government priorities and resource allocations.

Growing country experience

Many EU countries recognize fundamental environmental rights as a matter of natural law—as inherent universal rights. In the United Kingdom the Human Rights Act includes the right to a healthy environment.²⁹ And although the European Convention on Human Rights does not mention environmental rights, it establishes that serious environmental damage may violate the right to respect for private life and family life.³⁰ Sweden recognizes the right of public access through its constitutional “Don’t disturb; don’t destroy” policy: people have the right to roam freely in the countryside as long as they do not inconvenience others.³¹

Kenya’s 2010 Constitution grants the right to a clean environment and requires the government to maintain its natural resources.³² At least 31 other African countries express environmental rights in their constitutions, and some—such as Ethiopia and Namibia—also stress that economic development should not harm the environment.³³

The enforceability of environmental rights in Africa is largely untested, however, except in South Africa. Some countries have structural impediments. In Cameroon citizens do not have the right to appeal to the country’s constitutional council, which limits enforceability.³⁴ And in Namibia environmental rights can be enforced only by someone with a private interest, barring claims in the public interest.³⁵

Several Latin American countries, including Chile, Costa Rica, Ecuador and Peru, have

enforceable environmental rights. The Chilean Supreme Court voided a government-issued timber licence because it had been approved without sufficient evidence of environmental viability, thus violating the right of all Chileans—not just those directly affected—to live free of environmental contamination.³⁶

Many Latin American constitutions recognize environmental rights for indigenous peoples.³⁷ Paraguay guarantees that the state will defend them against habitat degradation and environmental contamination.³⁸ In Guyana environmental rights exist alongside recognition of the rights of indigenous peoples.³⁹ Bolivia's proposed Law of Mother Nature takes this recognition a step further, giving the natural world equal rights with people. The proposal is heavily influenced by a resurgent indigenous Andean spiritual world view that places the environment and the earth deity Pachamama at the centre of life.⁴⁰

Among Asian countries India is notable for allowing aggrieved individuals to challenge state action or inaction related to the environment.⁴¹ The Indian judiciary has broadly interpreted environmental rights in the constitution to protect public health as well. For example, environmental advocates successfully argued that environmental laws obliged the government to reduce air pollution in New Delhi in the interests of public health, resulting in an order mandating conversion of city buses from diesel to compressed natural gas.⁴²

Bhutan has pioneered placing environmental conservation at the centre of its development strategy, reflecting traditional norms and culture.⁴³ Article 5 of the 2008 Constitution emphasizes the responsibility of all Bhutanese to protect the environment, conserve its biodiversity and prevent ecological degradation. It also stipulates that at least 60 percent of the country remain forested in perpetuity.

Even if rights provide only what Immanuel Kant called imperfect obligations, they can still empower groups and individuals to take public action to protect their environment. As Amartya Sen wrote, “because of the importance of communication, advocacy, exposure and informed public discussion, human rights can have influence without necessarily

depending on coercive legislation.”⁴⁴ Indeed, procedural human rights linked to environmental protection often receive more attention than substantive environmental rights.⁴⁵

Enabling institutions

Alongside legal recognition of equal rights to a healthy, well functioning environment, enabling institutions are needed, including a fair and independent judiciary and the right to information from governments. For example:

- In the United States conservation groups have used information on emissions levels to bring public nuisance actions against private companies.⁴⁶
- One Million Acts of Green, launched by Cisco in partnership with the Canadian Broadcasting Corporation and GreenNexus in Canada in 2008, uses television, Facebook®, Twitter™ and other Internet resources to engage Canadians in conversations on environmental issues and encourage “green acts.” The initiative elicited nearly 2 million green acts within a year.⁴⁷

An institutional context conducive to civil liberties is a necessary backdrop. But recent Gallup data suggest that a majority of the people in close to half of nearly 140 countries surveyed lack confidence in their judicial system and courts.⁴⁸ This underlines the importance of implementing broader reforms and improving the context for enforcing rights.

Rights to government information are spreading. At least 49 national constitutions recognize them, and at least 80 legislatures have enacted right-to-information laws. South Africa's 1996 Constitution guarantees all “the right of access to any information held by the state and held by another person that is required for the exercise or protection of any rights.” In Argentina, Canada, France, India, Israel and the Republic of Korea higher courts have held that constitutional guarantees of free expression implicitly recognize a constitutional right of access to information.⁴⁹

But legislation is just a first step. Implementation and enforcement are equally critical. Civil society organizations are important for implementation by helping citizens understand and use legal rights of access to

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information, by training public officials in information disclosure and by monitoring implementation. In Bulgaria a nongovernmental organization, the Access to Information Programme, provided legal assistance and disseminated information to the wider public about the right-to-information law and the scope of citizens' rights.⁵⁰

Information disclosure is very important to environmental protection and citizen empowerment. Ensuring that polluters disclose information on emissions and discharges can reduce violations and complement regulation. British Columbia's public disclosure strategy had a larger impact on emissions and compliance than the sanctions traditionally imposed by Canada's Ministry of the Environment. Stricter standards and larger penalties were also influential—suggesting that both information and regulation can reduce emissions.⁵¹ And in China programmes to rate and publicly disclose companies' environmental performance have prompted facilities to reduce air and water pollution, improving firms' market competitiveness and relationships with communities and other stakeholders.⁵² The Czech Republic, Egypt, Indonesia and Mexico recorded similar results with the new mandated Pollutant Release and Transfer Registers.⁵³

The international community is increasingly recognizing a right of access to environmental information.⁵⁴ This in turn supports a broad interpretation of national constitutional rights to information.

The complex cross-sectoral challenges of sustainable human development have a long time horizon and require long-term commitments.⁵⁵ Changing decisions, mobilizing investment and developing new strategic plans can take years if not decades. This may involve major institutional reforms to mainstream environmental considerations in government planning. The government of Rwanda recognized the need to integrate environmental and natural resource management plans into the country's development strategy. Its Environmental Management Authority works closely with the national and local governments as well as civil society to promote sustainable development and the right to live in a clean and

productive environment by requiring that all sectors of society manage the environment efficiently and use natural resources rationally.⁵⁶

Participation and accountability

Process freedoms, which enable people to advance goals that matter to them, are central to human development and—as discussed in last year's *HDR*—have both intrinsic and instrumental value. Major disparities in power are reflected in unsustainable outcomes, but the converse is that greater empowerment can bring about positive environmental change equitably, as chapter 3 argues. Democracy is important, but to enable civil society and foster popular access to information, national institutions need to be accountable and inclusive—especially with respect to women and other affected groups.

Forums to facilitate participation

A prerequisite for participation is open, transparent and inclusive deliberative processes. Consider energy. As work commissioned for this Report demonstrates, most energy decisions are made behind closed doors and rarely in democratic fora.⁵⁷ Because of concerns for commercial confidentiality or geostrategic sensitivities about energy supplies, the public has participated little in negotiating energy policy decisions. "Consultations" can provide limited or incomplete information, neglect equity and impact assessments, and fail to report results effectively. Even where public participation or comment is formally invited, its role is often to legitimize prior policy choices and decisions, not to shape them.⁵⁸ In Australia, for example, cases have demonstrated a lack of open exchanges among local government, polluting industries and local communities and a failure to inform citizens of the risks of living and working near toxic sites.⁵⁹

Where governments are responsive to popular concerns, change is more likely. In the United States, for example, 23 states allow citizens to petition for a direct vote on a policy initiative, a mechanism that some states have used to adopt environmental and energy policies (such as Washington in 2006).⁶⁰ Some groups have pursued accountability of

private corporations in emissions and climate change.⁶¹ But such concerns may be offset by other vested interests—as reported for the Russian Federation in the problems civil society faced in mobilizing public support around greening industry.⁶² And where civil society is active, as chapter 3 shows, it can bring about positive outcomes.

An active press raises awareness and facilitates public participation. In Rwanda the government launched radio and television promotions highlighting national environmental issues and targeting all levels of society. Media coverage increased support from the Environmental Management Agency and other government ministries to jointly explore ways to integrate environmental concerns into planning and to enhance cooperation for environmental protection.⁶³

For climate change and other global environmental problems, procedural justice implies an equal opportunity for all countries to affect the direction and content of international negotiations. But weak capacity often means that few developing country governments are represented, let alone able to represent their citizens' interests adequately in arenas with high demands for legal and scientific expertise. Although 194 countries attended the UN Climate Change Conference in Copenhagen in 2010, only a powerful handful negotiated the terms of the Copenhagen Accord. In international summits the top five polluting countries usually field more than three times the delegates of the five countries most affected by climate change.⁶⁴

The news is not all bad, however. Governance of the Climate Investment Funds is already moving towards more equitable voice and participation—with an equal number of representatives from donor and developing country governments on the governing committees for each of the trust funds and with decisions made by consensus. The Climate Investment Funds have also institutionalized formal observer roles for civil society, the private sector and in some cases indigenous peoples, while making the role of observers more meaningful by enabling them to suggest agenda items and contribute to discussions.⁶⁵

The United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries goes even farther, since its board, which decides on strategic directions and budget allocations, includes representatives of indigenous peoples and civil society as full members, not just as observers.⁶⁶

Still, barriers to effective participation persist in many national and local contexts. Some groups, such as women, have traditionally been excluded from governance institutions. But here again, there have been changes, with documented results not only on equity but on sustainable management of environmental resources.⁶⁷ For example, in Europe local authorities in jurisdictions with the highest recycling rates had a higher than average percentage of female managers.⁶⁸ And extensive fieldwork in India has documented that active participation by women in community forest management significantly improved forest protection.⁶⁹

Community management

Chapter 4 illustrates the growing recognition of the benefits of community management of natural resources. To ensure that such approaches do not exclude poor people, women, the elderly and other marginalized groups, governments and other organizations that sponsor community-based projects need to involve all groups in decision-making and implementation. For example, initiatives to mentor community forest groups in Nepal sensitized them to issues of equity and participation, ultimately increasing the participation and influence of women and the poor.⁷⁰

Where women and other marginalized groups are included in community decision-making, the benefits can be substantial. For example, Bhutanese community forests have the dual purpose of engaging locals in managing forests and regulating access to forest resources for sustainable livelihood activities. Enabling access to fuelwood, which benefits women more than men, is one benefit of this approach. Household surveys of Bhutanese communities have found that poorer households and female-headed households were

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usually assigned a larger share of trees than richer households, and women were able to collect more fuelwood from community forests.⁷¹

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In sum, implementing a joint equity–sustainability approach at the national level involves integrating equity into policy and programme design and evaluation, bolstering empowerment through legal rights and corresponding institutions, and promoting greater participation and accountability.

Financing investment and the reform agenda

Policy debates about sustainability raise major questions about investment and financing, particularly on how much is needed, who should have access and who should be responsible for financing what.

Development finance constrains the equitable transition to a global green economy in two ways. First, it falls far short of global requirements. Second, countries and sectors have unequal access, so they do not always receive the financing they need to address environmental deprivations; the poorest countries often miss out.

Global capital markets, with some \$178 trillion in financial assets, have the size and depth to step up to the challenge.⁷² Over the medium to long term, and with sufficient public sector support, the United Nations Environment Programme estimates that private investment in clean energy technologies could reach \$450 billion by 2012 and \$600 billion by 2020.⁷³ The Global Environment Facility’s experience suggests that private investment can be substantial: public funding for climate mitigation has leveraged private investment by 7 to 1 or more.⁷⁴ This leveraging requires public efforts to catalyse investment flows, by developing an appropriate investment environment and building local capacity.

These issues are covered in depth in a recent UNDP report that highlights policies for building developing country capacity to mobilize the public and private investment flows needed to finance the transition towards a low-emission,

climate-resilient society.⁷⁵ Medium-term plans, budgets and investments can be a foundation for consolidating good intentions and providing cross-sectoral mechanisms for effective coordination across donors and government agencies.

Lively debates about the future of official development assistance continue. While recognizing the growing importance of private flows and the likelihood that aid will shrink as a share of development finance for most countries, rich countries must not shirk their responsibilities. Strong equity arguments warrant substantial transfers of resources from rich countries to poor to meet equity goals and guarantee equal access to financing. And strong economic arguments support measures to solve global collective action problems, such as climate change.

Where does the world stand?

Although evidence on global needs⁷⁶ and official aid commitments and disbursements is patchy and magnitudes are uncertain, the overall picture is clear. Development assistance reaches only 1.6 percent of even the lower bound estimate of needs for low-carbon energy and around 11 percent for climate change (figure 5.2). These numbers are slightly better for water and sanitation, where aid commitments are more than twice the lower estimate of needs and close to 20 percent of the upper estimate.

Access to financing is uneven and generally correlated with a country’s level of development. Many resources go to the countries developing fastest. Low-income countries account for a third of the 161 countries receiving Global Environment Facility allocations, but they receive only 25 percent of the funding (and least developed countries, only 9 percent).⁷⁷ In 2010, under the Climate Investment Funds, Mexico and Turkey accounted for about half the approved project funding in clean technology.⁷⁸ Evidence also suggests that the resources have been allocated less equally over time.⁷⁹

What development assistance can do

Official development assistance is a vital source of external finance for many developing countries. Recent years have seen much progress in increasing the quality and quantity of official aid, which rose some 23 percent from 2005 to 2009.

But the contributions still do not meet the world's development challenges. The \$129 billion committed in 2010 was 76 percent of the estimated cost of achieving the Millennium Development Goals—and not all aid goes to achieving the goals.⁸⁰ Rich countries have consistently failed to meet their stated pledges, including that of the G-8 at Gleneagles in 2005 (to increase aid by \$50 billion a year by 2010), the European Union (to increase aid from 0.43 percent of gross national income to 0.56 percent) and the United Nations (the long-standing target of 0.7 percent of gross national income).

Developed countries have pledged \$100 billion a year by 2020 to finance climate change mitigation and adaptation in developing

countries. It is unclear, however, whether the funding would really be additional—one concern is that current aid will simply be diverted to meet the new targets.⁸¹

Access to energy and climate change investments

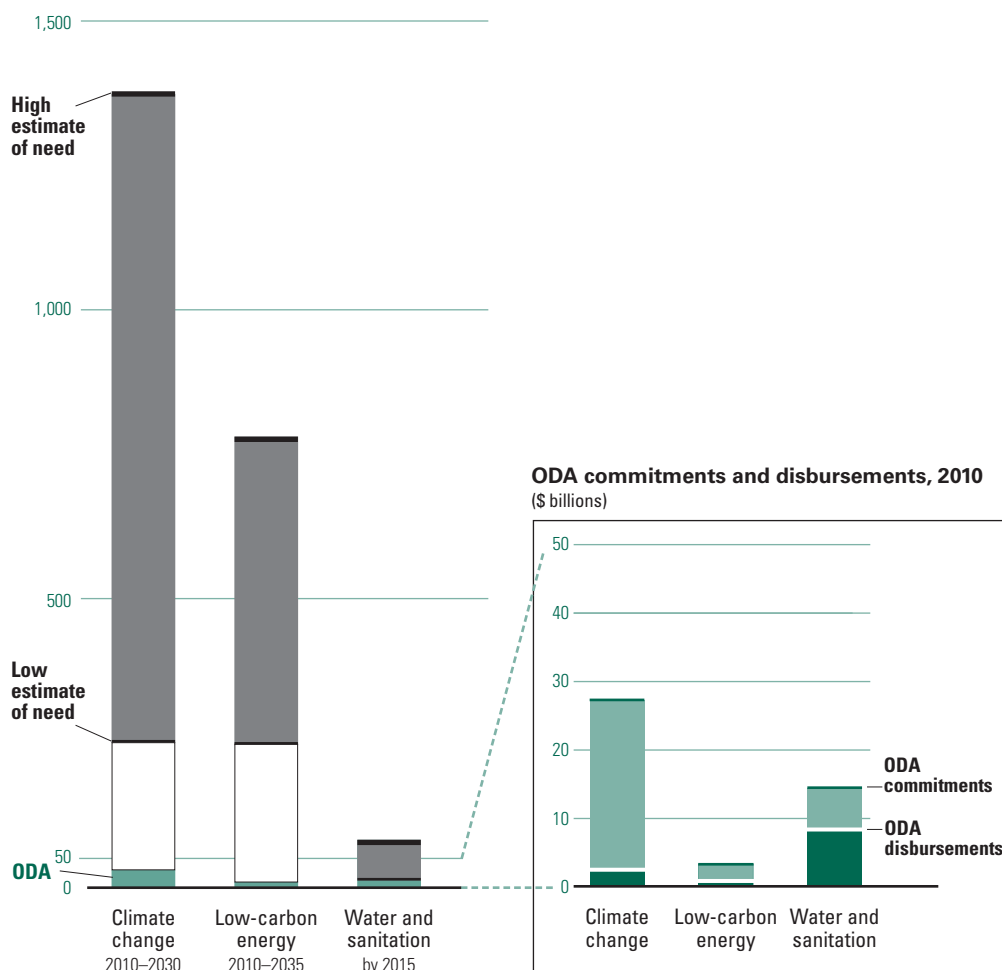
As this Report has already noted, providing clean energy to the 1.5 billion people who lack electricity and the 2.6 billion who rely on traditional biomass for cooking is a major win-win. Clean energy offers the potential to alleviate poverty, reduce health impacts from indoor air pollution and drive social and economic development, while mitigating energy's impact on the climate.

FIGURE 5.2

Official development assistance falls far short of needs

Estimated future needs and existing official development assistance (ODA)

Annual expenditures (\$ billions)



Source: Based on data from IEA (2010), UN Water (2010a), UNDESA (2010a) and OECD Development Database on Aid Activities: CRS online.

Though large, the amounts needed to address climate change are below current spending on defence, on recent financial sector bailouts and on perverse subsidies, indicating the scope for reassessing priorities

International financial institutions have overseen sweeping reforms of the energy sector in many parts of the world, with a view to opening markets and guaranteeing equitable access to funds. And countries have positioned themselves to mobilize and attract private investments to the energy sector. But policymakers have yet to steer energy finance towards tackling energy poverty⁸² or climate change on a larger scale, especially in places less attractive to the private sector.

Redirecting energy finance will require greater political will and exceptional leadership. Moreover, addressing energy poverty needs to stay at the head of the agenda because doing so is central to maintaining public support and development assistance for achieving the Millennium Development Goals and beyond.

A key dimension of climate policy discussions relates to the size, direction and source of financing. The World Bank recently outlined the difficulties in tracking such investments, including limited and inconsistent information in reporting systems, the ambiguous purpose of some flows, the confidential nature of some transactions and double counting.⁸³ Costing is difficult, in both theory and practice, and the scope of the estimates differs along with the methods. Underlying assumptions matter—especially those regarding the discount rate. So do assumed consumption and production elasticities to changing prices. With these caveats in mind, we review the available evidence and find:

- Recent estimates of the investments needed to reduce the concentration of greenhouse gases (mitigation costs) range widely, from 0.2 percent of annual global GDP to 1.2 percent by 2030.⁸⁴
- Estimating adaptation costs is even harder, and it is difficult to distinguish them from related development investments. This Report's updated estimates of annual investment requirements for adaptation are of the order of \$105 billion,⁸⁵ within the \$49–\$171 billion range proposed by the United Nations Framework Convention on Climate Change by 2030. Other estimates, which account for the costs of adapting to

the impact of climate change on ecosystems, are two to three times higher.⁸⁶

- Estimates of total annual mitigation and adaptation costs to address climate change by 2030 range from \$249 billion to \$1,371 billion. Why the large difference? Because the costs of integrating renewable energies are context- and site-specific and thus difficult to estimate globally.

The amounts needed are clearly large, if uncertain. But they are below current spending on defence, on recent financial sector bailouts and on perverse subsidies, indicating the scope for reassessing priorities. In 2009 global military expenditure neared 3 percent of world GDP, while some countries spent much more, including the United States (4.7 percent of GDP) and the Russian Federation (4.3 percent of GDP).⁸⁷ The bailouts in the wake of the recent financial crisis were close to \$700 billion in the United States under the Troubled Asset Relief Program, while EU commitments were close to \$1 trillion (about 6 percent of annual GDP in both cases).

As the previous chapter shows, there is enormous scope for reducing environmentally harmful subsidies. Uzbekistan, for example, spends over 10 times more on fossil fuel consumption subsidies than on health (32 percent of GDP, compared with 2.5 percent), while Iran spends 20 percent of GDP on fossil fuel consumption subsidies, compared with less than 5 percent on education.⁸⁸

Are developed countries meeting the financing commitment implied by their “common but differentiated responsibilities” under the Framework Convention on Climate Change? No. Almost \$32 billion has been pledged for climate change actions (about 19 percent of total official development assistance).⁸⁹ But the pledges fall well short of estimated needs, and disbursements fall well short of pledges: most of the “new and additional” funds pledged at the 2009 UN Climate Change Conference in Copenhagen have not been delivered, and less than 8 percent of pledges for climate change were disbursed in 2010. Governments have yet to agree how to track spending or determine whether funding is truly additional—accurate monitoring requires an aid baseline.

Some 24 special climate change funds already exist, ranging from international sources of funding such as the Hatoyama Initiative (which has received 48 percent of total pledges to date—35 percent from public sources and 13 percent from private sources) to national trust funds that can receive donor funds, such as the Indonesia Climate Change Trust Fund (0.06 percent of pledges). The funds differ in structure and include both bilateral and multi-lateral arrangements, making reliable monitoring of spending very difficult.

Given this fragmentation, climate finance must incorporate the lessons of aid delivery to improve how assistance is organized and delivered. The 2005 Paris Declaration on Aid Effectiveness and the 2008 Accra Agenda for Action agreed on principles to promote country ownership, aid alignment and harmonization, results, and mutual accountability. The 2007 Bali Action Plan shows how these principles can be incorporated into climate change finance. This state of affairs does not imply that there should be one global superfund, which is neither feasible nor desirable, but it did show the scope for reducing complexity and enhancing access and transparency. Equally important is avoiding parallelism in funding, as far as possible, instead integrating provisions for climate change in national planning and budgets.

Water supply and sanitation

How much will it cost to meet the Millennium Development Goal targets for safe drinking water and basic sanitation? Assessments depend on baseline and demographic assumptions and on whether they include maintenance costs and use low-technology options. Moreover, definitions of “water supply” and “basic sanitation” differ, and consistent data are often lacking.

The 2010 *Global Annual Assessment of Sanitation and Drinking Water (GLAAS)* estimates for achieving the Millennium Development Goal water and sanitation targets, which take several earlier cost estimates into account, range from \$6.7 billion to \$75 billion a year.⁹⁰ Much more would be needed to achieve universal access.

The amounts now being spent from domestic and international sources are much lower.

For 20 developing countries reporting drinking-water and sanitation expenditures, *GLAAS 2010* estimates median government domestic spending at \$65 million in 2008 (0.48 percent of GDP). For 2009, the most recent year with data, aid commitments totalled \$14.3 billion and disbursements \$7.8 billion.

Investor belief that the water and sanitation sector in developing countries is a high-risk, low-return investment makes market-based financing difficult to mobilize. And while reforms in governance, institutions and tariffs are critical to the sector’s financial sustainability, innovative schemes are bridging the financing gaps in the interim (box 5.2).⁹¹

Again, greater efforts are needed. Government clearly is important, but reliance on financial aid is high, covering much national spending on sanitation and drinking-water—in some countries, near 90 percent. And even with cost-effective innovative approaches, as in community sanitation, public commitment is too low. Refocusing assistance is called for, alongside mobilizing more domestic and private resources for scaling up investments. Although the gap in aid allocations between high HDI and low HDI countries is smaller for water and sanitation than for low-carbon energy, the disparities are still large. Part of the constraint relates to capacity, though more predictable donor funding would help.⁹²

BOX 5.2

Innovative financing schemes for water and sanitation

A review of financing schemes to promote investment in water and sanitation reveals some promising new avenues. Some schemes supported by donors encourage private investment. Indonesia’s Master Meter Scheme uses microcredit to connect the urban poor to water, and the Coca-Cola Company and the United States Agency for International Development sponsored the installation of locally made rope pumps in Zinder, Niger. In Kenya an innovative combination of commercial finance (through a microcredit institution) and a subsidy that ties public funding to achieving specified goals has improved water supply and connected poor households to piped water.

Other financing schemes include blended grants and repayable financing (as funded by the World Bank in Senegal and the European Investment Bank in Mozambique), revolving funds for water and sanitation (as funded by the World Bank, Denmark and Finland in Viet Nam and by UFUNDIKO, a small nongovernmental organization, in Tanzania) and pooled funds (as in Tamil Nadu, India), which disbursed bond-issue funds to municipalities as subloans. Market-based finance is also becoming more common. For instance, several US cities and Johannesburg, South Africa, have used municipal bonds to fund water infrastructure.

Source: Nelson 2011; Coca-Cola Company 2010; World Bank 2010a; International Water and Sanitation Centre and Netherlands Water Partnership (2009); OECD 2010c.

The prime candidate to close the financing gap is a currency transaction tax

Social protection

Estimates put global allocations to social protection at a sizeable 17 percent of GDP.⁹³ But much of this spending bypasses the most disadvantaged groups. High-income countries spend on average nearly 20 percent of GDP, while low-income countries spend around 4 percent.⁹⁴ Clearly, there is enormous scope for increasing the coverage of social protection schemes in the poorest countries, as part of national and global efforts. It makes sense, then, to take these needs into account in discussions on financing the sustainability and equity agenda.

Setting a social protection floor—a set of essential social transfers, in cash and in kind, to provide a minimum income and secure livelihood—is promising. Such programmes need not be expensive. Brazil’s Bolsa Familia and Mexico’s Oportunidades cost their governments about 0.4 percent of GDP and cover about a fifth of their populations. India’s Mahatma Gandhi National Rural Employment Guarantee Act cost about 0.5 percent of GDP in 2009 and benefited 45 million households, about a tenth of the labour force.⁹⁵ For several African and Asian countries the International Labour Organization (ILO) estimated in 2008 that a scheme guaranteeing workers 100 days of employment a year could cost less than 1 percent of GDP on average.⁹⁶

The ILO estimates that less than 2 percent of global GDP would provide all the world’s poor with a minimum package of social benefits and services—defined as access to basic healthcare, basic education and basic income transfers in case of need.⁹⁷ Broadening the scope to include adaptation to climate change by bolstering local resilience and supporting livelihood diversification strategies would cost more.⁹⁸ Based on admittedly heroic assumptions, this could increase the cost to a still manageable 2.5 percent of global GDP.⁹⁹

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In sum, the financing challenges loom large, but there is cause for optimism. The priorities for governments around the world are clear:

- Ensure that appropriate institutional and regulatory features are in place to enable

scaling up private investments, especially in poorer countries, which have largely missed out on private finance.

- Have all governments re-examine their spending priorities so that sustainability and equity objectives are well reflected in budget allocations.
- Mobilize additional resources to narrow the large gaps in addressing the environmental deprivations facing billions of poor people around the world and to solve the major global collective action problem presented by climate change.
- Ensure that national and community partners have the capability to define policies and budgets and implement programmes that promote and support sustainability, equity and inclusiveness.

Innovations at the global level

Environmental sustainability and equity challenges have major implications at the global level, including for financing and governance, the two key areas addressed here.

Innovative new sources to meet the financing gap

As outlined above, massive new investments are needed to avoid business-as-usual trajectories, but sufficient funding has not been forthcoming, especially for poor countries. And the fiscal outlook is difficult. Many government budgets are under pressure in the wake of the 2008 global financial crisis and given longer term structural problems, while climate change is intensifying the development challenges facing poor countries. Domestic commitments are important, though the scale of the investments needed suggests that more international public funds will be required to attract large additional private funds. It follows that innovative sources of financing are vital, alongside stronger commitments and concrete actions from developed countries.

The prime candidate to close the financing gap is a currency transaction tax. Originally proposed and promoted in the 1994 *Human Development Report (HDR)*, the idea is increasingly being accepted as a practical

policy option. What is new today is its greater feasibility. The infrastructure for global real-time settlements, introduced after the most recent global financial crisis, makes it straightforward to implement. The foreign exchange settlement infrastructure is now more organized, centralized and standardized (box 5.3). Recent innovations—notably real-time gross settlement and measures to reduce settlement risk—mean that existing systems now capture individual transactions.

The tax can be a simple proportional levy on individual foreign exchange transactions assessed on foreign exchange dealers and collected through existing financial clearing or settlement systems. Because the financial infrastructure is now in place, a currency transaction tax can be implemented relatively quickly and easily. The tax has high-level endorsement from the Leading Group on Innovative Financing for Development.¹⁰⁰ Belgium and France already have legislative frameworks in place for instituting a currency transaction tax. And Brazil, Chile, Japan, Norway and Spain have started to move in that direction. The tax also enjoys broader support from nongovernmental stakeholders, such as the Bill and Melinda Gates Foundation and the Citizen's Coalition for Economic Justice.

Such a tax could address a major anomaly in the financial sector: many of its transactions are not taxed.¹⁰¹ That, along with the large scale of financial activity, makes a strong case for a small levy on foreign exchange transactions to fund global public goods, such as mitigating and adapting to climate change in poor countries. The incidence of the tax would be progressive, as the countries with larger currency transactions tend to be more developed. The allocation of revenues should also be progressive, as discussed below. Distributional issues, such as a potential minimum tax threshold, need to be considered, so as not to unduly burden individual remittance transfers. Such details need to be examined during design and monitoring.

The tax could also substantially reduce the macroeconomic volatility caused by the high volume of short-term speculative funds flowing through world financial markets.

Appropriately designed and monitored, the tax would allow those who benefit most from globalization to help those who benefit least—and help finance the global public goods that can sustain globalization.

The tax rate should not impose too heavy a burden but should reduce speculative flows. Estimates of revenue generation depend on, among other things, assumptions about the effect of the tax on trading volumes. In updated analysis prepared for this Report, the North–South Institute estimates that a tax of 0.005 percent would yield around \$40 billion a year.¹⁰² The revenue potential is thus huge. The Center for Global Development estimates donor spending on global public goods at around \$11.7 billion in 2009. The bulk of the spending is on UN peacekeeping; excluding this important function lowers global public good expenditure to about \$2.7 billion.¹⁰³ The currency transaction tax would mobilize nearly 15 times as much each year. Even a unilateral currency transaction tax (limited to the Euro) could mobilize \$4.2–\$9.3 billion in additional financing. Clearly, then, a currency transaction tax could, even under very

BOX 5.3

The currency transaction tax: newfound feasibility

Today, there are many ways to trade foreign currency in the wholesale market: on an exchange, online, through a human or electronic broker or by phone or fax. But there are just two ways to make the payments to settle a deal. One is by sending both payments to a continuous linked settlement bank, which matches and exchanges them simultaneously. The other is by sending them to the Society for Worldwide Interbank Financial Communication (SWIFT), where they are matched and then forwarded to the correspondent banks in the two currency-issuing countries. These two highly organized clearing and settlement systems are the core infrastructure of today's foreign exchange industry. They keep detailed records of nearly every foreign exchange transaction around the world.

How would a tax work? SWIFT keeps itemized records of the details of global foreign exchange trading activity in the world's frequently traded currencies as it clears or settles foreign exchange transactions. A copy of the transaction details would be sent to the usual tax authority or its agent. The authority would calculate the tax due from each trader and add it to a running tally. Traders would pay their currency transaction tax obligations to the tax authority periodically.

Incentive and compliance issues are surmountable. It is unlikely that trading banks would opt out of SWIFT's communications platform to avoid paying the tax. Doing so would cost more than the tax. Further, there are only a few large traders in the wholesale market for foreign exchange, so they could easily be audited for tax purposes. There would be no intrusion on individual privacy, because the currency tax would be assessed on the large banks, investment funds and corporations participating in the wholesale foreign exchange market.

Source: Schmidt and Bhushan 2011.

Any truly transformational effort to scale up climate change mitigation and adaptation will require blending resources—domestic and international, private and public, and grant and loan

conservative assumptions, dramatically scale up global public good expenditure.

This is also an occasion to reconsider a broader financial transaction tax. The International Monetary Fund (IMF) recently pointed out that many G-20 countries have already implemented some form of financial transaction tax.¹⁰⁴ While the revenue potential depends on the tax's design and the response of traders, a broad-based, low-rate financial transactions tax of 0.01–0.05 percent could generate nearly €200 billion a year at the European level and \$650 billion at the global level.¹⁰⁵ Other estimates suggest that in the United States alone the tax could raise more than 1 percent of GDP (about \$150 billion in 2011), even with very substantial reductions in trading volume.¹⁰⁶

Taxes on currency and financial transactions would not have prevented the recent financial crisis, which originated in the United States and spread to the rest of the world. But in addition to the revenue potential, such taxes are tools for discouraging the short-term reckless behaviour that drove the global economy into crisis.

Transaction taxes need not be the only instrument to close the financing gap. Using the IMF's Special Drawing Rights (SDRs) for innovative financing and climate change adaptation is another avenue worth exploring.¹⁰⁷ Monetizing part of the IMF's surplus could raise up to \$75 billion at little or no budgetary cost for contributing governments.¹⁰⁸ IMF analysis of the possible role of SDRs as seed finance for a new global green fund suggests that issuing additional SDRs and other reserve assets could mobilize \$100 billion a year by 2020. The SDRs have the added appeal of acting as a monetary rebalancing instrument; demand is expected to come from emerging market economies looking to diversify their reserve holdings. Because the SDR is not a sovereign currency, it would not be subject to the currency transaction tax, thus avoiding double taxation.

Several public and private sources could also be tapped to close the financing gap. Already, innovative financing instruments—such as the Clean Technology Fund and the Strategic Climate Fund—are blending funding from multilateral development banks, governments, climate finance instruments and the

private sector. They have raised an additional \$3.7 billion for development and can leverage substantial additional funds.¹⁰⁹ Considerable private funding has also been leveraged.

Ensuring equity and voice in governing and in access to finance

Bridging the gap separating policy-makers, negotiators and decision-makers from the people most vulnerable to environmental degradation requires closing the accountability gap in global environmental governance. Accountability alone cannot meet the challenge, but it is fundamental for building a socially and environmentally effective global governance system that delivers for people.

Private resources are critical, but because most financial flows into the energy sector, for example, are private, the greater risks and lower returns of some regions of the world affect the patterns of flows. In the absence of reform, access to financing across countries will remain unevenly distributed, and indeed add to existing inequalities.¹¹⁰ This underlines the importance of ensuring that flows of public investments are equitable and create conditions to attract future private flows.

Failing to ensure equitable access to climate finance would also constrain the capacity of industries to capitalize on low-cost opportunities to improve efficiency and reduce greenhouse gas emissions cost-effectively. The building sector, for example, could not take advantage of cost-effective energy efficiency improvements. This is particularly important over the next 5–10 years as low-income countries invest in long-lived power generation and urban infrastructure. Limited access to climate financing would lock these countries into high-emission development paths, constraining the world's capacity to limit increases in global temperature.

The implications are clear. Principles of equity should guide and encourage international financial flows. Support for institution building should help developing countries establish appropriate policies and incentives. And the associated governance mechanisms for international public financing must allow for voice and social accountability.

Any truly transformational effort to scale up climate change mitigation and adaptation will require blending resources—domestic and international, private and public, and grant and loan. To facilitate both equitable access and efficient use of international financial flows, this Report advocates empowering national stakeholders to blend climate finance at the country level.

Bringing about long-term, efficient results and accountability to local populations and partners will require four sets of tools (figure 5.3):

- Low-emission, climate-resilient strategies—to align human development, equity and climate change goals.
- Public-private partnerships—to catalyse capital from businesses and households.
- Climate deal-flow facilities—for equitable access to international public finance.
- Coordinated implementation and monitoring, reporting and verification systems.

Most climate control activities today are discrete and incremental mitigation or adaptation projects. But broader strategic approaches are also needed. Low-emission, climate-resilient development strategies could prove a critical institutional innovation for incorporating equity and climate change into development planning. Involving all stakeholders, such strategies can help manage uncertainty by identifying development trajectories resilient to a range of climate outcomes. These strategies can incorporate priorities for win-win mitigation and adaptation initiatives. And they can assess the policy changes and capacity development required to implement them.¹¹¹ A comprehensive strategy to attract investments in green and equitable development must come to grips with the large distortions in energy markets—in favourable tax treatment, regulatory privileges and legacy monopolies. The investment climate can be improved by reducing risks (say, through greater policy predictability or guarantee instruments) and increasing rewards (say, through tax credits).¹¹²

Strategies need to involve municipalities: since cities account for the majority of greenhouse gas emissions, actions by subnational governments will be key to reining in temperature change. This calls for coordinated

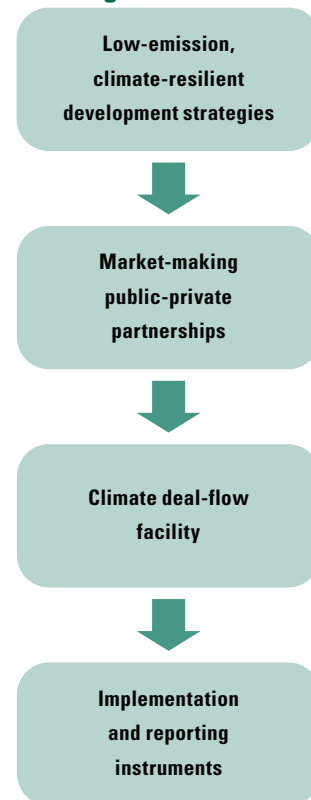
planning and robust collaboration with a variety of traditional and new development actors, including national and regional technical centres of expertise, the private sector, communities and civil society organizations.

A second key institutional innovation could be market-making public-private partnerships. These partnerships aim at market transformation and apply to both climate change mitigation (renewable energy technologies, energy efficiency appliances and the like) and adaptation (weather indices, climate-resilient agricultural commodities, climate-resilient buildings and the like). They would build on recent experience but go beyond traditional service delivery and infrastructure to bring together the potentially diverging interests of a wide range of stakeholders and blend various sources of finance. The public policies and measures underlying such partnerships will need to provide incentives and support to improve the risk and reward profile of climate investments, consistent with national development goals.

The third set of tools involves establishing climate deal-flow facilities to help national and subnational project proponents assemble bankable projects and tap international public climate finance. Carbon finance, as in the Clean Development Mechanism, has shown that limited capacity to prepare bankable projects can be a major barrier to catalysing private climate finance in many locations. Similarly, the complexity of application and reporting requirements for international public funds makes it difficult to determine eligibility and appropriateness, posing obstacles to use, monitoring and evaluation. So, the climate deal-flow facilities should enhance the capacity of countries to gain access to international sources of both private and public finance.

The fourth set of tools in the proposed framework for equitable and efficient climate finance addresses the need for coordinated implementation and reporting. Climate finance on a scale sufficient to rein in temperature changes to 2°C demands unprecedented efforts to implement, monitor, verify and report—over several decades, with multiple actors, diverse sets of actions and a variety of

FIGURE 5.3
Key elements in transforming climate financing efforts



Source: Adapted from Glemarec and others 2010.

It is time to launch a high-profile global initiative for universal access to energy in developing countries

financing sources. National climate funds can facilitate the operational blending and monitoring of domestic and international, private and public, and grant and loan resources—essential to ensuring domestic accountability and positive distributional effects.

Enabling universal access to energy

Central to moving to universal access in energy is addressing the barriers to investing in clean energy. While potentially earning an attractive return, most technologies for renewable energy and energy efficiency require substantial upfront investment. Even if offset by lower operational costs, these upfront capital costs can be prohibitive. The financial constraints that businesses and consumers face are often more severe than those implied by national discount rates or long-term interest rates. And they are usually compounded by behavioural, technical, regulatory or administrative barriers. Take wind power: no country will attract private investment if independent power producers face barriers in access to grids, uncertain licensing processes, limited local expertise or lack of long-term price guarantees.

Achieving universal energy access requires a response strategy on multiple levels from various partners—here again, there is no one-size-fits-all solution. National and local governments must set the stage for other players ranging from civil society and the private sector at the national and subnational levels to global finance and energy companies.

It is time to launch a high-profile global initiative for universal access to energy in developing countries. It could have two parts: first, a global advocacy and awareness-raising campaign; second, investments on the ground through dedicated support to sectoral approaches in clean energy. Together, they can kick-start a shift from incremental to transformative change.

A global campaign to promote a participatory and informed initiative, key in both donor and developing countries, can harness existing capacities for advocacy, analysis, planning, knowledge management and communications.

The time is right for such a campaign. The UN General Assembly has designated 2012 as the International Year of Sustainable Energy For All while the Rio+20 conference will provide a unique opportunity to define a global approach for universal access to energy, bringing together the energy, green economy and climate agendas. This global approach can then be developed through regional and national energy dialogues.

Complementing the campaign, support to developing countries for climate-resilient development strategies could identify barriers, benefits and impacts for disadvantaged groups—and create favourable investment conditions. Major market failures heighten the importance of public policies to attract private finance. Such policies can improve clean energy investment risk-reward profiles by reducing risks (stable regulatory context, local supply of expertise, streamlined administrative arrangements, guarantee instruments and the like) and by increasing rewards (premium prices, tax credits and the like). For example, a commercially unattractive renewable energy investment could become profitable by guaranteeing independent power producers access to the grid and a price premium.

Support from the Universal Energy Access Initiative could include assistance for determining priority energy access technologies, ideally in the context of formulating a low-emission, climate-resilient strategy; identifying key barriers to technology diffusion; selecting an appropriate mix of policy instruments to remove barriers; and accessing funding options to deploy the selected mix of policies.

* * *

This Report calls for a new vision that jointly considers equity and environmental sustainability. It elaborates ways to attain synergies between the two objectives that are crucial for shaping our understanding of how to move forward and guide policy. Taking up this challenge will expand choices for people today and in the future—the hallmark of human development.