# Sustaining the World's Forests: Managing Competing Demands for a Vital Resource

WORLD BANK ENVIRONMENTALLY AND SOCIALLY SUSTAINABLE DEVELOPMENT FORESTS TEAM

orests cover about 25 to 30 percent of the Earth's land surface, or between 3.3 billion and 3.9 billion hectares, depending on the definitions used. Each year forests covering an area the size of Portugal (approximately 92,000 square kilometers) are cut down. The United Nations Food and Agriculture Organization (FAO) estimates that, during the 1990s, the world suffered a net loss of 95 million hectares of forests—an area larger than Venezuela—with most of the losses occurring in the tropics. The loss of 161 million hectares of natural forests to deforestation was somewhat offset by 15 million hectares of afforestation (deliberate creation of forest where none existed before), 36 million hectares of natural expansion of forests, and 15 million hectares of reforestation.

These losses are critical because forests provide a complex array of vital ecological, social, and economic goods and services. About 60 million people (mainly indigenous and tribal groups) are almost wholly dependent on forests, and another 350 million people who live within or adjacent to dense forests depend on them to a high degree for subsistence and income. In developing countries about 1.2 billion people (including more than 400 million in Africa; see box 16.1) rely on open woodlands or agroforestry systems that help to sustain agricultural productivity and generate income. Some 1 billion

#### **BOX 16.1** Why Forests Matter to Africa

orests are vital for the welfare of millions in Africa, especially the poor and marginalized. Used wisely, they could improve livelihoods and people's quality of life. The following statistics give a sense of forests' importance to the continent:

- Over two-thirds of Africa's 600 million people rely directly or indirectly on forests for their livelihood, including food security.
- Wood is the primary energy source for at least 70 percent of African households.
- Forest-related activities account for 10 percent of GDP in at least 19 African countries, and more than 10 percent of national trade in 10 others.
- Africa is home to 25 percent of the world's remaining tropical rainforests and contains 20 percent of the world's biodiversity hotspots.

The end of violent conflicts in countries such as Angola, the Central African Republic, the Democratic Republic of the Congo, Liberia, Mozambique, Sierra Leone, and Sudan presents new opportunities to support sustainable forest management. African countries can also take advantage of a growing national and global demand for forest goods and services.

Source: Centre for International Forestry Research.

people worldwide depend on medicines derived from forest plants or rely on common-pool forest resources for meeting essential fuel wood, grazing, and other needs.

At the global level, forests make an important contribution to economic development. Wood and manufactured forest products add more than \$450 billion to the world market economy each year, and the annual value of internationally traded forest products has been running between \$150 billion and \$200 billion. The International Labour Organization estimates global forest-based employment (including both industrial and nonindustrial forest harvesting and industrialized forest products manufacture) at approximately 47 million; forest-based employment in developing countries accounts for about 32 million of those jobs, or almost 70 percent. The FAO estimates that, out of roughly  $3\frac{1}{2}$  billion hectares of global forest area, 1.2 billion hectares is available for industrial wood supply.

Besides providing wood and other products, forests are the repository of the great bulk of terrestrial biodiversity, with all that that implies for gene pools, pharmaceuticals, and other unique and valuable goods and services. Forests also contain large amounts of sequestered carbon, and their destruction or degradation (especially by burning) is estimated to contribute between 10 and 30 percent of all carbon gas emissions into the atmosphere.

Deforestation is thus a considerable factor in global warming. In addition, forests help maintain the fertility of agricultural land, protect water sources, and reduce the risks of natural disasters such as landslides and flooding. Mismanagement of woodlands in humid tropical and subtropical countries contributes significantly to soil losses equivalent to 10 percent of agricultural output in those countries each year. In some countries in the Asia-Pacific region, forest destruction is responsible for global biodiversity losses on the order of 2 to 5 percent per decade, resulting in inestimable harm to ecosystem stability and human well-being.

Sustainable management of forests is crucial for poverty reduction in many developing countries. Many of the rural poor rely on forests for both subsistence and income. Small-scale forest product processing and trade are often important activities in rural economies. The forest products sector in most developing countries continues to be dominated by small and medium-sized enterprises. Forest harvesting and primary processing are characterized by low entry costs, enabling the rural poor to engage in these activities. For countries with large forest endowments, and even for others that have limited forests, if forest issues are not fully incorporated into broad national government and assistance strategies, the overarching goals of poverty reduction are unlikely to be achieved.

# **The Forces and Dynamics Affecting the World's Forests**

The forest sector represents one of the most challenging areas in the development of community and global public policy. Despite significant resource flows, international concern, and political pressure, a combination of market and institutional failures has led to forests failing to realize their potential to reduce poverty, promote economic growth, and be valued for their contributions to the local and global environment.

### **Forest Law Enforcement and Governance**

Many countries with substantial forest resources have been subject to corruption and serious inadequacies in how forests have been allocated, administered, and monitored. Despite their great economic value, forests are one of developing countries' most mismanaged resources, with both political and business elites sharing the blame. Illegal logging and associated trade and corruption at high political levels flourish because timber rights provide an extremely valuable reward for services to political elites. Besides channeling potential timber revenue away from national development efforts, particularly from the people living in and near the forests, the low prices at

which these concessions are often granted encourage waste, unsustainable management, plundering for short-term gain, and replacement by less valuable and less sustainable activities. Such loss and degradation have come at the expense not only of national economies, but also of the rural people who depend on forest resources for their livelihood. This mismanagement translates into enormous national costs. For example, failure to collect appropriate royalties and taxes from legal forest operations costs governments around \$5 billion annually. Illegal logging results in additional losses of forest resources from public lands of at least \$10 billion to \$15 billion a year. Improvements in forest law enforcement and governance are critical to capturing the full economic potential of forests in a sustainable manner.

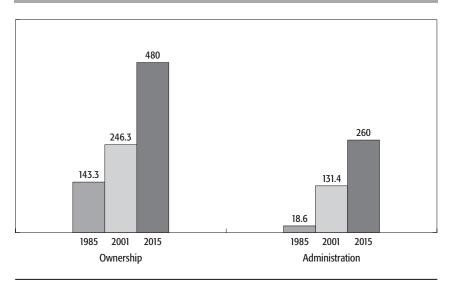
Given forests' significant commercial value, the private sector is the principal source of finance in forest production in most countries. Indeed, the level of activity and influence of the private sector in forests dwarfs that of the international community—and sometimes of the national government. Official development assistance accounted for only a fraction of the funds available for forestry in the mid-1990s, and it has declined sharply since then. Meanwhile private sector investment—from both domestic and foreign sources—has been on the upswing, and direct public sector investment has dropped only slightly. Given this trend, legal and regulatory frameworks that support sustainable forest practices must be developed to promote responsible private sector investment and eliminate corruption.

Local communities are playing an increasingly important role in forest management. Studies of the ownership and administration of forests project a near doubling of forest area under recognized community ownership, and a doubling of the area reserved for community administration (figure 16.1). Community participation in decision-making and implementation is considered to be essential for good governance, equitable distribution of benefits, and sustainable resource management.

# **Forests in Poverty Reduction Strategies**

Many of the world's poor depend on forests for their livelihoods. Forests can therefore play a significant role in realizing the Millennium Development Goal of halving the number of people living in absolute poverty by 2015. Unfortunately, rural development strategies often have neglected forests, because forests have been mistakenly viewed as being outside the mainstream of agricultural development. However, conservation and production must coexist if the full potential of forests for poverty reduction is to be realized. Although large areas of the world's forests must be preserved intact for their ecological and cultural value, much of what remains will inevitably be used





Source: Forest Trends.

for productive purposes. In addition to the lumber and wood products industry, the gathering and marketing of hundreds of forest products, such as forest fruits, fuel wood, and medicinal products, constitute an economic activity of enormous scale. Consequently, a dual approach covering both protection and productive use is needed. Efforts to improve sustainable use and management in the productive sector must accompany continued efforts toward protection and conservation.

Using forests for poverty reduction also requires a strong institutional framework and an effective legal and regulatory environment, in which the rights of specific groups among the poor are recognized and protected. Additionally, opportunities to develop sustainable forest businesses must be provided to these and other groups. Therefore, development organizations need an approach that focuses on participation and conflict resolution, and not just on the technical and economic aspects of forestry.

## **Global Values from Forests**

Forests play a critical role in balancing the global climate through carbon sequestration, and they serve as the repository for most of the planet's terrestrial biodiversity. In both these roles forests constitute global public goods

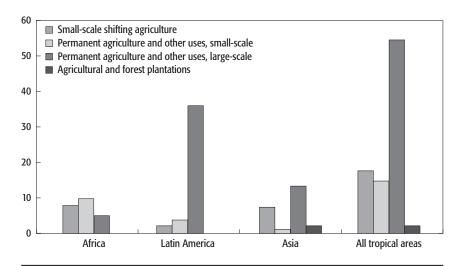
(see chapter 1), which, to be maintained, must be both protected and managed sustainably. Although biodiversity and key environmental services have traditionally been sustained through the establishment of protected areas, the wide range of competing uses of forests by diverse groups imposes constraints on how much can be achieved by protection alone. Improving forest management practices in production forests (forests where productive use is permitted) is an essential component of any strategy to protect vital local environmental services, in addition to efforts aimed at bolstering the effectiveness of management within protected areas.

Although some forest products, primarily lumber and fuel wood, are delivered through markets, the economic value of many of the other contributions of forests to the environment, to biodiversity, and to the stability of the global climate go unrecognized by the market. Creative new mechanisms are needed to ensure that the costs of any loss of forests' environmental services are paid for by those responsible. It is highly unlikely, however, that governments will be able to significantly scale down lumber extraction to preserve forests for their environmental services, unless the costs in terms of forgone revenue can be offset in some way. Moreover, very few countries would be prepared to borrow funds—from the World Bank or other sources—to finance forest protection as a substitute for forest production. Innovative financing options and markets for forests' environmental services, such as ecotourism, carbon offsets, and watershed management, will all have important roles to play. As carbon credits grow in value under a future global carbon trading system, there will be increasing incentives to invest in the establishment of new forested areas for their carbon benefits.

#### **Demand**

As human populations grow and countries around the world become more affluent, the demand for wood forest products, both solid wood and pulp and paper, will increase as well. In 2005 removals of roundwood (wood in its natural state, as felled or harvested) were forecast to be valued at around \$64 billion, an increase of about 11 percent over the previous 15 years. The demand for nonwood forest products has also increased slightly since 1990, with removals estimated at \$4.7 billion. Furthermore, with growing populations there is an increase in the clearing of forests for agriculture (figure 16.2). The FAO estimates that each year farmers permanently convert 13 million hectares of forest to agriculture, mainly in the tropics. Spillovers from poor policies in other sectors can also contribute to rapid rates of deforestation. This has been particularly evident in recent decades, for example in the conversion of forest areas to oil palm plantations in Indonesia. Pressures on





Source: FAO data.

forests from poorly aligned strategies in agriculture, transportation, energy, and industry, as well as unsound macroeconomic policies, are major causes of forest loss and degradation. Cross-sectoral cooperation to coordinate policies is essential to avoid forest degradation and to ensure that forests are managed in a sustainable manner.

# **Some Controversies Surrounding Forests**

# **Forests and Poverty Reduction**

Forests can be used to help alleviate poverty, but views differ on how this should be done. The poor are not a homogeneous group with respect to their use of forests. Among the poor are some who depend heavily on forests for their subsistence and livelihoods, whereas others have a higher level of industrial or artisanal skills and access to markets, and therefore different forest needs. If too much emphasis is placed on building the poor's participation in market-based use of forests, those groups who need to use the forests communally for subsistence may be excluded. It is therefore essential to ensure that market opportunities are assessed realistically and that group is not set against group in a limited market. Appropriate collective control and

management are also needed in community forest management systems, to ensure that liberalization of markets and privatization of state forest and other enterprises benefit the poor. Additionally, such controls should be incorporated into any program or initiative targeted at poverty reduction, including payment for environmental services schemes, to ensure that the funds reach the intended beneficiaries.

#### **Governance Issues**

Another area of potential conflict is that between state ownership of forests and the interests of communal and smallholder producers, who frequently are poor. These groups are often excluded, whether deliberately by policy or through failures in sector governance, from adequate participation in the commercial use of forests. Additionally, many of the world's indigenous peoples live within or near forests and are among the poorest, most vulnerable, and most powerless groups in developing countries. Their tenure rights, in forest areas in particular, tend to be insecure. It is clear that policies, institutional, and legal reforms that establish and protect the rights of indigenous peoples—in a number of areas including forest use—are needed in many countries.

Devolution of management of forests to lower levels of government or local community groups is widely considered essential for good governance, equitable distribution of benefits, and sustainable resource management. However, the implementation of these schemes has often resulted in capture by local elites and created conflict in local communities. The result has been unsustainable forest management and social disruption. Issues of gender equality in access to forest resources have often not been adequately addressed when forest management has been decentralized. Such matters need to be taken on board in any decentralization or devolution process to ensure that systems for equitable benefit sharing and sustainable management are put in place.

# **Protecting Global Environmental Services**

One of the problems inherent in protecting forests is that forests are in high demand for a range of often mutually exclusive uses by competing groups within society. Some conservation groups and policymakers mistakenly assume that the interests of the forest-dependent poor, on the one hand, and the global interest in protecting and preserving forests for their biodiversity and other global values, on the other, will always converge. Although in most

cases the poor do share an interest in protecting an environment that will enable them to maintain their livelihoods, this does not necessarily imply a complete congruence of interests: the poor may prefer to change the existing forest landscape in ways that may not meet the interests of global stakeholders. The development of incentives, such as payment for environmental services, that will balance local and global demands thus needs careful consideration and further development.

# **Actions of the International Community Toward Sustainable Forest Management**

In the last 15 years the legal and international framework that governs forest issues has advanced and broadened. The main agreements that affect the forest sector are the conventions and processes arising from the 1992 United Nations Conference on Environment and Development held in Rio de Janeiro (the Rio Earth Summit), and from subsequent United Nations forums, which focus on forests, specifically the Convention on Biological Diversity, the Convention to Combat Desertification, the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, and the international dialogue on forests, which has culminated in the United Nations Forum on Forests (UNFF). The Convention on International Trade in Endangered Species (CITES) also addresses some aspects of forest management. Additionally, innovations by nongovernmental organizations (NGOs) and civil society, such as the development of forest certification schemes, have made important contributions to global sustainable forest management.

#### The Rio Earth Summit

At the 1992 Rio Earth Summit, forests posed some of the most controversial issues, which tended to polarize developing and developed countries. Intense negotiations among governments resulted in an authoritative but non-legally binding statement of Principles for a Global Consensus on Management, Conservation, and Sustainable Development of All Types of Forests. This declaration affirmed that states have sovereign rights over their natural resources, but also recognized that forests are a global public good that provides ecosystem services of global value and significance, such as biodiversity preservation, carbon sequestration, and nutrient and hydrological cycling. Ultimately, agreements emerging from the Rio Summit had as their objective to enhance the scope and effectiveness of national institutions in developed and developing countries related to management, conservation, and sustainable

development of forests. Lending organizations such as the World Bank are obliged to assist their clients in meeting the commitments and international conventions arising from the Rio Summit.

# The Kyoto Protocol

The negotiation of the 1997 Kyoto Protocol to the UNFCCC established global commitments to mitigate climate change and created three "flexible mechanisms" to achieve this objective. Two of these relate directly to the forest sector. The first allows parties from developed countries and countries in transition from socialism to transfer or acquire emissions reduction units from any other party. This mechanism, called Joint Implementation, could play an important role in supporting sustainable forest management in transition countries. The second mechanism, the Clean Development Mechanism (CDM), regulates greenhouse gas emissions trading between industrial countries and developing countries. Forests could play a role in the CDM by integrating forest management and conservation through reforestation and afforestation. Such integration could mobilize substantial resource flows to developing countries. The third mechanism is emissions trading, wherein a market for emissions reductions is created.

The first commitment period under the Kyoto Protocol is through 2012, and negotiations are under way to establish parameters for the next commitment period. Recently, the question of how to reduce greenhouse gas emissions from deforestation has received considerable attention, and the new concept of "avoided deforestation" as a means of compliance has been put on the negotiating table. If accepted, it could have major implications for the forest sector and the means of financing forest conservation.

#### The United Nations Forum on Forests

Significant progress has been made in the international dialogue on forests since the Rio Summit. During that time, the main focus within the United Nations has been to continue to develop coherent policies to promote the management, conservation, and sustainable development of all types of forests. The Intergovernmental Panel on Forests (IPF), from 1995 to 1997, and the Intergovernmental Forum on Forests (IFF), from 1997 to 2000, both under the auspices of the United Nations Commission on Sustainable Development, were the main intergovernmental forums for international forest policy development during this period. In October 2000, through the Economic and Social Council of the United Nations (ECOSOC), the international community created the UNFF, a new international body that will build

on the work of the IPF and the IFF in providing a platform for high-level policy discussion and cooperation to strengthen long-term political commitment to the sustainable management of forests.

# **Independent Forest Certification**

Since the 1990s, independent forest certification has become a powerful agent for broader participation by civil society in identifying and promoting improved forest management practices. Independent certification is a process under which a third party audits the performance of forest management to determine whether it meets broadly accepted environmental, social, and economic standards. Independent certification provides an opportunity to send clear and transparent signals about forest management to stakeholders, whether they are consumers, governments, investors, or local communities. Initially, the Forest Stewardship Council was the main body promoting independent third-party assessment of forest operations and the performance of forestry companies. However, a number of competing schemes have now emerged, reflecting a growing international recognition that centralized control and management of forest resources by weak government forest services had failed to stem escalating deforestation or ensure sustainable forest management.

# **Designation of Protected Areas**

The definition of protected areas has evolved within such large conservation organizations as the World Wildlife Fund (WWF) and IUCN—The World Conservation Society to recognize possibilities for combining conservation with sustainable human use. Accordingly, governments in more countries today recognize the importance of establishing and maintaining protected area systems for protection of biodiversity. For example, in Latin America during the last decade, the average share of total land area covered by protected area designation rose from 5 percent to 12 percent. A study by Conservation International has demonstrated that tropical parks have been effective in protecting ecosystems and species within their borders, even as people continue to live within 70 percent of these parks. Protected areas have been particularly effective in preventing land clearing, which is the most serious threat to forests and biodiversity.

Additionally, the private sector has shown some interest in buying conservation concession rights to large blocks of forest. These concession rights are leased at quasi-market rates (estimates of what the market price would be if a market existed) and provide a direct incentive for conservation and provision

of ecosystem services. The funds are used for social development and poverty alleviation in the areas surrounding the protected areas. For example, the Nature Conservancy has generated \$700 million to acquire and protect habitats in the United States and elsewhere. Ecologically friendly enterprises such as ecotourism companies also attempt to combine the protection of forests and biodiversity with sustainable development.

# **Consequences of Failure to Manage Forests Sustainably**

Failure to manage forests sustainably would have a variety of adverse consequences—economic, social, and environmental. At the national level, forests have an important role to play in sustaining economic growth and alleviating poverty. National economies could benefit much more than they do now from their forests. Destruction and mismanagement of forests lead to a decrease in export earnings, which in turn lowers government revenue, reduces employment, and limits the options for a diversified economy.

Over a billion people depend on forests as a direct source of income or livelihood, including maintenance of soil fertility and water resources. Approximately the same number depend largely on fuel wood for their cooking and heat. A billion people also depend almost entirely on medicines derived from forest plants for their medicinal needs. An estimated 60 million people depend on benefits from downstream forest industries such as sawmills, carpentry, and handicrafts. In addition to the tremendous loss of cultural value, the number of extreme poor could increase significantly if forests are not well managed and new forest resources are not developed. With fewer opportunities open to these mostly rural poor, this would lead to increased rural-to-urban migration.

At least two-thirds of Earth's terrestrial species are primarily found in forests. The maintenance of significant areas of plant diversity ensures a sufficiently wide range of tree species to buffer forests and helps ensure their function in regulating the landscape and preventing disruption by pests, disease, and normal climate variations. Loss of the world's forests would also have a tremendous impact on global climate change, and the biotic diversity of forests is the base for selection and breeding of plants and animals for a range of environments and human uses. This genetic bank is the source of higher-yielding and more pest-resistant food crops and of materials of medicinal, pharmaceutical, and industrial value. Failure to manage forests sustainably would thus have tremendous environmental consequences at both the local and the global level.

# The World Bank's Engagement in Sustainable Forest Management

The World Bank's engagement in the forest sectors of developing countries inevitably addresses the balance between production and conservation. It also involves questions of the fair distribution of the benefits and responsibilities of forest use and protection among interested economic and social groups, as well as consideration of the longer-term issues of forest sustainability and environmental health. Managing these trade-offs is not only technically difficult but politically complex as well.

# The World Bank's Forests Strategy

Recognizing these challenges, in 2002 the World Bank revised its overall forest strategy, and today the Bank uses its various instruments in innovative ways to further enable sustainable forest management. Beginning with its 1991 forestry strategy and its 1993 operational policy, the activities of the Bank in the forest sector were guided by a "do no harm" principle that focused largely on environmental issues and on pure protection options. Although the 1991 strategy recognized the role that forests could play in poverty reduction and the importance of policy reforms in containing deforestation, its hallmark was a strong commitment not to finance commercial logging in primary tropical moist forests. (Primary forests are forests that have not been previously felled.) The past decade has demonstrated that this strategy and operational policy constrained the Bank from adequately engaging in the sector, and to a large extent prevented the Bank from participating in international and national dialogues on this issue. Most important, the 1993 policy resulted in many missed opportunities for the Bank to harness the potential of well-managed forests, open woodlands, and on-farm woodlots to make a significant contribution to poverty reduction and to the protection of environmental services of global importance. Meanwhile the loss of forests has continued at historically high rates, and successful efforts to reduce destructive and unsustainable logging and unwarranted forest clearing have been few and far between.

Starting in 1998, the Bank reviewed its forest strategy. The new strategy approved in 2002 was based on findings from a review by the independent Operations Evaluation Department (OED) and a two-year process of analysis and consultation, which gathered information and viewpoints from development partners and other stakeholders around the world. The

revised forest strategy is built on three equally important and interdependent pillars:

- Harnessing the potential of forests to reduce poverty
- Integrating forests into sustainable economic development, and
- Protecting vital local and global environmental services and values.

### Harnessing the Potential of Forests to Reduce Poverty

The new strategy focuses on creating economic opportunity, empowerment, and security for people in rural areas, especially poor and indigenous groups. This is to be achieved mainly through policy and institutional strengthening to ensure that the rural poor have sufficient access to, and are able to manage, forest resources for their own benefit. The Bank will also help build the capacity of governments to support and regulate community use of forests, open woodlands, plantations, and on-farm woodlots. The Bank relies on its partners—particularly civil society—and on pilot operations supported by others to demonstrate feasible approaches that can then be scaled up. In collaboration with its client countries and partners, the Bank's primary objectives are to

- Work with client countries to strengthen policy, institutional, and legal frameworks to ensure the rights of people and communities living in and near forest areas
- Ensure that women, the poor, and other marginalized groups in society are able to take a more active role in formulating and implementing forest policies and programs
- Support the scaling up of collaborative and community forest management so that local people can manage their own resources, freely market forest products, and benefit from security of tenure, and
- Work with local groups, NGOs, and other partners to integrate forestry, agroforestry, and small enterprise activities in rural development strategies.

The Mexico Community Forestry Project, discussed in box 16.2, is an example of an investment loan that used a community-driven development approach.

## Integrating Forests in Sustainable Economic Development

Under the second pillar, the Bank focuses on helping governments improve their policy, economic management, and governance in the forest sector, including forest concessions and other allocation policies, as well as addressing

#### **BOX 16.2 Mexico: Second Community Forestry Project**

exico's Second Community Forestry Project assists communities in developing and marketing forest and nonforest resources in order to increase their income. It exemplifies several good practices such as preparation of a detailed social and cultural analysis of the project site, recognition of the importance of forest resources and diversification of income, and the strengthening of the private sector for efficient service delivery.

Although other projects have addressed the social and cultural background of the project site, this project goes further to conduct a detailed analysis of the targeted communities, including an analysis of the social relationships among different groups and of intercultural conflicts. Understanding the social and cultural background of the project site helps in several ways: by identifying potential sources of conflict, by allowing a design of the project that suits the social and cultural context, and by allowing the necessary resources to be used in the most effective and appropriate manner in the local context.

The project recognizes that forest resources are, for many indigenous communities, their most marketable natural resource as well as a good way to diversify income and so reduce risk. Special attention has been given to the development of freshwater supplies (through water bottling projects), conservation of protected areas, conservation of biodiversity, and the development of ecotourism.

The project provides the following assistance to enable the diversification of forest and nonforest products:

- Studies to identify opportunities to diversify production and assist communities in decision making
- Specialized consulting services to carry out land-use zoning in accordance with community goals and available resources
- Studies of and recommendations for strengthening community enterprises
- Feasibility studies for non-timber product marketing, and
- Studies and recommendations for conflict management within and among communities.

The project is also actively engaged in building capacity in the private sector, to ensure efficient services for community development activities. The project will first identify a pool of potential providers. It will then seek to build their capacity to work with community and tribal organizations, as well as to develop skills in environmental planning and forest management, biological analysis of specific non-timber species, and economic and market analysis.

the potential impacts of economy-wide adjustment on forests. The Bank also supports government efforts to bring about ecologically, economically, and socially sound management of production forests (box 16.3). To this end, in addition to the Bank's standard implementation and safeguard procedures,

#### **BOX 16.3 Forest Law Enforcement and Governance**

s an integral part of its strategic approach, the World Bank has actively supported international and regional initiatives on forest governance. Since 2001 the Bank has engaged in high-profile efforts to halt illegal logging and other related forest crimes, in partnership with producer and consumer country governments, nongovernmental organizations, and responsible members of the private sector.

An important aspect of this work has been the establishment of the Forest Law Enforcement and Governance (FLEG) ministerial process. The approach of the FLEG program has been to convene a regional preparatory conference followed by a high-level ministerial conference. This approach has allowed for multi-stakeholder technical meetings where experiences with FLEG issues are shared; intergovernmental negotiations for the drafting of a declaration or action plan for commitments to improve governance and combat illegal logging, corruption, and associated trade; and other stakeholder discussions and development of statements for consideration by the negotiators. National-level actions with multi-stakeholder participation have assisted in preparing inputs for the conferences and developing follow-up action plans. The processes aim to create the high-level political commitment and the political "space" at the national and regional levels needed to address these complex and politically sensitive issues, in partnership with major stakeholders from civil society and the private sector.

Regional FLEG ministerial processes were conducted in East Asia in 2001 and in Africa in 2003. Both were co-hosted by forest producer and consumer countries and the Bank. A similar process for Europe and North Asia culminated in a ministerial meeting and declaration in November 2005.

independent monitoring and certification of forest operations are encouraged. These formal, market-based certification systems bring in an independent third party to verify compliance with nationally or internationally agreed standards for forest management. Such certification is most useful when the bulk of production goes to environmentally discriminating domestic or international markets.

In support of the second pillar, the Bank's objectives are to

- Analyze and coordinate policies and projects to ensure a cross-sectoral approach to planning and implementation of sustainable forest management, conservation, and development
- Support improved governance by reforming inappropriate policies on timber concessions and subsidies, and by encouraging multistakeholder involvement in the development and implementation of forest policy and practices

- Help governments contain corruption and other illegal activities through improved forest laws, regulations, and enforcement, and through consumer-driven demand for forest products from legal sources
- Address financial, fiscal, and trade issues related to the forest sector and forest products, to enable governments to capture a larger portion of forest revenue for sustainable social and economic development, and
- Promote catalytic investments in the full range of goods and environmental services available from well-managed forests, including sustainable timber harvesting and management—but only outside critical forest conservation areas, in situations that can be independently monitored through a system of verification or certification that meets nationally agreed and internationally acceptable standards.

#### Protecting Vital Local and Global Environmental Services and Values

The revised forest strategy adopts a more inclusive, twofold approach of protection and productive use in all types of forests. This shift allows the Bank to proactively engage with clients and partners to manage forests effectively for all uses. It also allows the Bank to engage in sustainable forest management operations in the temperate forests of Russia and other republics of the former Soviet Union. The Bank's primary objectives in implementing this third pillar are to

- Help governments in all client countries proactively identify and conserve critical forest conservation areas in all forest types
- Help governments promote the wide-scale adoption of responsible forest management practices in production forests outside critical forest conservation areas
- Develop options to build markets and obtain financing for global public goods such as biodiversity and carbon sequestration
- Help governments develop measures to mitigate and adapt to the anticipated impacts of climate change and reduce the vulnerability of the poorest to its effects
- Help governments design, implement, and finance national markets for the local environmental services provided by forests
- Help governments strengthen forest investments, policies, and institutions to ensure that any adverse indirect and cross-sectoral impacts on conservation activities and protected areas are minimized, and

## **BOX 16.4 Amazon Regional Protected Areas**

he World Bank-World Wildlife Fund Forest Alliance has provided seed funding for the Amazon Regional Protected Areas (ARPA) project in Brazil. This engagement has been a flagship activity of the alliance ever since. This 10-year program will protect 12 percent of the Brazilian Amazon basin and establish a \$220 million trust fund to support the ongoing management of this protected areas network. ARPA is the largest joint initiative for tropical forests in history, seeking to encompass 50 million hectares of new protected areas, including representative samples from all of Brazil's 23 ecoregions. This will triple the extent of Brazil's protected areas by 2012, to an area equivalent to that of Spain.

ARPA has already added new protected areas totaling more than 17 million hectares to the system of Amazonian protected areas in Brazil. This project has mobilized significant resources, including \$30 million from the Global Environment Facility and \$50 million from the World Wildlife Fund, the German development bank KfW, the government of Brazil, and other partners.

 Ensure that Bank investments and programs in the forest sector and other sectors that might harm protected forests and natural habitats are implemented according to the Bank's operational policies and safeguards.

The impact of the World Bank-WWF Alliance illustrates how these partnerships have promoted sustainable forest management. In addition to providing seed money for innovative projects such as the Amazon Regional Protected Areas project (box 16.4), the alliance has been instrumental in developing a tool for identifying and conserving high-conservation-value forests in productive settings.

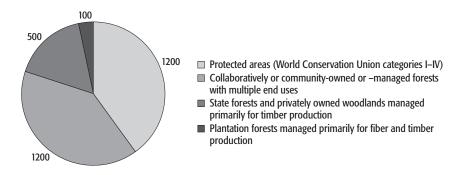
#### Are International Interventions Relevant?

The World Bank, in partnership with governments, donors, NGOs, universities, and other key stakeholders, plays an important role in advancing sustainable forest management. Without such interventions, the social, economic, and environmental benefits that forests provide would continue to be seriously undervalued, resulting in widespread mismanagement and poor governance leading to billions of dollars of lost revenue. The spillover of poor policies in other sectors would also continue to contribute to the rapid rate of deforestation seen in recent decades.

The Global Vision for Forests 2050 project, which brought together leading experts, NGOs, industry representatives, and donor institutions, yielded

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Source: Global Vision for Forests 2050 project.

the scenario depicted in figure 16.3 for a global closed-forest area of 3 billion hectares in 2050. This would result in an increase in community-owned and -managed forests and a significant increase in protected areas as defined by the World Conservation Union. The area of state and private production forests under intensive management would remain roughly the same as at present, and industrial plantation forests would increase slightly, from 95 million hectares to 100 million hectares.

#### **Conclusion**

The forest sector is complex, facing multiple demands and pressures while fulfilling diverse roles. Its resources are valued from a variety of perspectives and for a variety of purposes. Forests are important because of their contribution to the livelihood of the poor, the potential they offer for sustainable economic development, and the essential global environmental services they provide. Challenges for forest-rich countries and the international community include addressing complex institutional, governance, and land tenure issues including community ownership and smallholder involvement; applying landscape-based approaches in improving rural livelihoods and addressing deforestation; and mainstreaming biodiversity conservation in productive landscapes. Addressing these issues is critical for maximizing beneficial forest outcomes for the poor, promoting economic development, and preserving the environment. The World Bank is committed to working in partnership with client countries and other stakeholders to maintain and enhance the delivery of the services that forests provide to all countries and peoples.

# **Selected Readings**

International Monetary Fund. 2003. "Picture This: The World's Forests." *Finance and Development* 40(4): 40–41.

World Bank. 2003. "Sustaining Forests: A Development Strategy." Washington. (Available at siteresources.worldbank.org/INTFORESTS/Resources/SustainingForests.pdf).

# **Useful Web Links on Forestry Conservation and Management**

Centre for International Forestry Research Collaborative Partnership on Forests

FAO page on forestry
Forest Trends
International Union of Forest Research
Organizations
International Tropical Timber Organization
IUCN—The World Conservation Society
Program on Forests
St. Petersburg Ministerial Declaration
United Nations Forest Forum
World Bank page on Carbon Finance
World Bank page on Forestry
World Bank page on Forest Law Enforcement
and Governance
World Bank-World Wildlife Fund Alliance
World Resources Institute Global Forest Watch

World Wildlife Fund

www.cifor.cgiar.org www.fao.org/forestry/foris/webview/ cpf/index.jsp?siteId=1220&langId=1 www.fao.org/forestry/index.jsp www.forest-trends.org

www.iufro.org www.itto.or.jp/live/index.jsp www.iucn.org www.profor.info web.worldbank.org/enafleg www.un.org/esa/forests www.carbonfinance.org www.worldbank.org/forests

www.worldbank.org/enafleg www.forest-alliance.org www.globalforestwatch.org/english/ index.htm www.wwf.org