CHAPTER 3

Institutions for Sustainable Development

We have to see individual freedom as a social commitment.

Amartya Sen[1]

The previous chapter made the case that for people to thrive—especially over a longer time horizon—a wide range of assets must also thrive. Managing a broader portfolio of assets can ensure that the growth process contributes to people's well-being on a sustained basis. Policies can be designed to improve the management of assets.[2] In practice many socially worthwhile policies are not adopted or implemented. The institutional perspective examines the forces that work to shape and implement policies.

If institutions are to protect people and a broad portfolio of assets, they must respond to and shape the major changes that will unfold over the next 50 years: urbanization, technological innovation, economic growth, shifting social values, changing scarcities for environmental and natural assets, and stronger linkages among nations. Institutions thus must be stable, but they also must be capable of changing and adapting, and new institutions must emerge.

Chapter 3 focuses on the coordination of human behavior that is required for people and assets to thrive, particularly institutions that sustain this coordination—by channeling interests, and by shaping the quality and effectiveness of growth. This chapter addresses four questions:

- What are institutions? They are the rules and organizations, including informal norms, that coordinate human behavior. They are essential for sustainable and equitable development. When they function well, they enable people to work with each other to plan a future for themselves, their families, and their larger communities. But when they are weak or unjust, the result is mistrust and uncertainty. This encourages people to "take" rather than "make," and it undermines joint potential.[3]
- What are the key functions of the institutional environment in promoting human well-being? It must *pick up signals* about needs and problems—particularly from the fringes; this involves generating information, giving citizens a voice, responding to feedback, and fostering learning. It must also *balance interests*—by negotiating change and forging agreements, and by avoiding stalemates and conflicts. And it must *execute* and *implement solutions*—by credibly following through on agreements.
- What are the barriers to the emergence of such an institutional environment? One is dispersed interests. Concentrated interests are often given too much weight, as in the assignment of property rights for land and water, and in the operation of government. A second barrier is the difficulty of forging credible commitments to protect and nurture persons and assets. And a third is institutions that are not inclusive. When societies and processes are unequal and undemocratic, it is more difficult

to coordinate dispersed interests and forge credible commitments.

- How can these barriers be overcome? Sometimes social and economic development offers opportunities for change. Structural changes—urbanization, the demographic transition, the redistribution of wealth (particularly increments of new wealth)—unleash dynamic forces and opportunities for institutional change. Initiatives to channel information can also serve as catalysts for change. Information can empower people by giving them more voice in public services and allowing greater transparency and accountability in the activities of governments and firms.

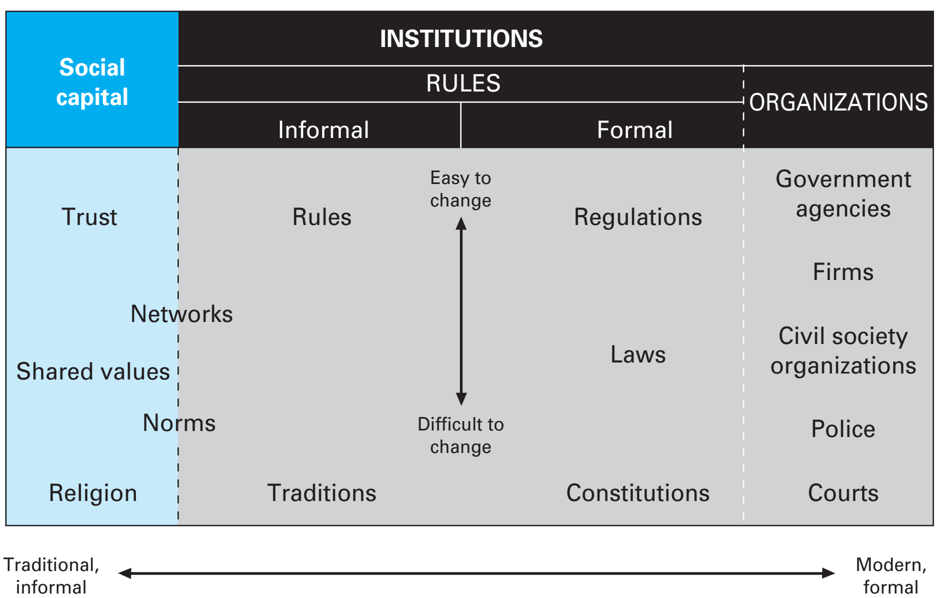
Institutions coordinating human behavior

Institutions are the rules, organizations, and social norms that facilitate coordination of human action (figure 3.1). On the informal end, they go from trust and other forms of social capital (including deeply rooted norms governing social behavior) to informal mechanisms and networks for coordination. On the formal end, they include a country's codified rules and laws, and the procedures and organizations for making, modifying, interpreting, and enforcing the rules and laws (from the legislature to the central bank).

Because institutions govern behavior, they are social assets (or liabilities, when bad or weak). So are the elements of social capital, such as trust and personal networks. The distinction between social capital and institutions can sometimes be blurred, and there are strong influences between the various social assets (see chapter 2, note 14). For example, the exchange of goods and services may be based on personal networks and other forms of social capital in the village, but on formal institutions in the city. Similarly, general trustworthiness in a society can be strong either because of strong personal networks—or because of good laws and judicial systems that are generally accepted. In fact, as societies become more complex, trust in individuals (based on knowledge of character and frequency of interpersonal contacts) is supplemented by trust in institutions (rules and organizations) when dealing with strangers.

Two very important dimensions of coordination are *others* and *future*. Markets are institutions with coordinating functions (box 3.1). A market coordinating the transactions of individuals and firms enables them to serve *others* and invest for the *future* (as when a baker builds an oven in response to greater demand). But markets need the support of other institutions to ensure confidence, control, and

Figure 3.1
Social norms, rules, and organizations for coordinating human behavior



Box 3.1
The market as a coordination mechanism

Adam Smith, 1776, captures well how market forces coordinate human behavior for the common good with his famous "invisible hand" formulation: "It is not from the benevolence of the butcher, the brewer or the baker that we expect our dinner, but from their regard to their own self interest." Going beyond this, Friedrich von Hayek lucidly depicts the market as a discovery device. Through voluntary exchange, the market generates price signals, conveying information about scarcity. When markets are competitive and decentralized, the "knowledge of the particular circumstances of time and place" will help guide decisionmaking (Hayek 1945, p. 526). Hayek uses the example of a rise in the scarcity of tin. Users of tin will receive a signal through the higher price that "some of the tin they used to consume is now more profitably employed elsewhere, and that in consequence they must economize tin." Simultaneously producers receive a signal to seek new supplies. The system operates with remarkable economy of knowledge and gathers dispersed interests.

"The marvel is that in a case like that of scarcity of one raw material, without an order being issued, without more than perhaps a handful of people knowing its cause, tens of thousands of people whose identity could not be ascertained by months of investigation, are made to use the material or its products more sparingly; i.e., they move in the right direction" (Hayek 1945, p. 527).

Markets can perform these functions even when there are important public concerns, of course, but they need the support of other institutions to handle those concerns. For instance, an environmental protection agency issuing tradable pollution permits or charging for emissions (as with sulfur in the United States, or water pollution in Colombia), can use markets to find cheap ways to abate pollution. More typically, emission regulations fail to use markets as much as they could to challenge firms to find cheaper and more environmentally friendly ways to produce.

Source: Authors.

the right incentives. Economic agents face transaction costs, and institutions can coordinate to lower those costs. Traders may want to cheat each other—or to renege on their promises. But social capital and modern institutions—such as the rule of law and the enforcement of contracts—reduce this probability (a transaction cost), facilitating mutually beneficial transactions. Particular challenges for these other institutions are to commit to protect and nurture people and assets—and to serve dispersed interests.

World Development Report 2002: Building Institutions for Markets, looked mainly at human-made assets, and its focus was narrower than this Report's. But it looked deeper into what sustains investments and transactions. This Report builds on that foundation but expands the discussion to aspects of well-being that are not limited to income or easily amenable to markets, including services from environmental, natural, and social assets. The actors in society partly play under a given set of rules and they partly shape those rules. Firms, government, and civil society are positioned to act and to influence the actions of others, playing complementary roles in coordination.

Market players

Market participation enables people to specialize and work together, and to apply their skills and resources in the best way possible, as the price mechanism provides information to coordinate (see box 3.1, and chapter 7). But the institutional framework must ensure that markets function and deliver their expected benefits. Where formal institutions are weak, activity will locate in the informal sector—in many developing countries the share of workers in the informal sector is more than 60 percent.[4] This means that a substantial proportion of economic activity is deprived of potential productivity-enhancing support, and may also escape guidance from institutions that manage environmental and social aspects.[5] But market power can also give large domestic firms or multinational corporations potential coercive powers akin to the government's in terms of serving narrow rather then broad interests. Thus, a major challenge for government and formal institutions is to be more welcoming and supportive of private actors with appropriate safeguards to ensure the public interest is not compromised.

Government

In many areas, government plays a central role in organizing dispersed interests: meeting national goals and balancing competing interests. Unlike social norms and values, government operates a rulemaking process by which rules can be changed more quickly, with vision and design, and still be forceful. But if a government—with its socially sanctioned coercive powers—finds itself unbound by rules (e.g., by a constitution or equivalent with the separation of powers it brings), how can it commit itself as a partner? The private sector will be less willing to invest and do business if instability and risks of expropriatory consequence have not been curtailed. Unless institutions succeed in separating the powers of government and providing meaningful checks and balances, communities and the private sector will be less forward looking, and environmental and natural assets will be hurt through inappropriate investment and conservation.

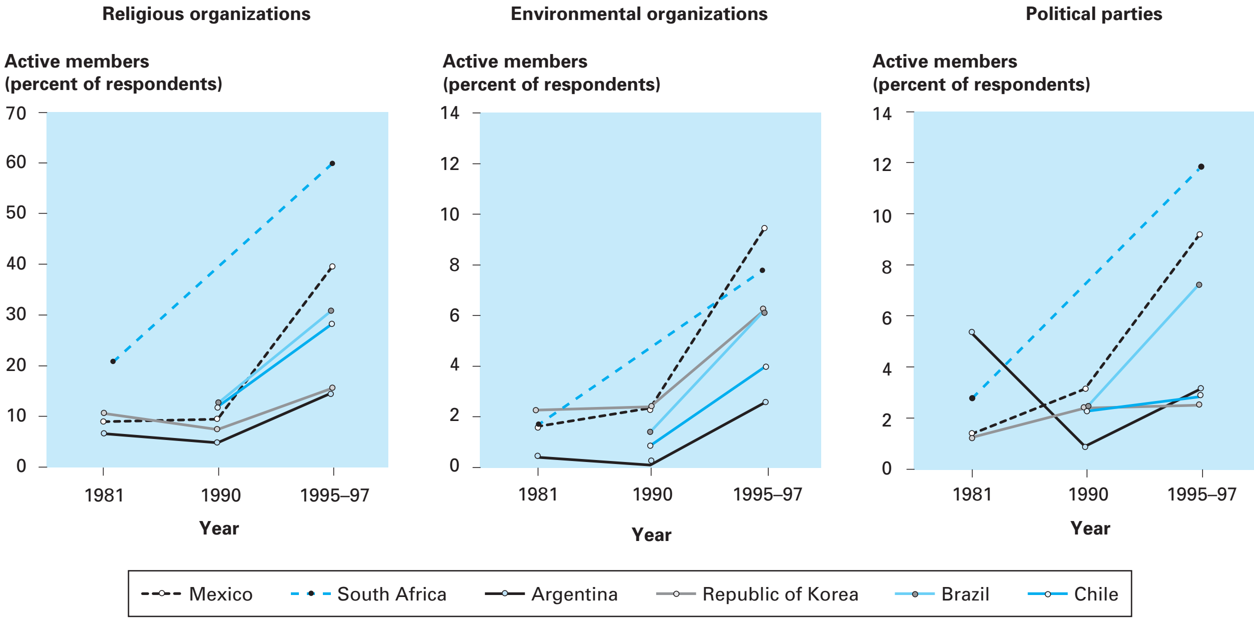
Democratic forms of decisionmaking, despite their limitations, are associated with processes that exhibit desirable institutional features; they pick up signals, balance interests, and execute chosen actions. A growing body of literature finds that indicators of voice and accountability are closely associated with better development outcomes, including higher national income per capita, lower infant mortality rates, and lower illiteracy rates (chapter 7, and *WDR 2002*). Empirical evidence strongly supports Amartya Sen's finding that democracy—helped by free speech—plays a key role in eliminating famine and eliciting effective disaster relief.[6] Theoretical and empirical evidence also suggests that environmental commitment and related outcomes are positively correlated with democratic practices, though some countries have also done well environmentally using other channels.

Civil society

There has been a sharp increase in the active membership of civil society organizations in the past two decades (figure 3.2). During this period civil society organizations have become more capable, sometimes acting independently, sometimes influencing the activities of government and the private sector.[7]

Civil society's role has been most notable in mobilizing support for specific issues, supplying information, and providing third-party verification. Civil society organizations often take initiative and provide voice for unheard interests—building the trust, legitimacy, and knowledge needed. In West Bengal, India, the Ramakrishna Mission works with youth clubs in 1,500 villages, undertaking needs assess-

Figure 3.2
Growing participation in civil society organizations, 1981–97



Note: Countries shown are the only developing countries for which longitudinal data are available. In the 1995–97 survey, participation data were collected in 11 additional developing economies: Bangladesh, Colombia, the Dominican Republic, Ghana, India, Nigeria, Peru, the Philippines, Taiwan (China), Uruguay, and República Bolivariana de Venezuela. Active group membership in these additional countries in 1995–97 averaged 25.1 percent for religious organizations, 8.5 percent for political parties, and 6.2 percent for environmental organizations. The survey was not conducted in South Africa in 1990 or in Brazil or Chile in 1981. As a result the true shape of the South Africa trend line may differ from what is shown.
Source: The World Values Survey.

ments and helping to identify external support for social welfare and development projects.[8] In Thailand the Appropriate Technology Association has facilitated collaborations among farmers, university scientists, and government authorities to reduce pesticide poisoning through the use of biological controls.[9]

Civil society and the media also play an important monitoring role—for example, improving accountability and reducing incentives for corruption in government. The commercial exploitation of natural resources is particularly susceptible to corruption;[10] for example, in Bolivia, a voracious illegal trade in endangered species in the mid-1980s was facilitated by customs officials who, in the absence of independent oversight, doctored export permits. An active civil society makes it easier for environmental officials and others to publicize mismanagement; for example, in Cameroon civil society plays a role in monitoring a promising new logging concession scheme (chapter 7). When citizens have access to independent sources of information, meaningful channels for political participation, and legal protection against retribution, they can become a strong political force for improved performance in public agencies.

Civil society organizations are particularly important for promoting environmentally sound development strategies. Environmental management often is about "downstream" spillover effects, and NGOs can often provide knowledge and links between geographically dispersed locations. The surge in civic environmental activity has often been part of a broad upward trend in civil society activity generally.[11] Opinion surveys consistently reveal levels of public environmental concern in developing countries equal to that in industrial countries.[12]

Institutions protecting assets

How can there be assets? Is it not easier to take than to make? Institutions that restrain the taking of assets—through norms or under threats of punishment—are essential for assets to thrive, whether the assets are human-made or natural, whether they are transacted in markets or not. For example, restraint is necessary for the forest and the aquifer to yield sustained benefits when population density, changes in technology or preferences, and other developments increase the demands on their use. Institutions ensuring such restraint allow assets to thrive; however, because they yield dispersed benefits, such institutions do not emerge easily.

Protective institutions are those that define and support control rights in terms of access to and use of assets central to human well-being; for example, who can graze their cows where, who controls a factory, who takes home eventual profits—or who is allowed to discharge emissions—when and where, and at what price. A special subset of protective institutions are private property rights. They entail well-delimited (and not too limited) rights of use and decisionmaking for an owner, typically including rights to sell or lease an asset. These institutions include a commitment from society (extended family, neighbors, villagers, or governments) to help protect these rights. In a modern state, this commitment requires an active obligation of enforcement from the government (police or judges) and the assurance that the government itself respects those rights. For this reason, the security of property rights is closely associated with the rule of law—so that people can make assumptions about what will be respected as theirs.

But protective institutions also arise to manage assets that are not amenable to private ownership. A pollution control agency defines and protects control rights to the air. A central bank protects the integrity of a currency and financial system. And communities can solve coordination problems and allow assets to thrive, as the literature on *common property resource management* and *social capital* demonstrates (the important interplay between community cooperation and modern society's formal institutions can be beneficial or detrimental).[13]

In the broader institutional environment, firms, government, and civil society organizations together give force to rules and norms. For instance, civil society can help keep the judiciary independent. Indeed, rules and norms are typically backed by sanctions, and many are effective only when agencies and organizations back them up.

Some assets protect other assets—and some are more vulnerable to predation than others (box 3.2). Land is protected by formal institutions (property rights, courts, and titling agencies) in a modern urban setting, but it is relatively less protected under periodic, nomadic grazing. Fisheries turn from needing no protection when stocks are abundant—to needing costly protective institutions as fishing technology and demand develop. Savings under mat-

Box 3.2
Assets, threats, and protection

If not properly protected, assets cannot thrive and contribute to growth or human well-being. Assets are not all vulnerable to the same threats, but all assets—natural as well as human-made, in the village and the city—depend on protective institutions. In the examples here, the protection is weak.

With bandits, there is no use in bringing in oxen
In Uganda, animal traction for plowing is now promoted as a way to raise agricultural productivity. In the subcounty of Nambiti, the administration plans to provide selected farmer groups with trained oxen, in the hope that this will raise productivity and induce other farmers to put their savings into oxen. Farmers there are skeptical, however; the problem of mobile and armed bandits has not been resolved, and farmers expect that any oxen would soon be stolen.

With insecure property rights, incomes and well-being collapse
Massive transfers of state property to private agents have occurred in the postcommunist economies in the past decade. In almost all of these countries, the private sector went from having a very small share of the economy in 1989 to having the dominant share in 2000. But in many countries, these transfers were not accompanied by the development of institutions that would make private property rights well defined and secure.

A staggering 75 percent of firms in the Kyrgyz Republic, Moldova, the Russian Federation, and Ukraine were not "confident that the legal system will uphold my contract and property rights in business disputes." Among the six economies where property rights were least secure, income (GDP) fell in the decade of transition—by 40 percent or more. Many countries with contractions in GDP also had large increases in death rates.

Without commitments to law and property, well-managed exploitation is unlikely
Insecure property rights also hurt natural and environmental assets: fish populations are threatened, and trees are cut prematurely. Because people are not sure that they will be able to harvest tomorrow, they take what they can today—initiating a race for property rights.

For a cross-section of countries, the insecurity of property rights reduces investment in human-made capital and increases deforestation. Forests would benefit from reforms that strengthen the commitment to law and property. There are good reasons to believe that benefits will extend to other natural and environmental assets as well. But there will be exceptions, as when stocks are naturally protected by exploration or extraction costs. For petroleum reserves, exploration and extraction requires investment that is itself vulnerable to ownership risk. In these cases when more secure rights increase extraction or conversion, the likely effects will be more attractive, and not limited to reflecting short-term, narrow interests.

Source: Bohn and Deacon (2000); Hellman, Jones, and Kaufmann (2000); Hoff and Stiglitz (2002); EBRD (2002); World Bank staff.

tresses need some protection, but those in banks need good vaults and such credible institutions as independent regulatory agencies and central banks.

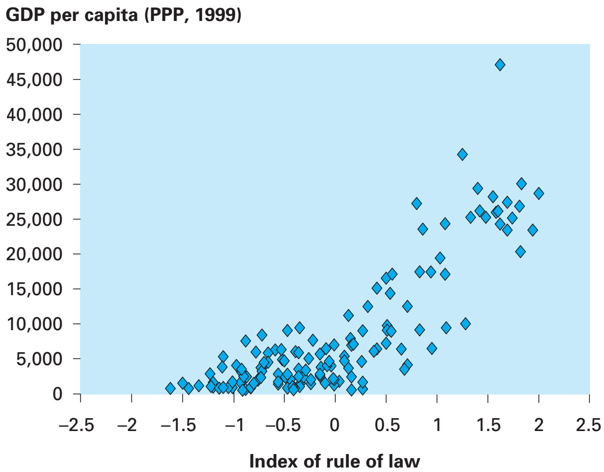
Higher national income can contribute to better institutional quality (for example, through more expenditures on courts). But more importantly, better institutional quality can also contribute to higher national income, as when good institutions facilitate investments or curb overfishing. A large body of theoretical and empirical studies concludes that there are strong causal effects from good institutions, measured by such variables as rule of law to higher incomes per capita (figure 3.3). According to one study, better voice and accountability would raise national income per capita by a factor of 2.5.[14] Another study suggests that per capita incomes would grow at least 2 percent per year in all countries if they would only protect property rights (public and private) and pursue more competitive market policies.[15]

So when institutions allow assets to thrive, an economy can flourish. But if good institutions are so important, why don't all countries have them? Why would a politician or leader not take steps to strengthen the judiciary and protect property rights? Because a leader who takes steps to build stronger institutions would reap benefits from the stronger economy and the better environment only in the long run, and this requires a stable setting with broad political support.[16]

Valuable assets cannot thrive, and can be in wasteful decline, if there is no social commitment to developing protective institutions (box 3.3). For agricultural land, two facts facilitate the emergence of protective institutions, as they may have come about historically. First, when land becomes scarce, competing users cannot avoid meeting face to face, and can choose to fight or negotiate. Second, when neighbors are settled, they can help each other defend their land in a reciprocal fashion. Therefore, even without a state or feudal lord, transgressors will face some deterrence.[17]

To see how protective institutions form under more challenging circumstances, consider fisheries.[18] Fisheries account for 19 percent of total human consump-

Figure 3.3
The relationship between institutional quality and national income



PPP = Purchasing power parity.
Note: As a measure of institutional quality, the rule of law includes considerations such as the security of property rights, or the confidence with which a group or individual can find tomorrow the fruits of what is planted or conserved today.
Source: Kaufman, Kraay, and Zoido-Lobaton (1999).

tion of animal protein, so good institutions for fisheries are important.[19] A typical story of fisheries development starts with the discovery of new fish stock. As fishermen make good money, more capacity rushes in. Though scarcity and wasteful competition ensue, fishermen do not coordinate management. Over time, the catch falls, first per hour of effort, then in total, with individual fishermen barely breaking even.[20] This wasteful race to exploit the resource wastes labor and capital, since fish that should have been allowed to spawn and grow are caught. Government involvement can make matters worse, if subsidies distort signals and prolong overfishing (chapter 7).

Contrast this story—of waste and no profit—with alternatives in which the value of the resource is maximized. A cooperative of fishermen could manage a resource well if it could control its members, if its members could control their organization, and if the cooperative could control entry into the industry—all big ifs. In theory, a private monopoly could also manage a fishing resource efficiently. More often in practice, government regulates by denying access or enforcing restraint. Restraints that start with and build on existing resource users are more likely to be credible and successful—as seen in New Zealand and Iceland (see chapter 7).

Box 3.3
Natural assets decline when protective institutions are weak

Poor institutions contribute to a poor investment climate and to the depletion of natural resources. It is also possible that some types of natural resources make institution-building difficult (chapter 7), while others support inclusive and development-friendly institutions.*

Consider a sample of 150 countries for which there are data (from the World Bank's adjusted savings table) on capital stocks, including human-made physical, mineral, forest, and agricultural capital. Adjusted savings are negative when this stock is declining. Of countries with low human-made physical capital stocks (less than 75 percent of national income), 24 percent (16 of 67 countries) had negative adjusted savings, compared with 10 percent (8 of 83 countries) for countries with higher stocks of human-made physical capital.

Thus, countries with high rates of depletion of natural resources also tend to be countries with low stocks of physical capital. For countries with negative adjusted savings, this perspective shifts the focus away from recommending policies to increase savings to recommending improvements in protective institutions. Their low accumulation of physical assets and the declining natural asset base are more the result of an institutional environment in which assets cannot thrive, than of low savings.

* The literature on natural resources as a curse makes this connection, as do recent studies such as Acemoglu, Johnson, and Robinson (2001); Engerman and Sokoloff (1997); and Woolcok, Pritchett, and Isham (2001). See also Auty (1997) and Hoff and Stiglitz (2002).
Source: World Bank's adjusted savings table.

The Law of the Sea, with 200-mile exclusive economic zones, reflects the idea that privatizing a resource can allow for better management—it "privatizes" ownership to coastal states, suitably linking the resource both to traditional interests and to a natural jurisdiction for enforcement. While not all fisheries' management problems are confined to national waters, nations can build on the law and negotiate. Many impressive fisheries management schemes would not have been possible without this law (chapter 7). In many other cases, however, management institutions have been only partly successful in limiting entry and stabilizing catches, and as a result there has not been enough reduction in excess capacity and harvesting to bring major benefits. The challenge is to win the industry's confidence that it can reap the benefits if capacity is reduced and profitability restored. If the commitment to rewarding restraint is not credible, overfishing continues.

Picking up signals, balancing interests, and implementing decisions

A good institutional environment must perform many functions. But to credibly and purposefully coordinate actions, three functions stand out—to pick up signals, to balance different interests, and to implement decisions.

Picking up signals

Fisheries being depleted, toxins poisoning children, corruption weakening emission testing, oppression hobbling indigenous groups, violence against women continuing—all these phenomena can be ignored willfully or accidentally in a setting that is not receptive to signals. Signals of social and environmental degradation (chapter 2) can be based on scientific measurements (as in the case of air quality), or voice and feedback, but they would be effective only if there are constituencies for information and action.

The ability to pick up signals is closely associated with the ability to balance interests. Creating and receiving signals range from the feasibility of detecting a phenomenon in a meaningful way, to the process of aggregating signals and getting the attention of decision makers. Receptivity to signals thus depends on social and political relations. Are they open and inclusive, or fragmented and discriminatory? Are they pluralistic, meritocratic, and free, or politicized and monolithic? Is there freedom and competition in individual expression, business, and political organization?

Both citizens and the air-quality protection agency need good information on pollution, and this information has many uses. Mexico City's IMECA index, published daily in the press, advises people whether to keep their children indoors and avoid exercise. And it obviously informs citizens on how well the agency is doing in improving air quality, strengthening their hand in holding politicians and agencies accountable.

But there are also other signals. *Voice* describes the signals from citizens, firms, and civil society to influence institutions (i.e., through complaints, votes, court proceedings, and the media). A lesson from recent research in developing and developed countries is that influence—including good-natured influence from citizens to the emission reductions by firms—can travel through many channels, strengthened by information.[21]

A message from chapters 4 through 6 is that urban as well as rural residents can have difficulty in being heard and served, and new institutional arrangements are evolving to overcome this problem (e.g., boxes 6.4 and 6.5, respectively on *favela* residents in Brazil and on railway station–dwellers in Mumbai). For marginal rural areas, two factors make receptiveness to signals from the fringes more critical now than before. First, outmigration is less of an option than it was when high-income countries were industrializing (chapter 4). Second, other developments, such as mining, happen faster, so that signals about their impact on the community and the environment need to move faster too (see box 4.7).

Many countries are rearranging the way they govern themselves at the local level. With political decentralization, institutions develop to receive more fine-grained signals—important, since problems and priorities differ from place to place. But decentralization, proceeding in both rich and poor countries, carries promises as well as risks. It can be hard to get the incentives right, and there may be issues of weak institutional capacity and elite capture at lower levels of government as well.[22]

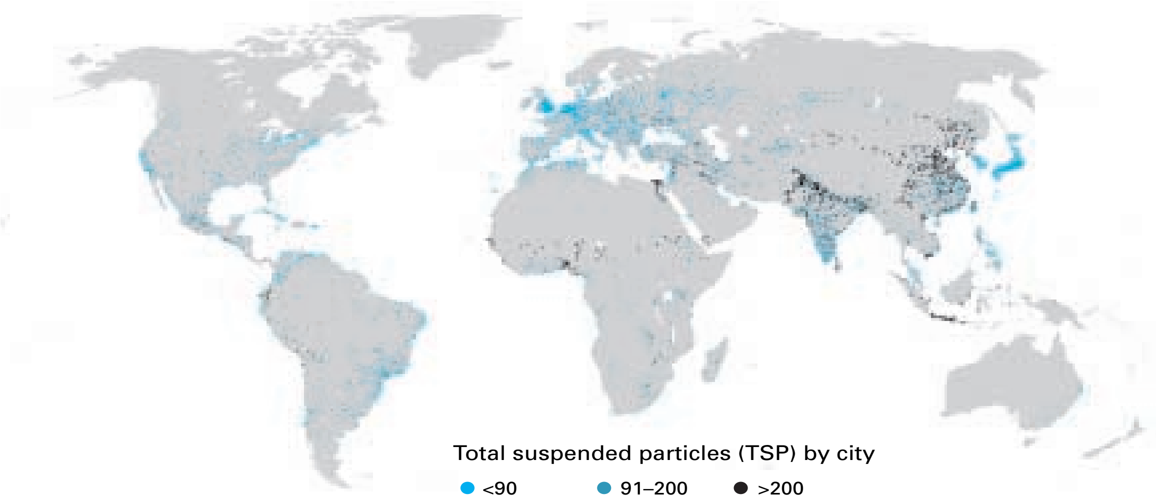
Balancing alternatives—and interests

A protective institution such as an air quality protection agency operates within an authorizing framework that balances interests. It may impose an emission standard or a tax, or strengthen enforcement. This in effect strengthens the rights of beneficiaries to air quality—weakening rights of others, and this is one of the ways changing social priorities can be implemented. The balancing of interests takes place at many levels: in national legislatures, in court processes, in marketplaces, in individual norms and village interactions, in the seen or unseen processes in corporate boardrooms and branches.

Evidence shows how information provision (in an era of unprecedented quantities of information) can catalyze shifts in political balances and real world decisions. Thus, the term "transparency" dominates the current campaign for better governance. There is evidence from rich and poor countries that greater availability of information means better environmental performance.[23]

Figure 3.4 shows the 1,445 cities in the world—where, according to World Bank estimates—the pop-

Figure 3.4
Concentration of total suspended particles



Source: Bolt and others (forthcoming).

ulation suffers from exposure to concentration of dust particles, or total suspended particles (TSP) above traditional guidelines of 90 micrograms μ/m^3.[24] In less than 2 percent of these cities is air pollution systematically monitored, and in even fewer is information about that pollution made available to the public. A good working hypothesis—based on studies from industrial and developing countries—is that monitoring pollution information and making it public would help (in part through political channels) to improve air quality in these cities regardless of their level of income.[25]

But balance is not maintained by information provision alone. More open and democratic countries presumably give weight to dispersed interests, so there are reasons to expect that they would give more attention to environmental protection. The data are incomplete, but some results support this hypothesis (box 3.4).

One might expect a one-party system to have difficulty being receptive to signals, since unpleasant news might be easier to suppress in such a setting. But this is not always the case. In China two institutional features play a role in areas such as environmental management, where there has been noticeable progress in the last decade: a systematic approach to complaints, and national policies to make local environmental information available to the public (chapter 7). A complaints-driven system has many qualities, but may be biased toward immediately noticeable phenomena, such as noise. So the combination with objective monitoring data is valuable. Both mechanisms utilize the strengths of a decentralized system and recognize how national institutions (such as assurance of information) can be important for local accountability.[26]

In Europe information that helped establish a common understanding of who suffers from a problem and who contributes to the problem was essential in shifting the balance in favor of reducing transboundary pollution, even when negotiation—not authority—did the balancing (see box 8.1). For balance and for unbiased signals, it is essential to have supportive institutions in place. Corporations rely on laws and auditors for such traditional goals as protecting workers' pensions and shareholders' assets—and they now rely also on civil society for broader corporate social responsibility (chapter 8).

Executing decisions

As an environmental agency executes decisions through taxes, regulations, and enforcement, citizens

Box 3.4
Democracy and environmental policy: picking up signals, shifting the balance

There are strong theoretical reasons to think of democracy as conducive to environmental protection and economic efficiency in general.

Two plausible mechanisms can be observed:

- *Democracy helps give weight to dispersed interests.* In general, policies will be biased in favor of concentrated interests, giving less weight to equally important interests spread across a larger number of people. Benefits from environmental assets, such as from river water quality, are often considered public goods and are thus dispersed across many individuals, while the cleanup costs may be more concentrated.
- *Freedom of expression and association helps society pick up signals and adjust to change.* As population density increases, knowledge increases, incomes grow, or preferences change, the pressures on the environment change. As the problem of horse manure in London's streets declined, new problems—such as smog or lead contamination in city air or oil spills in the North Sea—emerged to beg for new management institutions and technical solutions. The accountability of politicians to the people and the separation of powers are best envisaged in a democratic setting; these institutional features are also the key ingredients in putting new priorities on the table, rebalancing competing interests, and taking action.

It is not easy to accurately measure environmental commitment. Even so, democracies have a greater tendency to do the following:

- Put their land area under protection
- Sign and ratify multilateral environmental agreements
- Belong to environmental intergovernmental organizations
- Meet reporting requirements for the Convention on International Trade in Endangered Species of Fauna and Flora
- Have a National Council on Sustainable Development
- Have environmentally relevant information publicly available.

The study found that democracies are more likely to make an environmental commitment, regardless of their level of income.

Source: Neumayer, Gleditch, and Gates, background paper for the *WDR 2003*.

and firms change their pollution emissions. The agency will monitor these emissions and act on them, either by adjusting its charges for the emissions or by assessing penalties for noncompliance with regulations. Costa Rica's program to pay for environmental services program (see box 8.5) is an example where institutions shift the burden of protection, help to balance interests, and ensure better execution. There are many other examples, often integrated with development projects, such as the Global Environmental Facility (GEF) and the Prototype Carbon Fund (chapter 8). Box 3.5 discusses how locally negotiated solutions assisted in the implementation of water pollution reductions in Colombia.

Implementation is an extension of balancing. When the balancing is between suppliers and customers in a marketplace, the balancing and implementation functions may be one and the same (see box 3.1). Balanced decisionmaking in board rooms and national legislatures is not worth much if it is not implemented—or if the steps from policy to implementation are too far apart. In many countries, laws and protection through the courts are of little value because they are implemented by ineffective or corrupt courts—unless one has connections or money. In others, budget deliberations are not worth much because the budget is not followed.

It is not sufficient for society—or a development bank—to make a policy decision. Say society decides that forests should not be converted if the conservation benefits are higher than the conversion benefits. The implementation of this decision can be blunted by developers who press ahead and convert a forest, asserting that the conservation benefits are minor. The developers count on escaping sanctions—even if the losses turn out to be high—if society is known to lack the incentives, opportunity, or commitment to punish or undo wrongdoing.

How then does one ensure that policies are implemented? Good procedures and broad participation can help in the execution of high-level decisions. Procedures requiring ex ante assessments, participation, and public reviews can help. Routine social and environmental impact assessments, enforced with good quality information and public access to them, can expose consequences *before* development is irreversible. This can make it clear—to the public, to political leaders, to courts, and to civil society—that the proposed developments do not comply with broader social priorities. The information—and the supportive institutions—function as a commitment device.

In Uzbekistan, as part of the Uzbekistan Water Supply, Sanitation, and Health Project, a social assessment process was undertaken during project prepara-

Box 3.5
Local negotiations balance interests and commit parties to clean up Colombia's rivers

In Colombia, as in many countries, most wastewater is released untreated into waterways. With little enforcement, limits on pollution emissions have long been ignored. In 1997, the environment ministry implemented a new water pollution charge system that is cost-effective and enforceable. Facilitated under Colombia's decentralized structure, the system is implemented by regional environmental agencies. It brings together municipal authorities, polluting industries, and affected communities to negotiate local pollution reduction targets and charges. Polluters are charged per unit of effluent, and the parties agree to timetables for increasing the charges if targets are not met.

All the parties have received extensive capacity building from the national ministry, and the system holds together impressively: In the nation's 135 river basins, biochemical oxygen demand is already down by 31.5 percent, and suspended solids by 34.2 percent. Nationally the program has generated $9.7 million in revenues, funding pollution reduction projects and regional environmental agencies.

Lessons include the following:

- *Use national commitment to facilitate locally negotiated solutions.* Regulated sectors participate because authorities have signaled their intent to enforce the program. But each region is allowed to set goals and timetables to reflect local conditions and aspirations. Firms can choose emission reductions—and method—in light of per unit charges.
- *Devise innovative approaches to program administration.* A well-respected private bank collects the charges and administers the funds in return for a percentage of the revenues, reducing the burden of collection but not of auditing by government agencies.
- *Enhance the community benefits of market-based regulatory tools.* Local business leaders were initially skeptical, perceiving the program as a new generalized tax burden. When it was agreed that revenues would fund monitorable benefits, such as local pollution reduction, this appealed to businesses and communities alike, and helped generate commitment to implementation.

Future progress will require greater compliance from recalcitrant sectors, such as municipal water companies, who use various pretexts to avoid paying and investing. If those who do not comply are seen to gain, it could threaten the more general commitment among polluters, a commitment that has proven to be a strength of negotiated approaches.

Sources: World Bank 2000d; Andean Center 2001.

tion. The government initially wanted to ensure that drinking water would have no more than one gram of salinity per liter, although international guidelines allowed higher salinity. The lower salinity level would have been costly and there is no known evidence that it would be healthier. So with the help of local social scientists, a taste tolerance survey was carried out. It found that salinity levels of up to two grams per liter were socially acceptable. The findings from the ex ante assessment were accepted by the Uzbek government, and consequent design changes freed up about $15 million dollars. Parts of the savings expanded the project's geographical scope and resulted in additional pilot projects.[27]

Many countries have a gap between the policy decision to teach children with public funds, and the implementation of that decision—to make sure learning is effective. Studies from Argentina, El Salvador, and Nicaragua show that empowering parents (through participation on school boards, for instance) can improve the delivery of educational services.[28]

Feedback—by and for institutions

The three functions discussed above of picking up signals, balancing interests, and implementing decisions are not always sharply distinguished. For private goods traded in markets, the market itself produces signals on scarcity—future and present, likely and plausible—while balancing needs *and* executing trades. But transaction between agents in a market can affect others (as with pollution). In this case, supplementary institutions (an air protection agency) can perform these functions and represent the interests of those affected (box 3.6).

Overcoming barriers to coordination

Institutions assist in coordination, but encouraging the emergence of good institutions is itself a coordination problem. Three barriers to building and supporting institutions are important:

- Organizing dispersed interests—it takes more for people to come together and build a school than it takes for them to build individual homes.
- Forging credible commitments—it takes more to commit to helping each other in the future and over a longer period than to helping each other today.
- Promoting greater inclusiveness—it takes more to coordinate for the common good when access

Box 3.6

Policy accountability and accountable rulemaking

Consider an air-quality protection agency charged with balancing the need to pollute with the need for better air quality (see box figure a). It receives signals on pollution levels, damages, emissions, and preferences. It balances the interests of different stakeholders. And it implements policies through taxes and regulations, and through monitoring, enforcement, and publicity.

Accountable rulemaking

To handle new and evolving problems, the institutional environment must be adaptive, even though institutions also need to be stable and durable. The needs of coordination will change, and so must institutions. When the ozone layer was threatened, nations coordinated their actions by creating a new institution, the Montreal Protocol, to protect it (chapter 8). And most countries now have rules to keep lead out of gasoline since scientific evidence on its deleterious effects has accumulated and is widely available (chapter 7).

If the air is poorly managed, institutional analysis will likely find a weakness in the institution charged with adopting or implementing the policy to protect the air. For example, air quality interests may not have the information or voice they need to counter concentrated polluting interests. In these cases, monitoring and transparency can help shift the effective balance toward air quality. But maybe there is no air protection institution—or it is ill equipped or obstructed.

This brings the institutional analysis to a deeper level—to accountable rulemaking. At this level, rules will change and new institutions will emerge—if the overall institutional environment is picking up signals, balancing interests, and implementing policies. For rulemaking in an electoral democracy, elections are a powerful channel for signals to the legislature—the rulemaking process (box figure b, the intermediate loop). And when the legislature has done its balancing, it implements solutions by authorizing a new (or strengthened) air quality protection institution. For example, it could authorize the agency to justify its interventions by health benefits or more general concerns for well-being. It could also give citizens access to information and the right to sue polluters (or the agency), or it could give the agency more powerful tax instruments. All these examples would shift property rights to the air toward the beneficiaries of better air quality.

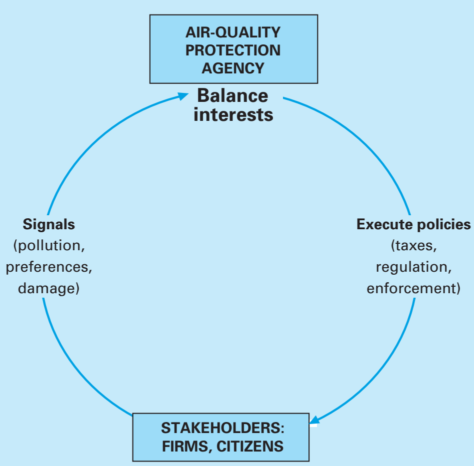
Authorizing the rulemakers

The legislature is a permanent rule-making institution, but it is also a list of people who are there temporarily (changing with elections). The legislative process and the individual legislators earn their authority and powers from the authorizing environment, exemplified by values, religions, and constitutions (box figure b, the outer loop). In a strong authorizing environment—one giving strength to rules—the rules for rulemaking are fairly stable.

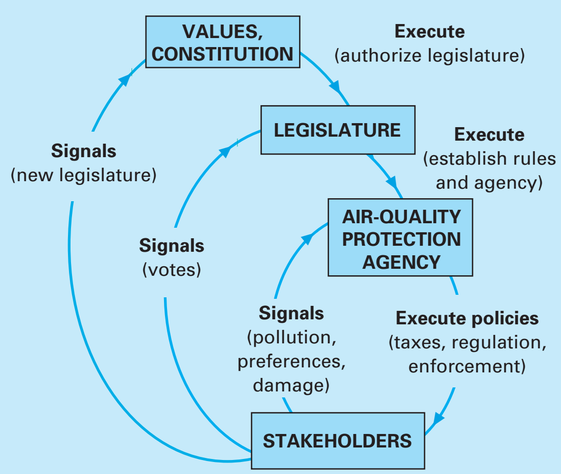
A key element in a strong authorizing environment can be a constitution that is respected, and likely short, which contains core principles only. If this is the case, when the constitution is tested against legislation, the executive, or the judiciary, the constitution typically stands unchallenged and unchanged. But more important than a constitution is a set of widely held values, so that support for sudden radical change is unlikely. Even knowing that the world is changing and that tomorrow's rules have many uncertain elements, some deeper values and widely held principles can provide stability and lend strength to the rulemaking. Countries with little commitment in the authorizing environment are more vulnerable to distributional conflict, as reflected in macroeconomic instability, lack of confidence, and credibility. Thus, the great penalty of low-quality institutions comes in the longer run, as is confirmed in empirical studies.

Sources: See Williamson (2000) for such a staggered hierarchy in institutional analysis. Rodrik (1996) emphasizes the role of institution in overcoming districutional conflict and negotiating reform. See also Acemoglu and others (2002).

(a) Policy accountability



(b) Accountable rulemaking



Source: World Bank staff.

to assets and voice are exclusive, unequal, and undemocratic.

Organizing dispersed interests

The brokering of political forces is often biased against dispersed interests. A trade regime may display protection even though many may lose from it, since the interests of those benefiting from it are more concentrated and thus more easily organized. Or policies may show an urban bias because the rural population is less vocal and has more difficulty organizing itself. Or the civil service may be overstaffed or overpaid because civil servants have a good grip on the policy process.

Institutions face challenges in organizing dispersed interests even if the counter-interests are not concentrated. Recall Mexico City: 20 million people benefit from air quality improvements, but there are also millions of polluters (vehicles, households, and firms). The collective action to generate institutions for air quality improvements may represent a tremendous challenge even when the interests of polluters are dispersed as well.

Protecting air quality requires coordination beyond what the market would accomplish unassisted. But how is this coordination accomplished? In many contexts a government intervenes with taxes and regulations. But in many others, coordination is accomplished without state intervention. Communal grazing grounds and irrigation systems are managed, sometimes well, by village norms and councils.[29] What is the process that enables such coordination?

Freedom of expression and association, trust, and political accountability provide some institutional machinery to coordinate dispersed interests, both in picking up signals and in giving them balance. Democratic institutions and the popular vote, despite many weaknesses, lower the costs of coordinating dispersed interests (see boxes 3.4 and 3.8).

Forging credible commitments

Society may have an interest in not polluting the water, and it may even prohibit excess discharges in the water. But if the water is already polluted, aggrieved parties may find it difficult or impossible, for political or other reasons, to punish polluters.[30] Such failures to deliver on commitments encourage transgressions by those who are well positioned, and are detrimental to accumulating and protecting assets.

Similarly, a government might want to protect an area from settlement, but it will have difficulty doing so if many settlers can arrive and dig in before the government gets there. A prior action (assigning and paying for suitable guards to protect the area) can serve as a commitment device. For example, the United States posted the U.S. army to protect Yellowstone National Park against incursions before the park service was established.[31]

When assets can be degraded or destroyed without risk of sanction, they are more likely to be depleted, often in a wasteful fashion. But the cultivator settling beyond the agricultural frontier traditionally has not asked for permission. At low levels of human impact on the environment, anyone can use something that nobody else uses, so this regime makes sense. It allows institutions to advance geographically at a pace with (or slightly behind) settlements, which is both economic and realistic.[32]

But there may also be times when it is important to get ahead of the advancing frontier of settlement, either because there is scarcely any forest, land, or water left, or because selective preservation has become a priority (chapter 5). In many developing countries the area under agricultural cultivation will stop expanding or may even reverse in the coming 30 to 50 years, so selective preservation now can yield lasting benefits at modest cost. As incomes rise, a time arrives when the forest has value not only to a potential cultivator (or those who depend on it as an ecosystem for their livelihood) but also to citizens far away. If these interests can find a suitable channel for expressing their interests the first-come, first-serve regime can be taken off the table selectively.

It is often difficult, however, to fight the tendency to reward early movers. When fish quota systems are put in place, the race for quotas can become a race to the shipyards, or to government offices—races that can be just as wasteful as the race to fish the declining stock (chapter 7). Preventing waste in environmental matters and natural resources requires confronting those who choose to deplete natural assets with the full social consequences of their actions, whether through informal mechanisms, taxes, or regulations. Similarly, loggers and fishermen must be induced to act as if they faced the consequences of others who might use the forest or the fish.

When commitments to protect are not credible, it is highly profitable to move early to manipulate the (supposedly) protective institutions. Tradable conservation obligations, such as those in Brazil (chapter 8), reduce the costs of compliance, and are thus one way to make conservation commitments more credible. As discussed above, information also helps, as when participatory procedures ensure that consequences are known beforehand. Box 3.7 draws the parallel between commitment by institutions protecting natural assets and by those protecting people's savings in a modern financial market.

Box 3.7

When protective institutions fail: the collapse of Enron and Newfoundland's cod fisheries

Like a forest that has been logged behind a nice facade of trees and billboards, the Enron corporation crumbled and filed for bankruptcy in 2001. At $60 billion in market value before it perished, the darling of financial markets became one of the largest bankruptcies in U.S. history. The assets had disappeared over time, shielded by misrepresentation.

Even in a private corporation such as Enron, the dispersed interests of thousands of owners are potentially threatened by well-placed individuals. Just as a contracted logger can either log sustainably or wastefully, managers and auditors can—by legal or illegal means—serve their own interests rather than those of dispersed owners. Norms and culture, and of course protective institutions (laws about property, accounting, and auditing) protect dispersed interests, but the protection will never be perfect. The Enron case is still in its fact-finding phase, but the list of techniques used by well-placed officials covers what one would expect in any other public sector or private sector institution that has been corrupted: concealed, misrepresented, and ghost transactions aimed at the enrichment of a few.

Why, one might ask, if well-placed individuals can abuse an asset by taking out more than their assigned incomes, would they overdo it, killing the golden goose? They may of course have lost or overtaxed the asset by accident. However, the path of Enron's stock market value looks suspiciously similar to that of another failure of protective institutions, the collapse of Newfoundland's cod fishery, hinting at how failing protective institutions lead to wasteful races.

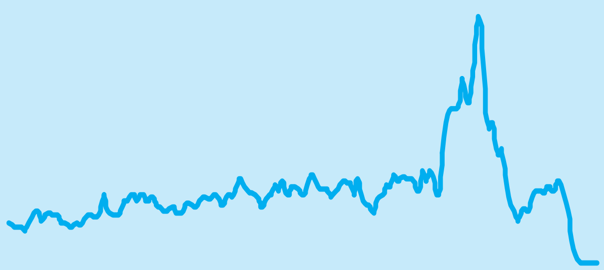
Newfoundland's rich cod catches were growing slowly but steadily for about 100 years, until they increased steeply in the 1960s and 1970s, and then collapsed (chapter 7). In fisheries, as technology and equipment develop, the stock of fish in the sea starts declining. And if protective institutions fail to curtail overfishing, a wasteful race among fishermen follows. Fishermen understand that the fish they do not catch today may be someone else's tomorrow, and a frenzy of harvesting may end in collapse. Collapses are rare, however. It is more common that weak institutions result in steady and sustained losses, for both natural as well as produced assets. For instance, many fisheries steadily yield zero profits, and many managers and workers in overstaffed firms and public agencies add little value for their pay.

A system of protective institutions lies behind the success of mobilizing savings through financial institutions and stock markets, undoubtedly one of the great achievements of the United States. Such a system rests on checks and balances and introduces independent veto players, many of whom must look the other way for improprieties to occur. But Enron officials commanded impressive contacts and influence. Though the potential watchdogs were many, Enron went down without a peep from uneasy auditors and with enthusiastic "buy" recommendations from the world's best paid stock analysts.

For the United States, the Enron incident is a sobering one but not earth-shattering, and it has not eliminated the credibility of the protective institutions. Valuable assets—be they trees and fish, or people's savings—need protective institutions to thrive. When those protective institutions are successful, trees and fish and air quality and savings will thrive—to the great benefit of widely dispersed interests. But as assets grow, pressures on institutions grow—testing their commitment. Protective institutions are essential for people to make their savings available for banks and business people. The real cost of weak institutions is not that they result in more fraud and theft, but that, as a result, most people are not forthcoming with their savings. Potential is left unrealized. Ownership is concentrated and business is constrained by lack of depth and little competition—serving everybody poorly.

Source: CRSP, University of Chicago, original data from New York Stock Exchange; *The Economist,* February 14, 2002; Hannesson, background paper for the *WDR 2003*.

Enron, market value, 1985–2002



Newfoundland cod catch, tons, 1850–2000

Promoting inclusiveness

The third barrier to coordination mentioned in the previous section is fundamental enough to deserve expanded discussion. While it is well recognized that the quality of institutions affects the management of assets, it is less well recognized that the distribution of assets and voice affects the evolution of institutions in the long term (see figure, roadmap). Poorly distributed assets can affect adversely the quality of institutions and their ability to solve problems. Because of this reciprocal relationship between institutions and the distribution of assets one can get locked into vicious or virtuous circles. These circles are not deterministic, but extra effort is needed to break out of a vicious circle. This is easier when greater inclusiveness in access to assets is assured from new additions to the asset base, such as with broad investment in primary education.

The importance of voice and participation

A community that wants to improve air quality—or protect trees—may or may not find a channel to express its interests.[33] Individuals in the community could form an association and negotiate with polluters. Or they could lean on government to do this—in other words, voice and participation are important. A society in which the majority has no voice can lose out big in two ways. First, it can lose because the potential creativity and productivity resting in the majority of the people is ignored or valued only in part. Second, because beneficiaries to communal and natural assets are not heard, the potential of these assets may be wasted, too. Institutions such as the law necessarily involve coercive powers, and one of the potential benefits of broad-based voice—an inclusive democracy—is that it better commits these powers to serving society at large. Box 3.8 relates the remarkable and very promising transformation in South Africa toward a more inclusive society.

But even very basic protective measures, such as shielding families and savings from abuse and theft, often fail to materialize. Poor people have to accept very costly outlets for their savings, as when they buy gold, are hurt by inflation, or must pay others for safekeeping.[34] And the police and courts, responsible for enforcing the law, often fail to assist or adequately protect poor or disenfranchised groups. Indeed, many institutional development initiatives are geared to making police and judges more attentive to the needs of the poor and disenfranchised.[35]

Box 3.8

Fostering inclusiveness: South Africa's new democracy

One of the more remarkable examples of institutional transformation toward an inclusive society is South Africa's transition from a system of white rule to a pluralist democracy founded on the principles of human rights and reconciliation. When national elections were held in 1994, black South Africans, comprising three-quarters of country's population, were able to vote for the first time. In addition, they were able to exercise long-denied rights to travel freely and to live and work where they please. This transformation has required uprooting the entrenched institutional foundations of apartheid and creating a host of new and more inclusive institutions—from the 1996 Constitution to reformed security agencies, provincial governments, and health and education ministries. How did South Africa manage this transition?

From violence to negotiations

Under apartheid, legally sanctioned discrimination backed by violence permeated every aspect of society, as blacks were denied the most basic liberties and were the victims of widespread human rights abuses. In 1961 Nelson Mandela and the African National Congress (ANC) abandoned their strategy of nonviolent protest and resorted to armed struggle. Mass demonstrations and violence continued throughout the 1980s and early 1990s. The transition to a new path in South Africa began with a series of conversations, initiated by Nelson Mandela from his prison cell, involving the ANC and National Party leaders in the mid-1980s. At the same time, work stoppages and uprisings in overcrowded urban slums were exacting a toll on the country and prompting the flight of skilled workers. Western nations that had long supported the apartheid regime became more vocal in their criticism, and eventually tightened economic sanctions. Following the collapse of the Soviet Union, the Cold War logic of support for the staunchly anti-communist regime was also abandoned.

Leadership and a commitment to reconciliation

These developments alone could not ensure a successful transition from apartheid to a new set of institutional rules. The process depended on the vision and skills of political leaders. Mandela went to great lengths to reassure his supporters that he would not act without the consent of the rest of the ANC. This earned him the trust and respect of his followers, a re-

(Box continues on next page).

Box 3.8 *(continued)*

source he drew on when it came time to reach difficult compromises with the National Party. Leadership was also demonstrated by President de Klerk, whose decision in 1990 to free Mandela and lift the ban on major black political organizations involved great risk.

Mandela and other ANC leaders were adept at combining tough negotiation with a strong public commitment to national reconciliation. This allayed the worst fears of National Party leaders and facilitated compromise. The mechanisms of reconciliation included broadly participatory negotiations over the new constitution, and a government of national unity that gave former rivals the experience of governing side by side. The Truth and Reconciliation Commission, established in 1995 under Archbishop Desmond Tutu, provided a high-profile confidence-building mechanism for addressing past atrocities while restraining fears and pressures for retribution. And the new constitution devolved significant powers to the provinces, which further allayed white concerns over majority rule at the national level.

The transition to democratic rule

These and other measures facilitated the transition to democratic rule while preventing capital flight and preserving valuable social assets such as the skills and expertise of the mostly white civil service. A commitment to human rights and reconciliation provided the winning formula that ensured the success of the transition despite efforts to derail the process.

South Africa's transformation to an inclusive society is an example to the world—but not because it was timely, smooth, or bloodless; it was none of those. But South Africa underwent the most difficult of institutional transformations in the most trying of circumstances, and did so while fostering a political culture that emphasizes human rights and reconciliation. Many challenges of governance and development remain, and aspirations will continue to create tremendous pressures for change—a positive force but also a challenge to institutions and leaders.

Source: Sparks (1996); personal communication with World Bank staff.

Protecting people—and the emergence of protective institutions for assets

When institutions such as the law, and the agencies supporting the law, become more inclusive, more people are given protection, voice, and support. And when institutions are more inclusive—listening to and supporting more people—a broader range of assets can thrive (boxes 3.4, 3.8, 3.9, and 3.10 illuminate different aspects of this). The reason is that assets need guardians and spokespersons. Assets therefore may fail to be served if the people who benefit from these assets are not well served by—or represented in—institutions. For private assets, more inclusive institutions facilitate development and asset accumulation as more people feel safe in their homes and find promising outlets for their savings. For communal and natural assets (roads, water, fish, or forests), more inclusive institutions deepen the support for their provision, so that their quality and quantity can rise. Consider what happened in Cubatão, Brazil, where inclusiveness in the form of democratization and the end of media censorship shifted the balance toward civil society and a cleaner environment (box 6.8). In many countries, social movements pressing for democratization and environmental improvements have reinforced each other (box 3.9).

How can protective institutions be formed to give dispersed interests effective channels? In a wide range of cases, society relies on guardians, or custodians, to look over something of value. An example is when participatory approaches in projects ask people to speak their mind. The presumption behind this empowering people's voice is not only that people have a right to speak on their own behalf. It is

Box 3.9
Mutual reinforcement: environmental movements and democracy

In many places environmental movements arose in the 1980s in the midst of broader social movements for democratization. Democratization and environmentalism have developed together but in diverse ways. In the Republic of Korea social movements for democratization, labor, and environmental protection joined forces in opposition to authoritarian rule in the 1980s. In Taiwan (China) the environmental and prodemocracy movements were the two strongest social mobilizations. An estimated 582 environmental protests occurred there between 1983 and 1988—one-fifth of public protests during this period. In Brazil disparate environmental organizations that had kept a low profile during military rule were animated and united when they helped draft the environmental chapter of the new national constitution during 1985–88. In the former Soviet Union, civic environmental organizations flourished in the early years, were crushed under Stalin, resurfaced in limited form during the political liberalization of the 1950s, and exploded as a central component of mass movements for democratization in the late 1980s.

Source: Mirovitskaya (1998); Anbarasan and Yul (2001); Lee and others (1999); Hochstetler (1997).

also that city people, for example, can benefit from hearing from people in more remote areas about what goes on in the forest, about the effects of cutting trees or damming rivers.

For people to be functional guardians, they must be well-endowed and feel safe. As an illustration, all societies rely on parents to protect and nurture children. It happens that this protection fails—as when children are sold into slavery or prostitution. This is not because parents are not their guardians—they are—but because of the family's poverty and despair.

This need to have well-endowed guardians places broad-based development and poverty reduction at the heart of concerns for environmental and other communal assets. More inclusive access to assets (human capital, a piece of land, or a plot for housing) can change people's perspectives, allowing them to be more forward looking and engaged in their communities. When people have assets—and thus a stake in the future and in the community—it is also easier to build support for institutions, public goods, and publicly provided goods such as rule of law, watershed management, and schooling.

What does inclusiveness in access to assets have to do with sustainable development?

In important ways, high levels of inequality and deprivation can be harmful to efficiency and growth. The presence or absence of inclusiveness in institutions and in access to assets tends to have *long-lasting effects* (box 3.10).

Economic forces that create differences in income and wealth serve a positive function by creating incentives to allocate resources efficiently. But poverty and inequality can be harmful through other important mechanisms; at the macro level, damage can be done in the political process. Institutions and government policies are essential for assets to thrive, through the rule of law and macroeconomic stability. An equitable distribution can facilitate the emergence of institutions to negotiate change and thus help adopt and implement good policies—particularly to address externalities and public goods. At the micro level, sharp differences in income and wealth are also costly. Imperfections such as those found in capital markets may allow individual potential to be wasted when individuals are very poor. Examples are when a talented child goes uneducated (chapter 7), or a worker stays with an employer, or with an asset with low yields only because she cannot finance migration or a job search (chapter 4).[36] Another example is when agricultural potential is wasted because of distorted and highly concentrated land-ownership and contracting problems.[37]

Inequality in land assets has been found to be harmful to growth.[38] Good institutions appear to facilitate long-term growth, and more egalitarian societies appear to have better institutions. Furthermore, good institutions work in part directly, and in part through schooling and openness.[39]

An ambitious quantitative study tested the role of inclusiveness and institutions using a 500-year perspective.[40] For colonized countries (not limited to the Americas), a major break in power structures and institutions happened under colonization. Those that were richer and more densely populated in 1500 (before colonization) are poorer now. This reversal of fortune came about because colonizers in richer, more densely populated areas could force a large supply of labor to work in mines or plantations. Under these extractive institutions, political power was more concentrated. The lower quality of these institutions for growth reveals itself after 1700, when *asset creation* became important, rewarding countries that had institutions better suited for savings and investment.

Long-lasting harmful effects of institutions that concentrate ownership are also found in a recent study of India.[41] The British colonization in India lasted for 200 years. Where they implemented a landlord-based revenue system (by implication, with concentrated property rights), yields were higher than in areas where they implemented cultivator-owned rights. In post-independence India, the landlord-based revenue system was abolished, so only the historic traces of the institutions remain. Yields have grown significantly faster in the areas where, historically, cultivators themselves had property rights. The differences prove to be particularly important from the 1960s onward, as districts with smallholders benefited more from the green revolution, with significantly higher application of fertilizer, high-yield varieties, and irrigation. Districts that historically had smallholder institutions also had higher investments in human capital.

The proposition that ownership matters is supported also in other studies. Before 1977 sharecropping contracts in West Bengal, India, generally in-

Box 3.10
Inequality: its long tails in the Americas

Many of the former European colonies that offered the best economic prospects in early colonial times (based on their national resource endowments) are today among the poorest in the world. They started to fall behind at the outset of the Industrial Revolution. In 1700, Mexico and the colonies that were to become the United States had very similar per capita incomes, and the sugar-producing islands of Barbados and Cuba were far richer. Indeed, before the 19th century, the North American mainland was widely considered to offer poorer economic prospects than the Caribbean and Latin America. All of Canada, which Voltaire once characterized as "a few acres of snow," was considered by the colonial powers to have a value comparable to that of the small sugar-producing island of Guadeloupe.

The rapid rise of national income per capita in the United States and Canada after 1800

	GDP per capita relative to the U.S. (percent)			
Economy	**1700**	**1800**	**1900**	**2000**
Argentina	—	102	52	36
Barbados	150	—	—	44
Brazil	—	50	10	22
Chile	—	46	38	28
Cuba	167	112	—	—
Mexico	89	50	35	26
Peru	—	41	20	14
Canada	—	—	67	82
United States (GDP per capita in 1985 dollars)	550	807	3,859	34,260

— Not available.
Source: World Bank (2001); Engerman, Haber, and Sokoloff (2000).

Once industrialization began in North America in the 19th century, the United States and Canadian economies diverged sharply from the rest of the hemisphere. Why did the areas previously favored fall behind? Development depends not just on having productive opportunities—*it depends on creating a never-ending supply of new opportunities*. One key to early industrialization was the ability of the broad population to invest, accumulate human capital, and participate in commercial activity. In the Americas, only the United States and Canada provided the laws, institutions, and government policies to make such investment and participation possible.

In the New World colonies of Spanish America, the core natural resources—high-yield ores and agricultural land—were susceptible to large-scale operations. This made possible a high inequality in income, wealth, and human capital at the beginning of colonization. This inequality had a great influence on the evolution of institutions. In particular, the institutions that emerged in these colonies blocked effective access to opportunities for economic and social advancement for a broad cross-section of the population. This persisted long after colonization ended and slavery was abolished. These institutions inhibited the accumulation of human capital, the spread of entrepreneurship, and the creation of a mass market—factors viewed as important in industrial development.

Why should inequality hundreds of years ago matter for development today? As just noted, societies that had high inequality in the ownership of assets at the outset generated institutions that placed restrictions on individuals' opportunities for future economic advancement, and this may have tied these economies into low growth paths.

Note: Klenow and Rodriguez-Clare (1997) attribute only 3 percent of the variation of growth per worker across countries to variations in the growth of capital per worker, while variations in technical progress accounted for 91 percent. Other studies conclude differently, in part because technical progress and capital accumulation move together. But there are few studies that place major emphasis positively on initial endowments. In chapter 7, the "natural resource curse"—the idea that certain natural resources can be harmful to growth—is discussed in more detail.
Sources: Engerman and Sokoloff (1997, 2001); and Hoff, background paper for *WDR 2003.*

volved 50 percent output shares to the tenant for the approximately 2 million sharecroppers in the state. In 1977 a new administration gave high priority to a law giving security of tenure to tenants. The reform increased most tenants' share of output from 50 percent to 75 percent. In the decade after this reform, West Bengal broke through: Annual growth in the production of food grains rose from 0.4 percent to 5.1 percent, while that for all of India rose only from 1.9 percent to 3.1 percent. The tenancy reform program explains about 30 percent of the added growth.[42] Tenancy reform in urban slums in Brazil seem to also have unleashed growth potential and improvements in the urban environment (see box 6.6).

At early stages of development, owners of land may benefit from booms more than others (so ensuring broad-based land ownership and smallholder agriculture is likely to be more effective in reducing poverty—see chapter 5).[43] In a similar way, owners may be best positioned to benefit when a community performs better, as when schools and roads are in good repair. For this reason, having narrowly based ownership and many citizens without land or secure tenure can be an impediment to forward-looking and constructive collective action, whether for environmental protection or for other purposes.[44]

The cited studies show how greater inclusiveness in access to assets—or lower inequality—can assist in making development more sustainable. One mechanism is direct and micro-economic: Ownership matters, and access to assets can help a poor family realize its potential. Another is political: A person with land or a house is more likely to support institutions protecting assets (rule of law and secure property rights, for instance) than a person without a house or hope of having one. So insecure property rights—with costly policy swings where shifting groups expropriate each other's assets—are less likely if access to assets is broad and inclusive.

In figure 3.3, the observation was made that protective institutions—such as the rule of law—are typically stronger in high-income countries. It was also noted that there are causal effects in both directions: Not only can protective institutions allow assets to thrive and incomes to grow, but a society strengthens its institutional capacity as incomes grow. In a similar way, there will be causality both ways between inequality and good institutions. Countries with greater inequality have a weaker rule of law (and lower incomes). The key point of this section is that highly unequal access to assets can be punishing to asset creation, preservation, and improvements in well-being if institutions are not rock solid. Groups without assets see themselves as unsupported by property rights, and are thus less supportive of property rights politically. This undermines support for the evolution of institutions that enable growth and sustainable development.

A narrowly based elite is often concerned about the risks of more inclusive political empowerment. One concern is that they might be expropriated. Just as unequal access to assets can be an obstacle to the emergence of good institutions, improperly designed and balanced, *redistribution* of existing assets can also be harmful to the emergence of good institutions. If a person without assets is more likely to support expropriation of assets, then a group that has lost through expropriation is also likely to become less respectful of the law and property. It should be clear that it will be easier to improve inclusiveness through access to new types of assets (as when land for agriculture replaces the importance of natural resources—minerals, forests, fisheries; or when education replaces muscle power, etc.) and through the expansion of assets that come from the growth process. Redistributive measures must be designed and balanced to avoid undermining the emergence of good institutions that enable people and assets to thrive.

The studies cited in this chapter represent, but do not exhaust, a still-young literature on the deeper institutional preconditions for economic growth. Important questions are whether institutions are everything, whether policies—in part determined by institutions—have separate and important effects, and finally whether high inequality itself is a major and important obstacle to sound institutions. At a practical level, there are many points of agreement: A key element in the success of East Asian economies was a focus on shared growth, inclusive schooling, and how this served to give political stability and investor confidence (box 7.10, Malaysia). An important element in political discourse in Western Europe and North America in the 20th century has been "to give everyone a stake in society," supporting policies to strengthen social safety nets, to subsidize general education, and to make home ownership more inclusive. Finally, policies that are frequently pursued—wasteful protectionism, unsustainable macropolicies, a bloated public sector—are best understood as short-term redistributive games that are costly in the long run. These games are played at greatest cost in nations with poor institutions, giving them low ability to negotiate and to commit to mutually beneficial change.[45]

Catalysts for change

Institutional reform happens when the actors take advantage of opportunities for change, and use instruments of change at their disposal. The institutions that mediate social interaction must foster both stability and change. A measure of stability and predictability in the rules governing society is necessary for the people to have confidence to work together, to challenge each other to improve their communities, and to invest in their future. A vibrant civil society and such institutions as a democratic legislature can provide for dynamism—including that in rulemaking. In a society founded on broader consensus and certain ethical principles, these institutions are simultaneously given force and anchored to give predictability and confidence.

A seeming paradox is that democracies—despite their frequent leadership changes—can better commit to the longer run, and do the right things. When characterized as a stable democracy, countries benefit from predictable successions, as if the democratic institutions themselves have taken on the role of an owner with a long-range perspective.[46] However, studies show that young democratic states have problems similar to those in autocratic states, in terms of protecting property rights to allow assets to thrive, at least until democratic institutions have taken root. This is a challenge for fledgling democracies.

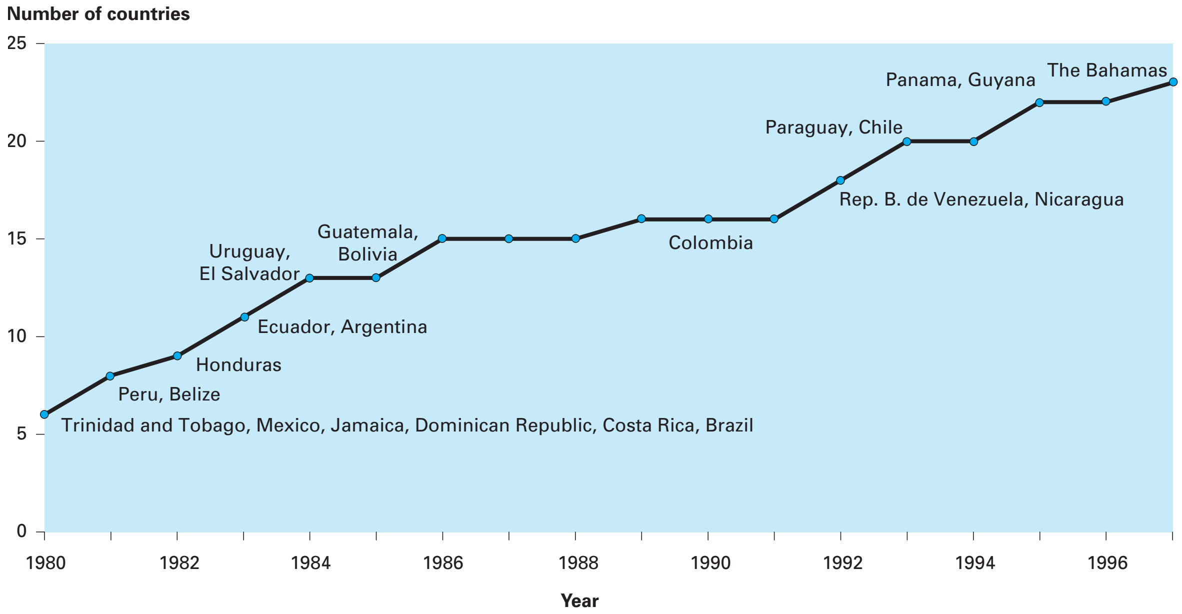
Many East Asian countries have done well in the last 30 years in stability and asset creation, but not necessarily through democratic institutions. What these countries had in common, however, was broad access to land (some had experienced historical shocks that gave them land reform) or other characteristics that made them emphasize shared growth, such as through broad-based rural development and broad provision of health and education.

Some institutions—such as constitutions—are designed to make change exceptionally difficult.[47] Constitutional changes typically require a much higher degree of voter consensus than do lesser legislative reforms. And a two-chamber legislature requires that coalitions be built in alternative ways for changes to pass. Other institutional means of providing stability and commitment are so-called checks and balances, that is, independent veto players. High court justices appointed for life, and systems with separation of power among branches of government can ensure that radical departures from the norm are not made in haste. Institutions may also be designed to facilitate change in one direction and not in another. In many Latin American countries a national park may be created with a simple presidential decree, but dismantling a park requires the approval of both the president and the legislature. Some countries have anchored their commitment to the environment in the constitution by linking the environment to the rights of their citizens. Others, such as India and Pakistan, have supreme court decisions serving the same purpose.[48] The stability provided by all these institutional mechanisms depends on whether they rest in shared values, so that relevant actors abide by them. In general, multiple review procedures and systems of checks and balances work only when political and economic power are not too concentrated.

Opportunities

Improvements in social conditions and in the institutions that shape them often seem unbearably slow. But significant and sometimes sweeping institutional reforms do occur, as with democratization in South Africa, the successful anticorruption campaign in Hong Kong (China), and decentralization in Latin America (figure 3.5).

Figure 3.5
More mayors in Latin America are elected locally—by citizens or by elected city councils



Source: IADB (1997).

Opportunities for reform often arise from economic or political crises that inspire civil society or political elites to demand changes in the status quo and to search for new solutions to long-standing problems. In Latin America, perceived crises in the legitimacy of governing institutions have inspired substantial democratizing reforms that give greater voice and power to local communities (chapter 7). On a more routine basis, opportunities appear as a result of elections, changes in agency leadership, or discretionary decisions by national leaders. And opportunities for reform arise with changing public preferences, and with changes such as education, urbanization, technological change, and income growth. For example, new generations of individuals raised in conditions of material prosperity and stability tend to place greater emphasis on freedom of expression and quality of life.[49]

The demands that societies place on their institutions also change as a result of observing other societies. In recent years the transnational social movement for indigenous rights, the sweep of independence movements across Eastern Europe, and the multinational campaign for transparency in governance show that new social demands can spread rapidly across borders.

Information and forums as catalysts for change

A suite of tools is available for catalyzing changes in institutions: tools that provide information to enhance the voice of neglected stakeholders, and forums held for collective problem solving. Unaccountable power structures are often vulnerable—and thus potentially responsive—to the exposure of information, so having more information available can be a catalyst for change used by reformers, entrepreneurs, and civil society. A broad set of studies shows the power of information disclosure in environmental performance, in both developed and developing countries (chapter 7).[50] A growing number of firms and NGOs provide investors and markets with information on the social and environmental performance of companies (chapter 8)—information that facilitates decisions by investors and customers, and catalyzes changes in the behavior of firms. In the realm of governing widely held corporations for profits, better financial accounting is sought to improve actual behavior. Also, public disclosure of weakness drives pressure, both for adherance to rules and for better rules (see box 3.7).

Enhancing the voice of stakeholders can dramatically shift the balance of forces that favors institutional reforms. Cultural translators (see chapter 4) can bring new ideas and ways of working together that increases the self confidence and voice of groups previously excluded from participating in or authorizing institutional change. In Cubatão, Brazil, the state environmental protection agency was able to reduce pollution by joining forces with a vocal citizens' movement during Brazil's transition to democracy (box 6.3). Stakeholder forums can facilitate conflict resolution and the sharing of ideas, and the consensus building associated with international environmental treaties has allowed steady progress on issues ranging from wetlands conservation to preventing oil pollution at sea (chapter 8).

A spatial approach

Some changes come about easily, some only with other structural changes—such as changes in technology, endowments, and values. Changes in labor market conditions, combined with public and government action, have contributed to phase out slavery and elevate women's status. And women with more voice, clout, and knowledge have delivered fertility declines and better-educated children. Economic growth, better transport, and the successful growth of cities give poor people a broader choice of employers, neighborhoods, and service providers. Today, perhaps the most significant structural change is the information revolution, with the potential not only to increase knowledge and the use of knowledge but also to improve accountability.

Dynamic development is sustainable when it is forward looking and responsible. Therefore it must be assessed not only by such indicators as poverty, natural resources, forest coverage, and ocean temperatures but also by the institutional environment that helps this information emerge, gives it weight, and ensures that it is acted on. This chapter proposes a checklist of functions for the institutional environment: to pick up signals, to balance alternatives and interests, and to execute decisions. It also highlights some barriers to institutional development: dispersed interests and commitment problems. These barriers are more easily overcome by fostering inclusiveness.

The main messages of this Report are that sustained development requires that a broad portfolio of assets thrives in order for people to thrive, and that managing this broad portfolio well requires better institutions.[51] In this chapter it has been argued that the quality of institutions themselves influence, and are influenced by, the distribution of assets. As a result, more inclusive access to assets and more inclusive authorizing institutions allow implementing institutions to better protect assets and people, and to facilitate well-being. In short, the more people that are heard and the more diverse interests that are voiced, the fewer assets that are wasted.

Inclusiveness can be increased in a number of ways. With greater access to education, agricultural land, and security of tenure, people are better-endowed citizens. They have something to lose, and something that can grow—they can be more forward looking, trusting, and see greater value in creating and supporting good institutions. In such a setting they can better accumulate, manage, and protect a variety of assets, including environmental and social assets. As stakeholders they can become more cooperative, creative, and willing to take risks—all necessary for the transformations described in the rest of this Report.

In the next few chapters (chapters 4, 5, and 6), these ideas are applied in spatial arenas—marginal rural, commercial rural, and urban areas—where people live, enjoy life, and engage locally, before the ideas are applied at the national and global levels.