

Responding to Climate Change in Latin America and the Caribbean

The Role of the Inter-American Development Bank (IDB)

Climate change represents a serious challenge to the sustainability of development in Latin America and the Caribbean. While its exact nature may not be fully understood, the countries of the region have participated actively in the efforts of the international community to shape new approaches to meet this global threat. As the region's leading multilateral lending institution, the Inter-American Development Bank stands ready to work in partnership with the countries of the region to address the critical issues posed by these emerging global trends. The IDB's Action Plan on Climate Change rests on a critical analysis of the impacts that climate change may have on the region, the sources of the region's emissions of greenhouse gases, and the special role the Bank can play in the pursuit of sustainable development in Latin America and the Caribbean.



Potential Negative Impacts of Climate Change in Latin America and the Caribbean

Although climate change might have some positive impacts, the negative impacts in Latin America and the Caribbean (LAC) are likely to be substantially higher. According to the Inter-Governmental Panel on Climate Change (IPCC), these include:

- ▶ **A Higher Frequency of Extreme Local Weather**—the disasters that occurred recently in Central America (with Hurricane Mitch) and the floods in Venezuela illustrate the tragic loss of life and property that could result from a higher frequency of such phenomena.
- ▶ **Sea Level Rise**—projected rises of 15 to 95 cm would disrupt infrastructure and economic production, contaminate aquifers, and exacerbate coastal erosion problems, with the island nations of the Caribbean being particularly hard-hit.
- ▶ **Changes in Natural Habitat**—the range of global warming anticipated could effectively yield a poleward shift of temperature zones 150 to 550 kilometers, resulting in the disappearance of entire forest types and their associated biodiversity from this region.
- ▶ **Changes in Water Supplies**—changes in precipitation patterns are expected to occur, leading to changes in water supply, with some areas experiencing greater stress in water supplies, especially the arid and semi-arid areas of the region.
- ▶ **Stress on Agriculture**—changes in precipitation patterns, temperatures and other climatic factors are likely to disrupt the established patterns of agriculture for a region that depends substantially on agriculture for its food supply, and economic growth.
- ▶ **Threats to Human Health**—higher temperatures would result in a rise in heat mortality and an expansion southward and to higher altitudes of insect-borne diseases such as malaria and dengue and infectious diseases such as cholera, particularly for poor and chronically malnourished populations.



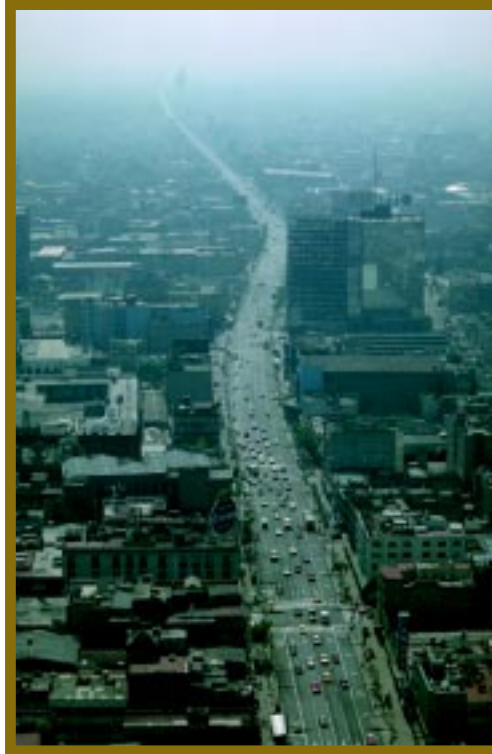
Latin America and the Caribbean: Greenhouse Gases

Presently, most human-produced greenhouse gas emissions come from industrialized nations, the East European countries, and the members of the former Soviet Union. These countries accounted for about 75 percent of the global fossil-fuel-produced carbon dioxide emissions in 1990, according to the IPCC.

Fossil Fuel Use— The role of Latin America and the Caribbean in greenhouse gas emissions from the use of fossil fuels is much less—only about 5 percent in 1995. The main source of these emissions is the transportation sector (37 percent) followed by the industrial sector (19 percent). The International Energy Agency (IEA) projects that LAC contributions to fossil fuel-based CO₂ emissions will grow to 6.5% of the global total by 2020.

For Latin America and the Caribbean, energy is a vital element in the economic development of the region and will continue to grow in the years ahead. Spurred by economic development and population growth, the demand for energy in the region has been increasing at rates above those of the OECD countries in recent years. The impacts of this growth on fossil fuel-based CO₂ emissions in the future depend on several factors:

- ▶ **The Role for Hydroelectric Power**—Hydroelectricity is expected to decline in its dominant role in the region. Current projections indicate that hydropower will fall as a percentage of total installed power capacity for LAC from 62 percent in 1996 to 58 percent in 2006.
- ▶ **The Role for Natural Gas**—The use of natural gas in LAC is on the rise because of its relative cleanliness as a fossil fuel, deregulation of power and fuel markets, and regional economic integration.
- ▶ **The Role for Transportation**—One of the most rapidly growing sectors, producing a plethora of problems, solutions to which are beginning to emerge, including good public transportation and the use of cleaner fuels.
- ▶ **The Role for Energy Efficiency and Renewable Energy**—With energy reforms proceeding across the LAC region, economic barriers to energy efficiency and renewable energy are beginning to fall.



Land-Use Changes—While information on human-generated greenhouse gas emissions from land-use changes is less complete, LAC countries may have a more substantial global role, potentially being one of the larger producers of such emissions from such activities as deforestation and agricultural conversion. With a substantial fraction of the world’s temperate and tropical forests in LAC, many of the countries of the region have begun to act to limit the loss of their forests and other adverse land-use changes, hence emissions may decrease in the future.



The Region's Bank

The Inter-American Development Bank (IDB) was created in 1959 to meet the developmental needs and challenges of its member countries in Latin America and the Caribbean. Over the years, the Bank has expanded the services it offers to its member countries in order to meet the evolving development needs of the region. Since its founding, the IDB Group has mobilized financing for projects that represent a total investment of \$240 billion; annual lending has grown from \$294 million in 1961 to \$9.5 billion in 1999. The Bank offers a range of lending, technical assistance and other services that countries may draw upon, and also enjoys a number of comparative advantages in the region that make it an especially strong partner to address issues such as climate change.

Financial and Non-Financial Services

- ▶ **Public Sector Loans**—The Bank's operations are overwhelmingly in its public sector lending program. In recent years, the Bank has emphasized strengthening the productive sector, infrastructure development, poverty reduction and modernization of the state. In addition to infrastructure loans, the types of lending proffered by the Bank include loans for fostering micro- and small and medium enterprises; strengthening science and technology; urban and municipal development; environmental mitigation and protection; fast-disbursing relief to respond to emergency situations, either economic or prompted by physical disasters; and sector adjustment loans to support institutional and policy changes at the sectoral level.
- ▶ **Private Sector Loans**—Through its Private Sector Department (PRI), the Bank can offer loans and loan guarantees to the private sector in response to the reform activities of the region to increase private sector participation in providing basic services such as energy, transportation, and sanitation.
- ▶ **Technical Assistance**—The Bank's technical assistance helps member countries prepare, finance and carry out national or regional development plans and projects, and train development specialists. Technical assistance may be provided through grants, reimbursable loans, or contingent-recovery funds. In addition, the Bank offers a range of non-lending services to provide technical and policy advice for its members as they face specific development challenges. These include policy analysis, research, conferences and fora to address important issues, and assessments of best practices across a variety of sectors.
- ▶ **Inter-American Investment Corporation (IIC)**—The IIC was created in 1989 to provide finance directly to private sector entities in the LAC region, preferably small- and medium-sized. Since no governmental involvement is required in IIC's operations, its governing structure is different than that of the IDB, although it is co-housed and coordinates its investment decisions with the IDB. IIC financing may include direct loans, direct equity investments, lines of credit to local financial intermediaries, and investments in local and regional venture capital funds.
- ▶ **Multilateral Investment Fund (MIF)**—The MIF was established in 1993 with a complementary set of tools to that of the PRI and IIC. It provides grant and investment fund resources, with a special emphasis on small and medium enterprises. Priorities include technical cooperation to assist in the modernization of the financial regulatory and public sector framework for a competitive private sector; related human resource development; and small enterprise development through NGOs, government agencies and industry associations, including the development of related equity funds. The MIF has played a key role in funding energy efficiency and renewable projects in the region and has launched five special environmental equity funds and a new fund on Clean Technology.

The Bank's Comparative Advantage

The IDB enjoys a comparative advantage in meeting new development challenges to the LAC region. The elements contributing to that advantage include:

- ▶ **Major Lender to the Region**—the IDB is the main source of multilateral development bank financing for the LAC region, investing in all of the key development sectors for the region.
- ▶ **Knowledge of and Presence in the Region**—a combination of the IDB's governance structure in which borrowing member countries control a majority voting share, recruitment of IDB staff from the region, and the presence of IDB offices in each of its borrowing countries provides the institution with a distinct advantage in understanding its member countries and their problems.
- ▶ **Persistence and Responsiveness**—with its ongoing presence in the region and substantial institutional stability, the IDB provides continuity over time in the pursuit of its objectives, a critical component in supporting public policy development of its member countries. The Bank places special importance on being responsive to its member countries' needs and being willing to join them in tackling new problems.



- ▶ **Multilateral Character**—through its multilateral governance structure, the Bank is uniquely positioned to be a focal point for international cooperation to support development for LAC; the Bank has repeatedly assumed this role in gaining regional consensus on strategies to meet new problems (e.g., recovery from Hurricane Mitch, debt forgiveness for the poorest countries) and coordinating resulting international assistance efforts.
- ▶ **Broad Range of Instruments to Provide Support**—the broad range of lending and non-lending instruments used by the IDB Group provides it with the flexibility to meet new challenges as they arise; moreover, when new instruments are needed, the Bank has demonstrated it can and will add them to its portfolio.
- ▶ **Research Network to Strengthen LAC Capacity**—since 1991, the Bank has had in operation a Research Network throughout LAC, now numbering 240 institutions, to strengthen policy formulation throughout the region in response to new challenges.



An IDB Action Plan on Climate Change

Recognizing the new developmental challenges posed to Latin America and the Caribbean, the IDB, in collaboration with its member countries, has developed an Action Plan on Climate Change that is built upon these comparative advantages and instruments and seeks to be flexible so as to be able to respond to the evolving needs of its member countries. Moreover, the Action Plan seeks to complement, rather than compete with, the activities of other institutions working on climate change in LAC.

The principal components of the Action Plan are:

1. Finance Mitigation and Adaptation Projects

▶ **Develop Mitigation Investment Projects**—Many of the best mitigation opportunities for greenhouse gases in LAC are “no-regrets” in nature. They are cost-effective and yield other benefits ranging from greater economic productivity to lower levels of local air pollution to rural development. As a result, they have been identified as priorities in the IDB’s strategies and best practices for the energy, agriculture, and forestry sectors. Barriers that have hindered the development of projects in these priority areas include their innovativeness, the limited experience policymakers have had with them, and limited private sector involvement. To address these barriers, the Bank has supported an internal unit, the Sustainable Markets for Sustainable Energy (SMSE) Program since 1998, to work with



the operational departments of the Bank in developing energy efficiency, renewable energy, and clean urban transportation projects, all of which have greenhouse gas mitigation benefits. In so doing, a pipeline of clean energy and urban transportation projects has begun to emerge. The Bank is continuing this support to its operational departments in clean energy and transportation, and, building upon the SMSE model, plans to expand its activities to include other “no-regrets” projects, including in waste disposal, and land-use and forestry degradation.

- ▶ **Support the Adaptation Needs of LAC Countries**—The adaptation challenges facing LAC countries fall into two categories: reducing vulnerabilities to potentially catastrophic events (such as hurricanes or floods), whose frequency is expected to increase as a result of climate change; and adopting responses to more gradual non-catastrophic changes that nevertheless can have a deleterious impact on key sectors of LAC economies. With regard to the first category, the Bank is already implementing an action plan on disaster response to reduce the sources of vulnerability in catastrophic events. A new policy on Natural and Unexpected Disasters was adopted in 1998 and an Action Plan for Disaster Prevention and Mitigation was launched in 2000, which includes the creation of a new financing facility for prevention and mitigation activities. As more information emerges about the specific localized impacts of climate change on the LAC region, the geographic areas at risk will be targeted for assistance in developing and implementing sustainable development strategies for disaster prevention. With regard to the category of gradual non-catastrophic impacts, the Bank has initiated a program of assess-



ing what such impacts are likely to be for the most at-risk areas of the region, as well as appropriate responses. In an initial activity in partnership with UNDP, the IDB will work with the Caribbean Island nations, whose reliance on tourism for economic growth could be adversely impacted by climate change.

- ▶ **Deliver a Pipeline of Climate Change Projects with the Global Environment Facility (GEF)**—With a new relationship with the Global Environment Facility that enables the IDB to access GEF resources directly, the Bank has initiated a Bank-wide effort to develop GEF projects as part of investment operations. A substantial component of this effort is in developing climate change projects. Already, at least one project in the urban transportation sector is under development.

2. Foster the Region's Knowledge and Capacity in Climate Change

- ▶ **Build the Capacity for Climate Change Policymaking through the Research Network**—Resources have already been allocated to support policy studies on the Clean Development Mechanism through the Bank's Research Network. Future areas of focus through the Research Network will address mitigation and adaptation policies and strategies.
- ▶ **Support Policy Maker Meetings on Climate Change**—Continuing an activity the Bank initiated in 1998, the Bank will support regional fora on climate change, involving a range of stakeholders from national and local governments, private companies and NGOs. Through its membership on a special Inter-Agency Committee which includes UNEP, UNDP, ECLAC, and the World Bank, the IDB is committed to support the Forum of Ministers of the Environment of Latin America and the Caribbean which has placed addressing climate change among its top priorities. The Bank is well positioned to help convene policy makers to address critical issues of mutual concern.
- ▶ **Foster Country Capacity to Meet Obligations and Opportunities under the UNFCCC**—Working with internal donor resources as well as external donors, the Bank will support interested LAC member countries in



building their capacity. Activities will include support for national strategy studies and the development of inventories of greenhouse gas emissions.

3. Mainstream Climate Change into the Bank's Activities and Develop Strategic Partnerships

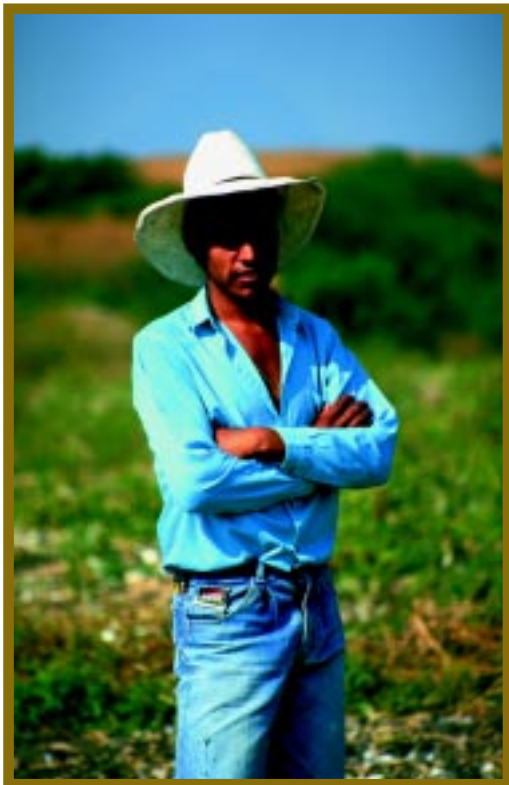
▶ **Adapt IDB's Existing Strategies and Good Practices**—The IDB is in the process of updating its strategic vision of its role and activities, recognizing both the progress made in LAC during the past 40 years of the Bank's existence and the new challenges facing the region. As part of this process, the challenges and opportunities raised by climate change are being incorporated into the revisions being made to the Bank's existing sectoral strategies, which guide lending priorities. Among the sector strategies that are being assessed in this context are those for energy, transportation, water resources, forestry and biodiversity, sustainable agriculture and rural development, coastal and marine resources management, and environmental resources management.



▶ **Internal Knowledge Building**—In order to be effective in responding to the needs of its member countries, IDB has initiated an ongoing process of regular discussions, training seminars and periodic workshops to train Bank staff about climate change, and mitigation and adaptation strategies and methodologies.

▶ **Build New Strategic Partnerships**—The Bank is pursuing the development of new strategic partnerships to mobilize needed grant and human resources. In October 2000, the Hemispheric Sustainable Energy and Transportation (HSET) Funds were initiated to support project development of energy efficiency, renewable energy, and clean urban transportation projects, with an initial donation from the U.S. Department of Energy. The HSET Funds are structured as a family of funds to encourage the entry of partners from other member countries as well. In addition, the Bank is in the final stages of concluding an agreement with the Ministry of Foreign Affairs of the Netherlands to establish a Partnership Program in Environment, which will include climate change activities, and may also work with the Ministry of Environment on emission reduction activities. Early in 2000, the IDB and the World Meteorological Organization signed a memorandum of understanding which will enable the Bank to draw on WMO technical staff with climate change expertise. As mentioned above, the Bank is also in partnership with UNDP and UNEP on climate change-related activities. All these strategic alliances offer additional support to Latin America and the Caribbean on this vital global issue.

The Bank's Action Plan on Climate Change seeks to forge a partnership with Latin America and the Caribbean to face this challenge to sustainable development. Through concerted action with governments, the private sector, and civil society, the IDB can make a vital contribution to the region's actions to respond to these global changes.



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