

n Africa, perhaps more than in any other region, the World Bank's mission to fight poverty is inescapably linked with

environmental protection and improved management of renewable natural resources. In both rural and urban settings, the poor are the most affected by the loss of natural resources and the deterioration of environmental services. They are also at the greatest risk from natural disasters, particularly droughts and floods, whose impacts are aggravated by environmental degradation. The national economies of African countries rely mainly on agriculture and on extraction of mineral and biological resources. In Africa, better environmental management is not just a matter of preserving nature; it is a matter of survival.

Yet this natural resource base on which so much depends is steadily deteriorating. Many parts of the region are characterized by high rates of soil erosion and deforestation, as well as declining rangelands, wetlands, and fish and wildlife populations. Climate variations, already a serious threat to livelihoods and economic development in much of the region, are likely to be further aggravated by climate change within the next few decades. Environmental degradation is—along with population growth, political conflicts, and the HIV-AIDS crisis—one of the major factors threatening the fragile progress in economic, social, and political development that many African countries have achieved over the past few decades.

The Africa Region Environment Strategy

The Africa Region Environment Strategy (ARES) aims to help World Bank clients achieve sustainable poverty reduction through better environmental management. Approaching environment through a "poverty lens," the strategy targets four main objectives:

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- Ensuring sustainable livelihoods. The strategy highlights the overwhelming importance of land degradation and desertification; the deterioration in quality and growing scarcity of surface water and groundwater; and the loss of productive natural ecosystems.
- Improving environmental health. Africans suffer a higher total burden of disease than their counterparts in other regions. Many of the most widespread and debilitating diseases, particularly those that disproportionately affect the poor, stem from environmental conditions such as water and air pollution.
- Reducing vulnerability to natural disasters and extreme climate events. Africa is characterized by a high degree of climate variability, resulting in chronic and severe impacts on economic development and livelihoods, particularly of the poor. Droughts, floods, landslides, and wildfires are all naturally occurring events whose frequency and impacts can be increased by environmental degradation.
- Maintaining global ecosystems and values. Africa's vast and unique biodiversity endowment is rapidly being lost as natural ecosystems are depleted or converted to other uses. The region is also highly vulnerable to climate change, which is expected to increase average temperatures and make rainfall even more erratic, particularly in the already hard-pressed Sudan-Sahelian and southern regions.

Lessons learned

The Africa Environment Strategy summarizes Bank experience and lessons learned, including:

- The importance of longer time frames to support institutional development and environmental action
- The need for institutional capacity building to go beyond national to

- local government and community levels, and to take into account the changing roles of government, civil society, and the private sector
- The need to move the Environmental Assessment (EA) process both "upstream" into sectoral and areabased planning processes and "downstream" into the project implementation phase
- The need to develop long-term and sustainable financing mechanisms, and to ensure that institutional development is based on a realistic assessment of resources available now and in the future.

Priorities for action

Following the structure of the Bank-wide Environment Strategy, the Africa Strategy organizes priorities for action within the three broad categories of improving the quality of life, improving the quality of growth, and maintaining the quality of the global commons.

The strategy identifies specific priorities for action in six sub-regions: the Sudano-Sahelian belt, humid West Africa, the Congo Basin, East Africa, Southern Africa, and the Indian Ocean Islands. Some issues, such as land degradation, are equally significant across the continent, while others, such as coastal zone management and water scarcity, are more localized. The strategy also identifies priorities relating to key sectors. Sectors targeted for their strong significance to environmental management include agriculture and rural development, natural resource management, energy, urban development, water resource management, transport, health, and private sector development.

The strategy calls for a "people-focused ecosystem management" approach to development. Maintaining well-functioning ecosystems and ecological processes is

critical to meeting human needs and enhancing economic production on a sustainable basis. For example, the Bank is actively supporting integrated coastal zone management through regional, subregional, and country-specific initiatives, including coastal and marine biodiversity management projects in Mozambique, the Gambia, Senegal, Guinea and Guinea Bissau, as well as a Western Indian Ocean Fisheries project (see *Box*, page 26). Adopting an ecosystem-based approach has important strategic and operational implications, such as planning and managing land use over large (often crossborder) areas; developing consensus and coordination among many different stakeholders; making compromises and trade-offs among different environmental and development objectives; and developing up-to-date information on ecosystem conditions and the processes that sustain them.

The Africa Strategy places a high priority on creating an enabling environment that motivates and enables large numbers of people and diverse institutions to manage and protect the environment. The essential elements include a broad consensus on environmental and sustainable development objectives; policy, regulatory/legal, and institutional frameworks to support these objectives; and mechanisms to monitor results and use them in decisionmaking. To improve the effectiveness of our support for environmental management, the Bank must focus on reversing the incentives that currently drive people, individually and collectively, to destroy or degrade the environment, and on providing the essential technical and institutional tools for environmental stewardship. For example, government policies often encourage the destruction of natural habitats by awarding land rights to people who "improve" these areas by converting them to agriculture and other uses. In the Burkina

Faso PRONAGEN project, local communities will become the managers and custodians of key wildlife areas and will receive both assistance and direct incentives for good stewardship.

Lack of adequate resources to promote, implement, and monitor the impacts of environmental action is a perennial constraint to improving environmental management. Bilateral and multilateral assistance for environmental management and protection will continue to be important in Africa, particularly in relation to global environmental objectives, but it must be complemented by other mechanisms, including revenue generation and greater private sector investment. Key objectives include generating sustainable funding for environmental management through supporting policy reforms that create an enabling environment for environmentally sound investment; introducing and refining user fees, taxes, penalties, and other economic and market-based instruments; targeting Global Environment Facility funding for activities that address both national/local and global priorities; enhancing African countries' access to markets for global environmental services; and supporting the development of long-term financing mechanisms such as trust funds. A number of recent projects include components to establish trust funds or revenue generation mechanisms to ensure the sustainability of biodiversity conservation and other environmental objectives (for example, the Malawi Mulanje Mountain Conservation Trust). Several initiatives are also under development to mobilize investments for carbon sequestration through forest management, reforestation, and improved land management-for example, under the Integrated Land and Water Management Action Program in Africa (see Box, page

Implementing the Strategy

While environmental management is a long-term undertaking, urgent action is needed to stem ongoing environmental degradation and to prevent further degradation resulting from poorly conceived or implemented activities. Such actions include:

Improving the application of Environmental Assessments and — Tanzania

other environmental and social safeguards, particularly by increasing attention to implementation and monitoring and by moving assessments "upstream" into planning processes through Strategic Environmental Assessments

Moving toward longer-term programmatic operations that combine concrete, substantive goals for improving environmental quality with a flexible approach to implementation.

In-country capacity building will continue to be a main focus. Specific activities at the regional and country levels will include building in-country capacity for environmental management, including strengthening of EA legislation, application, and monitoring; training and strengthening employment opportunities for local environmental professionals; and environmental support programs that focus on strengthening environmental planning and action within sectoral agencies and at the community level. Examples include the Uganda Environmental Management Capacity Building

IMPLEMENTING INTEGRATED COASTAL MANAGEMENT IN SUB-SAHARAN AFRICA

The Africa Region has developed a process to identify promising opportunities for integrated coastal zone management projects. The process involves screening of countries based on "first order criteria" such as political stability; a high level of dependence on coastal resources; use or potential use of coastal and marine resources; and a substantial threat to these resources. Candidate countries are then ranked based on "second order" criteria such as country commitment, availability of partners, and external assistance through existing World Bank or other donor-financed programs. Identifying and designing specific interventions calls for an evaluation of "third order" criteria such as clarity of property rights regimes, existence of incentives for and against sustainable use of coastal and marine resources, and the level of local capacity. Global criteria—that is, the global significance of certain marine and freshwater coastal areas—are also significant, in part because of the opportunity to mobilize GEF co-financing. Another important consideration is the opportunity to enhance sub-regional integration through collaborative management and development of shared coastal resources.

Countries with priority integrated coastal management initiatives include the Seychelles, South Africa, Mozambique, Mauritius, Madagascar, and Ghana. Countries where integrated coastal management needs are urgent and complex, but where the "institutional core" is not as strong, include Senegal, the Gambia, Tanzania, Nigeria, Kenya, Namibia, Cote d'Ivoire, Guinea, Benin, and Guinea Bissau.

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Project, the Malawi Environment Management Project, the Burkina Faso Community Support Program, the Madagascar Environment Program, the Nigeria Micro-Watershed and Environmental Management Program, and many others.

Over the long term, effective environmental management requires building environmental objectives, actions, and targets into country and sectoral strategies and operational programs. This requires providing the information needed to inform and persuade decisionmakers that addressing environmental and related social concerns is essential to development; identifying realistic development options and spelling out the costs, benefits, and trade-offs involved; and providing the tools to support implementation of environmentally favorable options. Priority will be given to countries where there are strong and clear linkages between environmental improvements and poverty alleviation, demonstrated interest on the part of clients and Country Teams, and substantial Bank involvement.

Key activities will include developing and piloting tools and models for country-specific analysis of environmental conditions, issues, and opportunities; enhancing environmental sustainability in key sectors by improving incentive structures; and developing meaningful and practical indicators for assessing environmental conditions and trends, environmentally related poverty impacts, and the extent to which environment is integrated into development planning and operations. For example, a major study in Nigeria will analyze environmental degradation, impacts on poverty, and options for harmonizing sectoral priorities. A similar analysis in the Democratic Republic of Congo will focus particularly on environment/health linkages.

Strategic partnerships will be vital to the implementation of the Strategy. In addition to traditional partners such as bilateral donors and international NGOs, the

GEF IN AFRICA — INTEGRATION, DIVERSIFICATION, AND QUALITY

The Global Environment Facility (GEF) portfolio in Africa has grown over the past few years and become more diversified. Land degradation, the highest priority environmental issue for most African countries, provides an important entry point. The newly launched GEFfinanced Africa Integrated Land and Water Management initiative will support strategy development, capacity building, and pilot operations in at least six countries. Programs that can link global and local issues, such as community-driven development, are under preparation in countries such as Burkina Faso and Niger.

The Africa Global Environmental Coordination Team is responsible for monitoring and evaluation of the Region's portfolio. During the past year, the Coordination Team has piloted video debriefing sessions as a means of capturing experiences, lessons, and good practice from project preparation and implementation.

Bank will continue to explore the potential for collaboration with the private sector in areas such as technology development and transfer, specialized training and information exchange, and environmental cleanup.



Collecting water in Senegal. Lack of access to clean water supplies and sanitation is an environmental health risk affecting millions of the region's poor.

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