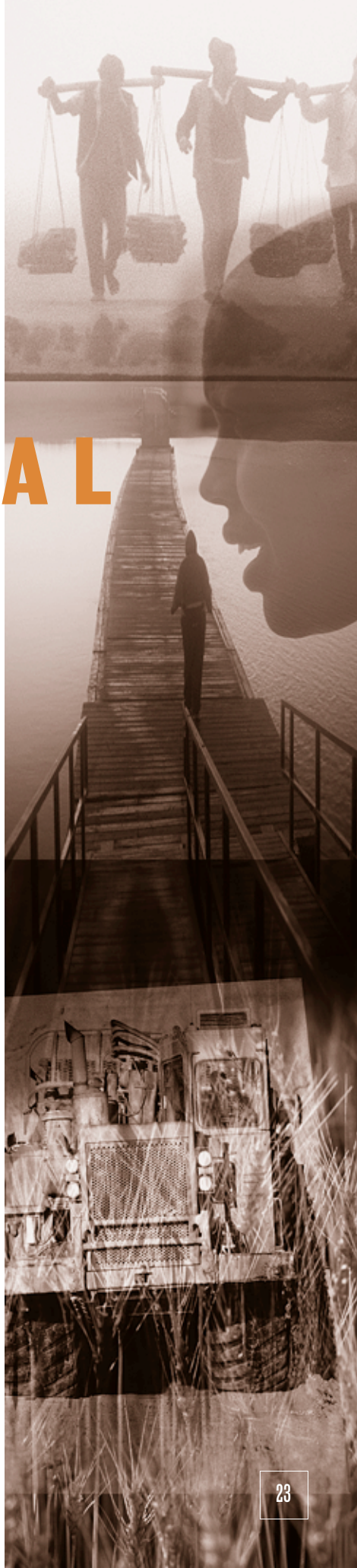
CHAPTER 2

ENVIRONMENTAL GOVERNANCE TODAY



No one familiar with today's environmental trends could conclude that Planet Earth is well-managed. That truth alone hints at the troubled and often ineffective state of environmental governance at scales from local, to national, to global. Since the Rio Earth Summit in 1992, the capacity of Earth's ecosystems to sustain human well-being has deteriorated in nearly every category measured. This is in spite of painstakingly negotiated global environmental treaties and the considerable progress that has been made in understanding how ecosystems function. More often than not, human institutions still fail to make environmental decisions that work for both people and ecosystems.

What Influences Environmental Governance?

A significant part of the challenge of environmental governance is that it takes place in the context of a rapidly changing world. Those changes reach far beyond the accelerating decline of ecosystems to include economic, political, and technological trends that are redefining our relationships with ecosystems, often for the worse. Globalization, growing trade, and international investment magnify our actions beyond national borders. New fishing, farming, and extraction technologies enable rapid exploitation of natural resources and drive landscape-scale change. Yet, the spread of democracy and the emergence of a robust civil society in most nations have increased public expectations and the demand for "good governance." These trends give us new options for improving environmental governance as well.

Governance in a Changing World

To understand the challenge of environmental governance today, we examine four broad trends. *Economic globalization* has placed new demands on environmental management across national borders and has raised new questions about the appropriate roles of the private sector and of international organizations in environmental governance. Increasing *democratization* of political systems around the world and the growing *acceptance of "good governance" norms* have opened the door to public participation in decision-making in a manner never possible before. At the same time, *the rapid growth of nongovernmental organizations* such as environmental groups and other public interest advocates has helped organize and enable the public to participate. Finally, the proliferation of *new information and communication technologies* is allowing social movements to coordinate at the global level and helping the public to hold governments and corporations accountable for their environmental performance. In addition, continuing armed conflict around the world poses an obstacle to stable and thoughtful governance (see Box 2.1).

Economic Globalization, Liberalization, and Privatization

Economic globalization–the growing integration and interdependence of national economies–has redefined our relation to ecosystems and extended the reach of our environmental decisions. The average consumer in London, for instance, can sit on furniture built from Asian forests, sip wine from South Africa, dine on Thai shrimp or New Zealand lamb, and set the table with cotton napkins from Egypt.

With some regional variations, the same is true in any number of cities large and small throughout the world, and, increasingly, in many rural areas. Globalization today is defined by growing access to goods and services from all over the world, large flows of capital between countries, and technological advances that can make vast distances a negligible factor in business decisions. Remote rain forests, mountains, and ocean ecosystems can be readily connected to commercial transactions and consumer choices thousands of miles away.

The world has experienced periods of globalization before, but never of the magnitude, complexity, and speed that have occurred since about 1980 (World Bank 2002b:23–24). Just as the development of the steamship aided the economic globalization of the late 1800s, communication and transportation breakthroughs are enabling today's consumers and businesses to tap far-flung goods, markets, and investment opportunities at reduced costs. Between 1920 and 1990 the average cost per ton for ocean cargo transport fell from $95 to $29, while the cost of a three minute telephone call from New York to London fell from $244.65 to $3.32 (Frankel 2000:46). The Internet has had a similar impact on the transmission of data and the management of global enterprises. Factor in developments like cell phones, containerized shipping, and overnight air freight, and the world seems to be shrinking and national boundaries fading.

New technologies are only one important factor in the increasing integration of world economies. Changes in trade and investment policy, as well as the changing role of the state in controlling the economy, are crucial as well. By the end of the 1990s, most countries, including those in the developing world, had implemented measures to liberalize domestic and international trade, lower tariff barriers, reduce the size and functions of the state, privatize state-owned enterprises, and introduce market economies.

One clear result has been the increasing importance of trade in the world economy. Trade now accounts for some 58 percent of the global economy–up from just 27 percent in 1970 (World Bank 2003). Notably, this bonanza has extended beyond high-income nations to include at least some of the developing world. Trade doubled as a percentage of the national economy (i.e., the trade/GDP ratio doubled) in 24 developing countries between 1980 and 2000 (World Bank 2002b:5). Brazil, China, Hungary, India, and Mexico are standouts among countries whose participation in global trade and investment increased (World Bank 2002b:5).

(continued on p. 28)

Box 2.1 Armed Conflict: Killing Governance

Along with the destruction of lives and livelihoods, war can also destroy croplands, forests, water systems, and other natural resources. Clean air and soils were casualties of the 1990–91 Gulf War after being polluted when Iraqis intentionally ignited hundreds of oil wells. Marine and coastal life was damaged too; spills of 6–8 million barrels of oil into the Persian Gulf and Arabian Sea killed 15,000–30,000 sea birds and contaminated mangroves and coral reefs (UNEP 2002:14, 204, 292; Omar et al. 2000:317). When Serbian forces systematically destroyed villages and towns in the 1999 Kosovo conflict, they also destroyed clean drinking water supplies and waste systems (UNEP and UNCHS 1999:5). And though decades have passed since U.S. forces cleared 325,000 hectares in the Viet Nam War by spraying the defoliant Agent Orange, biodiversity losses are still very much in evidence. Areas once covered by forests and mangroves now support just low-density grasslands and mudflats (McNeely 2000:362).

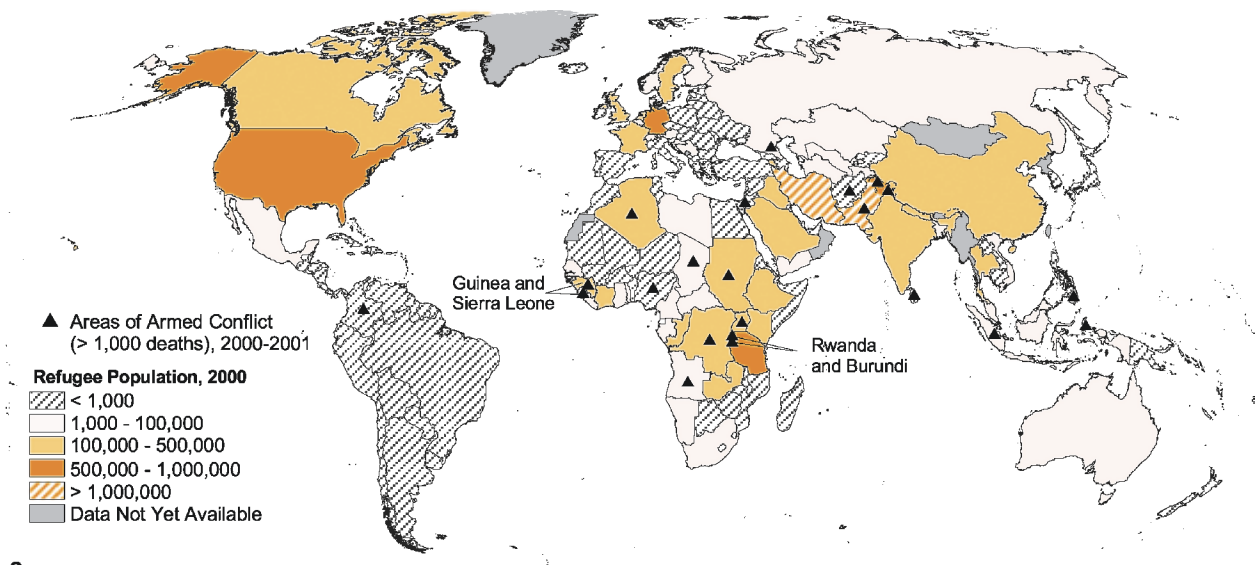
The toll on environmental governance is just as significant. War often destroys or weakens the institutions that make inclusive and informed decisions about the environment possible. The political and social turmoil that accompanies conflict can short-circuit systematic processes of environmental management. War creates refugees, leaves government and environmental agencies handicapped or destroyed, and substitutes short-term survival for longer-term environmental considerations. This means that ecosystems continue to suffer even after the fighting has stopped.

War or "armed conflict" is a governance problem for a distressingly large number of people, ecosystems, and institutions. Between 1990 and 2000, 118 armed conflicts worldwide claimed approximately 6 million lives (Smith 2001:1). People and the environment suffered the consequences for years after the wars ended. In 1999, more than two thirds of the ongoing conflicts had lasted for more than 5 years, and almost one third had lasted for more than 20 years (Smith 2001:3).

Most current wars are fought within national borders, not between nations, but the effects often spill over to neighboring countries (CAII 1997; SIPRI 2002). Resource wealth is usually a factor in the violence, with competition for valuable resources like gold, diamonds, and timber driving the conflict. By one estimate, one quarter of the roughly 50 wars and armed conflicts active in 2001 were triggered, exacerbated, or financed by legal or illegal resource exploitation (Renner 2002:6).

(continued on next page)

Armed Conflict and Refugees



Sources:
PIOOM Databank 2002
United Nations Population Division 2002

Box 2.1 (continued)

Disrupted Governments

During and after conflict, governments generally focus on meeting immediate human needs—food, shelter, and safety for citizens and displaced populations. Protection of the environment and sustainable resource management are inevitably relegated to lower priorities. Food shortages, disease, weakened health care systems, fragmented social networks, the destruction of people's livelihoods, and refugees who must be returned to their own homeland all take precedence over environmental concerns.

Even after conflict ends, well-informed environmental decisions are unlikely in the face of economic collapse, the need to rebuild infrastructure, and the disruption of commerce at the local, national, and international levels—common outcomes of armed conflict (CAII 1997; Kalpers 2001:21). War economies and destabilized governments perpetuate an ongoing cycle of violence and resource exploitation. Land and natural resources may be used as bargaining chips to gain allies during strife, in negotiations to end conflict, or as postwar paybacks to those who helped win the conflict. Little value may be accorded to intact ecosystems or ecosystem services in the process (Shambaugh et al. 2001:12–17).

In times of conflict, governments and warring factions need money to buy arms and supplies; high-value resources such as ivory and diamonds can readily satisfy that demand. This dynamic has worked to the detriment of elephant populations in strife-torn countries such as Sudan, Chad, and the Central African Republic. It has also driven forest liquidation in Liberia and Sierra Leone (Blom and Yamindou 2001:13; Shambaugh et al. 2001:7). After the conflict ends, governments need to kick-start the economy and rebuild key sectors, and one of the quickest ways is to mine natural resources.

Armed conflict can wreak havoc on government conservation efforts, especially in protected areas (Matthew et al. 2002:22). For example, during the Ethiopian-Eritrean war, parks and reserves lacked funds for staff, infrastructure, research, and management training (Jacobs and Schloeder 2001:19). In countries where nature tourism provides a major source of income for biodiversity protection, that source quickly evaporates when conflict begins. In Rwanda, income generated by tourists—many of whom come to see mountain gorillas—totaled about $4–6 million annually; this in turn funded conservation projects in parks and forest reserves. However, escalating conflict in the 1990s, and the 1994 genocide caused tourist numbers to plunge; they still have not fully recovered (Plumptre et al. 2001:19).

War often leads to the breakdown of law and order, leaving protected areas and species vulnerable to exploitation. During Sierra Leone's civil war in the 1990s, regional forestry officers, foresters, rangers, and guards went unpaid for long periods, while illegal mining and logging—and massive deforestation—occurred in forest reserves (Squire 2001:21–22). And while the Ethiopian-Eritrean war raged, game hunting by the military in protected areas continued (Jacobs and Schloeder 2001:23). In the Central African Republic, hunting and poaching in war-torn provinces reduced the country's elephant numbers by 90 percent to just 5,000 and led to the disappearance of the rhinoceros (Blom and Yamindou 2001:14). And in Cambodia, the Khmer Rouge's trade in timber brought $10–20 million a month in funds for its civil war effort (Global Witness 2003).

Even after wars end, weakened political institutions may not have the authority, ability, or funds to effectively manage their country's natural resources (Orr 2002:139). Some reconstruction efforts may include environmental projects, but they are not likely to be a priority. Environmental ministries often lack the capacity to address environmental problems in any systematic way. The postwar turmoil can mean fragmented government ministries and new staff unaccustomed to working together or with other institutions. Years after the end of conflict in Bosnia and Herzegovina, environmental groups noted that new environmental legislation was forthcoming, but doubted the fledgling government's ability to implement and enforce it (REC 1997:35). Local governments may be equally shattered, making it difficult to decentralize the management of natural resources effectively. Two decades of conflict in Afghanistan left local community decision-making bodies without the information, infrastructure, money, or human capacity to cope with demands on the environment (UNEP 2003:95).

Refugees and the Environment

Refugees searching for safe haven can burden the ecosystems in their country of asylum and complicate environmental decision-making. In 2001, there were about 20 million uprooted people worldwide. Some 12 million were refugees and 5 million were "internally displaced persons"—people forced to flee their homes, but still living in their original country (UNHCR 2002:12, 19, 22).

Often, refugees are forced to settle in resource-scarce areas, putting further pressure on trees, land, water, and wildlife. The unstable in- and outflow of displaced people affects established patterns of rural cropping and food production, and upsets long-term agricultural investments (Messer et al. 2000). When rural communities are forced to flee, they may take with them knowledge of the harvest cycles of locally adapted seeds and the informal networks of seed swapping that help preserve the genetic diversity of agriculture (PRTADG 1999:12–14). Streams of refugees can overburden infrastructure for living quarters, clean water supplies, and waste systems.

When it is time to make decisions about natural resource use and conservation, refugees are unable to have a voice in

those decisions because they are not citizens. Even if they return to their original homes, they may lose their say in land use and management decisions due to land ownership disputes or postwar changes in national land policy. For example, in postwar Mozambique, the government awarded commercial land concessions in many areas when local communities were still absent or were struggling to re-establish their livelihoods, and were thus unable to effectively join in the decision (Hatton et al. 2001:64). In addition, documentation regarding legal land rights and property ownership is often misplaced or confiscated during conflicts, as occurred in the southern Balkans when Kosovo Albanians fled to Albania and the former Yugoslav Republic of Macedonia in 1999 (UNEP and UNCHS 1999:5).

Civil Society Undermined

Civil society, so crucial to informed environmental management, is weakened during war. War thwarts the ability of nongovernmental organizations (NGOs) and the media to operate. It also makes it harder for people to assemble, to communicate within and outside borders, and to access information. Growth rates of NGOs have typically fallen during times of conflict and grown in the years after the fighting stops. In Bosnia and Herzegovina, for example, environmental NGOs thrived at local, municipal, regional, and national levels before military violence began. Local governments funded some of the work of various agricultural organizations, and NGOs had a voice in decisions that affected the environment and routinely worked with governments, religious groups, and scientific institutions. During the war, however, most NGOs were forced to cease their operations or were limited to local endeavors (REC 1997:35).

Conflict can mean the end of external funding and participation in environmental work. During wartime, foreign funders typically hesitate to support local NGOs. International organizations once active in environmental education, restoration, biodiversity monitoring, and natural resource management may pull out staff, abandon projects, or see their work destroyed by conflict, as experienced in Sierra Leone, Ethiopia, the Central African Republic, and other countries (Squire 2001:24). For example, the headquarters of a World Bank-sponsored project to manage natural resources in the Central African Republic was destroyed as a result of conflict, along with a large quantity of equipment, including the entire geographic information system (GIS) database of forest inventories covering the southwestern area of the country. The project was suspended and then discontinued (Blom and Yamindou 2001:18).

While government ministries and civil society groups are in disarray after conflict ends, the private sector is often able to mobilize quickly to take advantage of this void. After the Mozambique Peace Accord in 1992, for example, hunters and commercial loggers from urban areas followed construction teams as the road network was re-established, taking advantage of the new access to wildlife and forest areas. The quick profits they reaped left communities in the province a poorer resource base on which to rebuild their livelihoods (Hatton et al. 2001:11, 47–48).

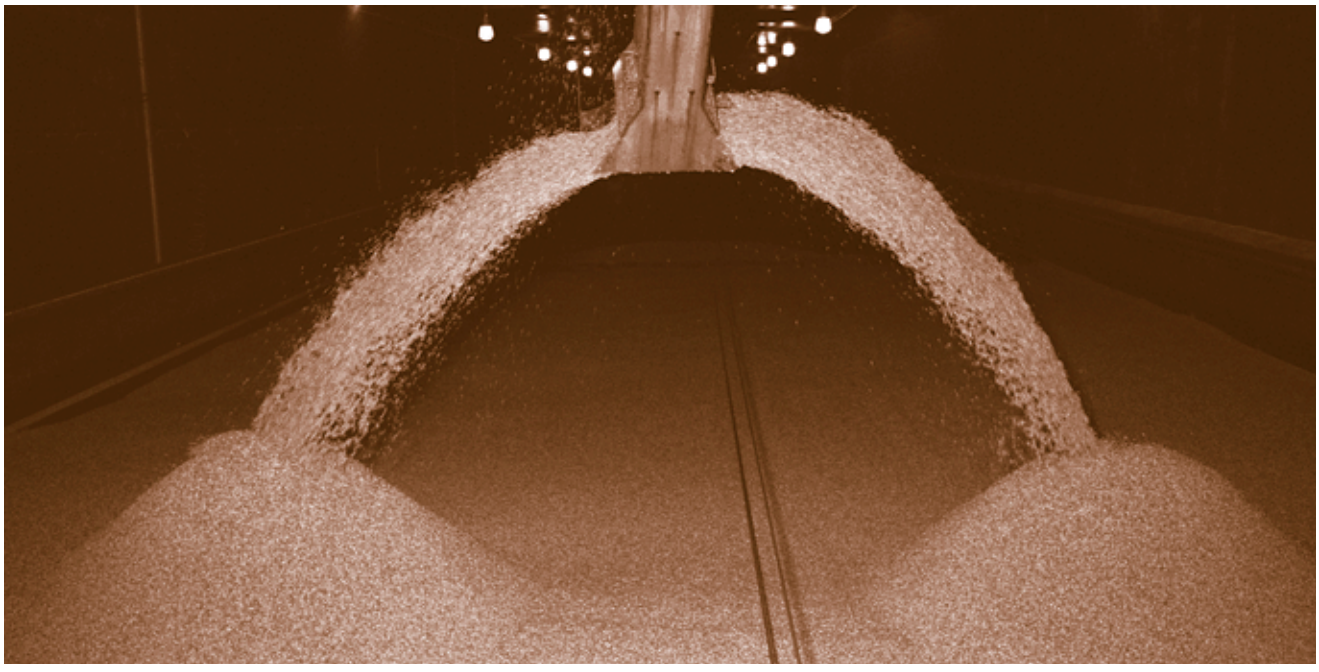
The Defeat of Sustainability

Clearly, a country at peace is more likely to have the political, economic, and civil stability that fosters sustainable development. Simmering conflicts and eruptions of violence slow economic growth, and reduce the latitude for innovation and investment. Civil conflicts in Africa have deterred progress in introducing greater transparency and accountability into governments—critical to democratic and sustainable development. Political instability and conflict can result in a chronic lack of investment in environmental protection by governments, citizens, and businesses. In the Arabian Peninsula, political and military conflicts have hurt water sector development, contributing to water scarcity and the deterioration of water quality (UNEP 2002:175).

On the other hand, the aftermath of conflict can sometimes yield opportunities for improved policy-making and a fresh outlook that can actually benefit a nation's environmental prospects. This happened in Uganda and Mozambique when natural resource legislation enacted under new leadership enabled much greater opportunity for community participation in natural resource management (Oglethorpe 2002). In 2001, a new government in Afghanistan created a ministry for environmental management—the first time in the history of the country (UNEP 2003:92).

Under certain conditions, the disruptions of war can even work in the environment's favor (Matthew et al. 2002:42). Pressures for development and forest conversion may diminish as populations flee strife-torn areas, and resources may become inaccessible for exploitation in areas the military designates as off-limits. However, these benefits are entirely accidental and inadvertent, and rarely offset the direct environmental damage and destruction of the social and economic fabric that war brings (McNeely 2000:365).

Amid war's brutality, death, and deprivation, the environment may seem a minor casualty. Yet, the destruction of the environment, along with the demolition of democratic, informed decision-making, can prolong human suffering for decades, undermining the foundation for social progress and economic security.



Industrialized countries, too, are pursuing economic integration with greater fervor than ever. In January 1999, the European Union committed to a common currency–the euro. Research suggests that adopting a common currency can more than triple the volume of trade (Rose 2000:57).

But globalization has brought more than a trade boom. In fact, one of its most significant impacts has been, not from the movement of goods, but from the movement of money–in the surge of private investment capital from the boardrooms and investment banks of wealthy nations to developing nations. In 1991, private finance and official development aid (the total value of grants, loans, and other assistance) to developing countries were approximately equal at about $60 billion each. By 2000, private finance had multiplied by a factor of four, to $226 billion, while development aid had decreased by half to $35 billion (World Bank 2002a:32).

One factor driving this explosion in private North-South capital flows was a wave of policy changes promoting liberalization and privatization in the economies of developing and transition countries. Barriers to the free flow of trade and finance across national borders fell, while privatization of state-owned corporations and the creation of new stock markets in developing countries provided new opportunities for investors in industrialized countries. Then in 1997, with the advent of the financial crisis in Asia, and subsequent financial turbulence in Brazil, Turkey, and Argentina, both investors and recipient countries learned the downside risks of increased integration with the global economy.

Effects on Environmental Governance

Global integration has posed several challenges for environmental governance. These include the outpacing of environmental regulations by economic growth, the increasing power of the private sector to shape economic and environmental decisions, the environmental impacts of economic instability, and questions about the transparency and accountability of such international financial institutions as export-import banks, the World Bank, and the International Monetary Fund (IMF).

In several emerging market countries such as Indonesia and China, where international investment drove high rates of economic growth in the 1990s, the pace of economic development strained the institutions and regulatory frameworks designed to protect the environment. In China, for example, local officials were given a mandate to promote economic growth. They did not, however, face much countervailing pressure from environmental regulators to invest in pollution control equipment and clean manufacturing processes, or to enforce environmental regulations. As a result, uncontrolled industrialization has significantly worsened China's environmental conditions and increased related impacts on human health (Davis and Saldiva 1999:15; World Bank 1997:5–28; Lieberthal 1997:4–5).

Privatization of formerly state-owned assets and functions also created environmental governance problems in many countries. Since the mid-1980s, governments have increasingly transferred some of their powers to the private sector–to manage natural resources and provide services such as drinking water supply, wastewater treatment, and electric power. Water services are a good example of this trend. Private water companies have existed for nearly four centuries, but public authorities controlled water supplies and provided sewage treatment in the vast majority of jurisdictions until the 1980s (Brubaker 2001:1–2; Gleick et al. 2002:23–24).

However, by 2000, national, provincial, and local governments in 93 countries had begun to privatize drinking water or wastewater services (Brubaker 2001:1). In 1997, the Asian capitals of Jakarta and Manila awarded contracts to privatize their water services–just 2 of the 33 major water privatizations that year (Owen 2001:17). From 1995 to 1999, governments around the world privatized an average of 36 water supply or wastewater treatment systems annually (Owen 2001:17). Likewise, privatization has proceeded in the electric power sector, with some 40 percent of developing countries allowing the entry of private power producers into their electric utility systems by 1998 (Bacon 1999:8).

The potential benefits of privatization are both financial and practical. Privatization brings ready sources of private capital to invest in systems that are often cash-starved and in poor physical condition. Done right, this can bring better and wider service, greater efficiency, and increased financial viability. But the reality of privatization has been much more mixed and has prompted local backlash, even civil uprisings, in a number of locations. Decisions to privatize rarely involve public consultation and often have unpopular social repercussions, including job losses and price increases (Dubash 2002:x–xv).

Moreover, many governments are not prepared for the regulation of new private utilities–which are often monopolies–that is required to protect both social and environmental goals. Absent vigorous regulatory oversight, privatized utilities may not adequately consider environmental impacts when new infrastructure is built or when land use decisions are made. For instance, the decision to build a coal-fired power plant or to tap non-renewable water supplies may turn on short-term economic considerations such as ease of financing or the rapid recouping of investment, rather than long-term outcomes for the surrounding natural and human communities. For these and other reasons, the issue of how much state power should be put into the hands of private companies and what kinds of social and environmental obligations these companies should take on, is one of the most controversial governance topics today (Dubash 2002:x–xv; Gleick et al. 2002:29–39).

The economic and political instability resulting from the financial crises of the 1990s also challenged environmental governance structures. In Indonesia, for example, the breakdown of law and order and high unemployment following the fall of the Suharto regime in 1998–coupled with pent-up resentment of state control over natural resources–led to an explosion of illegal logging and wildlife poaching in the country's protected areas. At the same time, the economic collapse limited the government's ability to fund environmental protection and diverted the attention of normally vigilant public interest groups to the pressing issue of helping the newly impoverished (FWI and GFW 2002:60–64). Weak environmental governance institutions–including government agencies, community-level organizations, and public interest groups–render ecosystems extremely vulnerable to economic and political disruption.

Finally, globalization has illustrated potential conflicts between the roles of institutions such as the IMF, the World Bank, and bilateral export credit agencies in promoting liberalization and privatization, and the part they play in global environmental governance. First, how can the activities that these organizations fund be made consistent with sustainable development? There are many instances where projects supported by these institutions promote unsustainable practices. For example, a World Resources Institute study found that export credit agencies in developed countries–which bankroll foreign projects intended to develop export markets abroad–were supporting energy projects with high greenhouse gas emissions in developing countries. This was in direct conflict with the professed desire of developed countries to encourage developing countries to lower the growth rates of their greenhouse emissions (Maurer and Bhandari 2000:1–6).

Second, there is concern that international financial institutions are not sufficiently open and accountable to the communities affected by their decision-making. While the World Bank and other multilateral development banks have introduced strong reforms related to information disclosure, public consultation, and appeals mechanisms, most export credit agencies and trade bodies remain closed to public participation and scrutiny (see Box 2.2).

Democratization

Over the last 30 years, the world has seen a significant trend toward democratization–the adoption of democratic principles of governance and public participation. Freedom House, which rates countries as "Free," "Partially Free," or "Not Free" based on a composite of political and civil liberties, estimates that while in 1973 only 81 countries were "Free" or "Partially Free," by 2003 that number had risen to 144. These numbers translate into a total population of 2 billion living under fully or partially democratic regimes in 1973, and 4 billion in 2003 (Freedom House 2003:2–3).

The relationship between democratization and environmental outcomes is complex (see Box 2.3). The more citizens are able to know about the environment, to express their opinions, and to hold their leaders accountable for their performance, the more likely it is that they will be able to prevent gross environmental mismanagement. For example, after 1989, the trend toward democratization in the countries of the former Soviet Union helped bring to light severe contamination of the landscape with radioactive and other toxic substances, and the exposure of unwitting citizens to extreme health risks. Despite some continued repression, environmental activists have forced governments in the region to begin to address environmental health concerns. In northwestern Russia, a community supported by advocacy

(continued on p. 34)

Box 2.2 Open Accounts? The Transparency of Multilateral Development Banks

Multilateral development banks (MDBs) such as the World Bank, the Inter-American Development Bank (IDB) and the Asian Development Bank (ADB) provide loans, loan guarantees, and grants to foster economic and social development in middle-income and poor countries. This lending typically supports projects that are intended to benefit rural development, infrastructure, and institution-building, such as the construction of power plants, dams, and pipelines; irrigation efforts to boost agricultural yields; and education and health initiatives such as AIDS awareness and anti-malaria programs.

But the MDBs don't just lend. Increasingly, they encourage countries to reform their markets and to make basic changes in their governance, health provision, and education policies (Tussie and Tuozzo 2001:106). One approach ties loan disbursements to requirements for government policy changes. Often, the banks provide loans, guidance, and conditions targeted at "restructuring" national economies to make them more open and increase their growth potential. Along with other changes, countries may be encouraged to privatize state industries, reform banking and monetary policies, and liberalize foreign investment measures. Some MDB loans support realignment of different sectors of a nation's economy—such as the forest or energy sector—by changing the government's policies, regulatory framework, or subsidies aimed at the sector.

Because of their macroeconomic effects on employment, trade, and government spending patterns, these "structural adjustment" or "sectoral adjustment" loans (also called "development policy support lending") can be among the most controversial in MDB loan portfolios. In the case of the World Bank, adjustment loans have grown in recent years to account for almost two thirds of fiscal 2002 disbursements (World Bank 2002b:27).

In 2001, MDBs provided net aid of $18.4 billion in grants and concessional loans (loans with an interest rate lower than from a commercial bank) (OECD 2002). This represents almost one third of the annual aid funneled to low- and middle-income countries, making MDBs highly influential in charting the direction and performance of national development policies.

The multilateral institutions also expanded their loan guarantee activities in the 1990s to help catalyze private sector activities in developing countries. World Bank programs alone guaranteed $18 billion in loans to developing countries from 1996–2000, twice the amount guaranteed in the prior five years (World Bank 2002a:107). In addition, MDBs leverage their lending through co-financing with the private sector and export-

Transparency in Multilateral and Regional Development Banks

How Open to Public Scrutiny and Involvement Are these Multilateral and Regional Development Banks?	World Bank	Asian Development Bank	African Development Bank	Inter-American Development Bank	European Investment Bank
Does an official bank policy or approved strategy address public participation in environmental decisions and policies?	Yes	Yes	No	Yes	Yes
Does a mechanism (such as an ombudsman) or procedure exist to receive complaints from civil society groups or affected populations?	Yes	Yes	No	Yes	No
Does the bank have an ombudsman or other mechanism that specifically acknowledges the importance of resolving *environmental* complaints or disputes?	No	No	No	No	No
Are the deliberations or meetings of the bank's Board of Executive Directors open to public scrutiny?	No	No	No	No	No
Do the bank's guidelines on Environmental Impact Assessments (EIAs) require disclosure of EIA findings *before* the bank makes a lending decision?	Yes	Yes	Yes	Yes	Yes
Are general project descriptions and project-related documents available to the public *before* the bank makes a lending decision?	Yes	Yes	Yes	Yes	Yes
Does the bank require that NGOs and other civil society groups be consulted while formulating its country assistance plan (the lending strategy for a country that embodies lending priorities)?	No	No	Yes	No	No

Source: Adapted from Maurer et al. 2003.

import banks (government-sponsored banks that fund foreign projects intended to open up export markets) (Gwin 2001:169).

In an interesting twist, multilateral development banks raise the majority of the money they disburse as loans by borrowing on the world's financial markets. The MDBs are able to borrow at low rates because they are backed by the financial guarantees of the banks' member countries, to whom they are ultimately accountable. Member countries also contribute some money directly to the MDBs to fund grants for the poorest countries.

Because of their central role in financing national development, multilateral development banks have a huge influence on natural resource use and the environment. For example, by funding carbon-intensive technologies, a bank's investment decisions can exacerbate climate change and put a country on a path to fossil fuel dependency. By contrast, MDBs can promote policies that include incentives for energy efficiency and renewable energy projects, such as wind energy installations or solar arrays in rural villages.

Bank decisions often involve trade-offs that have important social or environmental consequences. For instance, a bank can choose to support road construction that gives market access to remote villages or forests, but may displace indigenous people or damage biodiversity. By insisting on the use of standard accounting practices, reporting procedures, or consultation guidelines, banks can encourage greater local participation in project designs and discourage corruption and influence peddling among local officials.

The potential for MDBs' projects and policy prescriptions to affect a nation's environment, culture, and society has brought greater scrutiny to decisions that the banks, historically, have made quite secretly. Over the past decade, nongovernmental organizations (NGOs) have pressed the World Bank and other MDBs to become more transparent and accountable—to disclose information to people who are affected by proposed loans and projects, and to give them a chance to participate in the project and policy design (Fox and Brown 1998:1–2; Gwin 2001:190).

WRI's evaluation of the official commitments or institutional policies of several large multilateral and regional development banks suggests that most have, indeed, made progress toward greater transparency (see Table). The majority of them now at least express general institutional support for access to information and public participation in their activities. The World Bank—the bank that lends the most money and has received perhaps the greatest criticism and scrutiny from environmental groups—has led the way in putting in place specific policies or commitments that promote public participation and transparency. Several other banks have followed suit. By contrast, the European Investment Bank, which has received limited attention from public interest groups, has few such specific policies in place (Maurer et al. 2003:5–9).

Some MDBs have also implemented mechanisms for redress, such as ombudsman offices or other formal procedures for responding to environmental complaints or resolving disputes. Yet, their generally cumbersome procedures and closed deliberation processes mean that NGO watchdogs or other groups have only limited ability to ensure that governments and banks honor their own policies or commitments. In addition, most banks do not offer the public or NGOs an opportunity to participate in the design of country assistance plans—the investment strategy that a bank uses to determine what kinds of in-country projects it will fund. Without such access, local public interest groups and private organizations find it harder to influence how their governments—who are guided by those strategies in their development planning—set priorities regarding resource use and the environment (Maurer et al. 2003:1–3, 8).

Disclosure: The World Bank, an editorial and financial partner in the publication of *World Resources 2002–2004*, did not participate in the design or conduct of the above analysis.

Box 2.3 More Democracy, Better Environment?

The political structure of nations—whether they have a democratic or autocratic style of government—is an important factor in their social and economic development. In the last half century, the world has moved steadily away from autocratic regimes that concentrate power in the hands of one or a few people, and toward democracies that grant broad civil liberties and freedoms of political participation. From 1950–2003, the number of electoral democracies—nations where governments were elected by popular vote—almost tripled from 43 to 121 (Freedom House 1999:1–2; 2003:5).

However, democracy is measured by more than simply the right to vote, and not all electoral democracies extend full democratic rights to their citizens. *Full democracies* are defined as granting a range of rights and institutions, such as elections, competitive political parties, the rule of law, independent media, limits on the power of government officials, and an independent judiciary. These mechanisms allow citizens to communicate and organize among themselves, choose their leaders freely, and participate in government decisions (Esty et al. 1998:9; Freedom House 2003:1).

Partial democracies have more limited respect for political rights and civil liberties. They share some of the characteristics of full democracies—such as elections—but also some of the characteristics of *autocracies*, such as an overly powerful chief executive, suppressed or restricted political parties, a state-controlled press, or a cowed judiciary (Esty et al. 1998:9; Freedom House 2003:1).

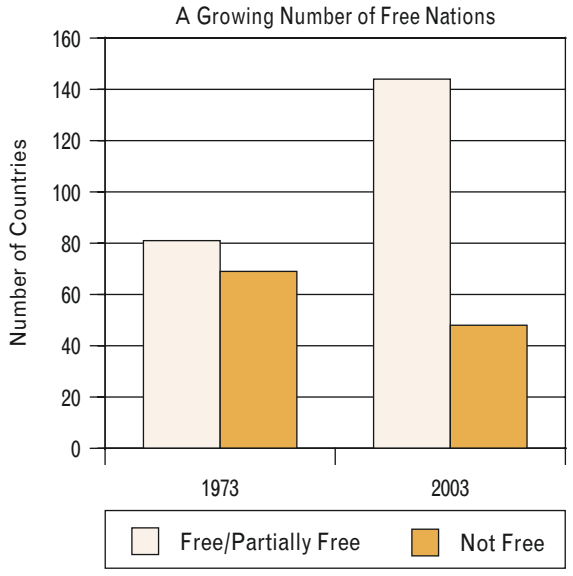
The nongovernmental organization Freedom House uses these definitions to rate countries as "Free" (full democracy), "Partially Free" (partial democracy), and "Not Free" (autocracy), based on the level of civil and political freedoms they grant their citizens. Freedom House's analysis shows impressive growth in the number of nations extending democratic freedoms over the last three decades, with those nations rated "Free" and "Partially Free" increasing from 81 in 1973 to 144 in 2003 (Freedom House 2003:2). (See Figure.) The accompanying map shows the current distribution of full democracies, partial democracies, and autocracies.

Democracy and Environment

Is there a causal connection between democracy and improved environmental quality? Between political freedoms and environmental sustainability? Assessing the influence of political liberties and civil rights on the environment is not straightforward. There is little empirical evidence of a direct link, and research is hampered by a lack of national-level data on environmental conditions outside industrialized countries.

Proponents of global democratization have asserted that such a connection exists (Gore 1992:179–180, 276–277), and a growing literature supports the idea that political freedoms may be as important as economic factors in improving environmental quality, particularly in poorer nations (Barrett and Graddy 2000:455). For example, one recent analysis found that greater political and civil liberties were associated with improvements in air and water quality, such as reduced levels of sulfur dioxide and particulates in air, and lower coliform and dissolved oxygen levels in water (Torras and Boyce 1998:155).

The Trend Toward Freedom (1973–2003)



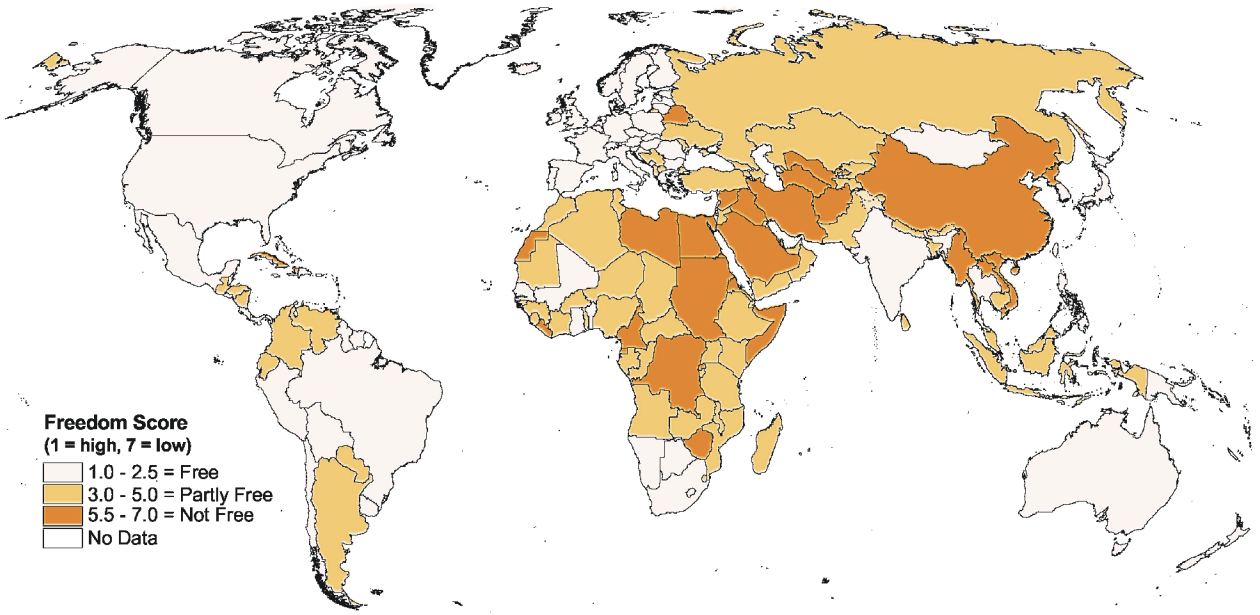
Source: Freedom House 2003:2.

The assertion that greater democratic rights can, in the right circumstances, result in better environmental policy and performance has been given powerful support in the aftermath of the terrible environmental abuses revealed in Central and Eastern Europe and the former Soviet Union after the fall of Communist regimes in 1989–1990. Environment was a rallying cry of reform movements in the region, and stricter environmental legislation has been rapidly enacted under new democratic governments.

The link between citizen rights and improving environmental trends has much to do with the power that democracies give to citizens to affect decision-making processes and hold government officials, corporate authorities, and other individuals accountable. Democratic freedoms encourage access to information—such as planning documents, budgets, reports on local environmental conditions, or pollution records—that can help citizens protect their environmental interests (Petkova and Veit 2000:3–5).

A strong correlation also exists between democracy and wealth. High-income countries are, with few exceptions, liberal democracies. Rising wealth, in turn, is associated with clear improvements in some environmental indicators. How-

Democratic Freedoms: Civil and Political Liberties, 2003



Source: Freedom House 2003

ever, experts caution against interpreting these results to mean that rising wealth *automatically* delivers improvements in environmental quality (Torras and Boyce 1998:147–160).

Rather, democratic institutions, levels of wealth, and citizen demands for environmental quality all appear to interact. The correlations among these three factors and better environmental policy appear strong (Grossman and Kruger 1995:353–377). However, it is important to distinguish among different environmental issues. The environmental benefits resulting from concerned citizens acting in a free society, and from investments made possible by rising wealth, tend to be local in nature. The first issues to be tackled are sanitation infrastructure, water and air quality, risks associated with toxic releases, and local habitat protection. Environmental problems that are more distant in space or time, such as biodiversity loss, overfishing, and climate change, have high awareness in democracies, but that awareness has not yet been translated into effective action (Max-Neef 1995:115–118).

Still more sobering is the fact that liberal democracies, as the richest nations on Earth, are themselves responsible for a disproportionate share of global resource use and waste generation. Democratic countries are built around the concepts of individual liberty, freedom of choice, and the necessity of economic growth. The very success of liberal democratic and free market ideology has created a mighty engine of consumption. While there is no empirical evidence of a causal link between democracy and consumption, as opposed to the clear relationship between wealth and consumption levels, the three variables are strongly correlated. If developing countries replicate the Western model of liberal democratic governments and free market economies, environmental quality will likely improve in some respects but worsen in others.

A further consideration is that the transition from autocracy to democracy is often marked by political instability, rapid internal change, and even civil conflict. In many cases, political crises cause newly established democratic regimes to fail. In fact, during the second half of the twentieth century, about one quarter of all newly established democracies lasted for less than 5 years (Esty et al. 1998:viii). The environment is particularly vulnerable during times of transition and may suffer worse damage than occurred under autocratic rule. For example, eyewitness reports from Indonesia suggest that deforestation has dramatically increased since the fall of President Suharto in 1998 (FWI and GFW 2002:xi).

groups recently succeeded in blocking construction of a nuclear power plant by voting it down in a local referendum.

But there is also evidence that *partial* democratization–where some democratic practices (such as elections) are adopted without embracing a full array of civil and political liberties–may worsen environmental outcomes in the short term. Democratic elections in the absence of other mechanisms to hold politicians accountable for serving the public interest can drive destruction of natural resources through political patronage. For example, observers have noted an increase in the disposal of public forest land in Kenya in periods leading up to national elections, as the governing party rewards supporters with land that is supposed to be held in the public trust (Klopp 2000; Walsh 2002:A4).

Even in the most advanced democracies, effective regulation of extractive or highly polluting industries such as mining or power generation is often stymied by distortions of the democratic process. For instance, the campaign finance system in the United States is often blamed for allowing undue corporate influence in setting and enforcing environmental policies.

Emergence of Governance Norms

In addition to formal changes in political systems, the evolution and strengthening of global norms of "good governance" has also emerged as a significant form of democratization.

"Norms" are standards or practices that may not yet be codified in formal law, but that nevertheless influence the behavior of individuals, corporations, or governments. In this sense, norms become public expectations. They contribute to an individual's or organization's image as a responsible citizen, or a government agency's image of legitimacy or fairness. In the realm of environmental governance, emerging norms include decreased tolerance for corruption, and increasing expectations for transparency and public participation in decision-making.

Corruption is an important driver of natural resource degradation around the world. Corruption occurs when public officials abuse their regulatory authority, or appropriate public assets–land, timber, minerals, or other resources–for private gain. For a share of the profits, corrupt officials look the other way when corporations flout environmental protection laws, or may even directly participate in the illegal appropriation of natural resources managed by the state. For example, it is estimated that fully half of the logging taking place in Indonesia today is illegal (FWI and GFW 2000:xi).

Thus, it is significant that over the last ten years, the international community has lifted the taboo on discussions of corruption, and has recognized the role of industrialized countries and international institutions in attacking this problem. In 1993, a small group of former World Bank officials founded Transparency International, an organization that has effectively raised awareness of the corruption issue and catalyzed citizen networks around the world to reduce it (Transparency International 2003).

In 1996, World Bank president James Wolfensohn highlighted the problem of corruption as a barrier to development and poverty reduction, and committed the Bank's resources and influence to address the problem in client countries (Wolfensohn 1996). Meanwhile, the industrialized countries represented in the Organisation for Economic Co-operation and Development (OECD) concluded an agreement in 1997 criminalizing bribery by corporations in their international operations (see Box 2.4).

The corporate community is also responding to changing norms of behavior related to its role in promoting sustainable development. An increasing number of domestic and multinational companies have committed to voluntary standards of corporate responsibility related to labor practices, dialogue with local communities, information disclosure, and environmental management. For example, 224 corporations are now participating in the Global Reporting Initiative (GRI)–an effort to standardize corporate disclosure of information about the social and environmental impacts of their operations (GRI 2003). Although many public interest advocates argue that voluntary guidelines are no substitute for mandatory regulations in governing corporate behavior, such consensus-building on appropriate norms may serve as the basis for more binding regulations in the future.

The Growth of Nongovernmental Organizations

Public interest groups that are independent of both government and private business can provide important checks on the failures of electoral democracy to protect ecosystems. *Civil society* can be defined as all organizations in public life above the household level that are neither government nor profit-oriented. Thus, religious organizations, professional associations, and universities are all part of civil society, in addition to nongovernmental organizations (NGOs)–a term often used to describe groups that focus on public interest advocacy or service delivery.

NGOs dedicated to promoting environmental protection have been at the forefront of democracy movements in many countries, including the countries of Central and Eastern Europe and the former Soviet Union as they have emerged from decades of socialist rule. In Indonesia and the Philippines, NGOs operating under authoritarian regimes have often used the limited political space available to advocate improved natural resource management as a politically acceptable entry point to address issues that were also about social justice and human rights.

Worldwide, the increasing number and influence of civil society organizations has been one of the hallmarks of environmental governance over the last decade, and is both a cause and effect of broader democratization trends. The number of NGOs recorded by the Union of International Associa-

Polls show that governments do not provide as much access to environmental information, or as much opportunity to participate in environmental decision-making, as their citizens would like.

tions has more than doubled since 1985 to over 47,000 (UIA 2000; 2001:1519). At the United Nations, 2,143 NGOs held consultative status in 2003 (DESA 2003), compared to 928 in 1992 and just 222 in 1952 (Willetts 1996:38; 2002).

In addition, civil society organizations have been increasingly effective in demanding a "seat at the table" in both the national and international policy arenas. The Rio Earth Summit in 1992 represented a quantum leap in NGO participation in setting the agenda and influencing the negotiations of a multilateral forum. Following the Earth Summit, civil society organizations have taken their place alongside government officials and business representatives in multistakeholder forums such as National Councils for Sustainable Development, and the World Commission on Dams.

Access to Information Technology and Connectivity

The recent revolution in information and communications technologies has profound implications for environmental governance. The Internet provides a powerful new vehicle governments can use to make information available to their citizens. Government websites have become convenient venues for posting official reports and analyses, Environmental Impact Assessments, and basic data on land use, air and water quality, industrial emissions, and census statistics.

A growing trend toward "e-government"–application of the Internet-based techniques of e-commerce to government services–also offers opportunities to increase the ease and transparency of government services such as land titling and registration. This can help empower low-income and rural residents in asserting their environmental rights. In the Indian state of Andhra Pradesh, for example, on-line property registration has reduced the time it takes to obtain a certified copy of a registered land title from days to a few minutes, and has shortened the entire process of official valuation and registration of land parcels to a few hours. Greater transparency in the process has helped discourage corruption and has increased state revenues from land registration by nearly 20 percent (Bhatnagar 2000).

New information tools also allow citizens to more easily share information in order to influence governments and private businesses. In the United States, Environmental Defense, an environmental advocacy group, has pioneered the use of interactive websites to post local pollution data. This allows citizens in any location to check on and take action against local pollution sources, such as hog farms that generate concentrated animal waste that may contaminate local waterways (Scorecard 2003).

New technology has also enhanced the power of maps in environmental decision-making. New mapping tools let researchers, advocacy groups, and government agencies combine specific land use or pollution data with geographic data to graphically portray environmental trends and impacts. These have often proved decisive in land use debates. In Norway, an NGO called Nature and Youth helped develop a map that illustrated the potential damage to a wilderness area from a proposed road. The map was so effective in swaying opinion that the road was not built (Denisov and Christoffersen 2001:5).

(continued on p. 39)

Box 2.4 Undue Influence: Corruption and Natural Resources

More than $1 billion of Angola's state oil revenue goes missing each year, at least a portion of which is apparently siphoned into private bank accounts offshore (Global Witness 2002:3; Pearce 2002). In 2002, a powerful Kenyan cabinet minister seized 1,000 hectares of state forest land to build a memorial to his mother (Walsh 2002:A4). In Sumatra's Jambi province, corrupt civilian and military officials collude with private loggers to illegally harvest and export state timber. The collusion is so widespread and the impact so great that provincial legislators made a rare public appeal in 2000 to military, police, and justice officials to stop supporting the illegal timber operations (FWI and GFW 2002:31).

Whether it is high-profile embezzlement or a low-level bribe to a petty bureaucrat, corruption is a major force undermining environmental equity and destroying ecosystems. It is also the epitome of bad governance. Because corruption thrives away from public view and enriches only those involved, it naturally subverts the transparency, accountability, and inclusiveness that mark good decision-making. By offering special access to resources and decisions to a select few, it denies access to the wider public.

Broadly speaking, *corruption is the abuse of public office or public resources for private gain* (Gray and Kaufman 1998:22; Andvig et al. 2000:11). Bribe-taking, graft, sweetheart deals, political payoffs, influence peddling, cronyism, patronage, and nepotism are a few of its many faces. Corruption that makes the headlines frequently involves politicians, senior government officials, or military leaders—what is usually termed "grand" corruption. But "petty" corruption involving junior bureaucrats, local officials, or low-ranking military personnel is widespread and just as corrosive of sustainable resource management (Andvig et al. 2000:14–19).

In many countries, corruption is perceived to be rampant. Every year Transparency International polls businesspeople and analysts about the degree of corruption in a given country. Out of 102 countries rated in Transparency International's 2002 Corruption Perception Index (CPI), 70 scored less than 5 on a 10-point scale (with a score of 0 as highly corrupt). Eight countries—Azerbaijan, Indonesia, Kenya, Angola, Madagascar, Paraguay, Nigeria, and Bangladesh—received a score of 2 or less in the CPI poll (Transparency International 2002). The CPI findings and many other studies indicate that the problem of corruption affects all societies, rich and poor, but that the incidence is particularly high in many of the poorest nations (Transparency International 2001:7; 2002).

Corruption Perceptions Index 2002

10 Least Corrupt	10 Most Corrupt
Finland (9.7)	Bangladesh (1.2)
Denmark (9.5)	Nigeria (1.6)
New Zealand (9.5)	Paraguay (1.7)
Iceland (9.4)	Madagascar (1.7)
Singapore (9.3)	Angola (1.7)
Sweden (9.3)	Kenya (1.9)
Canada (9.0)	Indonesia (1.9)
Luxembourg (9.0)	Azerbaijan (2.0)
Netherlands (9.0)	Uganda (2.1)
United Kingdom (8.7)	Moldova (2.1)

Note: The CPI Score relates to perceptions of the degree of corruption as seen by businesspeople and risk analysts.
Source: Transparency International 2002.

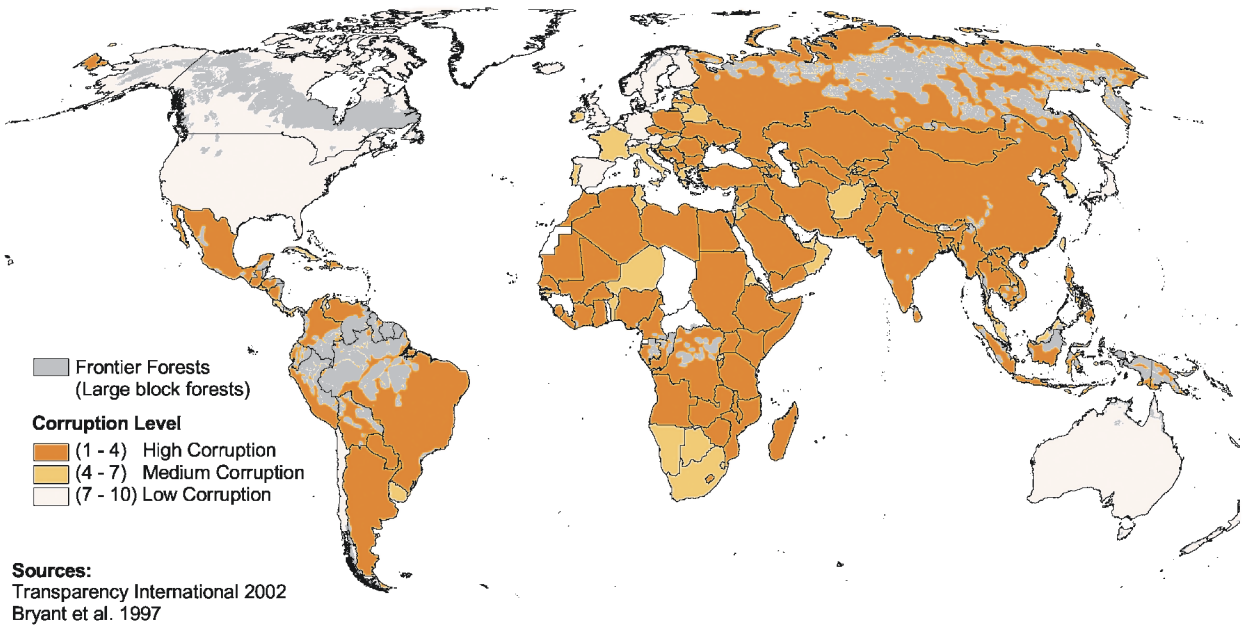
A Natural Target

Natural resources offer a rich opportunity for corruption. Indeed, environmental crime—illegal logging, theft of public lands, diversion of oil revenues, or other illegal appropriations of public assets—is a modern growth industry that is frequently facilitated by corruption. Natural resources often have high commercial value, making them a prime target for plunder. They are often governed by complicated regulations, require special permits for exploitation and export, and must be inventoried and accounted for to determine royalties and taxes—all entry points for manipulation and corruption (Ascher 2000:13–14; FAO 2001:90–91). For example, an official may accept a bribe to favor an applicant's request for a forest concession, speed the approval process, or grant more favorable concession terms or a higher harvest level. In other cases, officials may ignore breaches of the concession contract, allowing overharvesting or timber smuggling. Sometimes they may falsely certify illegally cut timber as legal, facilitating its sale or export (Callister 1999:12).

An added inducement to corrupt behavior is that there is often a low risk of being caught. Most natural resource exploitation takes place far from public view, in remote regions where monitoring and media scrutiny are low. The areas at issue may be physically vast and sparsely populated. Even if one is caught in the act, the penalties are commonly minimal relative to the potential returns. The people being victimized by the economic distortions and bad management that corruption brings are often the rural poor, who wield little political power and therefore pose little political danger (Ascher 2000:13–14; FAO 2001:90–91).

By their nature, corruption and environmental crime are hard to quantify, but available evidence makes it clear that the dimensions of natural resource corruption are large. The global timber trade, for example, is plagued by high rates of illegal logging in many important timber-producing nations, abetted by corrupt officials. Illegal timber comprised an esti-

Forests and Corruption—Vulnerable Trees



Corruption is a key factor in the misuse of forest resources. Two thirds of the world's remaining large blocks of intact forest—called *frontier forests*—occur in countries where corruption is perceived as high, putting these forests at high risk for mismanagement.

mated 80 percent of all harvested timber—some 25.5 million of a total 30 million cubic meters—in the Brazilian Amazon in 2000, according to IBAMA, the Brazilian Environment Agency (Smith 2003:Table 2).

In Indonesia, estimates of the percentage of illegal logging range from 50 to 70 percent; research shows that, in the mid-1990s, 84 percent of Indonesian timber concession holders were not in compliance with forest laws. Analysts believe that at least 20 percent of Russia's timber is harvested in violation of current laws, and that could increase to 50 percent in parts of Siberia and the Russian Far East. In Cambodia, where a robust illegal logging trade has flourished since the mid-1990s, payments to government officials in the form of bribes are estimated at $200 million for 1997 alone. That is more than 13 times the $15 million in revenue the Cambodian government took in from legal forest operations that year (Smith 2003:Table 2). Though corruption may not be implicated in every single incidence of illegal forest practice, the correlation between corruption and forest crime is believed to be remarkably high in many countries (Contreras-Hermosilla 2001:4).

The Roots of Corruption

A combination of economic, social, and administrative factors creates favorable conditions for corruption. In developing countries, for example, low salaries for civil servants—those responsible for the routine management of natural resources and enforcement of regulations—increase the motivation to earn additional income through corrupt activities (Andvig et al. 2000:112). In fact, bribes and other gifts and favors may form a significant percentage of a public employee's total income in societies where civil service pay is low (Mbaku 1996:100). Other aspects of public administration play a part as well. Hiring and job advancement, for instance, may be determined more by connections and payoffs than by merit, reducing the professionalism and competence of the bureaucracy and strengthening the cycle of corruption.

Corruption flourishes where the mechanisms of accountability and oversight are weak. These mechanisms can include independent audits, special investigative units or government inspectorates, NGO watchdog groups, a robust press, and vocal political opposition parties. When these institutions of detection and enforcement are lacking or are themselves corrupt, the chances of exposure are slim. The complexity of government regulations and the amount of discretionary power bureaucrats exercise factor into the corruption equation as well. Where rules are complex, vague, or frequently changing, administrators have more opportunities to use their influence to exact bribes (Kaufmann 1997:119; Gray and Kaufman 1998:26).

Expectations about the prerogatives of authority also vary. In many African countries, for example, corruption is common and quite visible, with most of those engaging in it believing they are entitled to the benefits they reap. Indeed, civil service

(continued on next page)

is frequently seen as a legitimate opportunity to enrich oneself and take care of one's family or other social obligations (Mbaku 1996:104; Andvig et al. 2000:63, 68–9).

Together, these factors can lead to an entrenched "culture of corruption," where the social stigma attached to such practices may be lower and tolerated by the public as part of everyday life and normal business practice, even if it does not wholly approve. An extreme example of this occurred when one African government eliminated the wages of its customs officials for six months, assuming they would earn sufficient income through bribes to support themselves (Tanzi 1995 as cited in Andvig et al. 2000:112).

A final and critical factor in the corruption cycle is the bribe-giver—the "supply side" of corruption. Bribe suppliers are frequently not simply victims of greedy officials, but active partners in the fraud (Vogl 1998:55). They may be local or international, since modern corruption is global in scope. In fact, complicity by multinational companies is often cited as a major factor in facilitating corruption in developing and transition nations (Transparency International 2002). On the World Bank's list of firms ineligible to receive Bank contracts due to fraud and corruption, more than half were based in the United States or the United Kingdom as of November 2002 (World Bank 2003).

Confronting Corruption

Since the early 1990s, public recognition and discussion of the problem of corruption has grown. From the World Bank, to watchdog groups like Transparency International, to the heads of state of the G-8 nations, calls for stronger action to confront this ingrained behavior have shattered the taboo on speaking out about a public scourge. In part, this new interest reflects the realization that corruption is bad for a nation's economic health. Research shows that corruption imposes significant costs and interferes with the pace and direction of development (Kaufmann 1997:118–120; Tanzi and Davoodi 1998:33–42; Andvig et al. 2000:91–102). For example, it discourages foreign investment by increasing the overall costs of doing business much like a new tax—a "corruption tax," so to speak (Kaufmann 1997:120; Andvig et al. 2000:94). As a result, international leaders now openly speak of directing aid and investment packages to nations with better records of transparency and financial accountability (Gray and Kaufman 1998:21–22).

The effort to combat corruption involves action on several fronts. Perhaps first and most difficult is the effort to change public expectations. Unless such practices are seen as unacceptable to practitioners and to the public at large, anti-corruption laws and procedural reforms are difficult to implement (Andvig et al. 2000:79).

The media, and public advocates such as Transparency International and Global Witness are key players in exposing corruption and raising societal norms with regard to bribe-taking and abuse of public resources. Investigative reporting and independent assessments of public performance heighten the visibility of questionable practices and introduce a measure of transparency to the actions of decision-makers. For this reason, press freedoms and reform of overzealous libel laws that can muzzle watchdog groups go hand in hand with corruption reform (Schloss 1998:15; Andvig et al. 2000:36–37).

Improvements in public administration and natural resource laws are certainly necessary parts of any attempt to reduce systematic corruption. These aim for greater financial transparency through such steps as simplifying procedures for issuing permits and granting concessions, reforming contracting practices for large infrastructure projects, or mandating independent audits (FAO 2001:96; Contreras-Hermosilla and Rios 2002:11–12, 33–36).

Other changes in public administration are important as well, such as higher pay and higher standards for civil service employees. Research shows that when hiring and advancement decisions are made on the basis of merit, corruption levels go down (Andvig et al. 2000:114).

Action against the supply side of corruption is also imperative. Some progress has already been made with the signing of the 1997 OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions. This international treaty makes it a crime to bribe any foreign official and outlaws the practice of money laundering that often accompanies bribery. It also forbids the practice of deducting the cost of foreign bribes as business expenses on tax returns, a distressingly common practice in many developed nations until a few years ago. As of October 2002, 34 nations had ratified the treaty and all but two had adopted national legislation for its implementation (OECD 1998:1–18; 2003).

If it were strictly enforced, the treaty could be a significant tool against global corruption, since the signatory nations account for more than 90 percent of all foreign direct investment. Unfortunately, the Anti-Bribery Convention has yet to prove its usefulness, according to critics. Transparency International chairman Peter Eigen contends that since the treaty came into effect in 1999, it has not been responsible for a single fine or prison sentence, because of lack of enforcement (Eigen 2002:6).

Where the political will to act is strong, strict enforcement of anti-corruption laws brings results. In Singapore, for example, severe economic penalties against foreign bribes have contributed to the nation's successful cleanup campaign. In 1996, prosecutors convicted a middleman of paying nearly $10 million in bribes on behalf of five large international companies. The government banned those companies from bidding on government contracts for five years. It also banned any new firm the companies might set up to circumvent the penalty (Hawley 2000:18).

The NGO Global Forest Watch (GFW) has carried this power of imagery one step further by combining it with electronic networking of public interest groups concerned about forest loss. Through analysis of satellite imagery, government documentation, and on-the-ground investigation, GFW produces maps with overlays comparing actual changes in forest cover to the legal status of the forest, such as boundaries of protected areas and of legal logging concessions. Posting this information on the Internet provides a powerful tool for reform of forest policy and practice, when, as is often the case, significant discrepancies between government claims and actual practice are revealed (see Box 2.5).

Grading Environmental Governance

As the trends discussed above show, the context for environmental governance is far from static. The economic, social, and political conditions that shape environmental decision-making are evolving quickly, and the challenge of good environmental governance has become more complex. Adding to those challenges is new data that suggests a large gap between the public's interest in, and their access to environmental information.

In the face of these changes, how well has the world put into practice the key environmental governance principles endorsed at the Rio Earth Summit a decade ago? Analysis of governance trends like decentralization and the results of the Access Initiative–an effort to systematically measure people's access to information, participation, and justice in decisions that affect the environment–present a mixed picture: some progress, but much yet to be done.

Unmet Needs: The Public Demand for Access

A Gallup Poll commissioned by the Access Initiative interviewed more than 32,000 people in 46 countries around the world to gauge the strength of people's demand for information on environmental issues; their desire to participate in decisions that affect the environment; and their sense of how their governments are meeting those needs (see Box 2.6).

A clear finding from the poll is that, by a wide margin, citizens feel that governments do not provide them with as much access to environmental information, or opportunity to participate in environmental decision-making, as they would like. The gap is present in all regions, and is not confined to wealthy countries. As measured by this sampling of public opinion, then, access to environmental governance is clearly wanting.

Tentative Steps Toward Decentralization and Regional Cooperation

The task of shifting responsibility for natural resource decision-making to the appropriate level–that which is nearest to the resource and its users, but honors the scale of the ecosystem–is very much a work-in-progress around the world. Decentralization is a case in point. At least 60 developing

countries claim to be transferring political powers over local resources from a central authority to more local units of government (Ribot 2002:3). However, cases of true decentralization, where real authority is granted to a local institution that can be held accountable to local stakeholders–through elections or other means–are very rare.

National governments are seldom motivated to decentralize by an interest in protecting the environment. Instead, decentralization is often a response to pressures to downsize the civil service and reduce central government expenditures. As a result, decentralization often simply shifts the responsibility to manage natural resources to more local levels, but does not actually grant real authority to make decisions or allocate budgets. In other words, the local body does not provide local accountability, but acts simply as an agent to implement decisions made elsewhere.

Nevertheless, cases of more genuine decentralization in Bolivia, the Philippines, some states of India, and elsewhere give credibility to the belief that decentralization done well can bring decisions that are more acceptable to local people and more effective at meeting environmental management goals. In a pilot project in the Cambodian province of Ratanakiri, village committees who were given funds and

(continued on p. 41)

Box 2.5 Information Technology: A Map to Accountability

Around the world, individuals and civil society are gaining influence over resource decisions once made only by the elite. In part, this reflects a new ability to gather and wield environmental information as a lever for greater government accountability. Global Forest Watch (GFW), a nongovernmental organization dedicated to monitoring and publicizing what goes on in the world's forests, is an example of how new information technologies can change old governance patterns.

The Technology of Access

The satellite image that Susan Minnemeyer has created of Cameroon's forests is a treasure map: a detailed key to the region's timber resources and routes of access. Minnemeyer, head mapper for GFW, adds information layer by layer to enhance the image: she outlines areas leased by the government to private firms for harvest, park boundaries, and logging roads—both new and existing.

Using mapping capabilities (called *geographic information systems*, or GIS) developed over the last two decades and a network of on-the-ground observers, GFW has broken the usual government and industry monopoly on forest information. By providing independent oversight of how forests are used and who reaps the benefits, GFW encourages transparency in local forest decisions—such as who can harvest timber, build roads, establish plantations or farms—and helps to detect and restrain illegal logging and under-the-table deals by forest bureaucrats.

Information is Power

Oversight requires vigilance, technology, and teamwork. Many of the new forest roads on Minnemeyer's map are legitimate access roads into active timber concessions, but others impinge on parks and protected areas or zones not yet legally open to logging. When the mapping team finds those, they contact observers on the ground who can verify illegal activity. In each of eight critical forest nations, GFW teams up with local forest advocates who monitor the activities of loggers in their areas, access government and timber company records when possible, and press the case when irregularities are found.

This application of new technology, focused and interpreted with local expertise, has brought unaccustomed access to forest officials and government decision-makers. In the past, when local environmental advocates met with government regulators to discuss oversight of logging concessions, they were often dismissed, even though they had direct knowledge of abuses and infractions. Often, when they asked officials for maps of forest concessions to check their findings, they were told that they were not available to the public. Today, they can bring their own maps—credible, computer-generated, and easy to update. While forestry officials may not be authorized to release maps like GFW's, they may be willing to correct, update, or at least endorse the forest maps that GFW produces—in the process confirming data they would not have volunteered (Bryant 2001).

With accurate and timely data available at the click of a mouse, reporters are more willing to cover stories that would otherwise be vague. In Canada and the African nation of Gabon, Global Forest Watch maps, accessible via the Internet, have formed the basis for newspaper and magazine articles detailing trends in forest use. Using GFW's web-based maps and his own knowledge of Gabon's political scene, one journalist linked many errant logging companies to close associates of the country's top politicians (Vasset 2000; 2001).

In Cameroon during the late 1990s, GFW found that over half of all logging licenses in use were either expired or

located inside protected areas (GFW 2000:28). At the same time, one in five investigations into logging violations in Cameroon's eastern and central provinces was halted "by the intervention of an influential person" (GFW 2000:34). Published accounts of these irregularities, which were documented in GFW reports, brought considerable pressure to improve governance of Cameroon's forests. In mid-2002, in a breakthrough agreement aimed at increasing transparency, the Government of Cameroon and logging industry leaders formally requested GFW to monitor compliance with Cameroon's forest laws. Under the agreement—the first of its kind in Africa—the government will provide data on the country's forest concessions so that GFW's maps will become a more precise tool to identify illegal logging and monitor the state of Cameroon's forests (WRI 2002).

Brokering Change

By compiling information and making it freely available to all—governments, local citizen groups, industries, environmental NGOs, and international wood consumers—Global Forest Watch strives to be an honest broker of forest information. This comprehensive information can be a powerful force for better resource management. The Swedish furniture maker IKEA uses GFW data to avoid buying uncertified wood from the world's remaining intact forests. Reliable information is so important to their green marketing strategy and corporate image that they help fund GFW's data collection. Other large wood consumers such as Home Depot in the United States are also moving to support responsible forest management, and are eager for better information on the harvest practices of their timber sources. By giving these large customers the tools to pressure major wood exporting nations, GFW increases the incentives for good forest management.

The success of Global Forest Watch shows that technological innovation can be a catalyst for changing how decisions are made and who shares in the decision-making process. Unfortunately, new technologies can just as easily undermine sound decision-making and public participation. The same satellite data and mapping software that GFW relies on to track forest trends can also be used by industries to locate prime timber for quick extraction. And the same communication technologies that allow environmental networking and encourage media coverage can facilitate public graft and illegal logging, and make it easy to transfer ill-gotten gains offshore.

As new standards for disclosure make data more available, technology will play an increasing role in getting ecosystem information into the hands of the people who need it in a form they can use. At their best, neutral brokers such as Global Forest Watch allow the forest ecosystem to speak for itself, assuring regulators, stakeholders, and consumers that the data they are using are as complete and unbiased as possible.

For more information about Global Forest Watch, visit **www.globalforestwatch.org**.

autonomy by central authorities decided to map their local resources so they could manage them better—a direct response to the community's concern about protecting its resource base (Dupar and Badenoch 2002:30).

Besides decentralization, there has also been some progress in building regional institutions to manage ecosystems that cross national borders. River basin authorities such as the Mekong River Commission, the International Commission for the Protection of the Rhine, or the Nile Basin Initiative have evolved to coordinate development activities among the countries that share these watersheds.

Other mechanisms are also taking shape to address regional concerns. The European Union (EU) provides one of the best examples of what a regional body can accomplish in policy integration across borders, although it is only beginning to frame its environmental policies around ecosystems. Members of the EU have accepted a range of uniform environmental standards, monitoring criteria, and best practices to address transboundary pollution such as acid rain. The prospect of gaining membership has also pushed several European nations to bring their environmental standards and policies in line with those of the EU—often entailing significant improvement over their previous practices. Meanwhile, Europe's Espoo Convention provides a framework for conducting environmental assessments when proposed projects will result in impacts across borders.

Nonetheless, the development of regional mechanisms with real authority and mandates to sustain ecosystems is still in an early stage. By and large, these regional efforts are few in number, have limited experience and, with the exception of the EU, have powers that are often quite circumscribed in an effort to respect national sovereignty. Enforcement mechanisms may be weak or nonexistent, and thus compliance is largely voluntary. At this point, such agreements may function best as conduits for information-sharing among parties—itself an important achievement. However, these mechanisms have not yet become centers of management innovation or progressive transboundary thinking.

Access: A Gap Between Policy and Practice

Governments are making decisions that affect the environment with a degree of openness and transparency that would have been unthinkable just a decade ago. Forty-four developed and developing countries have adopted "access to information" laws, which impose obligations for disclosure on the government. New legislation is also starting to make more environmental information available to the public as a basis for informed participation.

Governments are also showing a greater understanding of the need to identify and incorporate public opinion when developing policies and plans. In the last 30 years, government agencies have expanded beyond just giving public notice or holding public hearings on high-impact projects, to using consensus-building exercises, policy dialogues, and

stakeholder advisory committees. And some corporations, even major polluters, are beginning to publicly report in greater detail on their emissions, practices, and goals. The entry into force in October 2001 of the Aarhus Convention, which enshrines a detailed commitment to access principles in international law, reflects the progress made by some countries in embracing good governance norms since the Rio Earth Summit.

But the recent findings of the Access Initiative suggest that the evolution to systems of access that are truly open, participatory, and effective is a gradual one. Much more must be done to transform government promises and legal commitments into strong, integrated practices of access to information, public participation, and justice (see Chapter 3).

Many of the nine countries examined in the Access Initiative have enacted provisions guaranteeing access to environmental information and participation. Yet, the countries surveyed share common weaknesses in implementing those laws and commitments. The provision of access remains more passive than active. Countries collect data on facility compliance with pollution regulations, but then fail to integrate that data across agencies or make it publicly accessible. Governments track changes in environmental quality over time, but fail to give the public access to different levels of detail or various presentations of the information. Countries pass new access laws, but fail to train public officials and judges about the new rights, and tolerate a lingering culture of secrecy and indifference to the public interest.

Another problem is that the onus is on the public to identify opportunities to voice their opinions. They are generally responsible for initiating participation or exercising their legal rights. On the positive side, governments are increasingly trying to involve the public in decisions on new projects by soliciting input during the Environmental Impact Assessment process. However, all too often this input is limited in scope or occurs too late in the process to be useful. None of the countries surveyed by the Access Initiative has a mechanism in place to track whether or how public comments actually influence decisions.

In terms of access to justice, more and more courts are upholding people's rights to challenge environmental decisions, obtain information, and sue for damages. However, access to justice is limited in some countries by narrow interpretations of what is covered under freedom of information laws, or who has the legal standing to file a suit. High court costs and lengthy procedures are also formidable obstacles.

Lack of Progress in Mainstreaming the Environment

One of the most basic explanations for lack of progress in meeting the goals of the Rio Earth Summit is a continuing failure to integrate environmental thinking into mainstream economic and development decisions. At the national level, ministries of environment remain weak, and at best operate on the margins of significant policy decisions. Traditional economic models that fail to incorporate the costs of environmental decline continue to drive most decisions.

In addition, agencies charged with natural resource management, including ministries of agriculture, forestry, and mining, still prioritize short-term production of commodities over long-term delivery of ecosystem goods and services. In both the European Union and the United States, for instance, only a fraction of the enormous agricultural subsidies dispensed annually is targeted to ecosystem conservation.

This lack of integration at the national level is projected into international economic policies as well. International trade and investment agreements continue to be developed without attention to how they may unintentionally undermine national and international environmental objectives. For example, even though the North American Free Trade Agreement (NAFTA) has been hailed for including an innovative environmental side agreement, it also contains a provision that could stifle domestic environmental regulation by allowing corporations to sue for compensation if regulatory changes–such as new pollution rules–cause them to lose profits (ISSD and WWF 2001:15–21). The outcome of the 2002 World Summit on Sustainable Development (WSSD) also illustrates this lack of integration. While many governments and civil society organizations called for an examination of the relationship among trade, environment, and development, the WSSD failed to identify concrete measures to ensure that expanding international trade could contribute to sustainable development (La Viña et al. 2003:65).

On the other hand, one area of progress stands out. Many local communities worldwide have proven willing to adopt action plans that try to integrate social and economic goals with environmental goals. More than 6,400 local governments in 113 countries have adopted or are in the process of formulating "Local Agenda 21" plans; these identify ways that communities can move toward sustainable development by improving transportation efficiency, water and waste handling, and land use planning (CSD 2002:3). Largely self-motivated and self-financed, these initiatives show that the most creative energy for environmental integration is currently being generated at the local level.

An Ad Hoc and Ineffective System of International Environmental Governance

As environmental awareness has taken root over the last three decades, nations have struggled to assemble a coherent system of global environmental governance. The most visible elements of this are the 500 or so international environmental agreements now in effect. About 150 of these are global treaties and the others include a more limited set of parties.

Some of these agreements have amassed credible records of success, such as the Montreal Protocol, the Convention on International Trade in Endangered Species (CITES), and some of the regional treaties. Three decades of negotiations

have also brought other benefits: Greater international awareness of environmental issues, agreements on common goals and definitions, elaboration of useful partnerships, and a body of applied experience that will make future progress easier. Perhaps one of the most significant advances has been the emergence, through cooperative monitoring and scientific consultation, of a global capability to assess environmental threats more quickly.

Unfortunately, our assessments usually stop short of action. In fact, our prodigious efforts at environmental diplomacy have largely failed to make serious headway against the world's most pressing environmental challenges–at least as measured by current trends. For example, the conference of the parties of the Convention on Biological Diversity–one of the prize outcomes of the Rio Earth Summit–recently admitted that in spite of the treaty, "biological diversity is being destroyed by human activities at unprecedented rates"(CBD 2002).

This poor overall record comes as little surprise. Few environmental treaties contain specific targets and timetables or adequate enforcement provisions, and financing is difficult. A more systemic problem, according to a recent United Nations University study, is that current environmental agreements have arisen in an ad hoc and largely uncoordinated fashion as each new concern–acid rain, ozone depletion, climate change–has entered the public consciousness. These agreements reflect a single-issue approach toward environmental stewardship rather than an integrated perspective that recognizes the common drivers of environmental decline, and the treaties are not generally framed with particular reference to ecosystems (Dodds et al. 2002:6).

International institutions created specifically to address environmental issues, such as the UN's Commission on Sustainable Development (CSD), the Global Environment Facility (GEF), and the United Nations Environment Programme (UNEP), also face daunting tasks in facilitating global consensus, efficiently discharging their broad mandates, and financing their activities. For example, while the CSD has provided an international forum for raising environmental issues, its effect on national policies and the implementation of Agenda 21–the Earth Summit's action plan for sustainable development–has been negligible (Upton 2002:20–29). Meanwhile, a recent evaluation of the GEF shows that it is maturing into a useful mechanism to help developing nations fund environmental priorities in a few key areas, and to make progress implementing the terms of the environmental treaties they sign–an accomplishment that should not be minimized (Streck 2001:93; GEF 2002:x-xvi). Yet, its success is necessarily bounded by its limited funds, and no one would contend that it can adequately address the great environmental financing needs of developing nations.

Efforts are now under way to harmonize the many international environmental agreements so that global resources and attention are focused more effectively. Other efforts are attempting to ensure that the global trading regime does not undermine national and international environmental laws. We can also take heart at the international community's determination to carry forward the final negotiations on the Kyoto Protocol to address climate change, in spite of the unilateral withdrawal of the United States from the treaty. This effort has been buoyed by global acceptance of the science-based approach and findings of the Intergovernmental Panel on Climate Change–an international group of scientists charged with assessing the evidence on this complex topic. But these positive events will do little to address nations' fundamental reluctance to shoulder the domestic political and financial costs of making environmental treaties enforceable and living instruments that can stimulate meaningful national action.

The Bottom Line

On a global basis, our capacity to consistently make environmental decisions that protect ecosystems, are informed by public input, and equitably meet human needs is severely limited. At the international level, there is rhetorical commitment to the goals of sustainable development and participatory decision-making. However, there is far less commitment to localizing these goals in national policies, decision-making practices, and the design of government agencies. As a result, public access to environmental information, to true participation, and to redress when the decision process fails is still scant.

Other findings reinforce the inadequacy of our current environmental governance. National decentralization efforts have yet to lead to significant devolution of power over natural resource decisions to the local level. The trade and investment policies that drive our decisions are largely opaque to the public and indifferent to environmental concerns. The international agreements and institutions meant to address global environmental problems have robust missions, but weak enforcement powers and insufficient funding. Successes at the local level show that good environmental governance is possible, but cannot be completely effective without strong national and international support.

Good Governance, Healthy Ecosystems

Beyond global treaties, trade policies, and transnational politics, ecosystems stand as the final test of our ability to govern nature with skill and fairness. Good governance principles thus have a special place in ecosystem management. For example, the participation of local, ecosystem-dependent people is one of the surest ways of giving ecosystems a voice. In a river basin that spans several countries, no nation may be in a good position to manage its section of the basin with the whole system in mind. On the other hand, river dwellers dependent on the fish or water that the river produces may be more attuned to the sensitivities of the ecosystem as a whole. The local public's role, then, may be to represent the

(continued on p. 46)

Box 2.6 The Unmet Demand for Access: Measuring the Information and Participation Gaps

Polling data from Gallup International show that, worldwide, there is a substantial gap between the amount of environmental information the public desires and the amount governments supply. Similarly, there is a large gap between people's desire to participate in environmental decision-making and the opportunities to participate that governments provide. Interest in environmental information and participation is strong in all regions and is not confined to wealthy countries.

- More than 70 percent of people worldwide say they would like to invest time and effort to obtain and use relevant environmental information and to contribute their knowledge and experience to decision-making. Yet, only about 40 percent are satisfied with the efforts made by their governments to provide information or to engage them in decision-making.

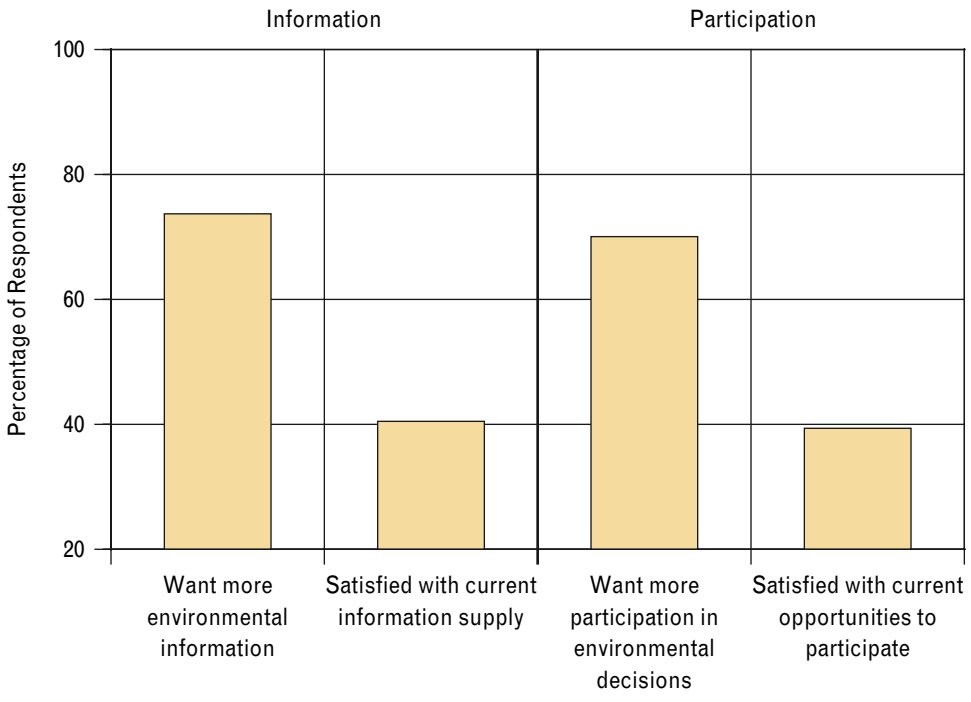
The Poll

Agree or disagree with these statements:

1. I would like to spend more of my free time learning about the impacts of environmental problems on me and my family.
2. Our government is providing enough information about environmental problems that could affect me and my family.
3. I would like to spend more of my free time participating in the decisions that affect the environmental quality of my community.
4. Our government is providing enough opportunities for people to participate in decisions that affect the environmental quality of my community.

Poll Particulars: In 2002, the World Resources Institute asked Gallup International to assess the strength of people's demand for information on environmental issues, and their desire to participate in decisions that affect the environment. The poll also asked about the extent to which citizens believe their governments are providing information and enabling public participation in decision-making. Designed in collaboration with Environics International and conducted from July to September 2002, the survey consisted of face-to-face or telephone interviews with over 32,000 citizens across 46 countries on 6 continents.

Worldwide Information and Participation Gaps

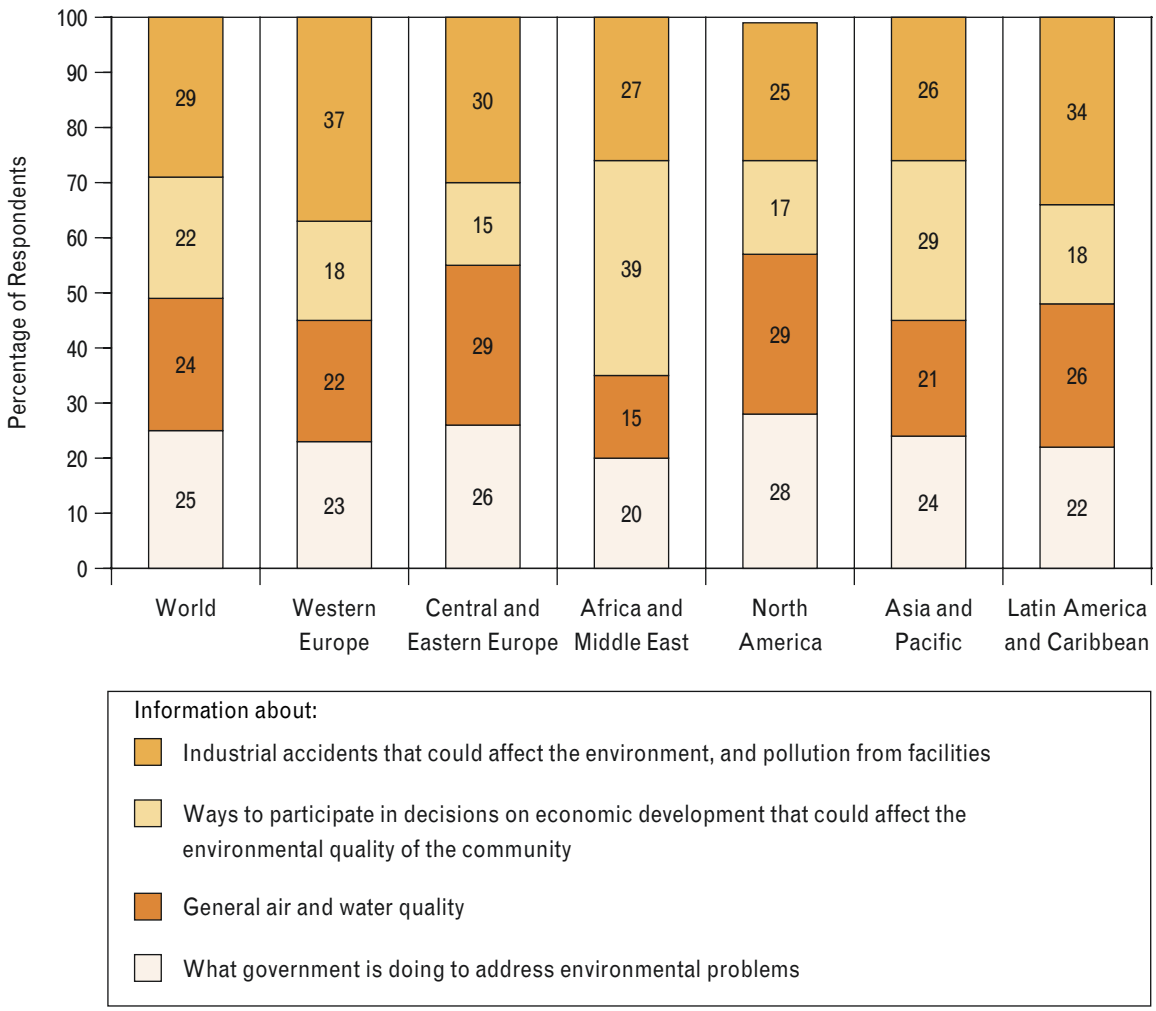


What Types of Information Do People Want Most? This figure provides a breakdown of public responses in different regions of the world. Participants were asked to pick the issue they would be most interested in learning more about from a short list of environmental issues. In other words, what types of environmental information do people really want?

- Worldwide, there is a roughly even split among demand for four types of information: information about industrial accidents and pollution from industrial facilities (29%), information on ways to participate in economic decision-making that affects the local environment (22%), information on general air and water quality (24%), and information on what national governments are doing to address problems (25%).

- The emphasis changes among regions. In low-income countries, people appear more interested in information that would enable them to influence economic development choices. Concern about industrial accidents and pollution is highest in the European Union and Latin America. Interest in what governments are doing to address environmental problems is highest in North America, the Asia Pacific region, and Europe.

What Types of Information Do People Want Most?



ecosystem's interest–which they identify with their own well-being–over the national interest (Bruch 2001:11390). Thus, encouraging and giving weight to local input–a basic principle of good environmental governance–is also good ecosystem management.

Good governance principles are also crucial tools in dealing with the trade-offs that inevitably come with ecosystem management. Sometimes these trade-offs are between competing uses of a natural resource. For example, a forested area cannot simultaneously be used for intensive timber production and for wilderness recreation. Often such competition is between the production of natural products–"ecosystem goods," such as timber, grain, or fish, and the production of "ecosystem services"–hydrological regulation, soil fertility, or aesthetic value.

Most trade-offs have clear equity dimensions–there will be some winners who get more ecosystem benefits, and some losers who get fewer. When a river is dammed for irrigation, local farmers may see increased yields and profits, while fishermen go out of business. The goal of sound ecosystem management is to optimize the chosen bundle of goods and services and distribute it equitably, all while increasing the health and productive capacity of the ecosystem. But determining how to choose the goods or services to harvest and how to apportion the benefits and costs is as much a reflection of social values as it is a technical management question. The governance principles of access and participation are crucial in letting managers know which course to choose.

In the same way, following good governance principles promotes management at the correct scale–a scale that fits the properties of the ecosystem. Community-based forest management–where local village groups gain control over small forest areas–is a good example of granting decision-making authority consistent with the structure of the ecosystem. Experience shows that when people are given authority over a resource in which they have a long-term interest, both the community and the ecosystem tend to fare better.

Better governance can also bring science into its proper advisory role in management and can therefore lead us to a fuller understanding of ecosystem dynamics and the biological thresholds that determine how much ecosystem productivity we can expect. By increasing the visibility of and demand for environmental information, good governance norms create a constituency for ecosystem monitoring, which produces the kind of data that empower people to make informed choices about resource use, with some appreciation for the likely impact.

If we accept the tenet that reversing global environmental decline depends on more skillful ecosystem management, then we must begin to think in terms of adopting an "ecosystem approach" to environmental management. That means realigning our management practices so that we think in terms of ecosystem health–the basis of productivity–rather than commodity production. An ecosystem approach explicitly includes the needs and rights of people to share in and contribute to the productivity of this resource. Good governance principles ensuring access to and informed participation in management decisions, as well as a fair distribution of nature's bounty, are the only viable route to defining and applying such an approach.