

Environmental sustainability is central to sustainable economic growth and to efforts to reduce poverty and social inequality. Relative to other regions of the world, the countries of Latin American and the Caribbean are well endowed with natural resources and environmental attributes. They also rely heavily on the services provided by their forests, coastal and marine resources, biodiversity, agricultural soils, and water resources. However, these services are also fragile and in an apparent state of deterioration, thus requiring the countries' full attention to achieve long-term development goals. The countries of Latin America and the Caribbean recognize the importance of the environment and natural resources to social and economic well-being and have signed on to environmental declarations concomitant to the Summit meetings, beginning with the 1992 Rio Summit and extending to the Johannesburg Summit in 2002. In most countries of the region, the links between poverty and the environment are quite apparent: the poor are the most affected by pollution, deficient basic services, lack of land security, and the loss of key natural resources for their livelihood. As the region embarks on renewed efforts to increase competitiveness, investments in infrastructure and human and social capital must be coupled with the institutional capacity to address environmental issues and undertake the appropriate interventions to protect and enhance the natural capital. The achievement of long-term development goals will require the political will, commitment, and capacities of all stakeholders to protect the quality and availability of natural resources.

The countries of Latin American and the Caribbean are no strangers to the devastation brought on by hurricanes, floods, earthquakes, landslides and volcanic eruptions. The increase in the frequency of disasters and their associated damages in the region is part of a worldwide trend, which results from growing vulnerability and may

reflect changing climate patterns. The Bank has adopted a proactive stance to reduce the toll of disasters in the region through a comprehensive approach that encompasses both pre-disaster risk reduction and post-disaster recovery. It is framed by new policies and institutional arrangements, and activities such as risk analysis, prevention and mitigation, risk transfer, emergency preparedness and response, and post-disaster rehabilitation and reconstruction.

The Sustainable Development Department contributes to the Bank's support to environmental sustainability through its *Environment Division* (SDS/ENV), whose mandate includes the proactive support of environmental and natural resources management in the region, and the *Rural Development Unit* (SDS/RUR). SDS/ENV contributes to enhancing the environmental quality of IDB operations by preparing and disseminating technical studies, and providing guidance on environmental impact assessments and good practices in environmental management and project analysis. It offers environmental training to Bank staff, provides technical advice to project teams, and supports the Committee on Environment and Social Impact (CESI). The work of the Environment Division embraces public and private sector projects including urban and rural environmental management, energy conservation and development, forestry and biodiversity, water resources management, coastal and marine resources, climate change and disaster risk management.

THE ENVIRONMENT DIVISION (SDS/ENV)

[www.iadb.org/sds/env_e.htm]

At the strategic and policy level, SDS/ENV (of the Private Enterprise and Financial Markets Subdepartment) has led the development of important Bank documents that reflect a proactive position to promote environmental and social sustainability in the region. The IDB's *Environment Strategy* (GN-2208-4), endorsed by the IDB Board of Executive Directors in July 2003, sets the context for the Bank's work and establishes strategic lines of activity that are in tune with the priorities, challenges, and opportunities for sustainable development in the region, as well as fundamental principles for good environmental governance, enhanced policy integration and development of the right set of incentives to achieve sustainable outcomes. The priority actions for implementation under the strategy include: the incorporation of country environmental analyses (CEAs) in early stages of IDB Country Strategy preparation; the development and use of best practices and guidelines for strategic environmental assessments (SEAs) applied to large infrastructure projects; the improvement of

environmental baselines and performance indicators; and the review of the Bank's approach to managing environmental risk and enhancing sustainability. SDS/ENV is also leading the development of its new *Environment and Safeguards Compliance Policy*, to be presented for Board approval in 2005. This policy will establish directives under two major categories: mainstreaming environment, and safeguarding the environment and managing risks.

SDS/ENV has fostered leadership and innovation to support Bank operations in five priority areas: managing natural resources, building environmental management capacity in the region, establishing and managing an environmental quality assurance process for all Bank operations, leveraging resources and partnerships, and promoting regional integration and positive linkages between trade and the environment.

Managing Natural Resources

SDS has provided technical expertise and leadership in the following areas: water resources management, forestry and biodiversity, pollution control, and disaster prevention and mitigation.

Water Resource Management

[www.iadb.org/sds/env/site_43_e.htm]

Water is a vital resource for human survival and economic development; as populations and economies grow, water demand increases while the availability of the resource remains constant. Shortages engender water use conflicts, both in terms of quantity and quality. There is considerable variation across countries in laws and institutions related to water, and planning and project implementation ability is not uniform. The Bank's Eighth General Increase in Resources called for the establishment of guidelines that are flexible enough to be tailored to different situations involving institutions, legal instruments, and the technical means to achieve an integrated approach to planning that considers all sources and uses of water in a given basin. The primary activity of the Environment Division in this area is to encourage a comprehensive approach to water resources management activities, when warranted by the characteristics of the problem. Also included is the integrated management of other resources in the watershed, such as soil and vegetation and beneficiary participation.

Efforts are directed toward supporting water resources planning, policy making and management through the implementation of a strategy that considers several issues associated with the core problem of developing multiple sources and managing multiple

uses of water so that, over time, more efficient water resource supply systems and use patterns emerge, while maintaining or improving ambient water quality. One consideration is the identification and preparation of efficient and cost-effective water resources project investments in areas such as potable water supply, sewerage, wastewater treatment and irrigation. SDS/ENV has also introduced the use of a wide range of water management instruments, and advanced integrated water management approaches that take into account a range of social, economic and environmental factors, as well as participatory processes and incentive-based systems to achieve sustainability objectives. Better use and quality of water resources might also be obtained through a reduction of water system losses, optimal water pricing or marketing policies, effluent discharge regulation, water quality monitoring and enforcement, soil and water conservation programs, non-point source pollution control, and water and soil conservation measures.

In addition to the strategy for integrated water resources management, which dates from 1998 and was updated in the recently-approved environment strategy, SDS/ENV has published a book on water quality, and technical papers on the economic appraisal of water quality improvements, and water and sanitation policy issues.

Biodiversity

[www.iadb.org/sds/ENV/site_45_e.htm]

Latin America and the Caribbean have one of the largest concentrations of biodiversity in the world, holding a large percentage (between 27 and 43 percent) of total animal and plant species in the planet. Four of the megabiodiversity countries (Brazil, Colombia, Mexico, and Peru) hold a large share of endemic and endangered species. However, the region's vast natural forests are severely threatened by deforestation, thus reducing the natural wealth and the potential local and global environmental benefits that these natural ecosystems can provide to the region. Current priority areas of action include the development of a framework for Bank action, analysis of sector policies (especially in agriculture and rural development) that affect the protection and sustainable management of forest resources; the generation of innovative approaches to manage tropical forests and curb deforestation; and the adoption of financial mechanisms to support reforestation and agroforestry programs. Biodiversity conservation has also become a major area of concern in the region due to its relevance for the survival of indigenous peoples and for those who depend upon wildland resources. Growing

markets for natural products and the expanding ecotourism industry provide a source of revenue for rural communities and are a potential ingredient for sustainable development strategies. Much biological diversity can be conserved within the boundaries of established protected areas, with adequate management and financing arrangements to ensure effective long-term protection.

SDS/ENV supports biodiversity conservation activities by: (i) exploring new avenues for technical support and investment in biodiversity conservation and rational utilization; (ii) supporting initiatives that link the stewardship of biological resources with the cultural heritage of native peoples; (iii) promoting the development of ecotourism tied to the management of protected areas as an integral component of sustainable development efforts; (iv) integrating biodiversity assessment in project design and execution, and (v) supporting inter-institutional cooperation under the Biodiversity Convention and other conventions and agreements. SDS/ENV also provides broad support for the consolidation of national systems of protected areas, linking the stewardship of biological resources with the cultural heritage of native peoples, and promoting ecotourism and biodiversity conservation as an integral component of development projects.

Renewable Energy

[www.iadb.org/sds/ENV/site_48_e.htm]

Increases in economically effective renewable energy (RE) and energy efficiency (EE) can improve productivity and competitiveness, and promote social development and poverty reduction, as well as reduce environmental pollution. They also offer a diversification of energy options in a time of fuel price stability. Over the longer term, increased RE and EE are critical components of a global effort to reduce threats of climate change. A number of barriers to successful expansion of RE and EE must also be confronted, however, including policy and price distortions and inadequate financing mechanisms. In turn, addressing these problems requires more widely shared knowledge of lessons learned and good practices for RE/EE decisionmakers in the region, as well as support for reducing barriers to an increased number of cost-effective RE and EE projects.

SDS/ENV supports this goal through several lines of activity. The division is leading a regional assessment of economic and financial barriers to increased RE/EE and options for their reduction in Central America. Plans call for expanding the scope of this activity to the entire region. Results of other regional technical cooperation

projects on climate change provide beneficiaries in the region and Bank staff with an increased understanding of how production and sale of greenhouse gas “emission reduction credits” can add economic value to clean energy projects, and on how such value added can be mainstreamed more extensively into Bank activities. The Division is also the IDB’s focal point for the Global Environment Facility (GEF), through which clean energy and energy efficiency projects may be co-financed.

Disaster Prevention and Mitigation

[www.iadb.org/sds/ENV/site_2493_e.htm]

Building on its mandate to promote sustainable development in Latin America and the Caribbean, the Bank helps countries integrate risk reduction into development planning and investments, as well as build a permanent technical and operational capacity to manage risk reduction more effectively. SDS is currently coordinating the preparation of the Bank’s new disaster risk management policy. It has produced various special reports and technical papers in support of proactive disaster risk management, including disaster risk indicators for 12 Latin American and Caribbean countries, analysis of conflict-driven disaster risk management in the region, guidelines to include natural hazard management in the project cycle, a manual to prevent and reduce the impact of natural hazards on microfinance institutions, and an analysis of innovative financial instruments for natural disaster management. It has also produced an action plan for addressing the challenge of natural disasters that identifies six strategic areas for IDB assistance to help countries adopt comprehensive risk management policies: (i) national systems for disaster prevention and response; (ii) inserting prevention into the culture; (iii) reducing the vulnerability of the poor; (iv) involving the private sector; (v) risk information for making decisions; and (vi) fostering leadership and cooperation in the region. This Bank-wide plan is implemented through a coordinated network of 36 disaster focal points within the institution. SDS/ENV also coordinates IDB participation in inter-agency initiatives on disaster management and supports the Natural Disasters Network of the Regional Policy Dialogue, which brings together high-level government officials to discuss critical disaster risk management issues, priorities and actions.

Building Environmental Management Capacities

[www.iadb.org/sds/ENV/site_186_e.htm]

SDS/ENV has been actively engaged in operations and programs involving support for environmental management activities in the region. Many countries, whose institutional capabilities were not up to the challenge of environmental management, received Bank support to strengthen environmental agencies, develop the necessary legislation and management instruments, and introduce monitoring and supervision systems.

SDS/ENV actively supported project teams in these efforts in 14 countries. During the 1990s, several countries (including Bolivia, Colombia, Panama and Peru) received Bank support to establish environmental ministries and develop new environmental legislation. Many other countries received support to strengthen and improve existing environmental agencies and legislation. In order to assess the effectiveness of such institutional strengthening programs, SDS/ENV coordinated a comparative study to identify lessons learned in the development and implementation of such programs. The Division also coordinated a comprehensive evaluation of environmental impact assessment (EIA) methodologies already in place in most countries. The study evaluated the effectiveness of EIA methodologies and identified their strengths and weaknesses. In addition, SDS/ENV organized a number of seminars, training-of-trainers courses and distance (Internet) training courses on the application of EIA methodologies.

Environmental Quality Assurance Process for Bank Operations

Over the years, the Bank has developed systems to ensure that the environmental risks posed by the projects it supports are minimized. The Committee on Environment and Social Impact (CESI) [www.iadb.org/sds/env/publication/publication_183_57_e.htm] was established in 1996 to review the environmental and social viability of all loans and most technical cooperation operations in the Bank's pipeline on a weekly basis.

Depending on their potential impacts, loans may require an environmental impact assessment that will be reviewed by the committee. SDS chairs the Committee and is working to improve and update the CESI's review process and procedures. SDS/ENV also provides support to the CESI in areas such as the preparation of environmental assessment guidance documents and the development of EIA training. This included, for example, assistance to the Micro, Small and Medium Enterprise Division (SDS/MSM) in the development of specific guidelines for environmental and social due diligence for microenterprise operations. SDS/ENV is promoting the use of strategic

environmental assessments as an effective tool to take into account the socioeconomic impacts of integration initiatives in a proactive manner, and to increase their long-term sustainability, and promote successful stakeholder participation throughout program design and implementation stages.

Leveraging Resources and Partnerships

Over the years, SDS/ENV has supported a number of activities to leverage resources and engage the international community, national environmental authorities and other stakeholders in the region, in a process of cooperation and dialogue on environmental issues. Technical cooperation financing and other Bank resources have been used for multi-annual programs to address issues of capacity in order to improve environmental management at the highest decision-making levels. It has also provided access to funding from the international community for technical assistance involving global environmental resources. Specific programs or areas of support include: key partnership programs, facilitating regional cooperation and dialogues on the environment, providing access to global environmental resources, and assessing national and regional performance in achieving environmental objectives.

Key Partnership Programs

SDS/ENV coordinates and manages two key partnerships that contribute to knowledge creation and innovation in environmental management. They are the IDB-Netherlands Partnership Program in Environment (NPPE) and the IDB-Netherlands Water Partnership Program (INWAP) [www.iadb.org/sds/inwap/index.htm]. The NPPE provides strategic support for areas such as environmental management, integrated water resources management, climate change (mitigation and adaptation), and biodiversity and forests. The INWAP's main objectives are to strengthen the Bank's operational capacity in water management, and to bolster the capacity of borrowing countries to address water management needs. The general lines of activity under INWAP include the adoption of integrated and innovative approaches to water management, support for institutional strengthening programs, and capacity building and training activities for Bank staff and government officials in member countries.

Facilitating Regional Cooperation and Dialogue on the Environment

SDS/ENV is part of the Inter-agency Technical Committee (that also includes the United Nations Development Programme, the United Nations Environment

Programme, the World Bank, and the Economic Commission for Latin America and the Caribbean) of the Forum of Environment Ministers, whose main objective is to strengthen its ability to act as a representative body in environmental matters and leverage political support toward the region's environmental agenda. The Bank's actions are in support of a five-year Action Plan adopted by the ministers in 2002. Another initiative supported by SDS/ENV is the Regional Policy Dialogue on the Environment, which was created in 2002 to promote high-level discussions on topics of regional interest. In 2004-2005, the dialogues facilitated the exchange of experiences on trade and the environment, as well as on capacity building priorities.

Accessing Global Environmental Resources

As the Bank's focal point for the Global Environment Facility (GEF), SDS/ENV provides technical assistance to the Regional Operations departments in the design of several operations, including those concerned with biodiversity, land and water protection, and renewable energy. To prepare for the growing number of projects in the GEF pipeline, SDS/ENV helped draft the necessary internal procedures for project review and financial management. In the *climate change* area [www.iadb.org/sds/ENV/site_2492_e.htm], SDS/ENV channels technical cooperation funds to activities designed to strengthen connections between greenhouse gas mitigation and development pressures in the region. Such assessments highlight opportunities to reduce greenhouse gases while increasing energy efficiency, lowering costs, and providing other environmental and social benefits in a wide range of areas, including public transport, solid waste management, forests and renewable energy.

Assessing National and Regional Performance in Achieving Environmental Objectives

[www.iadb.org/sds/ENV/site_393_e.htm]

SDS/ENV is engaged in a regional initiative to assess progress made in achieving the Millennium Development Goals and identify institutional and methodological requirements to assist countries in reaching those goals.

Regional Integration and Positive Linkages Between Trade and the Environment

SDS/ENV is actively involved in a number of initiatives to enhance regional and subregional capacities in the areas of trade and the environment. It has provided

technical expertise to a number of Bank-supported initiatives in the region as well as critical methodological support to projects that are relevant to international trade.

Initiatives to Support Integration, Trade and the Environment

SDS/ENV has provided critical support to regional integration and trade initiatives in the context of the Central American Free Trade Agreement and the Mesoamerican Sustainable Development Initiative, which is part of the Plan Puebla-Panama.

SDS/ENV played a key facilitating role in the Memorandum of Understanding signed by the ministers of environment of the Mesoamerican region and the Plan Puebla-Panama Commissioners in June 2003. SDS/ENV is coordinating three subregional meetings (part of the Regional Policy Dialogue on the environment) that address trade and environmental priorities as well as capacity-building needs.

Environmental Management, Law and Economics

[www.iadb.org/sds/env/site_186_e.htm]

An important function of the Environment Division is to support the efforts of borrowing member countries to strengthen environmental legislation, establish regulations and systems of incentives and disincentives aimed at promoting environmental conservation, and improve the management of institutions responsible for the environment and natural resources. This “good governance” model requires full commitment from government, broad civil society participation, and financial and technical support to be able to achieve positive results. SDS/ENV actively supports capacity building programs in environmental management, as well as the development of policy instruments that rely on public/private partnership. In addition to improving the quality of environmental management operations, this also provides Bank staff with a practical set of internally consistent options that can be evaluated and implemented at the project or program level. Work in this area has included the publication of papers on topics such as the economic analysis of solid waste disposal alternatives, policy tools, environmental management and regulations, and the use of contingent valuation models for project analysis.

THE RURAL DEVELOPMENT UNIT (SDS/RUR)

[www.iadb.org/sds/ENV/site_47_e.htm]

SDS/RUR works in areas of particular importance in the rural development agenda, which include: the consolidation of public policy reforms, modernization of the State,

the development of land and financial markets, the sustainable use of natural resources, strengthening human resources, and infrastructure development. SDS/RUR assists in the preparation, execution and evaluation of rural development programs, creates and disseminates knowledge, coordinates the development of strategies and policies dealing with rural development issues, and provides support for the development of a regional interagency agenda for rural development. In addition, SDS/RUR has published books on rural finance, sustainable use of natural resources and access to land, and the relationship between agriculture, environment and poverty. Technical reports included topics such as agricultural research and biotechnology, institutional development in the agriculture sector, access to land, land markets and rural finance.

Rural Development and Agriculture

[www.iadb.org/sds/ENV/site_47_e.htm]

Rural development is defined in a broad, territorial and multi-sector sense, and it includes many complementary activities such as: an increase in the competitiveness of food production systems, rural social development, sustainable natural resource management, institutional reform, and regional and subregional economic integration. Rural development can contribute to economic growth and also to greater equity. For this reason, it is of vital importance to modernize the food and agriculture sectors, as part of a regional effort to increase rural competitiveness. It is also essential to recognize alternatives to reduce rural poverty, like the promotion of agricultural and nonagricultural rural activities, and the creation of social networks for those segments of the population that are not able to migrate.

SDS/RUR work in this area included the development of three strategies, dealing with rural poverty, agricultural development, and rural finance. These are currently being updated and consolidated into one rural development strategy, as well as an operational policy.

The Regional Fund for Agricultural Technology (FONTAGRO)

[www.iadb.org/sds/ENV/site_5080_e.htm]

FONTAGRO has been financing agricultural research and technology transfer in the region since 1998. The fund uses the earnings from an endowment fund of approximately US\$34 million to make grant awards to winning proposals from researchers and institutes in the region through a biannual competition. Many of the research projects supported are innovative and promise to raise productivity and

enhance environmental protection. The program encourages collaboration across national boundaries between agricultural research institutes, and also promotes the involvement of private companies to maximize spillover effects and ensure that project results are in demand and easy to commercialize.

THE CHALLENGES AHEAD

The region faces three major environmental challenges in the years ahead: promoting environmental sustainability; strengthening environmental governance; and enhancing policy integration and the development of an appropriate incentive framework to ensure that the environment is taken into consideration in all policy decisions.

Environmental sustainability is instrumental to various other regional and national goals, including promoting social development, reducing poverty, improving competitiveness and productivity, and encouraging regional integration and trade. Improvements in these areas create virtuous feedback loops that reinforce each other. Thus, improved competitiveness and increased trade boost economic growth, which helps further social development and reduce poverty, all of which can be important to improving environmental sustainability. Gains in competitiveness and productivity will be sustainable only if they are based on preserving and improving the natural resource base, given that the comparative advantage of many countries in the region lies in their rich natural resources. As a result, priority should be given to enhancing the productive value of natural resources and their environmental function and services, facilitating investments, developing markets for environmental services, promoting private sector participation in activities related to the environment, and tapping global and regional environmental markets.

Regional integration and trade pose specific challenges to environmental sustainability. In order to deal with them, regional institutions should be strengthened to effectively address and coordinate issues of environmental management, including regional investments, free trade negotiations, implementation of agreements, and harmonization of key environmental standard and procedures. Of similar importance is promoting regional sustainable development initiatives in critical transboundary areas, particularly in watersheds, biological corridors and areas high in biological diversity. Adopting sound strategic environmental impact assessment processes to guarantee the economic, social and environmental viability of large regional infrastructure projects is also essential.

Most of the environmental problems in the region are rooted in human activities and behavior that respond to distorted incentives. The region has depended on natural resource extraction as the basis of much of its economic development; yet, little or no economic value has been assigned to natural resources and the environment. As a result, public and private investment, often led by short-term financial and rent-seeking considerations, have led a process of continuous environmental deterioration, with little or no provisions for managing and conserving natural capital. Hence, at the core of the environmental problems of the region are pervasive market failures that distort asset investment choices and resource allocation to the detriment of natural capital.

Environmental degradation has a proportionately higher impact on the poor regardless of where they live. As a result, efforts to promote environmental sustainability can contribute to reducing poverty and increasing the overall quality of life. These efforts affect social development and poverty through various channels. Investments in environmental improvements and natural resource preservation create jobs and increase incomes. The quality of life is improved by addressing health concerns that are rooted in substandard water, air and soil quality. Finally, addressing issues of environmental sustainability can reduce the physical vulnerability to natural disasters and environmental risks that also have a disproportionate impact on poor communities.

Despite substantial progress, *environmental governance* (the development of environmental legislation and institutions) remains a challenge in the region. Governments have relatively little capacity to develop and sustain credible environmental institutions, and enact and enforce effective laws and regulations. In its broad definition, environmental governance is the process that links and harmonizes policies, institutions, procedures, tools, and information to make it possible for local communities, NGOs, and private and public sector agents to make fundamental decisions, manage conflicts, seek consensus, and be accountable for their actions. It is based on clear public and private responsibilities, respect for and compliance with laws, and local empowerment. Without strong environmental governance, the additional pressures associated with increased infrastructure investment, trade liberalization and regional integration will exacerbate the serious environmental problems that the region already faces.

Environmental sustainability cannot be isolated from the national processes of modernization of the State. It is important that the countries of the region develop and consolidate a framework for environmental management that is transparent and

participatory, and that will lead to strengthening institutions and civil society participation; strengthening regulatory frameworks; and developing effective environmental management instruments. The most fundamental challenges in the region today are centered around the need to strengthen functions for monitoring, oversight, compliance and conflict resolution; setting clear norms, standards, procedures and guidelines to enhance the environmental quality of public and private investments; developing effective instruments for environmental management, including *incentive and market-based instruments*; and improving access to environmental information at all levels to facilitate decision making and governance.