

## X. Ensuring Environmental Sustainability

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## X. ENSURING ENVIRONMENTAL SUSTAINABILITY <sup>1</sup>

The scope of the environmental sustainability goals in Latin America and the Caribbean presents a great challenge. With a population of 523 million inhabitants (2001) that is growing faster than the world average (1.6 percent vs. 1.4 percent for the world during the 1990-2001 period) the region is experiencing increasing pressure on its natural resources.<sup>2</sup> Trend indicators point to a very serious deterioration of the environment and depreciation of natural capital, which has significant impacts on health, declining productivity and income, physical vulnerability and deterioration of the quality of life. The main demands that the region is facing in terms of the environment have been amply documented in various regional sources.<sup>3</sup> They point out that while the region has indeed devoted considerable efforts to reducing environmental pressures, governments, the private sector, and civil society must intensify their actions to attenuate the negative effects of development and reverse the degradation of the environment.

### BOX 1. TARGETS OF THE ENVIRONMENTAL SUSTAINABILITY GOAL

Targets	Indicators
<p><i>Target 9:</i> Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources.</p>	<ul style="list-style-type: none"> <li>• Proportion of land covered by forests</li> <li>• Lands protected to maintain biological diversity</li> <li>• GDP per unit of energy use as approximation of energy efficiency</li> <li>• Carbon dioxide emissions per capita.</li> </ul>
<p><i>Target 10:</i> Halve by 2015 the proportion of people without sustainable access to safe drinking water and sanitation.</p>	<ul style="list-style-type: none"> <li>• Proportion of population with sustainable access to an improved source of drinking water</li> <li>• Proportion of people with access to improved sanitation facilities.</li> </ul>
<p><i>Target 11:</i> By 2020 to have achieved a significant improvement in the lives of at least 100 million slum dwellers.</p>	<ul style="list-style-type: none"> <li>• Proportion of people with access to secure housing.</li> </ul>

1. David Wilk, Kari Keipi, Michael Toman, Diego Rodríguez, Ricardo Quiroga, Eduardo Rojas and José Brakarz contributed to this report. Technical assistance was provided by Felipe Albertani and Michael Pollan.  
2. World Bank, World Development Report, 2003.  
3. UNDP, UNEP, World Bank, WRI: World Resources 2002-2004; World Bank, The Little Green Book, 2003; IDB/WRI, Environmental Indicators on Selected Subjects in Latin America and the Caribbean, 2002; WRI, UNEP, UNDP and World Bank: World Resources 1998-1999; UNEP/BDRM: Database on World Resources, 2000; UNEP: Geo Report for Latin America and the Caribbean – Environment Outlook 2000; World Development Indicators, 2000 CD-ROM; WRI, Earthtrends, 2002.

The environmental sustainability objectives contained in the Millennium Development Goals (MDGs) are grouped under three major targets (see box 1) that, taken together, represent a package of commitments assumed by countries on the environment.

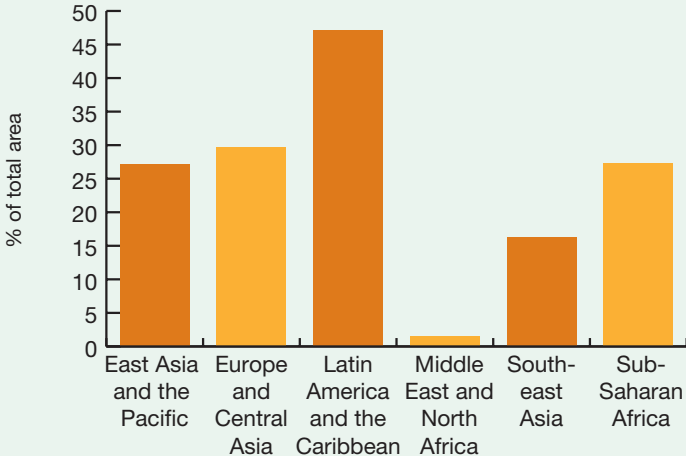
Achieving these targets and goals must be set within the efforts that the region is making in the area of poverty reduction and social development, given the close ties between poverty levels, deteriorating natural resources, and environmental quality. Hence, investments in human capital and social development combined with appropriate investments in the natural heritage must be part of the formula for raising productivity, income, and social welfare.

### 1. PROTECTION OF FORESTS AND BIOLOGICAL DIVERSITY (TARGET 9)

#### Background and Challenges

Latin America and the Caribbean are in an outstanding position with regard to forest cover and the proportion of lands protected to maintain biological diversity. The proportion of land area covered by forests in the region is 47 percent, more (proportionally) than in the rest of the world's regions (see figure 1). The region has an extension of 960 million hectares of forest, which represents a fourth of forest areas and half of tropical forests worldwide. The region's biological diversity is noteworthy, since it has approximately 85,000 species, which represent 31 percent of total species worldwide, and it contains a greater variety of trees, shrubs, and other plants than any other continent.

FIGURE 1. LAND AREA COVERED BY FORESTS (PERCENT OF TOTAL)



Source: World Bank, 2003. The Little Green Book.

Despite this wealth in extensive forests and species diversity, each year Latin America and the Caribbean lose 4.6 million hectares of forest, or the equivalent of 0.5 percent of the total surface (FAO). Deforestation, defined as the conversion of forestlands to other uses, is caused primarily by the advance of the agricultural frontier, the development of productive activities (mining, for example) and infrastructure development. Commercial logging and firewood gathering are also factors that degrade forest cover and impact natural ecosystems where communities live.

The countries of Central America and the Caribbean have the highest deforestation rates (over 1 percent a year for the 1990-2000 period). This process has a great impact due to the small size of these countries and hence their high vulnerability (see table 1). In countries like Haiti and El Salvador, which have small forest areas (covering only 6 percent of the total surface), rapid annual deforestation (5.7 and 4.6 percent, respectively) represents a serious threat to the preservation of native species. In countries where coverage is still extensive (ranging from 27 percent of forest cover in Guatemala and Nicaragua to around 60 percent in Belize), high rates of deforestation mean great losses of forest resources and natural habitat for many species, soil degradation, impacts on hydrogeological systems, and loss of economic opportunities from forest activity. Within this group of countries, the country where annual forest destruction is greatest (over 6,000 km<sup>2</sup> or 0.6 million hectares) is Mexico, which has extensive forests (around 30 percent of its territory) but also a high annual deforestation rate (1.1 percent per year).

**TABLE 1.**  
**COUNTRIES WITH THE HIGHEST RATES OF DEFORESTATION IN THE REGION**

<b>Country</b>	<b>Forest Area (000 km<sup>2</sup>) 2002</b>	<b>Forest Area (percent of total)</b>	<b>Annual Rate of Deforestation 1990-2000</b>	<b>Annual Area Deforested (000 km<sup>2</sup>)</b>
Haiti	1	3.0	5.7	0.06
El Salvador	1	5.8	4.6	0.05
Nicaragua	33	27.0	3.0	0.99
Belize	13	59.1	2.3	0.30
Guatemala	29	26.3	1.7	0.49
Panama	29	38.6	1.6	0.46
Jamaica	3	30.0	1.5	0.05
Ecuador	106	38.1	1.2	1.27
Mexico	552	28.9	1.1	6.07
Honduras	54	48.1	1.0	0.54

Source: World Bank, 2003. The Little Green Book, 2003

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In South America and the region as a whole, the country with greatest annual loss of forest (21,000 km<sup>2</sup> or 2.1 million hectares) is Brazil. It alone accounts for around 50 percent of total forest loss in the region (4.4 million hectares).

Estimates of the surface area of tree plantations in the region range from 10 million to 11.8 million hectares, or only 1.2 percent of the total extent of forest. While most of the firewood, non-lumber products, and environmental benefits come from natural forest areas, over half of the lumber is produced on plantations. In many cases the plantation-based tree farms offer the greatest economic potential in the forestry industry. Almost all of them were established on eroded farmlands that were abandoned or low yielding.

The governments of the region are facing major challenges in the area of forest conservation. First, policies and institutional support mechanisms must be in place so that sustainable forest management and forest protection can compete with other potential uses such as agriculture and cattle raising. Second, forest operations must become more competitive on international markets, and that requires revising trade policies that place prohibitions on exports and tariffs applied to the industry. Third, investment must be promoted in sustainable forest management and reforestation. Finally, secure land tenure must be provided in order to control open access to forests and prevent deforestation.

Taking the economic value of forests as a central premise, and based on the many goods and services that the forests can provide, a balance between forest preservation and economic development can be regarded as a feasible objective. To reach this objective the public and private sectors must work together, fostering resource conservation and the development of tools to improve production in a sustainable manner, such as ecological certification and the commercialization of environmentally “benign” products. Work must continue to be done to set up innovative financial mechanisms for investing in the production of traditionally tradable goods and for providing ecological services.

A conservative calculation of the potential for forest financing in Latin America and the Caribbean is around US\$2 billion a year (to 2010).<sup>4</sup> Most of it would be devoted to the management of natural forest and conservation, primarily through self-financing by countries; tree plantations, however, would require more external financing. The conditions for attracting investment in sustainable forest management include: political and macroeconomic stability, access to land and secure property rights, an effective and adequate regulatory framework, a clear forest policy (defined in consultation with interested parties), and participatory decision-making policies in carrying out policies.

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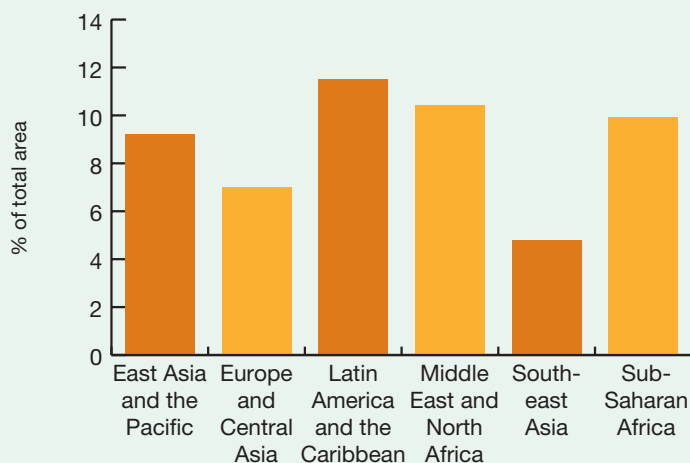
4. M. Simula, J. Salmi, Esa Puustjarvi. 2002. Forest Financing in Latin America: The Role of the Inter-American Development Bank. Sustainable Development Department Technical Papers Series (ENV-138). Inter-American Development Bank.

One of the main obstacles or disincentives to the implementation of forest programs is uncertainty in land tenure. Insecure tenure (lack of ownership titles or precise property boundaries) hinders or prevents transfer of ownership rights (by inheritance or commercial transaction), affecting the value of land and seriously limiting access to bank credits or government-initiated programs. Likewise, the lack of clear property rights hinders the solution of problems of illegal appropriation of public lands by private interests.

The region is the focus of worldwide attention in terms of the protection of biodiversity. Although it occupies only 16 percent of the earth's surface and less than a tenth of the human population live there, Latin America and the Caribbean are home to 27 percent of the world's known mammal species, 37 percent of reptile species, 43 percent of bird species, 47 percent of amphibious species, and 34 percent of known flowering plants. Protected areas cover a surface of 230 million hectares, or 11.5 percent of the region's total surface (see figure 2).

This wealth of species notwithstanding, many countries in the region with megabiodiversity are also the scene of the greatest losses of species in danger of extinction in the world.

**FIGURE 2. PROTECTED AREA TO MAINTAIN BIODIVERSITY (% OF TOTAL AREA)**



Source: World Bank, 2003. The Little Green Book, 2003

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Table 2, which shows the endemic and threatened species in four countries with vast biodiversity (Mexico, Brazil, Colombia and Peru), reflects revealing conditions about the unique value and vulnerability of their animal and vegetable species. The four countries have between 360 and 490 species of mammals each, of which between 9 percent and 29 percent are endemic, and between 10 percent and 17 percent are threatened or endangered. Of the 1,500 to 1,700 bird species in each of the three South American countries (Brazil, Colombia and Peru), 8 percent are endemic, and between 4 and 7 percent are in danger of extinction. There are over 50,000 higher species of plants (not including angiosperms or ferns) in both Brazil and Colombia, 26,000 in Mexico and 18,000 in Peru. The highest rates of endemic species are in Mexico (48 percent), followed by Peru (29 percent). The percentage of threatened plants varies from 0.8 percent (Colombia) to 3.6 percent (Peru).

Establishing protected natural areas is a crucial means of protecting biodiversity that has been used intensively in the last decade. Nevertheless, many flaws and deficiencies in the management of such areas remain to be overcome. It is acknowledged that the countries of the region must improve their practices for protecting biological diversity by introducing innovative financing mechanisms, new technical assistance programs and strategic partnerships to encourage active participation by communities, civil society, and the private sector in the design and management of their protected areas.<sup>5</sup>

**TABLE 2.**  
**ENDEMIC AND THREATENED SPECIES IN COUNTRIES WITH MEGABIODIVERSITY**

Country	Mammals				Birds				Plants			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
<b>Mexico</b>	491	140	64	13	772	92	36	5	26,071	12,500	911	3.5
<b>Brazil</b>	417	119	71	17	1,500	185	103	7	56,215	N.A.	251	1.3
<b>Colombia</b>	359	34	35	10	1,700	67	64	4	51,220	1,500	429	0.8
<b>Peru</b>	460	49	46	10	1,541	112	64	4	18,245	5,356	653	3.6

- (1) Number of Species
- (2) Endemic Species
- (3) Threatened Species
- (4) Percent of Threatened Species

Source: IDB/World Resources Institute (WRI): World Resources 2002. Washington D.C., 2002.

5. Some relevant documents in the area of financing include: R. Bayon, J. Lovink and W. Veening, Financing Biodiversity Conservation, Technical Document, IDB, 2000; and IDB, SDS/ENV: Investing in Biological Diversity Conservation, IDB, 1998.

The sustainability of natural protected areas depends largely on the political support needed to deal with the difficulties of design and implementation. Protecting natural areas may generate political costs that many governments are unwilling to face for various reasons. First, the economic sustainability of protected natural areas is difficult to prove. Although the benefits generated by these areas have now been documented (economic value of biodiversity, carbon markets, and other environmental services) they have not yet been internalized in making decisions to harness the desired benefits in a practical way. Second, setting up protected natural areas has major implications for the local population, such as physical relocation, and/or economic compensation of the communities living in the reserve areas. Some measures for reducing conflicts include compensating the people displaced when their property rights are affected, developing income-generating activities in adjacent areas, or community participation in the incomes generated by natural park entrance fees. In implementing such mitigating measures, governments face political risks, the economic burden of direct compensation, high transaction costs, and difficulties in implementation. Third, establishing protected natural areas may require major cooperation with national and international nongovernmental organizations (NGOs), which may be perceived as undermining government authority. Given the lack of national resources for conservation and the availability of resources from the international community through NGOs involved in these activities, the result is quasi-privatizing financing programs that concentrate a large portion of decision-making and control over financial resources in the hands of the NGOs. In many instances, the NGOs have insisted on taking control of program implementation, without creating the necessary ties to and collaboration with governments that would allow for greater integration with the national policy on natural resource conservation.

Valuing environmental goods, such as hydrological resources in watersheds and charges applied to the use of water has proven to be a significant tool in preserving biodiversity. The use of certain monitoring tools at the project design stage, such as checklists, has been shown to be effective for setting up warning systems to respond to threats in a timely way and for taking steps to avoid (or at least mitigate) damages. The experience of other bodies, such as the UICN or other environmental NGOs could be utilized for that purpose.

Finally, financial service entities and venture capital companies can become major allies in the successful development of a regional sector of biodiversity-based companies. Partnering with such entities and companies could offer management experience and cofinancing of such activities, as well as facilitate technology transfer to the region.

### ***IDB Strategies, Policies, and Programs***

In order to confront the needs entailed in sustainable forest management in the region, the Bank is supporting forest projects or components in investment programs along the following lines:

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- *Commercial production projects in the private sector*, both in the management of natural forests and plantations. The result is generally getting lumber products from the forest, but also the development of environmental products and services, including ecotourism. These projects follow environmental sustainability criteria, promoting the protection of the rights of indigenous populations and attention to social priorities.
- *Social projects*, which include tools for poverty alleviation and social equality by generating income and employment in forest management and production systems with small farm entrepreneurs (agroforestry and silvipastoral systems).
- *Environmental forest projects*, the main purpose of which is to provide public goods through the environmental services provided by forests. These include activities such as watershed protection, biodiversity preservation, carbon fixing, and the benefits that can be derived from such services globally, regionally, nationally, or locally.

In the area of biodiversity, the Bank has facilitated access to resources for the conservation or improvement of biodiversity through many infrastructure or environmental programs. For example, in Brazil, 45 percent of IDB-supported investment in the country's protected areas was done through conservation components in infrastructure and tourism programs, 34 percent within environmental loans, 12 percent within technical aid or various donations, and 9 percent through the National Environmental Fund. A total of 126 protected areas in Brazil have received financing from the IDB in the last ten years, benefiting 25 out of the 27 states in the country.

Quantifying the financing of biodiversity conservation and protected areas is inherently difficult because most such financing takes place through loans and technical cooperation agreements in many subsectors, which contain components of investments in protected areas that are not counted under the heading of biodiversity protection, such as watershed management, transportation and tourism programs.

IDB assistance for forests and biodiversity preservation is distributed into various financial and nonfinancial operations portfolios. As described previously, actions in the area of forestry and protection of natural areas are part of various types of programs, including forest management programs, natural resource management programs, rural development projects, and tourism industry operations, to mention the most important. In the forestry area as such, annual financing remains within a US\$20 to US\$40 million range. In recent years, this includes two operations in Nicaragua and Honduras (for a total of around US\$52 million), and technical cooperations in nine countries, some of which are regional in scope. The Bank is engaged in eight resource management operations (for a total of US\$176 million), concentrated in Central America, Brazil, and Ecuador, which have specific forest management or conservation components (see examples in box 2). In the environmental and tourism sector, the Bank is carrying out 18 operations in eight countries (totaling

US\$593 million) with components that include investments in protected natural areas covering a broad range of land, sea, and coastal ecosystems. Thirteen technical cooperations are being implemented in these areas, including support for carrying out studies and training in natural resource management, including protected areas.

**BOX 2.**  
**EXAMPLES OF OPERATIONS IN NATURAL RESOURCE MANAGEMENT  
 WITH FORESTRY AND BIODIVERSITY PROTECTION COMPONENTS**

The ***Sustainable Development Program in Acre (Brazil)*** approaches the development priorities of this state based on its forest resources, while preserving its natural wealth. Located in western Brazil, Acre is threatened by a cycle of poverty, deforestation and environmental degradation that must be dealt with comprehensively. The program seeks to modernize the capacity of the state to perform environmental management and ensure the efficient use of natural resources; increase the growth rate of the farming and forestry sectors, and generate employment; reduce transportation costs; and increase access to rural electrification. This loan (US\$64.8 million, total cost US\$108 million) consists of two complementary components: the environmental component, which seeks to limit the expansion of the agricultural frontier, reduce the current rate of deforestation, and restrict access to natural resources through environmental regulations, widening of protected areas, and resolving issues of property rights; and the economic component, which is aimed at fostering growth in the state by promoting investment in sustainable forestry activities, seeking the efficient utilization of natural resources. This component will help to consolidate the actions in geographical areas that have already been affected by encouraging higher-yielding economic activities, modernizing services, and improving the public infrastructure.

The ***Sustainable Development Program of the Northern Border of the Ecuadorian State of Amazonas*** sets a precedent about how to deal with economic well-being and sustainability in the Northern Amazon Region (RANE). This loan (US\$10 million, with a total cost of US\$12.5 million) seeks to raise family income and consolidate the protected areas system in the RANE geographical area. Its objectives are to: (i) support productive projects that raise the incomes of small rural producers while improving their basic sanitary conditions; (ii) protect natural resources, biodiversity, and the genetic heritage of the Cuyabeno Reserve (RPFC) and its buffer zone; and (iii) support institutional regional, and local development. Technical assistance (US\$500,000) has been added to the program in order to enhance the capabilities of the indigenous communities within the program framework.

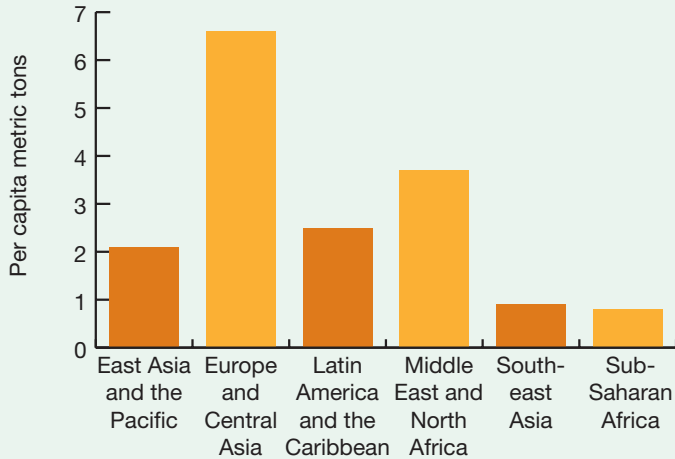
## 2. ENERGY USE AND CARBON DIOXIDE EMISSIONS (TARGET 9)

### Background and Challenges

Indicators related to energy use and carbon dioxide emissions are approached comprehensively because they provide information on how “clean” economic activity is and its potential impact on the local and world environment. This comprehensive view enables us to distinguish, for example, between low per capita emissions of CO<sub>2</sub> resulting from low economic activity, and low emissions that are the result of economic activity based on the intensive use of energy and fuels with a low carbon content.

Gross domestic product per energy unit has changed little in the last thirty years in Latin America. During this same period a greater increase in GDP per unit of energy has occurred worldwide. This indicates limited progress in energy efficiency in the region. However, statistics tend not to include traditional energy sources, such as firewood and other sources of biomass (such as energy from animal traction). As electrification and consumption of primary fuels increase with increased industrialization, measured energy increases rapidly, reflecting primarily a change in energy demand. Changes in the region’s economy in the past thirty years indicate a 50 percent decline in farming, measured as a percentage of GDP (from 12-13 percent in 1971 to 6-7 percent in 2000), while industrial activity stayed

FIGURE 3. CO<sub>2</sub> EMISSIONS (METRIC TONS PER CAPITA)



steady in Central America, and dropped by 25 percent (from 39.3 percent in 1971 to 29.3 percent in 2000) in South America.<sup>6</sup> Technological advances and the growing emphasis on energy-intensive industries led to a doubling in energy consumption in both sectors, indicating stable levels and good performance in terms of energy intensity.

CO<sub>2</sub> emissions (both total and per capita ) reflect the region's population and economic growth. In the past forty years per capita emissions have doubled to a level of 2.5 metric tons, paralleling per capita GDP; total emissions have quadrupled in the same period (from 315,861 Mtons to 1,401,928 Mtons), like total GDP. Emissions per energy-consumption unit have remained steady since 1970. From the global standpoint, per capita CO<sub>2</sub> emissions in the region are below the world average (3.8 tons in 2003) and below other middle-income countries (3.2), standing a little above the countries of East Asia and the Pacific (2.1), but reaching only a fraction of the emissions in North America and Western Europe (19.7 and 7.7, respectively). Because the region's per capita incomes are higher than those of East Asia, but far below the European OCED average, these figures portray a system standing at an intermediate phase of development, with significant industrialization but, thus far, not reaching the development of post-industrial societies.

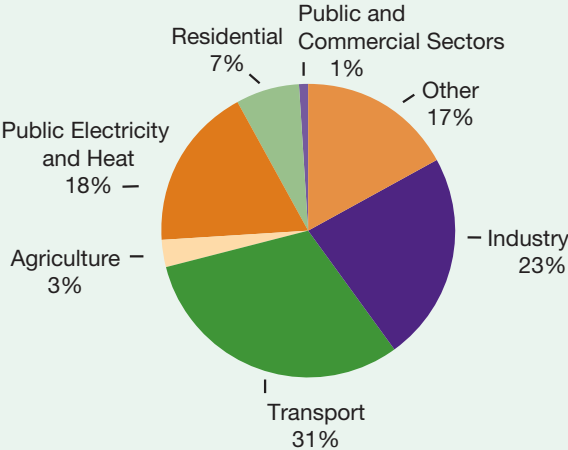
Total CO<sub>2</sub> emissions in the region are still low in global terms, equaling only 6 percent of global emissions.<sup>7</sup> Figure 4 shows the distribution of these emissions in the region by sector. Among the most remarkable aspects are emissions attributable to the transportation sector (almost one-third), and the relatively small portion attributable to the electricity sector (less than 20 percent) because of the prevalence of hydroelectric and natural gas generation. Only a quarter is attributable to industry. These figures provide a perspective on the challenges and options facing the region in meeting the Millennium Development Goals related to energy use and carbon dioxide emissions.

One of the main priorities for the region is the promotion of energy and development policies that together improve the energy efficiency indicators and the economic efficiency of the energy sector. Given its importance for overall economic development, continued growth in electric power is particularly relevant. The region is now working on regulatory and market reforms, and regional integration initiatives and investments in new electricity generation. These investments are cost-effective and include investments in clean capacity and attention to the energy needs of smaller isolated markets. Another challenge and important opportunity for the region that is receiving ever more attention is improving public transportation systems to reduce congestion and costs, and improve access and local environmental quality. In many cases these initiatives can also increase energy efficiency and lessen CO<sub>2</sub> emissions, as is shown later in the description of the urban transportation program in Lima. Other common priorities in the region include reducing subsidies and strengthening capital markets to lower the cost of investing in the energy sector.

6. World Resources Institute: [http://earthtrends.wri.org/searchable\\_db/index.cfm](http://earthtrends.wri.org/searchable_db/index.cfm)

7. World Resources Institute and World Bank Development Indicators.

**FIGURE 4. CO<sub>2</sub> EMISSIONS DERIVED FROM FOSSIL FUELS BY SECTOR IN LATIN AMERICA, 1999**



Source: World Resources Institute: <http://earthtrends.wri.org/>  
All emissions related to electricity production are included under "Public Electricity and Heat," irrespective of where the electricity is used.

**IDB Strategies, Policies, and Programs**

The IDB, through its new energy policy (in preparation), seeks to achieve specific objectives in response to the priorities of the region, especially in the area of energy efficiency and in providing energy services. Under this new strategic framework and policy guidelines, the aim is to ensure the financial viability of investments to improve and expand the coverage of energy services, while at the same time requiring that investments incorporate social and environmental aspects. Criteria are set for aiding countries in the adoption of focused energy programs, including renewable clean energy projects that are cost-effective and financially viable, investments to improve the operating efficiency of national and regional electric power systems, and programs to guarantee low-cost access to energy services in rural areas and places still without service.

The Bank maintains an active portfolio of sector loans, investments in energy infrastructure, and technical assistance agreements to improve economic and energy efficiency in the region. The portfolio includes: operations to improve the efficiency of electrical networks on the national and regional level, by improving generating capacity and service and cutting costs; service expansion programs based on renewable energy

(geothermic and hydroelectric in El Salvador); electrification programs in unserved areas (Guyana) and energy efficiency (Mexico); and rural electrification programs (in preparation in Chile). Technical assistance agreements in the energy sector are focused primarily on renewable energy and clean technologies on the regional level, although some provide support to specific countries (Brazil and Central American countries). Many activities in the energy sector are aimed at energy efficiency and clean production in the private sector (see box 3).

**BOX 3.**  
**SUPPORT FOR PRIVATE SECTOR ACTIVITIES IN ENERGY AND CLEAN PRODUCTION**

Within the IDB, the Multilateral Investment Fund (MIF) is responsible for fostering private sector development in Latin America and the Caribbean. The MIF supports small-scale focused measures, encouraging new approaches and acting as a catalyst for carrying out broader reforms in the sector. Recently, the MIF has centered its attention on introducing clusters of projects with promising performance. A cluster called “Achieving Ecoefficiency through Cleaner Production and Environmental Management” is exploring ways to apply ecoefficiency to small and medium business. Ecoefficiency is defined as “the practice of improving productivity through more efficient use of inputs such as raw materials and energy, while gradually reducing ecological impacts and intensive use of resources.” The MIF is currently providing help through focused technical cooperation agreements in cleaner production in El Salvador, Panama, Colombia, Ecuador, Argentina, Mexico, Nicaragua, and Costa Rica.

IDB activities aimed at reducing CO<sub>2</sub> emissions consist of technical coordination agreements which include: (i) evaluation of opportunities for the development of new projects within the Clean Development Mechanism, (ii) institutional strengthening in borrower countries to enhance their ability to execute such projects, and (iii) identification of opportunities to mitigate CO<sub>2</sub> emissions through steps to promote local level economic and social development, including GEF projects. This last group includes synergies with improvements in public transportation, and support for clean production in industry. Financial operations in public transport include cities in Central America (El Salvador and Panama) and Andean countries (Lima, see box 4), the latter set up as a GEF project.

The IDB is providing noteworthy aid to the region in the area of environmentally sustainable transportation. In the next few years, twelve technical cooperation agreements concentrated in Central America (surpassing US\$7 million) are scheduled for implementation. The Bank is also providing substantial aid to the private sector through the MIF, by means of two investment funds, one of them (US\$10 million) for investments in energy service companies (ESCOs), and another (US\$10 million) for investments in renewable energy, and rational and efficient energy use in the

**BOX 4.**  
**URBAN TRANSPORT PROGRAM IN LIMA**

The purpose of the Urban Transport Program in Lima (PTUL), which is being executed with a US\$45 million contribution from the IDB, is to construct and implement the first stage of the integrated urban rapid mass transport system to be operated by high-capacity buses traveling on exclusive dedicated trunk lanes, with their own transfer stops and terminals, along with feeder roads and bike paths. This stage will serve the northern, southern and downtown areas where close to 3.5 million inhabitants live, 60 percent of whom have per capita incomes of less than US\$75 a month. The PTUL will serve around 630,000 passengers a day. The companies will operate 250 articulated buses on the trunk network and 154 conventional buses on the feeder routes, all of them new and using environmentally suitable fuels. It is estimated that the environmental benefits resulting from this program will include a decline in emissions per passenger transported on the mass transport system and a reduction in total vehicular emissions as a result of improvements in traffic and reduced road congestion.

transportation sector. The Bank is also expanding opportunities to mitigate CO<sub>2</sub> emissions connected to carbon sequestration and forest protection.

**3. ACCESS TO DRINKING WATER AND SANITATION SERVICES  
(TARGET 10)**

***Background and Challenges***

The goal of halving the proportion of people without sustainable access to safe drinking water by 2015 was broadened during the Sustainable Development Summit in Johannesburg so as to include the reduction, also by half, of the proportion of people lacking access to basic sanitation services (see box 5).

Achieving the water and sanitation targets represents a great challenge to the region, with many implications. On the one hand, the requirements for extending water and sanitation services are substantial in economic and financial terms. On the other hand, expanding water and sanitation services has direct implications for meeting the Millennium Development Goals in the areas of health and the quality of life of the low-income population, such as reducing infant mortality, reducing the mortality rate of children under 5, and improving living conditions in marginal neighborhoods. Improving access to water and sanitation services means directly contributing to the fulfillment of Goal 1, the Eradication of Extreme Poverty and Hunger.

**BOX 5.****DEFINITION OF SAFE DRINKING WATER AND BASIC SANITATION SERVICES**

The concept of safe drinking water utilized in the framework of the Millennium Summit derives from a baseline of the current water situation worldwide. This baseline, which was defined by the WHO and UNICEF Joint Monitoring Program in a report titled “Global Water Supply and Sanitation Assessment Report 2000,” utilizes a different term, namely “access to better kinds of technologies.” This difference in technology reflects different interpretations of the concept of safety in water services and its implications for human health. In addition, a working group set up by the Drinking Water Supply and Sanitation Council (WSSC) posits that a person has access to “improved drinking water” if he or she has access to sufficient drinking water of an acceptable quality for consumption and the amount of water needed for personal cleanliness.

The concept of access to basic sanitation services is defined within the Implementation Plan of the Summit on Sustainable Development (section 8) as: (i) development and establishment of domestic sanitation systems; (ii) improvement of sanitary services in public institutions, especially schools; (iii) promotion of hygiene practices; (iv) promotion of awareness and education activities focused on children as agents of behavioral changes; (v) promotion of socially and financially accepted practices and technologies; (vi) development of financial mechanisms and innovative partnerships, and (vii) integration of the issue of sanitation into water resource management strategies. Based on the foregoing, the UN Inter-agency Working Group on Water and Environmental Sanitation proposes the following definition of access to basic sanitation: “access to, and use of, installations and services for treating excreta and drain water that offer privacy and at the same time ensure a healthy and clean environment in the homes and neighborhoods of users.”

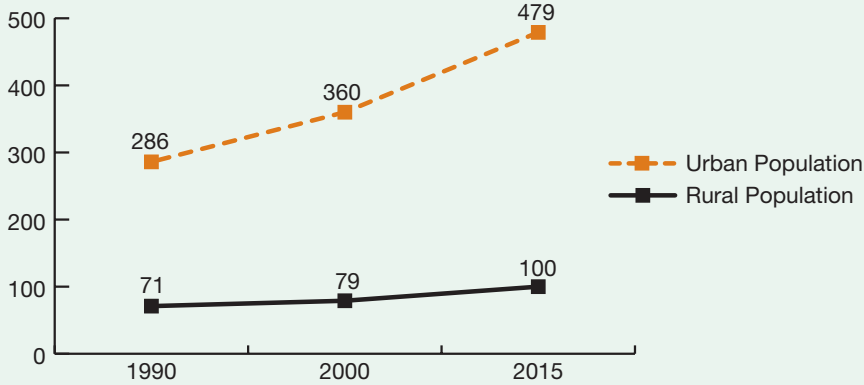
Even though the countries of the region have relatively high rates of access to drinking water and sanitation services, there is still a long way to go. An estimated 75 million inhabitants, representing 7 percent of the urban and 39 percent of the rural population, do not have access to clean water. Sixty percent of urban and rural dwellings with water hookups do not have continuous water service. Some 116 million people do not have access to sanitation services. This represents 13 percent of the urban and 52 percent of the rural population. One-third of the population depends on individual on-site collection systems (latrines and septic tanks). Eliminating effluents from wastewater continues to be a very serious problem in the region, where only 14 percent of the volume collected is treated. Only 4 percent of municipal and industrial effluents in Central America are treated.

It has been established that deficient water and sanitation services are the direct cause of deteriorating health conditions in the region and a major cause of environmental illnesses, such as gastrointestinal infections, premature mortality, especially among young children, and lost years of life as a result of disease among the adult population.

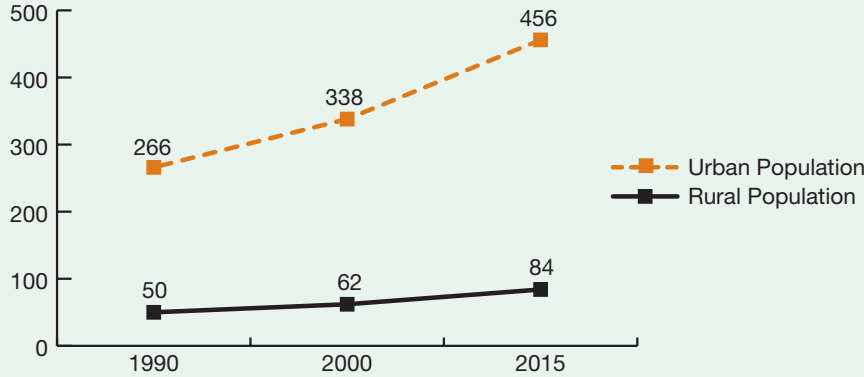
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Should the current investment trend continue in the region, it will be impossible to reach the goals of reducing the number of people without sustainable access to sanitation services. The rate of access to drinking water rose by 26 percent between 1990 and 2000, but in order to meet the MDGs, access to the service must increase by 33 percent between now and 2015. The rate of access to sanitation services in the same period (1990-2000) was 27 percent, and it must increase by 35 percent by 2015. Figures 5 and 6 show the growth rates of population coverage required in order to be able to meet the objectives in drinking water and sanitation, and the gap between the urban and rural population with access to service.

**FIGURE 5. DRINKING WATER TARGETS (MILLIONS OF INHABITANTS)**

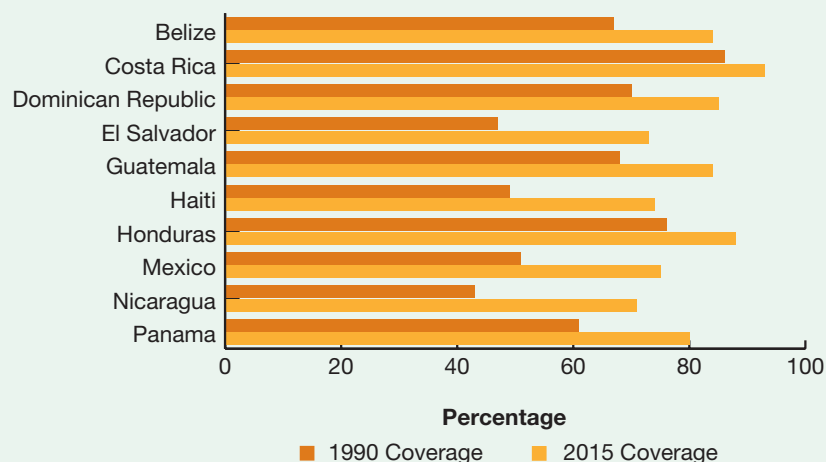


**FIGURE 6. SANITATION SERVICES TARGETS (MILLIONS OF INHABITANTS)**



On average the lowest levels of coverage are found in the rural areas of Central America.<sup>8</sup> Figure 7 shows rural coverage for ten countries in the region and the percentage required to reach the Millennium Development Goals by 2015.

**FIGURE 7. ESTIMATED INCREASE IN RURAL DRINKING WATER COVERAGE NEEDED TO MEET THE MILLENNIUM TARGETS (IN PERCENTAGE)**



The chances of meeting the targets in urban areas are quite high (see figure 8). If the pace of investment keeps up with population growth, some countries, such as Belize and Costa Rica, will meet the targets by 2015. The targets will also be met in the other countries if significant investments and reforms are made in the sector (the exception is Haiti, which has more substantial investment requirements).

Countless challenges stand in the way of meeting these targets, and these challenges are hardly homogenous in the region. Estimates made by various institutions indicate that attaining the Millennium Development Goals requires an investment of approximately US\$150 billion.<sup>9</sup> This translates into a doubling of investment at a time of low economic growth, unsustainable levels of public debt, and limited private sector participation.

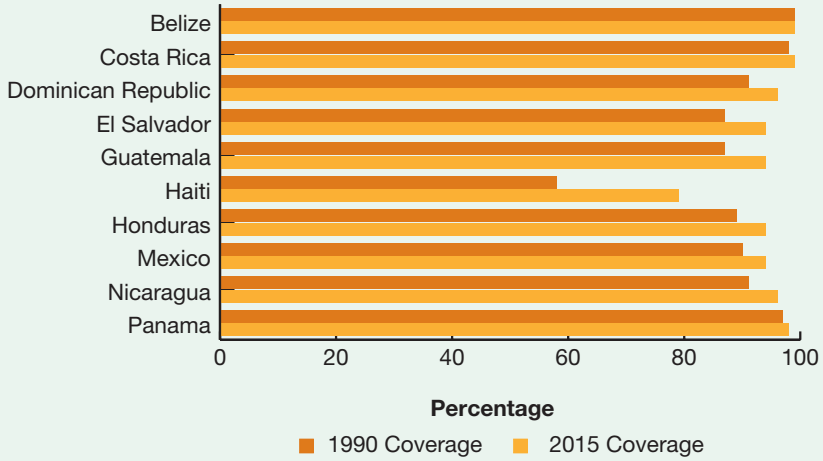
The main challenges may be summarized in four points:

- *High levels of urbanization*, thereby posing singular problems in providing drinking water and sanitation services for keeping up with population growth. The challenge is especially

8. Central America is defined as the following Bank member countries: Belize, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, and Panama.

9. World Bank.

**FIGURE 8. ESTIMATED INCREASE IN URBAN DRINKING WATER COVERAGE NEEDED TO MEET THE MILLENNIUM TARGETS (IN PERCENTAGE)**



great in outlying urban areas with a poor population unable to pay for covering the cost of service.

- *Incipient institutional modernization.* At the national level, the administrative agencies that have been created have few incentives to perform their sector planning functions. That is compounded by the inability of regulatory bodies to act independently. At the municipal level, and as a result of the political decentralization processes that the countries of the region have undergone or are undergoing, problems related to high political interference, low autonomy, and lack of financial independence (rates that do not cover operating and financing costs or repair of existing infrastructure) of the service provider companies must be overcome.
- The need to *design and set up public policies* promoting the efficiency of market forces and enhancing the capacity of governments to meet their essential functions, taking into account the needs of the poorest and fostering links with other government (environmental, health) policies.
- *Bring water supply into line with the demands of the sector.* In some areas in the region, especially the Caribbean, the water supply is insufficient for meeting growing demand (urbanization and tourism). That is also true of certain areas in Central and South America.

These challenges must be resolved keeping in mind the institutional diversity of the countries, as well as the particular circumstances of their macroeconomic, social, cultural and political environments. There must be operations to strengthen institutions and regulatory frameworks, programs to improve efficiency in the supply of the services

**BOX 6.**  
**PROGRAM TO SUPPLY DRINKING WATER**  
**AND BASIC RURAL SANITATION IN GUATEMALA**

Guatemala is a predominantly rural country where around 60 percent of the population lives in rural areas. Farming contributes 26 percent to GDP and generates 60 percent of the country's employment. The drinking water and sanitation sector in Guatemala, as in the rest of Central America is characterized by poor coverage, poor quality services, and deteriorating physical assets. In the countryside, the most reliable information on the number of communities without water systems is the National Water and Sanitation Information System (SAS). The SAS has information on 36 percent of the approximately 24,000 rural communities in Guatemala and registers almost 4,000 communities without water systems. If this proportion holds true for the communities on which there is no information, there would be over 10,000 communities still without a water system. In order to cover this unsatisfied demand there must be a new approach to handling water projects in rural areas. The current system exhibits two clear institutional deficiencies: (i) limitations imposed by carrying out projects in a completely centralized manner, and (ii) lack of community participation in decision making during the early stages of execution. In order to help the Government of Guatemala solve these deficiencies, the Bank recently approved this US\$50 million program to increase drinking water and sanitation service coverage in the countryside in a way that ensures sustainability and quality of services. The program seeks to benefit at least 500,000 new rural consumers throughout the country. The communities will be involved in execution from the early stages so that the beneficiaries will be identified with its objectives and will make decisions about their own projects. The program will provide funds so that community associations created and legally set up to provide water and sanitation services may carry out the projects in a sustainable manner and with good infrastructure maintenance. The resources will be made available by means of a trust fund through a commercial bank contracted by the Ministry of Public Finance. Funds returned by the communities to the trust fund will be used to finance other rural water projects. Technical assistance is also providing resources to support communities in the decision-making processes.

**CLOSING THE GAP IN WATER AND SANITATION IN GOIÂNIA, BRAZIL**

The overall objective of the water and sanitation project in Goiânia, Brazil, is to establish good sanitary conditions in the state and nearby urban areas by improving water supply and sewage services. This US\$47 million loan (of a total cost of US\$95 million) is intended for building infrastructure for the city of Goiânia (reservoirs, supply systems, drains, sewage treatment installations, etc.) in order to reduce the current water and sanitation deficits. The goal of the project is to ensure that 90 percent of the state's users have 24-hour a day continuous service by the year 2007, and to increase coverage of water treatment from the current very limited capacity of 7 percent of sewage wastes. Specific objectives include: (i) improving the quality and reliability of water supply in Goiânia and nearby urban areas; (ii) improving the water quality of rivers running through the state; and (iii) making the supply service efficient.

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(including introducing rates that cover the costs of operation, financing, and infrastructure repair, taking into account the ability to pay of the different sectors of the population), and special programs to meet the needs of the very poor (see project in Guatemala in box 6).

### ***IDB Strategies, Policies, and Programs to Increase Access to Drinking Water and Sanitation Services***

The Bank's action in this sector is focused on helping countries attain the Millennium Development Goals. To that end, the Bank has prepared operational guides for applying the Public Utilities Policy to the water and sanitation sector. Likewise, the operational departments have prepared subregional strategies aimed at enhancing efforts in this sector. The objectives established in these strategies are to: (i) increase coverage of drinking water and sanitation services; (ii) assist countries in formulating plans of action for achieving the Millennium Development Goals; (iii) improve the quality of services through investments to provide institutional strengthening services to providers and develop and strengthen regulatory frameworks; and (iv) promote principles of sustainability and efficiency.

The Bank's strategy in the region focuses on: (i) financing investments in rehabilitation and expansion of systems (in rural and urban areas) along with (local and national) institutional modernization; (ii) providing support for operations aimed at achieving business sustainability; (iii) pursuing economies of scale and providing support for private sector participation; and (iv) developing modern legal and regulatory frameworks, along with designing sector policies.

IDB operations now underway in the drinking water and sanitation area total approximately US\$3.8 billion, of which US\$2.7 billion is concentrated on large-scale loans in Argentina, Brazil, and Mexico. With regard to technical assistance operations, there are currently thirty operations in execution, totaling US\$20 million. Many of these technical cooperations are focused on institutional strengthening of service providers and on supporting sector reform processes in the countries in conjunction with investment loans. Support has also been given for the creation of regulatory frameworks fostering private sector participation.

The project portfolio in drinking water and sanitation for the next two years is US\$1.7 billion. It should be noted that many of the projects are aimed at improving access to sanitation services and water treatment, notably projects in Brazil, Mexico, Barbados, Colombia, Peru and Trinidad and Tobago. Most of the projects in Brazil are aimed at sanitation.

The Bank is beginning a series of conferences at its headquarters and in the region on water and sanitation financing that, in keeping with the Millennium Development Goals, is aimed at increasing coverage of these services in the region. This overall objective is translated into three specific ones. First, make officials in central and local governments in the region and officials outside the region and aid organizations aware that the MDG goals cannot be met without a substantial change in the orientation of investment. Second, identify the main obstacles that have constrained and will constrain growth in investment in coherence with the needs over the next decade. Third, agree on solutions that will allow for a sustained growth of service coverage without destroying the fiscal discipline of the countries of the region.

The Bank is developing programs specifically aimed at improving the management of water resources in the region, using technical cooperation funds with multi-year allocations. One such program is the IDB-Netherlands Water Partnership Program (INWAP). This program for US\$10 million over five years consists of technical cooperation funds in the integrated management of water resources throughout the region. The program includes the design and execution of water projects, and holding training and capacity-building activities in the member countries. One of the critical activities supported through this fund is assistance for countries in preparing national action plans for implementing the measures required for meeting the Millennium Development Goals in drinking water and sanitation. Preparation of these strategies in several Southern Cone countries began this year.

#### **4. BACKGROUND AND CHALLENGES IN IMPROVING LIVING CONDITIONS IN SHANTYTOWNS (TARGET 11)**

In most countries in the region, the formal housing sector is unable to produce enough low-cost housing units for the poor or low-income population. This situation forces people to seek informal solutions to the housing problem (see box 7), primarily by occupying lands on the outskirts of cities and building their houses over time. It is estimated that over 20 percent of the population living in the region's large cities live in this type of informal housing. Living conditions in these areas are deplorable due to the lack of basic infrastructure and very degraded environmental conditions.

Previously, the countries of the region did not pay enough attention to the problem of irregular settlements, or they tried to eradicate them. In the past decade, the governments of the region have undertaken programs to incorporate these settlements into the formal sector of the economy and to integrate them into the urban fabric, by resolving the combination of physical, social, and environmental problems. Neighborhood improvement programs finance such actions, combining different actions (legalization of land ownership, drinking water and sewer infrastructure,

electrification, roads, education and social services, and recreation, primarily) within a single program aimed at improving the living conditions of the population. These comprehensive measures have been shown to be effective for reducing urban poverty.

The challenges presented to the region's governments by urban growth (lack of infrastructure, pressures from informal urbanization, urban poverty, etc.) are worrisome. Because urbanization and poverty are two issues that seem to be inexorably linked, the actions to be proposed in the region should be focused on informal urbanization, with comprehensive multisector programs. Neighborhood improvement programs are an example of comprehensive interventions that could be adopted more widely in the region, thereby helping to resolve the problems of informal housing, extending infrastructure coverage, and lessening social tensions in the region's urban settlements.

### ***IDB Strategies, Policies and Programs in Upgrading Shantytowns***

A priority of Bank action is fostering a series of reforms in the low-income housing sector that will help resolve the problem of irregular settlements and shantytowns (marginal neighborhoods). The priority areas for action are: (i) improving the performance of housing markets by dealing with the requirements of mortgage markets and broadening the credit supply, including innovative microlending; (ii) strengthening land markets with legalization of land tenure and property taxes; (iii) improving the design of actions in marginal neighborhoods, especially those financed with government funds, in order to deal with

#### **BOX 7. INFORMAL HOUSING IN LATIN AMERICAN CITIES**

- In Brazil, informal housing makes up a significant portion of the total housing market in the larger cities in metropolitan regions. In Rio of Janeiro and Belo Horizonte, the population living in *favelas* represents between 22 percent and 25 percent of the total population; in São Paulo, Salvador and Fortaleza, this proportion ranges between 21 percent and 22 percent. In São Paulo it is estimated that around 2.4 million people were living in 2,600 irregular settlements in 1990.
- In Bogota, clandestine settlements go back to the 1950s. In the 1970s, 54 percent of the population was living in such settlements, and by the 1990s the figure had risen to 59 percent.
- In Caracas, the proportion of people living in informal settlements has gone from 20 percent at the start of the 1960s to 50 percent in the 1970s. The figure remained the same until the early 1990s.
- In San Salvador the informally settled population represents 41 percent of all dwellings; of this total, the 32 percent lives in so-called *mesones* [downtown tenements] and 9 percent in shantytowns.

Source: Taken from: José Brakarz, "Cities For All: Recent Experiences with Neighborhood Upgrading Programs" p. 11. IDB, Washington D.C., 2002.

**BOX 8.**  
**NEIGHBORHOOD UPGRADING PROGRAMS IN THE REGION**

*Favela-Bairro Program I and II (Brazil):* The Urbanization of Popular Settlements Program—PROAP (known as *Favela-Bairro*), began in 1995 in response to the existence of an estimated 800 *favelas* with approximately one million inhabitants, where there were 600 irregular plots of land, with 400,000 inhabitants. The project includes urban planning for central *favelas* with actions in water storage, sewerage, road systems, rainwater drainage, hillside stabilization, electric lines, parks and gardens, relocation of population living in danger zones, as well as social services (daycare centers) and employment creation projects. Other components include community development, health and environmental education, and help with legalizing property. The actions are based on broad processes of participation by the beneficiary population. Besides serving central *favelas*, the project included a component of support for non-legalized lots in outlying areas, with legalization of land tenure, aligning and parceling of lots and legal assistance for individual owners. In PROCAP'S first stage (1995-1999) 55 *favelas* and 8 irregular lot-arrangements were served. The second stage (starting in 2000) sets the goal of benefiting 52 *favelas*, as well as serving 23,000 people in the components of legalization of lots. Investment for both stages is over US\$600 million, and benefits a population of approximately 500,000 people.

*Housing and Environment Improvement Program (MVE) – Colombia:* The program, which was created in 1994, approaches urbanization problems comprehensively through community participation strategies. The MVE is focused on poorer strata of the population, and its objective is to finance improvements in individual houses and their urban environment, involving road projects, community development, public services, and legalizing properties. Between 1994 and 1998, around 259,000 houses were improved and the neighborhoods of 775,000 families were upgraded. A new ingredient was that the program was able to coordinate actions by various agencies, funds and levels of government, and foster grassroots organization at the neighborhood level. The MVE uses the idea of group subsidies for individual housing and neighborhood environmental projects, which can be calculated by family and granted to the community.

the demand of low-income sectors; and (iv) reducing the vulnerability of the population to natural disasters by introducing land use controls, housing regulations, and mitigation measures, especially in environmentally vulnerable areas. The Bank will continue to support actions in marginal neighborhoods, but at the same time it will promote actions in the formal housing sector to expand its supply and not encourage the spread of the informal sector in the region.

From 1994 to the present, the Bank has financed a total of 18 neighborhood improvement operations in twelve countries of the region (US\$1.8 billion, see examples in box 8). Approximately half of these investments were funneled to five programs in Brazil between 1995 and 2000 (US\$940 million), with projects like “Favela-Bairro” (phase I and II) and “Baixada Vida” in Rio de

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Janeiro, “Favela Verticalization” in São Paulo, and “Habitar Brasil” on a national level. Starting in 2001 projects with neighborhood upgrading components have been started in a broader range of countries (El Salvador, Argentina, Guatemala and Peru).

The project portfolio (US\$445 million in preparation) indicates a very clear interest in neighborhood improvement programs and a comprehensive fight against urban poverty in various countries in the region, such as Costa Rica, the Dominican Republic, and Mexico. In Mexico, for example, the proposed operation (under the Habitat Program) is national in scope and represents one of the most important projects because of its size and importance in dealing with urban poverty.

### 5. STRATEGIC BASES AND COMPREHENSIVE BANK PROGRAMS IN SUPPORT OF FULFILLMENT OF THE ENVIRONMENTAL SUSTAINABILITY MDGs

At the central level, the Bank has guided and supported significant processes connected to the region’s environmental challenges and to the commitments set in the Millennium Development Goals. One of the most important milestones at the Bank in the past year is the Environment Strategy approved in June 2003 (see box 9). This strategy is part of a package of strategies, which includes strategies aimed and the Bank’s fundamental objectives (sustainable economic growth, and poverty reduction and promotion of social equity) and the Bank’s four priority areas (modernization of the State, competitiveness, social development and regional integration). The Environment Strategy lays down the guidelines and priority action areas that will be promoted by the Bank through its financial and nonfinancial instruments. The strategy preparation process based on regional and extra-regional workshops, seminars, and consultations, reflects the priorities of the region and delves deeper into strengthening countries in order to fulfill the environmental sustainability goals established in the MDGs.

A program begun in 2002 through which the Bank supports the region in the capacity creation for the MDGs is the IDB-Netherlands Partnership Program in Environment, for a sum of US\$10 million and a five-year period (starting in 2002), the purpose of which is to strengthen capacities in the region in four “windows” or lines of activity: innovations in environmental management, integrated water resource management, climate change (mitigation and adaptation), and biodiversity and forests.

As support for decision-making in environmental matters in the region, the Regional Dialogue on Policies on the Environment, sponsored by the Bank, is intended to assist high-level environmental officials (vice-ministers) in developing methodology and technical discussions on priority issues in the region. The studies that the Bank has financed in support of the discussions in the Dialogue, which have direct repercussions in areas of work oriented toward the MDGs, include (i) use of economic tools in water management, and (ii) economic appraisal in air pollution control programs.

### **BOX 9.** **ENVIRONMENT STRATEGY**

The Environment Strategy is a management tool aimed at achieving greater effectiveness in the support that the Bank provides the countries of the region. The strategy establishes an updated model for the Bank's action in the area of the environment establishing intersector links by focusing on governability policy frameworks and incentives that impact on natural resources and management of the environment. The starting point for the strategy is a diagnosis recognizing the region's natural wealth and the environmental attributes that, if managed well, constitute the basis for competitiveness, sustainable economic growth, poverty reduction, and quality of life. The region is still extremely dependent on the services provided by its forests, coastal and marine resources, biodiversity, farm lands, and water resources. These resources are fragile, however, and in most cases they are degraded, and so the future development of the region is undermined.

To respond to the environmental priorities of the region, a solid institutional framework must be established at the national and lower levels, management tools (regulatory, economic, and market) that encourage the sustainable use of natural resources, as well as setting economically, financially and politically realistic and feasible objectives. The importance of public participation in the management of the environment must be emphasized, because experience shows that the chances of success of conservation measures are limited if they are not linked to care for the needs and aspirations of civil society.

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The environmental strategy establishes direct links with the Bank's two overall objectives: poverty reduction and the promotion of the social equity and sustainable economic growth. In this sense, it is recognized that environmental degradation imposes a heavier load on the poor, and this sector of the population is often the most vulnerable to natural disasters. It is likewise recognized that long-term economic growth is possible only when it can be sustained environmentally. The contribution of the environmental dimension has also been incorporated into the Bank's four priority areas by assuring adequate treatment of the environmental dimension in each of them:

*Environmental governance and modernization of the State.* The Bank's programs will seek to formulate and consolidate an environmental management framework that is transparent and participatory and that leads to the establishment of adequate priorities in terms of sustainable management of natural capital and the quality of the environment, focusing on: (i) enhancing institutions and the participation of civil society; (ii) strengthening legal frameworks; and (iii) formulating effective environmental management tools.

*Environment and competitiveness.* The Bank's programs will seek to preserve and improve the quality and quantity of the natural resource base, recognizing that natural capital must complement both human development and financial and physical capital, in order to achieve competitiveness and the objectives of sustainable economic development, focusing on: (i) improving the productive value of natural resources and their environmental functions and services; (ii) facilitating the investments and development of the market and promoting private sector participating in environment related activities; and (iii) taking advantage of environmental markets.

**BOX 9. *continued***  
**ENVIRONMENT STRATEGY**

*Environment and social development.* The Bank's programs will seek to contribute to reducing poverty and improving the general quality of life, recognizing that investments in environmental improvements and natural resources are sources of employment generation and better living conditions, focusing on: (i) aspects of health and environment; (ii) sustainable rural development; (iii) traditional cultural uses of natural resources indigenous communities; and (iv) prevention of physical vulnerability in natural disasters and environmental hazards.

*Environment and regional integration.* The Bank's programs will promote regional economic integration in the framework of regional environmental management, focusing on: (i) strengthening environmental institutions and harmonizing legal frameworks; (ii) promoting sustainable management of public environmental goods and services of a regional nature; and (iii) guaranteeing the environmental quality of regional initiatives in the area of infrastructure.

