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LATIN AMERICA AND CARIBBEAN
REGIONAL ENVIRONMENT STRATEGY

THE WORLD BANK



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This publication represents the environment strategy of the World Bank's Latin America and Caribbean Regional Office (LCR) for fiscal year 2002 and beyond. It was approved by the Regional Management Team in March 2001, and was incorporated as an annex to the Bank's Corporate Environment Strategy which was approved by the Board of Executive Directors on July 17, 2001. Copies of the LCR Strategy have been publicly available since June 30, 2001, and a final edited version was published in June 2002. Changes to the original were only editorial in nature and did not affect the substance of the strategy.

The strategy is available in English, Spanish, and Portuguese.

For more information on preparation of the strategy, including public consultations, visit the World Bank's LCR Environment homepage at
<http://www.worldbank.org/lacenv>

For information on the World Bank's activities and programs in Latin America and the Caribbean visit the LCR homepage at
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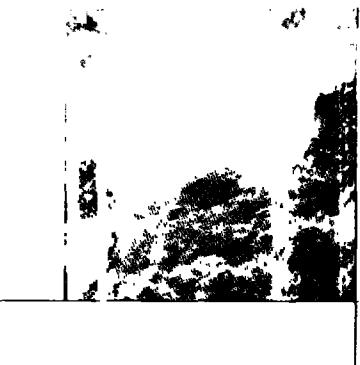
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Foreword

Latin America and the Caribbean is an area rich in environmental resources. The region contains the world's largest tropical rainforest, the second-longest coral reef, extensive reserves of cultivable land, and some of the most biodiversity-rich areas on Earth. These resources, however, are facing extreme pressures due to such threats as depletion of forest resources and accelerating soil degradation. At the same time, 75 percent of the region's population is urbanized, mainly in large cities where inadequate access to clean water, sewage treatment, and solid waste collection, as well as poor air quality, threaten human health. These urban environmental conditions disproportionately affect the poor.

The Latin America and Caribbean Region's Environment Strategy, the World Bank's first explicit strategy in support of environmental improvements in the region, is a key element in the Bank's response to these growing environmental challenges. This strategy was prepared within the framework of the World Bank Group's new Corporate Environment Strategy, which recognizes the fundamental importance of the environment to the Bank's poverty reduction and sustainable development strategies. Within this overall framework, the regional environment strategy is tailored to the specific needs and priorities of Latin America and the Caribbean, addressing critical problems such as urban-industrial pollution, mismanagement of natural resources, threats to biodiversity, and climate change.

During preparation of the strategy, we reached out to diverse sectors—public and private, NGOs, civil society, and academia—and actively sought feedback via the internet and through a series of face-to-face consultations in the region itself. More than 200 participants provided their comments during the consultations. A draft of the strategy posted on the internet received over 2,000 hits and generated more than 100 written comments, mostly from NGOs and

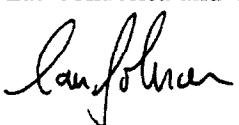
the private sector. These contributions played an important part in enriching the environment strategy.

To monitor progress in carrying out the strategy, the Bank's Latin America and Caribbean Region has formed an Environment Strategy Implementation Working Group. The group is led by Country Director Orsalia Kalantzopoulos and includes representatives from each of the Region's country and sector departments. The group is collaborating with our external partners, including the Inter-American Development Bank, Pan American Health Organization, United Nations Development Programme, Food and Agriculture Organization Cooperative Program, United Nations Environment Programme, Organization of American States, Economic Commission for Latin America and the Caribbean, and bilateral agencies, to ensure complementarity between our work programs and explore how we can work together toward the attainment of the Millennium Development Goals (in particular Goal 7, which aims to ensure environmental sustainability).

We look forward, as we implement the strategy, to continued collaboration with our colleagues within the Bank, our partners outside, our member governments, and especially with those whose welfare is affected by our work in the region.



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Acknowledgments

This paper was prepared by a core team comprising Teresa Serra (LCR Environment Sector Manager), Kulsum Ahmed (lead author), Angela Armstrong, Gabriela Boyer, Kirsten Oleson, Sergio Margulis, and Rocio Sarmiento.

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We are particularly grateful to: participants in the electronic, web-based, and face-to-face consultations for their constructive feedback; LCR Sector Managers for their active involvement in the implementation plan; LCSES Sector Leaders for their collaboration in representing their country departments' views on subregional priorities; our colleagues in the LCR Environmentally and Socially Sustainable Development Sector Management Unit for their input, advice, and support (in particular Laura Tlaiye who led this task in its early stages, and Keiko Ashida who was actively involved with the web-based consultation); our colleagues in LCSFP, LCSHD, LCSPR, and LCOSU who provided input and feedback at many stages; members of our regional management team for their

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Abbreviations and Acronyms

AAA	Analytical and Advisory Activities	FY	Fiscal Year	NAFTA	North American Free Trade Agreement
APL	Adaptable Program Loan	GDP	Gross Domestic Product	NEP	National Environmental Project
BB	Bank Budget	GEF	Global Environment Facility	NGO	Nongovernmental Organization
BNPP	Bank-Netherlands Partnership Program	GHG	Greenhouse Gas	NLS	Nonlending Services
CAC	Command and Control	GNP	Gross National Product	NRM	Natural Resources Management
CAI	Clean Air Initiative	IBRD	International Bank for Reconstruction and Development	NSS	National Strategy Studies
CAS	Country Assistance Strategy	IDA	International Development Association	OAS	Organization of American States
CCAD	Central American Commission for Environment and Development (Comisión Centroamericana de Ambiente y Desarrollo)	IDB	Inter-American Development Bank	ODS	Ozone-Depleting Substances
CDF	Comprehensive Development Framework	IDF	Institutional Development Fund	OECS	Organization of Eastern Caribbean States
CEGESTI	Center for Technology Management and Industrial Information (Centro de Gestión Tecnológica e Información Industrial)	IFC	International Finance Corporation	PAHO	Pan American Health Organization
CFC	Chlorofluorocarbon	IFI	International Financial Intermediary	PCF	Prototype Carbon Fund
CMU	Country Management Unit	IMF	International Monetary Fund	PM10	Particulate Matter
CTF	Consultant Trust Fund	INECE	International Network for Environmental Compliance and Enforcement	PPP	Purchasing Power Parity
CY	Calendar Year	IPDP	Indigenous Peoples Development Plan	PSD	Private Sector Development
DALY	Disability-adjusted Life Year	LAC	Latin America and the Caribbean	PRSP	Poverty Reduction Strategy Paper
DEC	Development Economics Vice Presidency	LCR	Latin America and Caribbean Regional Office (World Bank)	QAT	Quality Assurance Team
DGF	Development Grant Facility	LCOSU	Operations Support Unit (LCR)	RAP	Resettlement Action Plan
EA	Environmental Assessment	LCSES	Environmentally and Socially Sustainable Development SMU (LCR)	RUTA	Regional Unit for Technical Assistance
EAP	Environmental Action Plan	LCSFP	Finance, Private Sector, and Infrastructure SMU (LCR)	SAL	Structural Adjustment Loan
ECLAC	Economic Commission for Latin America and the Caribbean	LCSHD	Human Development SMU (LCR)	SAP	Structural Adjustment Program
EIA	Environmental Impact Assessment	LCSPR	Poverty Reduction and Economic Management SMU (LCR)	SECAL	Sector Adjustment Loan
EMA	Environmental Management Agency	LEAP	Local Environmental Action Plan	SMEs	Small and Medium Enterprises
EMS	Environmental Management System	MBC	Mesoamerican Biological Corridor	SMU	Sector Management Unit
ENV	Environment Department	MBI	Market-Based Instrument	TA	Technical Assistance
ESMAP	Energy Sector Management Assistance Programme	M&E	Monitoring and Evaluation	UNDP	United Nations Development Programme
FAO/CP	Food and Agriculture Organization Cooperative Program	MERCOSUR	Common Market of the Southern Cone (Mercado Común del Sur)	UNEP	United Nations Environment Programme
		MP	Montreal Protocol	WBI	World Bank Institute
				WHO	World Health Organization
				ZMVM	Metropolitan Zone of the Valley of Mexico (Zona Metropolitana del Valle de México)

Introduction

The World Bank Group's new Environment Strategy reflects the broader mission of the Bank to reduce poverty within the context of sustainable development. It therefore attempts to build on the synergies between poverty reduction, economic growth, and environment.

Poverty alleviation implies amplifying opportunities, strengthening participation, and increasing security over risks, whereas sustainable development implies guaranteeing that future generations have (at the very least) the same opportunities as present generations. These together translate into the pursuit of growth and poverty reduction in the short term in a sustainable manner, without compromising the future.

The Corporate Environment Strategy therefore proposes the following as key development objectives: (a) improve the quality of life by reducing the impact of environmental degradation on human health, improving livelihoods through the sustainable management of natural resources, and reducing vulnerability to natural disasters; (b) promote the long-term sustainability of growth, particularly growth led by the private sector; and (c) improve the quality of the regional and global commons.

Within the general framework of the Bank Group's Strategy, the Latin America and Caribbean Regional Vice Presidency (LCR) is preparing its own strategy to address environmental issues in the region over the

next five years, taking into account the specific development trends of the region in the wake of a new globalized world economy, progress made and lessons learned over the last decade in addressing environmental problems, and the Bank's comparative advantage in assisting countries relative to that of other players on the regional scene. The strategy centers strongly on aligning environmental concerns with other sectoral strategies (such as rural, urban, transport, and energy) and above all with the objectives and goals of the Bank's overall assistance to countries in the region.

As background to the strategy, the paper starts with a brief discussion of the major development trends and environmental issues in the region; it then describes the changes in focus in our environment portfolio over the last few years, as well as the extent to which such changes are consistent with our new objectives related to human health, livelihoods, promoting an enabling environment for sound environmental management, and equitable solutions to regional and global challenges. On this basis, it proposes key strategic areas of focus for LCR in the coming five years, as well as process-oriented changes, in order to improve our effectiveness.



Development Trends and Environmental Issues

the overall economic, social, and environmental agendas of countries in the region need to become increasingly aligned

Development Trends

Latin America is far from being a homogeneous region in terms of its socioeconomic conditions. Gross national product (GNP) per capita measured at purchasing power parity (PPP) ranges from \$430 in Nicaragua to \$7,600 in Argentina; the percentage of people living in cities is as high as 91 percent in Uruguay and as low as 35 percent in Haiti; the population living below the poverty line is about 65–70 percent in Honduras and Guatemala, while in Uruguay it is only about 6 percent; access to safe water in urban areas is relatively good (typically 70–90 percent), but in rural areas access to safe water ranges from only 22 percent in Bolivia to 62 percent in Mexico;

only 2 percent of wastewater is treated in cities such as Santiago and San Salvador; the airsheds of many of the major cities in the region fail to meet World Health Organization (WHO) standards; and income distribution patterns are among the worst in the world, with Brazil, Chile, Colombia, Guatemala and Paraguay showing Gini indices of 55 or higher (see tables 1 and 2).

GLOBALIZATION

Most countries in Latin America have been pursuing macroeconomic stabilization and liberalization of their economies during the last decade. This has been an inevitable response to the increasing integration of the world economy. The specific consequences of the emerging patterns of integration are yet

uncertain, but they will be different across countries in the region, depending on their current participation in economic flows and the specific choices of production and specialization of their economies.

On average, Latin America has maintained a comparative advantage in the production of commodities with a relatively high content of natural resources. Despite the efforts of many countries to shift from resource-based exports to more high-technology exports, overall most countries in the region will likely continue to rely on their natural resource base to compete in the world economy. The region has also been seeing the formation of regional trading arrangements (notably MERCOSUR and NAFTA), which should promote greater economic activity within the region. The environmental consequences of globalization and regional integration will not necessarily be negative: governments may in fact use the opportunity to pursue higher environmental standards, as opposed to creating “pollution havens,” since responsible environmental performance is becoming an important determinant of economic comparative advantage among countries.

URBANIZATION

Latin America is a highly urbanized region (see Table 1), with 75 percent of its 500 million inhabitants living in cities and making a living in the industrial and service sectors (industry accounts for 29 percent of GDP in the region, and services for 63 percent). Urban poverty and environmental conditions are intimately related to each other, with the most serious urban environmental conditions impinging disproportionately on the poor.

Governments in Latin America have the formidable task in the short term of making cities more hospitable venues for economic development and at the same time improving the living conditions of the poor. This requires large investments in infrastructure: municipal, state, and federal governments must raise substantial investment capital, usually only available in private capital markets. The solution to the region’s urban–environmental problems will thus largely depend on the capacity of local governments to design new regulatory, political, and institutional arrangements to finance such investments. The challenge is great but there are tremendous synergies to be tapped.

GOVERNANCE

In the coming decade we expect to see a deepening of democracy and a push toward greater decentralization and improved governance. Human rights issues and environmental agreements also will likely continue to be at the forefront of the agenda. This means that civil society in general will increasingly put pressure on governments and will position itself to monitor government and to demand greater effectiveness of public policy. With tight control over expenditures still likely to be a major issue over the coming years, government budgets will tend to decrease during an adjustment period, making it potentially more difficult to respond to such demands. It is also uncertain whether the pressure ultimately will be toward more or less environmental control, since different segments of civil society pursue competing interests.

Whatever the outcome, much more effective institutional and policy frameworks and the use of flexible instruments to address environmental problems will be required. This calls for the continuous integration of environmental concerns in public sector policies, notably the fight against poverty and the creation of development opportunities. The overall economic, social, and environmental agendas of countries in the region need to become increasingly aligned.

Key Environmental Issues

In Latin America and the Caribbean (LAC), environmental degradation continues to occur at an accelerated pace due to the poor socioeconomic conditions of large segments of its population, the high dependence of many economies on the exploitation of their natural resources, and the high vulnerability of urban and rural populations to natural disasters.

The strong links between environmental degradation and poor socioeconomic conditions, coupled with the very high levels of urbanization in the region, suggest that the highest social costs from environmental problems may be due to urban and industrial pollution. In this sense, access to clean water, sewage collection, solid waste collection, and air pollution control in large cities are perhaps at the top of the environmental agenda in the LAC region, particularly as cost-effective means to improve the welfare of poor segments of the population.

As a richly endowed region, problems of mismanagement of natural resources (water, soils, forests, fisheries, natural habitats) and

threats to terrestrial and marine biodiversity also rank high on the environmental agenda. According to the recent UNEP study, *GEO Latin America and the Caribbean: Environment Outlook 2000*, 6 million hectares of natural forest cover per year were cleared or went up in smoke between 1990 and 1995, 822 vertebrates are currently in danger of extinction, and more than 300 million hectares of land have been degraded, mainly due to soil erosion caused by deforestation, overgrazing, or poor agricultural practices.

Table 3 gives details of losses in forest area and levels of desertification by country. Forest loss seems to have stabilized in much of South America but not in Central America, where it has increased slightly—from between 1.5 and 2 percent per year during 1980–90, to between 2 and 3 percent per year during 1990–95. On the other hand, desertification of irrigated land, rainfed cropland, and rangeland is in the 70–90 percent range in a number of LAC countries, with over half the rangelands experiencing significant loss in potential productivity since the mid-1940s (crop and pastureland productivity has decreased by 4–7 percent in South America and by 9–15 percent in Central America). In most of these cases, particularly where the agricultural frontier is still expanding, small peasants are the ones who suffer the most in the medium-long term from increased environmental degradation, because their livelihoods depend directly on the natural resource base.

Finally, the poorest populations in both urban and rural areas are at far greater risk to natural disasters than are higher income

groups. Such risks include droughts in northeast Brazil and the uplands of Mexico, floods and volcanic eruptions in Central America, and floods and associated landslides in the slums of most metropolitan and peri-urban areas throughout Latin America and the Caribbean. Natural disasters closely associated with climate variability have increased in frequency and intensity over the past decades and economic losses due to these events are estimated to have increased eightfold between 1961–70 and 1986–95. While the social impact and economic costs of such events can only be roughly estimated, their association with poverty puts them at the forefront of environmental problems in the region.

Annex 1 summarizes the key environmental problems and their impacts by subregion in LAC. Because the prevalence and social cost of these problems vary across the region, priorities should also vary accordingly. However, response is often suboptimal due to limited awareness of impacts and costs and the perception that environmental conservation is a constraint to growth. As a result, decision-making often fails to take environmental concerns into account. While in most countries progress has been made at the project level over the past decade, poor policies (including unclear property rights and inappropriate resource pricing and subsidies) are often at the root of environmental degradation. At the other extreme, enforcement of environmental regulations and policies relies on inflexible and ineffective instruments, and would benefit from greater use of economic incentives, participation by stakeholders, partnerships with polluters, and the development of better basic data and planning methodologies.

The Role of LCSES and Other Sector Management Units

Within the Bank's Latin America and Caribbean Regional Vice Presidency (LCR), responsibility for the environmental program is borne by several different groups. The Environmentally and Socially Sustainable Development Sector Management Unit (LCSES) currently has responsibility for (a) ensuring compliance with safeguard policies, (b) supporting quality at entry and in the implementation of all regional operations with respect to social and environmental aspects, (c) developing and implementing environmental operations, (d) assisting borrowers through nonlending services, and (e) exploring new frontiers of environmental management through analytical work. Each of the other LCR sector management units—namely Finance, Private Sector, and Infrastructure (LCSFP), Poverty Reduction and Economic Management (LCSPR), and Human Development (LCSHD)—also has a responsibility with respect to environmental management. These SMUs must (a) ensure that their operations "do no harm" as required by the safeguard policies, and (b) implement environmental components such as institutional strengthening of environment units in sectoral agencies, or components that have strong environmental linkages such as rehabilitation of mining sites, slum upgrading, energy sector reform, urban transport improvements, and tertiary environmental education.

Table 1. Key Socioeconomic Indicators for the Latin America and Caribbean Region, and Selected Countries

	LAC region	Argentina	Bolivia	Brazil	Colombia	Dom. Rep.	Haiti	Honduras	Mexico	Nicaragua
SOCIAL INDICATORS										
Population (millions)	509.2	36.6	8.1	168.1	41.5	8.4	7.8	6.3	97.4	4.9
Population, avg. ann. growth (1992-98)	1.7	1.3	2.4	1.4	1.9	1.8	2.1	2.9	1.7	2.8
Urban population (% total population)	75	+90	62	81	73	64	35	52	74	56
Poverty (% below \$2/day)	n.a.	n.a.	38.6	17.4	28.7	16.0	n.a.	68.8	22.1	n.a.
Distribution of income (Gini index) ^a	n.a.	n.a.	42	60	57	49	n.a.	54	54	50
Life expectancy at birth (years)	70	74	62	67	70	71	54	69	72	69
Mortality under 5 years old (per 1,000 live births)	38	22	78	40	28	47	116	46	35	42
Child malnutrition (% children under 5 years old)	8	2	8	6	8	6	28	25	n.a.	12
Access to safe water—urban (% of population)	n.a.	71	78	85	88	74	37	81	91	81
Access to safe water—rural (% of population)	n.a.	24	22	31	48	67	23	53	62	27
Access to sanitation in urban areas (% of urban population)	n.a.	80	77	74	76	76	42	81	81	34
Access to sanitation (% population)	n.a.	75	41	67	83	78	24	65	66	31
Illiteracy (% population age 15 +)	12	3	16	16	9	17	52	27	9	32
Net primary enrollment (% school pop.)	94	100	97	97	89	91	n.a.	88	100	79
ECONOMIC INDICATORS										
GNP/capita (Atlas method, \$) ^b	3,840	7,600	1,010	4,420	2,250	1,910	460	760	4,400	430
GNP (measured at PPP, billion \$) ^c	3,197.1	414.1	17.8	1,061.7	237.2	39.1	11.0	14.3	752.0	10.6
Industry										
% GDP	29	32	31	29	24	35	20	30	27	21
Average annual growth	3.6	4.8	n.a.	3.2	2.3	6.8	-1.0	3.6	3.6	4.1
Services										
% GDP	63	61	54	62	61	54	50	52	68	53
Average annual % growth	5.4	4.8	n.a.	2.7	6.3	5.7	-0.3	3.7	2.4	1.1

Sources: *World Development Indicators 2000* and *World Development Report 2000/2001: Attacking Poverty*. World Bank.

n.a. = not available.

a. Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. As defined here a Gini index of zero would represent perfect equality and an index of 100 would imply perfect inequality (one person or household accounting for all income and consumption).

b. World Bank uses GNP per capita in U.S. dollars to classify economies for analytical purposes and to determine borrowing eligibility. The Atlas conversion method uses a three-year average of exchange rates.

c. GNP converted to international dollars using purchasing power parities (PPPs). PPPs provide a standard measure allowing comparison of real price levels between countries.

Table 2. Water and Air Pollution Indicators**Table 2a. City Air Pollution, 1995 (mean annual values in $\mu\text{g}/\text{m}^3$ except as noted)**

	WHO standard	Buenos Aires, Argentina ¹	São Paulo, Brazil ²	Santiago, Chile ³	Mexico City Mexico ⁴	Lima-Callao, Peru ⁵	Caracas, Venezuela ⁶
Particulate matter (PM-10)	75 (EPA)	49-59 ^a	70	109	154 ^a	259.47	n.a.
Total suspended particulates (TSP)	75	200	86	222	279	n.a.	53
Ozone: Number of days above standard	n.a.	n.a.	100 ^a	150	320 ^a	n.a.	n.a.
Nitrogen dioxide (NO_2)	40	125 ^b	83	80	130	249.53	57
Sulfur dioxide (SO_2)	50	7-10 ^c	20	39	74	113.13	33

1. Source: Air Quality Diagnosis for the Argentina Pollution Management Project, June 1998.

a. Range of daily measurements at three stations. Short-term campaign 1997.

b. Value for 1996.

c. 1994-95.

2. Sources: CETESB, *Relatório de Qualidade do Ar no Estado de São Paulo, 1994-95*; The World Resources Institute, *World Resources 1998-99*.

a. 1997.

3. Source: CONAMA, Plan de Prevención y Descontaminación Atmosférica de la Región Metropolitana, 1998.

4. Sources: Comisión Ambiental Metropolitana; *World Resources 1998-99*.

a. 1998.

5. 1998 values. Source: DIGESA, 1999.

6. Source: *World Resources 1998-99*.**Table 2b. Emissions from Fossil Fuel Burning and Cement Manufacturing, 1995**

	Argentina	Bolivia	Brazil	Colombia	Dom. Rep.	Haiti	Honduras	Mexico	Nicaragua
CO ₂ emissions (thousand metric tons)	129,464	10,475	249,196	67,524	11,769	638	3,855	357,834	2,700
Solid fuels	3,572	0	48,851	15,246	293	0	0	23,358	0
Liquid fuels	59,767	5,276	180,837	38,670	10,750	612	3,528	257,158	2,528
Gaseous fuels	56,334	2,928	9,479	8,075	0	0	0	61,830	0
Gas flaring	6,600	1,923	2,324	739	0	0	0	3,544	0
Cement manufacturing	3,189	349	12,707	4,796	724	25	326	11,945	174
Per capita CO ₂ emissions (metric tons)	3.7	1.4	1.6	1.9	1.5	0.1	0.7	3.9	0.7

Sources: The World Resources Institute, *World Resources 1998-99*.**Table 2c. Water and Sanitation Indicators for Selected Cities, 1993**

	La Paz, Bolivia	Rio de Janeiro, Brazil	Santiago, Chile	Bogota, Colombia	San Salvador, El Salvador	Guatemala City, Guatemala
Water connection (percent of urban households)	98 ¹	80 ²	98	85 ³	86	52
Sewerage coverage (percent of urban households)	66 ¹	46 ²	92	75 ³	80	n.a.
Water use per capita (liters/day)	73	299	286	176	186	240
Wastewater treated (percent)	0	28 ²	2	n.a.	2	3
Solid waste generated per capita (kilograms/day)	0.5	1.1	n.a.	0.6	0.9	n.a.
Garbage collection (percent of households)	92	88	95	94	46	53

Sources: The World Resources Institute, *World Resources 1998-99*, except: (1) INE, 1997; (2) CEDAE (State Water Utility), 1998; (3) MDE, *National Inventory of the Water and Sanitation Sector, Vol. 1-2*, 1998.

n.a. = not available

Table 3. Forest Cover, Protected Areas, Rate of Deforestation, and Desertified Areas in LAC Countries

Countries	Land area ^a (thousand hectares)	Forest cover ^b				Protected areas, 1997 ^c (thousand ha.)	Drylands, 1986 ^d		
		Area (thousand hectares) 1980	1990	1995	Avg. annual % change 1980-90	1990-95	Total area ^e (1,000 ha.)	Desertification ^f 1,000 ha.	Percent
Latin America and the Caribbean	2,016,518						2,506		
North America	190,869						152		
Mexico	190,869	55,423	55,927	55,387	0.4	(0.9)	152	149,775	127,180
Central America	51,073						384		
Belize	2,280	2,048	1,995	1,962	(0.3)	(0.3)	49	..	..
Costa Rica	5,106	1,925	1,455	1,248	(2.8)	(3.1)	109	..	..
El Salvador	2,072	156	124	105	(2.3)	(3.3)	2	135	20
Guatemala	10,843	5,049	4,253	3,841	(1.7)	(2.0)	42	882	655
Honduras	11,189	5,720	4,626	4,115	(2.1)	(2.3)	81	..	..
Nicaragua	12,140	7,255	6,314	5,560	(1.4)	(2.5)	70	..	..
Panama	7,443	3,764	3,118	2,800	(1.9)	(2.2)	31	..	..
Caribbean	22,868						533		
Dominica	75	..	46	46	..	0.0	7	..	..
Dominican Republic	4,838	1,432	1,714	1,582	1.8	(1.6)	45	..	..
Grenada	34	..	4	4	..	0.0	1	..	..
Haiti	2,756	38	25	21	(4.3)	(3.5)	8	1,784	1,602
Jamaica	1,083	516	254	175	(7.1)	(7.5)	142	166	119
St. Kitts and Nevis	36	..	11	11	..	0.0	2	..	..
St. Lucia	61	..	6	5	..	(3.6)	46	..	..
St. Vincent and the Grenadines	39	..	11	11	..	0.0	25	..	..
Trinidad and Tobago	513	204	174	161	(1.6)	(1.6)	14	..	..
South America	1,751,708						1,437		
Argentina	273,669	36,527	34,389	33,942	(0.6)	(0.3)	224	192,626	126,730
Bolivia	108,438	55,582	51,217	48,310	(0.8)	(1.2)	37	32,687	26,880
Brazil	845,651	600,762	563,911	551,139	(0.6)	(0.5)	582	80,762	69,950
Chile	74,880	8,087	8,038	7,892	(0.1)	(0.4)	88	35,252	17,400
Colombia	103,870	57,771	54,299	52,988	(0.6)	(0.5)	94	10,022	8,140
Ecuador	27,684	14,372	12,082	11,137	(1.7)	(1.6)	134	8,926	7,490
Paraguay	39,730	16,886	13,160	11,527	(2.5)	(2.6)	20	16,433	5,007
Peru	128,000	70,714	68,646	67,562	(0.3)	(0.3)	34	50,455	35,300
Uruguay	17,418	803	816	814	0.2	(0.0)	13	..	..
Venezuela	88,205	51,768	46,512	43,995	(1.1)	(1.1)	194	10,397	6,940

.. Not available.

Sources:

a. Food and Agriculture Organization of the United Nations FAO (at <http://apps.fao.org/nhp-wrap.pl?LandUse&domain=LUI&language=espanol&servlet=1>).

b. Food and Agriculture Organization of the United Nations and the International Tropical Timber Organization, in *World Resources 1998-99*, The World Resources Institute. Numbers in italics from FAO, State of the World's Forest 1997 (at <http://www.fao.org/montes/fo/sofo/sofo97/97toc-e.stm>).

c. World Conservation Monitoring Centre WCMC: 1997 United Nations List of Protected Areas (at http://www.wcmc.org.uk/protected_areas/albany-al.pdf).

d. Dregne, H. E., and N.T. Chou. 1992. "Global Desertification Dimensions and Costs." In *Degradation and Restoration of Arid Lands*. Lubbock: Texas Tech University (at <http://www.ciesin.org/docs/002-186/002-186.html>).

e. Excluding hyperarid areas.

f. Desertification of irrigated land, rainfed cropland, and rangeland. Includes moderate, severe, and very severe, but not slight desertification.

we need to better understand the links between environment, growth, and poverty, and better integrate environmental programs within the Bank's broader agenda

Stocktaking of the Environmental Portfolio

There has been no explicit LCR environment strategy in the past. Rather the implicit strategy has been to respond to emerging country demands, needs, and priorities. The current portfolio consists of the following major areas of environmental activity: institutional development, biodiversity, natural resources management (NRM), water resources management, pollution management, and disaster management, with the latter being a relatively new area of engagement. There are about 81 active projects with environment as a primary objective totaling \$2.35 billion. In addition, the Bank has been engaged in a number of nonlending services (NLS), including policy dialogue such as the Mexico Policy Notes and the Bolivia Environmental Dialogues, analytical work

such as the Mexico Groundwater Study, and initiatives such as the Clean Air Initiative (described in Box 6).

Annex 2 lists the current portfolio of the LCR Environment Group, including its Global Environment Facility (GEF) and Montreal Protocol (ozone depleting substances phaseout) portfolios. LCR's Montreal Protocol program consists of \$51.9 million in commitments to eight countries. As of June 30, 2000, LCR's portfolio of GEF projects under implementation for more than 12 months consisted of 15 full projects and 9 medium-size projects. The combined grant value of this GEF portfolio was \$134 million, with full-size projects accounting for 95 percent in dollar terms. The biodiversity focal area dominates LCR's

GEF portfolio, accounting for 18 out of 24 projects and two-thirds of the portfolio in dollar terms. The remaining six projects include four in climate change and two with multiple foci. There are also, of course, many more projects with either direct or indirect environmental objectives, particularly in the LCSFP portfolio.

Trends in Recent Assistance

In recent years, key trends in the assistance we have provided to our clients include:

- Diversification of the environmental agenda from green to brown issues and from sectoral to integrated approaches through use of the Comprehensive Development Framework (CDF) and regional (landscape-based) initiatives.
- Better integration of social concerns into environmental management through promotion of community-based initiatives, greater focus on indigenous communities, and increasing attention to resettlement and other social impacts of development projects.
- Greater emphasis on participation and consultation.
- Moving from project-specific to strategic (sectoral or regional) environmental assessment.
- Increased recognition of linkages between local and global environmental issues, including assistance to countries to meet their commitments under various international and global conventions.

Linkages with the Bank's Revised Objectives

As the Bank focuses more strongly on poverty alleviation through sustainable growth, we need to better understand the links between environment, growth, and poverty, and better integrate environmental programs within the Bank's broader agenda. While some synergies are well understood and relatively straightforward ("win-win"), others are more difficult to understand or require trade-offs ("win-lose"), and thus are more difficult to integrate.

For countries with an agricultural frontier where there is still pressure to convert or tap natural resources unsustainably to achieve short-term goals, poverty reduction through support to natural resources management (including water management and disaster preparedness) that contributes to sustainable livelihoods is a key strategy, with a strong focus on more vulnerable groups, including indigenous peoples. In economies that are more dependent on the secondary and tertiary sectors, pollution control and well-designed (environmentally sensitive) infrastructure are perhaps the key areas through which to address environmental and poverty objectives.

Table 4 shows linkages of our current portfolio with the corporate objectives of improving quality of life, promoting long-term sustainability of growth, and improving the quality of the regional and global commons.

Table 4. Linkages of Current Portfolio with Corporate Objectives

Project type	Quality of life	Quality of growth	Regional/global commons
Natural resources management	Direct link to livelihoods in newer projects. Emphasis on resource sustainability in most water management projects has a health implication. Also projects generally present a strong focus on avoiding soil degradation and protecting forest cover (positive impact on livelihoods).	Direct link to productivity through emphasis on resource sustainability in most projects.	Direct link in international waters projects and in biodiversity components.
Disaster management	Direct link with reducing people's vulnerability to environmental risks, such as forest fires, hurricanes, floods, droughts, and climate change. The bulk of projects focus primarily on disaster response, with the majority of projects being ex-post recovery projects, with small components addressing preparedness for future disasters. The newer operations focus more on preparedness, and thus promote a greater emphasis on vulnerability reduction.	Indirect link through avoidance of economic losses (assets, crops, infrastructure, etc.).	
Pollution control	Conceptual link with health, but this is rarely used in project design. Further work needs to be done to better understand the linkages beyond a simplistic level, and to apply this to project design to maximize health benefits. Also there is need to develop good baseline data and monitoring systems.	Direct link through cleaner production projects/pilots.	Direct link through air quality projects, national strategy (climate change) studies, Montreal Protocol program.
Infrastructure and productive sector (e.g., energy, transport, mining, and private sector development)	Direct link to livelihoods, typically generating both positive (e.g., access to electricity or to markets as a means of generating income) and negative impacts (e.g., reservoir formation for the purposes of power generation or privatization in the mining sector leading to closure of mining facilities). In some of these cases environmental/social objectives may be at odds with developmental goals and/or the fight against poverty. Proper mitigation of negative impacts needs to be ensured through timely environmental and social assessments and implementation of action plans.	Direct link to productivity and economic growth.	Direct link through climate change projects (renewable energy, energy efficiency, and landfill gas).
Municipal services (e.g., water and sanitation, solid waste management)	Project objectives are often linked to an implicit understanding of health improvements. However, indicators typically are at the level of access to services. Barriers to a more explicit approach to health improvements include insufficient epidemiological information and lack of an adequate database in many countries in the region on environment-related diseases.	Indirect link to productivity and growth.	
Biodiversity	Indirect links to health through sustainable production of natural food products, natural medicines and other forest products, and agriculture without agrotoxics. Indirect links to livelihoods through subsistence, commercial, and tourism activities. Indirect link to vulnerability through forest conservation.		Direct link with all GEF-financed projects (majority of portfolio).
Institution building		Direct link through objectives of improved environmental governance, policy design and enforcement, and priority-setting.	

Mainstreaming the Environment

Mainstreaming environmental concerns—that is, integrating them into sectoral projects and policy dialogue—is a key tenet of both the corporate and regional environment strategies. There clearly have been many successes in recent years; the glass is probably half full. Examples of sector–environment linkages are especially strong in the LCSFP portfolio and include:

- Renewable energy, energy efficiency, fuel quality, fuel substitution, and energy pricing policies in the energy sector.
- Solid waste management, municipal development, and slum upgrading in the urban sector.
- Air quality management through monitoring networks, technical assistance, and better traffic management in the transport sector.
- Wastewater management and water quality standards in the water and sanitation sector.

- Regulatory reform, institution building, and clean-up of contaminated sites in the mining sector.
- Efficient use of resources and raw materials and environmental management systems in the competitiveness agenda of small and medium enterprises (SMEs).
- Addressing environmental liabilities and regulations in the regulatory reform and privatization agenda.

Indeed, the capacity of environmental units in the sectoral ministries of many LAC countries has increased considerably over the last ten years. Box 1 describes some examples of best practices in environmental mainstreaming in recent Bank projects.

However, the glass is also half empty. These successful examples of mainstreaming indicate the impact that projects can have, but also point to the fact that such efforts are long-term and will require continued support over

Box 1. Best Practice Examples of Environmental Mainstreaming

Sector	Country	Project
Transport	Colombia	Third National Roads Project (strengthening of environmental unit in road agency)
Hydrocarbon	Bolivia/Brazil	Gas Sector Development Project (gas pipeline)
Power	El Salvador	Power Sector Technical Assistance Project
Water	Colombia	Santa Fe Water Supply and Sewerage Project
Agriculture	Nicaragua	Agricultural Technology Technical Assistance Project (environmental education component)

the coming years in the very same sectors. One area that is particularly worth mentioning, in which much clearly remains to be done in our client countries and thus in our own work program, is placing greater emphasis on environmental linkages in our LCSPR portfolio (see Box 2 on Structural Adjustment Programs). Conversely, a better economic case for environmental management, and illustration of the linkages and trade-offs between natural resources

management and economic growth or poverty alleviation, need to be enunciated within the Environment Family. Greater linkage of the health and environment agendas through more effective application of the knowledge gained from health surveillance projects is another priority (see Box 3), as is including environment as an integral subject in early education programs in order to help build a strong and informed environmental constituency.

Box 2. Structural Adjustment Programs and Environment

During the past two decades, 566 IMF and World Bank Structural Adjustment Programs (SAPs) have been implemented in more than 70 countries. In 1999 an estimated 53 percent of Bank lending was through SAPs, and the upward trend in SAP lending is expected to continue. Studies by both the Bank and NGOs have consistently shown that SAPs have a major impact on the environment. Trade liberalization, privatization, increased foreign investment, and reduction of government spending can alter resource use patterns, increase land degradation and deforestation, increase extraction of nonrenewable resources, and draw down natural capital.

However, many reforms have the potential to improve both environmental and economic outcomes by implementing complementary environmental policies and strengthening institutions and regulations. Furthermore, Operational Directive (OD) 8.60 on Adjustment Lending states in paragraph 13 that "analysis of adjustment programs also considers the

implications for the environment, since sound environmental management is a key objective of the Bank's assistance to countries." Strategic environmental assessments are a potentially powerful tool during program preparation for identifying win-win opportunities, ensuring compliance with Bank Safeguard Policies, and verifying consistency with the Bank's focus on sustainable poverty reduction. Such assessments could enhance the institution's understanding of environmental and social risks associated with the programs, and strengthen their overall quality.

A recent good practice example is the Mexico Decentralization Loan. This loan seeks to link the objectives of overall accountability and transparency of fiscal transfers and state debt management with ongoing operational efforts to improve service delivery in the health and environment sectors. The synergies between other operations, both under preparation and implementation, have provided cohesiveness to the portfolio.

Box 3. Focusing on Human Diseases Caused by Environmental Factors

A background paper prepared for the Bank Environment Strategy notes that “recent estimates suggest that premature death and illness due to major environmental health risks accounts for one-fifth of the burden of disease in the developing world—comparable to malnutrition (15 percent) and larger than all other preventable risk factors and groups of disease causes. While the total burden of disease in rich countries, expressed in Disability-Adjusted Life Years (DALYs) per million people, is about half of that in developing countries, the disease burden from environmental risks is smaller by a factor of 10.”

In LCR, public health surveillance projects typically have components that include studies to determine the extent of diseases caused by environmental factors (including water quality, indoor and outdoor air quality, insecticides, agrotoxins, soil quality, reptile toxins, and ground water pollution), and the formulation of environmental health policies in coordination with other ministries that can prevent such diseases. There are three projects of this type in the current portfolio of the Human Development SMU—one each in Brazil, Argentina, and Venezuela. Close collaboration on the projects and an examination of their implications for our sectoral operations in these countries should be a high priority.

The health and corresponding economic benefits of reducing pollution are often very high. The Bank has supported Mexico City’s Environmental Commission,

the Comisión Ambiental Metropolitana (CAM), in developing the Third Air Quality Program 2000–10 for the Mexico City Metropolitan Area (Zona Metropolitana del Valle de México, or ZMVM). To analyze the economic benefits of further efforts to reduce emissions, a recent Bank-funded study estimated the health benefits in monetary terms of numerous scenarios in air quality improvements (ozone and PM10) in the ZMVM.

The health benefits included in that study are (a) reduced cost of illness, (b) reduced productivity losses, (c) willingness-to-pay for reduced acute and chronic morbidity effects, measured with the contingent valuation method (CVM), and (d) willingness-to-pay for reduced acute and chronic mortality effects, also measured with the CVM.

Based on these health benefits, the total economic benefits of a 10 percent reduction in concentration of ozone is estimated at \$1.0 billion in the year 2010. A 10 percent reduction in PM10 yields a benefit of \$1.4 billion in the year 2010. Furthermore, this scenario is estimated to lead to 266 fewer infant deaths. Obtaining compliance with air quality standards can achieve benefits of as much as \$6.8 billion per year for ozone and \$6.5 billion per year for PM10 by 2010.

It is clear from these estimates that the calculated benefits associated with air pollution reduction justify relatively high expenditures to further reduce polluting emissions.

**the environmental
problems to be
tackled on a
priority basis in
LAC should be those
that impose the
highest expected
costs to society**

The Bank's new Environment Strategy proposes that we refocus our efforts at keeping "people" at center stage. As noted previously, the Corporate Strategy proposes the following as key development objectives: (a) improve the quality of life by reducing the impact of environmental degradation on human health, improving livelihoods through the sustainable management of natural resources, and reducing vulnerability to natural disasters; (b) promote the long-term sustainability of growth, particularly growth led by the private sector; and (c) improve the quality of the regional and global commons. Its principles include a focus on outcomes, a multisectoral long-term vision, cost-effectiveness,

selectivity, and working effectively with different partners including local communities, the private sector, and other institutions.

Within this context we specifically propose that the objectives for the LCR Environment Strategy be (a) improvement of people's health by reducing exposure to harmful environmental factors, (b) enhancement of livelihoods through sustainable management of natural resources, (c) development of enabling frameworks for sound environmental management, and (d) facilitation of equitable solutions to regional and global challenges so that future generations are guaranteed at least the same opportunities as present

generations. These objectives are the result of a constructive consultation with our clients, partners, and colleagues (see Box 4). In choosing these objectives, we elect to high-

light the importance of (a) the human health of poor people, (b) the effect of high levels of inequality, richness of the natural resource base, and frequent natural disasters on poor

Box 4. Public Consultation on the Strategy

The Process

A draft of the LCR Environment Strategy was posted on the World Wide Web in early August 2000, and supplemented by an e-mail campaign to promote widespread dissemination. Throughout the fall participants could read the strategy, answer a short questionnaire online, and were provided with a forum for comments and questions. Three subregional consultations were held in fall of 2000: one for the Andean countries (in Cartagena), one for the MERCOSUR countries (in Rio de Janeiro), and one for Mexico, Central America, and the Caribbean (in San Jose, Costa Rica). More than 200 participants provided their comments during the consultations. A draft of the strategy posted on the internet received over 2,000 hits and generated more than 100 written comments, mostly from NGOs and the private sector. The dialogue was very constructive and input from all participants helped fine-tune the environmental priorities, criteria for decisionmaking, and lessons learned.

The strategy was presented in Mexico City in October 2000 at the Intersessional Committee of the Forum of Environment Ministers. Soon thereafter numerous development partners—including the Pan American Health Organization (PAHO), World Health Organization (WHO), Inter-American Development Bank (IDB), Organization of American States (OAS), Food and Agriculture Organization Cooperative Program (FAO/CP), and United Nations Development Programme (UNDP)—attended a similar presentation and affirmed their interest in collaborating in implementation of the strategy.

Furthermore, extensive internal consultations were held with Sector Leaders and Sector Managers within LCR. A side-by-side comparison of the subregional priorities, as identified by the Sector Leaders and the regional consultations, is presented in Annex 4.

Summary of the Evaluation Results

According to participants and respondents, the World Bank is headed in the right direction. The public strongly agreed with the substance and direction of the strategy. Two-thirds of respondents "agreed" with the general criteria laid out in the Latin America Regional Strategy, and respondents "strongly agreed" that the Bank should link environmental issues to poverty reduction and that the institution should emphasize health, livelihoods, and vulnerability to disasters as broad development objectives of its Environmental Strategy. Furthermore, the questionnaire revealed that the respondents support the idea of the Bank helping develop markets for global environmental goods such as carbon credits or payments for ecosystem services.

Respondents recognized the growing comparative advantage that the Bank has gained in terms of global environmental management and local natural resources management issues. Still, the responses to the questionnaires indicated that the Bank has some challenges in coming years. In managing issues such as pollution, water resources, forestry, biodiversity, and sustainable land use, the institution's effectiveness was considered "average" on the whole. Reasons articulated by respondents for giving for an "average" effectiveness rating included, among others, (a) limited cross-sectoral coordination, (b) lack of institutional capacity in some of the World Bank's client countries, and (c) a tendency to work with central governmental agencies.

people's livelihoods, (c) the importance of good governance and appropriate policies and instruments to ensure sustainable growth, and (d) the commitments of our clients to international environmental conventions (see Annex 3).

Following a brief discussion of the trade-offs that were considered in setting priorities and their financing implications, the rest of this section describes in more detail substantive priority areas for the next five years.

Trade-Offs in Space and Time

Since the Bank's Environment Strategy approaches poverty reduction within the context of sustainable development, and prizes cost-effectiveness and selectivity, two distinct trade-offs should be considered—clearly targeted beneficiaries versus a diffuse interest group, and short-term versus long-term benefits. Figure 1 illustrates these concepts with project examples. The discussion that follows

highlights some of the trade-offs, which often cut across sectors, thus requiring difficult decisions about the relative priority of health, economic growth, and environmental sustainability.

In air pollution control, for example, the debate has centered on harmonization of local and global benefits—which pollutants should receive priority and whether to adopt technologies that, while perhaps less effective in mitigating emissions with local environmental impacts, are more effective at curbing pollutants that contribute to global climate change. Part of the debate is the fact that the potential beneficiaries of local air pollution abatement, especially from stationary sources, are often populations living in poorer neighborhoods close to industrial districts.

For water and sanitation, a key question is whether beneficiaries should be required to pay for sewage treatment to avoid environmental degradation in the long term or whether emphasis should be placed on obtaining immediate health improvements for

Figure 1. Environmental Trade-Offs in Space and Time

		Geographic reach of benefits	
		Local	Regional and global
Time horizon of benefits	Short-term	Priority for clients: 1 Example: Water and sanitation Comparative advantage for Bank: Very high Financing: Beneficiaries willing to pay	Priority for clients: 3 Example: Treatment of polluted waters Comparative advantage for Bank: Low to moderate Financing: Polluter pays principle should apply
	Long-term	Priority for clients: 4 Example: Environmental education Comparative advantage for Bank: Low to moderate Financing: Taxpayer resources (internal subsidies)	Priority for clients: 2 Examples: Mitigating climate change; Biodiversity conservation Comparative advantage for Bank: High Financing: Resources from "global" programs (external subsidies to cover incremental costs)

Box 5. Trade-Offs Between Health and Environment: A Point for Further Discussion

There is often an important trade-off that has to be carefully evaluated when considering sanitation interventions. Providing wastewater collection and transportation/disposal systems in the short term that improve living conditions in a community by effectively cleaning up the community's "backyard" and bringing its inhabitants the associated health benefits (and benefits to their immediate environment) may have a negative impact on the environment at the point of discharge. However, because of financial constraints wastewater treatment is often introduced in steps over a longer timeframe (preliminary treatment, followed by primary treatment, then secondary treatment and, as appropriate, tertiary treatment) in accordance with the beneficiary community's willingness and ability to pay the associated costs.

It should be remembered that this gradualist approach to wastewater collection and treatment was taken in the West following the "sanitary revolution" of the eighteenth and nineteenth centuries. Many towns and cities in Western Europe and North America are only now—more than a century after the

majority of them constructed their sewerage systems (often with subsidies)—introducing any kind of wastewater treatment for systems that discharge sewage directly into receiving waters. Furthermore, the impact of the point domestic wastewater discharge on a water system has to be compared with the diffuse pollution discharges from agriculture and the point discharges from the more concentrated industrial effluents and the dilution capacity of the receiving bodies. Such analyses are best carried out by taking the river basin as the context for comparing wastewater infrastructure interventions and impacts, and their costs and returns.

Thus, over the coming decade it is likely that increasing the provision of safe drinking water and sewerage coverage will be a higher priority than sewage treatment for most countries in Latin America and the Caribbean. In highly polluted watersheds a comprehensive, multisectoral approach using a blend of instruments (such as investment in appropriate treatment technology, pollution charges, and water rights) is likely to be more effective.

poorer people through sewage collection and disposal without treatment. To promote significant progress toward cost-effective outcomes in terms of health benefits we explicitly suggest that, in the five-year time horizon of this strategy, borrowers focus their interventions on collection and disposal of sewage, and not necessarily on sewage treatment (see Box 5). However, to ensure that this short-term decision does not affect long-term resource sustainability, the Bank will require—either as a precondition or as an integral part of a sanitation project—that a phased plan for future wastewater treatment is developed. In other areas (such as hazardous waste management), choices are made on the

basis that in the long run it is significantly cheaper to implement prevention or mitigation measures early than to delay action.

For biodiversity conservation and natural resources management projects, the debate centers on whether to manage resources to ensure sustainable local and global community use in the long term, or to allow local consumption for short-term, localized economic gain that typically produces immediate relief to poor rural people.

In most cases intermediary solutions may well exist, so that a balance between short-versus long-term environmental goals, and

local versus diffuse interests can be reached. Equally important, depending on the structure of the project or intervention, different financing arrangements come into play. For example, direct local beneficiaries generally are willing to pay for improved health and living conditions from water and sewerage projects in their neighborhoods, whereas in the case of diffuse beneficiaries, it is often difficult to make polluters either adjust their behavior (reducing their emissions) or pay for public clean-up programs to correct for the negative impact of their individual behavior. In the case of long-term benefits (those flowing to future generations), taxpayer money can be used to ensure future local benefits, whereas resources from global programs (such as the GEF) are usually required for cases with global beneficiaries. Moreover, global programs such as the GEF are increasingly tapping into the synergies between local and global interests. This is a welcome trend because experience shows that when conservation of global assets brings direct benefits to local populations there might be a better chance for sustainable management.

Strategic Priorities

We propose that the major emphasis over the next five years in the LCR program be on mainstreaming—that is, further integrating pollution management into the infrastructure and productive sectors; NRM and biodiversity protection into the rural poverty alleviation agenda; environmental institution building into the public sector reform agenda; environmental costs and benefits into the macroeconomic agenda; environmental capacity building through the tertiary education

agenda; and global environmental goals into the local environment agenda.

Consistent with the general trend in recent years, this implies an evolution in the concept of mainstreaming from one of including environment in lending operations primarily to avoid the negative impacts of projects (the “do no harm” approach) to one of integrating environmental sustainability as a development outcome.

Ultimately, mainstreaming means that concerns about sustainability should be adequately factored into client country objectives, including decisions on economic policy and sectoral strategies (such as rural, urban, transport, and energy). The LCR Environment Strategy therefore centers strongly on the proper alignment of environmental concerns with the objectives and goals of the Bank’s overall assistance to countries in the region.

Within this overarching approach, the environmental problems to be tackled on a priority basis in LAC should be those that impose the highest expected costs to society. Valuation problems impede a clear calculation of these costs in the current instance, but based on a balance of existing estimates and other qualitative assessments, as well as consideration of the Bank’s comparative advantage, the next section presents actions related to the environment under each of the four pillars of the strategy. We propose that these strategic actions would be the reference and rationale for projects and analytical work in the LCR pipeline. While environmental activities that do not fit directly within these priorities could still be financed, appropriate

justification for financing would need to be made on a case-by-case basis. Further, lack of emphasis in a particular area does not imply that it is not important; rather it may reflect our belief that it would not be in our comparative advantage, vis-à-vis our partners, to play a major role in that area.

Strategic Actions

To move toward our development objectives—improving health, enhancing livelihoods, promoting an appropriate enabling framework for sound environmental management, and promoting equitable solutions to regional and global challenges—we propose to work through the lines of action described below.

HUMAN HEALTH

Human health would be improved by (a) identifying and analyzing linkages between environment and health, and (b) increasing the efficiency, effectiveness, and sustainability of municipal services targeted to the poor and/or municipal services with a high degree of externalities, which are likely to benefit the poor among others. This focus would be applied to:

- Developing a better understanding of environment–health linkages through analytical work and implementation of health surveillance projects (see Box 3) to improve project design and policy dialogue, resulting in more strategically focused projects and using outcome indicators to measure progress and impact.
- Improving access in the near term to safe water; collection and disposal of sewage and primary treatment in conjunction with a plan for future wastewater treatment; and solid and hazardous waste management

(avoiding exposure on the part of the poor who often live on or next to improvised or poorly managed solid waste dumps).

- Financing wastewater treatment for highly polluted or sensitive water bodies (with impacts on the health of downstream inhabitants and the quality of water used for agricultural, recreational, or municipal water supply purposes).
- Financing air quality improvement in critical urban areas and industrial corridors (see Box 6 on the Clean Air Initiative), and in areas of slash-and-burn agriculture.
- Reducing exposure to toxic substances, particularly in industry, agriculture, and mining.

LIVELIHOODS

Livelihoods would be improved through (a) identification and analysis of the causes, impacts, and costs of environmental degradation and natural resource depletion, (b) adoption of sustainable environmental management practices to address environmental degradation and natural resource depletion, and (c) promotion of win-win activities that allow countries to improve poor people's livelihoods and reduce environmental degradation. This focus would be applied to:

- Developing a better understanding of linkages and trade-offs between environment, poverty, and economic growth, including long-term versus short-term implications of natural resource use (see Box 2) and subsequently incorporating environmental issues into the policy dialogue and into Country Assistance Strategies (CASs), Poverty Assessments, and Poverty Reduction Strategy Papers (PRSPs).
- Promoting sustainable integrated natural resource management of land, freshwater, and marine ecosystems (e.g., forestry,

Box 6. The Clean Air Initiative in Latin American Cities

The Clean Air Initiative (CAI) in Latin American Cities has emerged as a complement to conventional lending operations in urban transport and air quality management to help raise awareness and increase capacity to manage air quality problems in urban areas. The Initiative is a partnership between the World Bank (LCSES and WBI), city governments, private and public institutions, development banks and agencies, and NGOs interested in collaborating to improve the understanding of these problems and provide tools to city leaders for making the difficult choices involved in addressing air pollution and mitigating its health impact. The CAI is governed by a Steering Committee that endorses the Initiative's annual work plan, oversees its implementation, and promotes the Initiative through in-kind and financial contributions, fundraising, and networking. The Steering Committee includes representatives from city governments, private companies, development banks and agencies, and NGOs and foundations. The World Bank acts as the Technical Secretariat of the Initiative and provides overall management, which over time will be transferred to institutions in the region.

The activities of the Initiative, which were agreed during a December 1998 Launching Workshop, include city action plans and workshops, clean air tool-kits and distance learning courses, and the promotion of public-private partnerships for the introduction of clean technologies. In 1999 the CAI supported city-specific action plans and workshops in Lima-Callao, Mexico City, and Rio de Janeiro, as well as the development of a Clean Air Initiative website. Leveraging consultant trust funds, private sector contributions, and in-kind contributions from technical, bilateral, and multilateral agencies, the CAI has a budget for the 2000 calendar year of about \$1 million for a work program that includes workshops and development of air quality action plans in Buenos Aires and Santiago, application of a health-based economic tool-kit to establish priorities, a clean technology information pool, distance learning courses, and other products. The major challenges of the CAI include ensuring that the institutional coordinating arrangements are in place in the participating cities and that the management of the CAI can be successfully transferred to regional institutions.

Box 7. Resource Use Conflicts and Community Management of Protected Areas in Bolivia

The Biodiversity Conservation Project in Bolivia—financed by the Bank and the GEF—has helped ensure protection of some of Bolivia's most endangered ecosystems through an integrated approach involving indigenous communities, NGOs, and regional and central government institutions. One of the key lessons learned during the project's implementation was that successful management of protected areas by NGOs and local communities requires (a) that NGOs and native communities have the technical, administrative, and financial capacity to manage parks, (b) the absence of socioeconomic and political conflicts in the protected area (such as conflicts between ethnic groups, disputes over land tenure, and a traditional mistrust of government programs), (c) availability of mechanisms to ensure that local communities participate in protected area management, and (d) availability of secured

government or external donor funds to finance recurrent costs. These conditions did not exist when the project started and it took almost three years to obtain a favorable environment in which management agreements could be reached with four NGOs and one native community.

The project also found that the protected areas run by NGOs and local indigenous groups were more capable of attracting external financing and were as successful as the government-run areas in preventing extractive incursions (mining, logging). Today five areas are being managed by NGOs: Estación Biológica del Beni, Noel Kempf Mercado, Laguna Colorada, Kaa Iya, and Tariquia. Native community groups presently manage the Chaco National Park and plans are under way to sign management agreements with NGOs for the management of additional decentralized units.

fisheries) with a focus on highly degraded or threatened ecosystems and disaster prone areas, ensuring generation of benefits for indigenous and poor communities (see Box 7 on the Bolivia experience), preferably through community-based approaches, and using strategic implementation tools such as property rights, appropriate technology, and tradable development rights.

- Assisting clients to better prepare for and respond to natural and human-induced disasters and accidents (for example, by developing early warning systems, analyzing potential hazards, identifying suitable prevention and contingency planning techniques, preparing disaster response and disaster mitigation plans, developing risk management services such as insurance schemes, financing critical infrastructure, and using urban environmental land use planning as a preventive tool).
- Promoting clean industrial production,

including environmental management systems in small and medium enterprises (see Box 9 on the Guadalajara Pilot).

ENABLING ENVIRONMENT

An appropriate enabling environment for sound environmental management would be promoted by (a) supporting more effective policies and instruments, (b) targeted institution building, (c) building national environmental constituencies to ensure sustainability of interventions, and (d) strengthening participatory and conflict resolution mechanisms. Some of these efforts have a longer timeframe than this strategy's five-year horizon. However, in the short term we would seek to increasingly mainstream these into our programs. The focus would apply to:

- Developing environmentally appropriate macroeconomic policies and instruments, including growth, trade and regional integration strategies, fiscal incentives for

Box 8. A Regional Approach: The Mesoamerican Biological Corridor

The Mesoamerican Biological Corridor (MBC) is a more or less continuous band of natural ecosystems extending from southeast Mexico to the northern departments of Colombia. The Atlantic coastal areas of this zone include the second-largest barrier reef system in the world. The MBC was recently identified by the international scientific community as one of the world's 25 critical biodiversity areas or "hotspots." For the last few years the World Bank has worked with the GEF, national governments, regional organizations, civil society, bilateral and multilateral donors, and technical cooperation agencies in supporting the MBC initiative as a unique, landscape ecology approach to the conservation and sustainable use of biodiversity and forest resources in Central America, a platform for the sustainable development of the region. The Bank is preparing and supervising national and regional IBRD/IDA/IDF projects for

almost \$200 million that are related to the overall MBC initiative, and the Bank serves as the Implementing Agency for nearly \$40 million in ongoing national and regional GEF grants (with another \$50 million in the pipeline). In addition, just last year the Bank executed more than \$6 million from trust funds to support regional activities for the consolidation of the MBC, including ecosystem mapping, environmental management, vulnerability assessment, and development of a communications strategy. The concept of the MBC has been evolving in the past few years from a focus on biodiversity conservation to a broader sustainable development framework for Central America. The effects of Hurricane Mitch brought across a strong recognition of the close link between natural resources management and vulnerability reduction.

sound environmental management (such as full-cost pricing that reflects environmental externalities and reevaluating subsidies to ensure meaningful targeting), and natural resource and expenditure accounting frameworks (for example calculating costs of environmental degradation as a percentage

of GDP and the percentage of expenditures on environmental management programs as a percentage of public sector budgets in key productive and infrastructure sectors).

- Support for targeted institution building (see Box 10 on the Brazil experience), including promotion of:

Box 9. Encouraging Better Environmental Management by Industry in Mexico

The Bank supported a project in Guadalajara, Mexico that tested whether small and medium enterprises (SMEs) could successfully adopt environmental management systems (EMS). Eleven large companies, many of them multinationals, agreed to provide assistance to 22 small- and medium-scale suppliers who were interested in improving their environmental performance. The project, which enlisted the private sector, local academic institutions, the Mexican government, and the World Bank, entailed several

two-month cycles of intensive training, implementation, and review sessions. Within one year scores increased from zero points (on a scale of 20) to around 16 points for environmental planning and to 11 points for EMS implementation. About 80 percent of the plants reported lower pollution and nearly 50 percent reported improved compliance and waste handling. Many also reported improved work environments, more efficient use of materials, and better overall economic performance.

Box 10. Institution Building with a Community Focus in Brazil

The Brazil Second National Environmental Project (NEP II), approved in December 1999, builds on some of the successful features of the first Brazil NEP. One of these features is community management of environmental assets. Under the project, eligible states may request grant support from the Ministry of Environment for subprojects aimed at the protection or sustainable use of an environmental asset that has been determined to be a high priority in that state.

Environmental assets are defined as features of the natural or built environment that provide services to human communities. Some examples of environmental assets are the airshed above a city, a body of water used for fishing or potable water, or a conservation unit such as a nature preserve. Proposals for grants should identify (a) the asset, (b) specific actions to be taken to improve management of the asset, (c) a management coalition consisting of the relevant stakeholders concerned with that asset, and (d) environmental quality goals pertaining to that asset that can be monitored. Typically, grants will be made

to stakeholder coalitions consisting of municipalities, state and/or federal government agencies, private sector corporations, and NGOs. To become eligible for such grants, states must first demonstrate fulfillment of policy reforms representing improvements in their environmental management capacity, selected from a matrix of policy reforms. The higher the level of fulfillment, the larger the grant that can be made. Thus states have a financial incentive to improve their environmental management capacity.

NEP II is designed as an Adaptable Program Loan (APL) with three phases. A scoring system measures the aggregate level of fulfillment of policy reforms by all the states. When the aggregate score of all states participating in the system is reached, the next phase is triggered and new loan funding can be released. States will be able to apply for more than one grant, but only by progressing to a higher level on the reform matrix. The Ministry of Environment will provide technical assistance to help any state requesting it to fulfill the selected policy reforms.

- Regulatory and enforcement frameworks, and decision-support systems (such as priority-setting tools and outcome-oriented monitoring systems).
 - Comprehensive approaches to environmental management, including watershed management and urban development/land-use planning.
 - Sectoral mainstreaming and gradual decentralization, with a focus on targeted assistance for highly polluting sectors or critically polluted cities/industrial corridors, while using a wholesale approach to small and medium enterprises or cities.
 - Sustainable financing of environmental initiatives through the use of fiscal instruments, appropriate pricing of natural resources and environmental services (see Box 11 on the Colombian Water Charge Program), and positive and negative subsidies, thus also assisting clients to develop a graduation strategy to move away from a high dependence on external funding for environment.
 - Strengthening awareness and building environmental constituencies through primary and secondary environmental education,
- and building national environmental management capacity through tertiary education and vocational training.
- Developing mechanisms for effective participation, negotiation, and conflict resolution, including greater stakeholder involvement in the EIA process (such as early involvement through provision of information, use of interest focus groups, and public hearings), appropriate consultation on policy and program design, and use of market-based instruments, information disclosure schemes, and voluntary compliance schemes, etc. (in addition to traditional command-and-control approaches).

EQUITABLE SOLUTIONS TO REGIONAL AND GLOBAL CHALLENGES

Equitable solutions to regional and global challenges would be promoted through harmonization of the global and local agendas, in particular with respect to:

- Promoting biodiversity conservation in critically threatened ecosystems, with a focus on comprehensive approaches (such as systems of protected areas, hotspots within a subregion, and biological corridors, as

Box 11. The Colombian Water Pollution Charge Program

One of the most innovative programs for controlling pollution can be found in Colombia's Antioquia region. Its governing maxim is simple: all polluters—towns, factories, and farms—must pay for each unit of organic pollution they discharge into the waterways. Bolstered by community support for cleaner rivers, the results are impressive. Reported organic discharges dropped by 18 percent during the program's first year. The most striking change has occurred along the Rio Negro, where factories have accounted for 40 percent of organic pollution. These

factories have reduced their organic discharges by 52 percent. Colombia's recent experience reflects a movement toward regulatory reform throughout the developing world. Decades of attempts to control pollution through traditional regulations, which make discharges above designated levels illegal, have often yielded disappointing results. In an effort to break out of this one-size-fits-all approach, many countries are opting for more flexible and efficient regulation that nevertheless provides strong incentives for polluters to change their ways.

described in Box 8), promotion of current or near-term financially sustainable national biodiversity strategies, and generation of positive impacts on local livelihoods.

- Assisting client countries to prepare for and respond to climate change by mitigating greenhouse gas (GHG) emissions, ensuring and protecting the carbon sequestration functions of forests and rangelands, promoting renewable energy and energy efficiency options, and facilitating LAC countries' participation in international carbon markets—for example through preparation of national strategy studies (NSS) on greenhouse gas offset potential, preparation of Prototype Carbon Fund (PCF) projects, etc.
- Phasing out ozone-depleting substances, with a focus on targeted assistance to producers and wholesale assistance to small end-users.
- Protecting and restoring international waters.

Subregional Priorities

Annex 4 gives greater details of strategic priorities on a subregional basis for Mexico, Central America, the Caribbean, the Andean countries, Brazil, and the Southern Cone. The matrix presents ratings given by LCR country department staff, as well as ratings assigned during the regional consultations of the LCR strategy by a sample of government, NGO, and private sector representatives. As can be seen, certain objectives stand out as areas of high priority and in which LCR sees itself as having a comparative advantage: (a) developing a better understanding of the linkages between environment and health and the

linkages and trade-offs between environment, poverty, and economic growth, (b) promotion of environmentally appropriate macroeconomic and sectoral policies and instruments, (c) providing access to safe water, collection and disposal of sewage, and solid waste management, (d) sustainable natural resource management with a focus on threatened ecosystems, disaster-prone areas, and indigenous and poor communities, (e) biodiversity conservation focusing on comprehensive approaches, generation of positive impacts on local livelihoods, and sustainable financing, (f) targeted institution building, and (g) strengthening mechanisms for effective participation, negotiation, and conflict resolution.

In addition, a series of other issues are relevant on a subregional basis: wastewater treatment of highly polluted or sensitive water bodies is important in Mexico and the Caribbean; air quality improvements in critical urban areas, industrial corridors, and areas of slash-and-burn agriculture in Brazil, Mexico, and the Southern Cone; disaster preparedness in Mexico, Central America, and the Caribbean; promoting clean industrial production in the Andean countries; strengthening awareness and management capacity through environmental education and vocational training in the Andean countries; and responding to climate change in the Caribbean.

It should be noted that the subregional priorities shown in Annex 4 indicate potential future areas of work for the Bank, provided they are supported by the individual country dialogues and corresponding CASSs.

**we propose
to take a
proactive look
at mainstreaming
environmental
concerns in key
sectors and in
macroeconomic
policies**

Implementation of the Strategy

Implementation of this strategy would be at two levels: on a country basis and on a regional basis. At the country level the strategy provides a framework for thinking about environmental issues. As indicated, the country program itself will depend on the dialogue with the government, which is normally reflected in the Country Assistance Strategy (CAS). Hence, input during CAS formulation is an important strategy goal for the coming years.

To prepare for such dialogue, we propose to take a proactive look at mainstreaming environmental concerns in key sectors and in macroeconomic policies by carrying out country-level environment background papers for some countries. This approach is

consistent with the Bank's new Strategic Framework Paper, which supports comprehensive diagnoses as a basis for selective intervention.

On the other hand, cross-boundary regional work stems from four sources: (a) cross-boundary environmental problems, in particular the global environmental issues described above, (b) regional infrastructure projects such as the Brazil-Bolivia pipeline, (c) studies or sector work with a regional focus or with regional applicability, such as design of economic instruments, and finally (d) support for regional initiatives and bodies, such as the Mesoamerican Biological Corridor and the LAC Forum of Environment Ministers.

Our proposed approaches corresponding to these four areas are: (a) actively pursue GEF resources for our clients in order to tackle global environmental issues, (b) handle regional infrastructure projects on a case-by-case basis, ensuring compliance with safeguard policies and appropriate coordination in the CASs of the countries involved, (c) focus on studies and sector work that have wider applicability than in just one country and for which the need originates from several CASs, and finally (d) investigate suitable financing instruments to support

regional interventions and the work of decisionmaking forums, for which there is an increasing demand but for which we do not currently have adequate instruments.

Goals

LCR's proposed near-term goals are shown in Box 12. We see four major areas in which we would like to make progress over the next five years, namely, avoid negative impacts of projects, mainstream environment in other sectors as well as generate critical mass in

Box 12. Proposed Goals: What Are Our Objectives for the Next Five Years?

Avoid Negative Impacts of Projects ("Safeguard Policies")

- Improve screening and facilitate upstream guidance with respect to safeguards in operations
- Ensure environmental due diligence in structural adjustment loans (SALs), sector adjustment loans (SECALs), intermediary lending, and investment operations as required under Bank policies for environmental assessment and adjustment lending
- Emphasize thematic supervision
- Increase use of strategic environmental assessments

Mainstream Environment and Generate Critical Mass

- Improve understanding of poverty, growth, and environment linkages
- Include environment in CASs and in poverty alleviation and sectoral strategies
- Develop GEF, MP, and climate change (NSS) strategies in countries/region
- Emphasize a programmatic approach
- Promote mainstreaming by developing cross-sectoral products (for example environment/infrastructure, environment/health)
- Improve selectivity in new environmental projects

Work More Effectively with Clients and Donors

- Align a case for environmental management that is convincing for finance ministers and legislators
- Promote greater collaboration within the public sector and between the public sector, private sector, and civil society
- Seek complementarity with respect to other donors' programs, given the Bank's comparative advantage (for example using CDF as a tool)

Become Increasingly Results-Oriented

- Develop and incorporate impact indicators into project design and implementation
- Improve the results of operations under implementation
- Be at the forefront of best practices

selected environmental operations, work more effectively with our client and donor countries, and become increasingly results-oriented.

This strategy will have implications for each of LCR's sectoral departments. Annex 5 presents details of an implementation plan for each of the sectoral departments. In LCR's Poverty Reduction and Economic Management Group (LCSPR) we propose to focus on (a) building an economic case for environmental management by looking at macroeconomic policy and environment linkages (such as pricing of natural resources, environmental implications of regional integration, and emerging environmental services markets), (b) considering the opportunity cost of environmental conservation versus the direct cost of restoration of environmental quality and human health, (c) upstreaming environment in the dialogue by incorporating environment in CAs, poverty assessments, public expenditure reviews, and other nonlending activities, (d) mainstreaming environment into structural adjustment, PRSPs, and public sector reform operations, and (e) improving economic analysis in environmental projects.

In the case of LCR's Human Development Group (LCSHD) we propose to focus on (a) developing linked health and environment indicators and appropriate monitoring and evaluation systems, (b) better understanding the causes of environmental diseases through our health surveillance operations, (c) working closely to build environmental awareness and management capacity through our education operations, (d) improving assessment of

vulnerability and risk and promoting better coordination of our social protection operations with the region's disaster management work, and (e) working jointly with our partner institutions (PAHO and IDB) on the Shared Agenda for Environmental Health in the Americas.

With respect to LCR's Finance, Private Sector, and Infrastructure Group (LCSFP) we propose to (a) develop typical impact indicators for the subsectoral typology of projects, (b) upstream the safeguard compliance process, (c) improve supervision of environmental components, and (d) intensify cross-support and joint management in operations by actively promoting multisectoral teams, in particular on air quality management, private participation in infrastructure, sectoral reform, climate change, competitiveness, roads, transport infrastructure, traffic management, urban development, slum upgrading, and water and sanitation projects.

In terms of the Environmentally and Socially Sustainable Development Group (LCSES) we propose to (a) improve selectivity with respect to new environmental operations thereby generating critical mass in interventions, and focus mainly on integrated natural resources management, air quality improvements, management of toxic wastes, clean industrial production, natural disaster preparedness, and targeted environmental institutional strengthening, and (b) increase both operational support by LCSES to other sectoral groups and the use of those groups' sectoral staff in LCSES operational teams, thus helping to mainstream environment in all sectors, including rural, infrastructure, and education.

We also propose to enhance the effectiveness of the Quality Assurance Team (QAT) by emphasizing a collaborative, problem-solving approach in the safeguard review process. This implies (a) upstreaming the dialogue on safeguards to early stages of project preparation and to sectoral discussions, issuing technical guidelines, and disseminating best practices to sectoral project proponents and client countries, (b) increasing the use of strategic environmental assessments, (c) putting greater emphasis on compliance during implementation (for example, through thematic supervision and periodic reviews for specific safeguard policies), and (d) carrying out due diligence in adjustment and financial intermediary lending (such as SALs, SECALs, and IFIs) in addition to standard investment operations as required under Bank policies for environmental assessment.

Finally, with respect to LCR's Operational Support Unit (LCOSU), we propose joint work with LCSES and other sectoral management units to develop a monitoring program for this environment strategy, as well as to develop and ensure the use of appropriate output and impact indicators in project preparation and implementation.

LCR also proposes to work together with colleagues in different parts of the World Bank Group, based on their respective areas of expertise. We intend to work with the Environment Department on thematic input on our dialogue, nonlending services, and operations. We propose collaborating with the Development Economics Group (DEC) on the work concerning growth-poverty-

environment linkages as well as on economic instruments. And with the World Bank Institute we intend to collaborate on the Clean Air Initiative, support to the International Network for Environmental Compliance and Enforcement (INECE), targeted training programs, distance learning, and regional seminars.

Operational Implications

The above implementation plan involves increased cross-support, that is, increased use of multisectoral teams and joint products. A move in this direction is the LCSES-LCSFP jointly appointed disaster management specialist, LCSES-LCSFP joint management of the water resources group, and the assignment of an energy-environment liaison. Other mechanisms for closer collaboration that increasingly are being used are joint task management, task managers appointed from different sector management units (SMUs), and joint appointments by SMUs. To facilitate coordination across sector management units for the purposes of implementation of this strategy, a contact person would be appointed by each sectoral cluster (for example health, education, transport). Monitoring of implementation would be carried out jointly by LCSES and LCOSU.

Staffing Implications

Given the importance of making a better economic case for environmental management, the number of environmental and natural resource economists in LCSES clearly needs to be expanded through strategic staffing. In addition, more effective mainstreaming of

environmental issues in LCR will require additional environmental engineers and possibly also ecologists to provide cross-support to operations led by other sector units, as well as environmental health specialists. This also suggests that cross-sectoral skills in future hires should be emphasized and should be agreed with other departments. Lastly, joint appointments, especially for positions in the field, may become more frequent.

Funding

Given the current constrained budget situation, we have designed an implementation plan that entails preparation of annual action plans that are compatible both with emerging demands from our clients and with the resources available to the LCR Vice Presidency. Ensuring cross-support between sector units will be critical to improving mainstreaming of environmental concerns in the region's activities. In addition to CMU-

based budgets, LCR will need to play an active role to ensure that adequate funding is available (from a variety of sources) to fund, in particular, cross-boundary or regional tasks (like the Mesoamerican Biological Corridor Program, the Clean Air Initiative, or the proposed Pan-Amazonian Initiative) and unique LCSES mandates (like the QAT). Further, resources will also need to be assigned for strategic work, such as thematic strategies, comments on Country Assistance Strategies, policy notes for new administrations, support to regional forums, etc.

Working with Partners

In implementing the strategy we will continue to collaborate with our external partners, including the IDB, UNDP, FAO/CP, UNEP, OAS, ECLAC, and the bilateral agencies to ensure complementarity between our mutual work programs and a flow of information between parties. Two examples of excellent

Box 13. Working with Partners

RUTA—Regional Unit for Technical Assistance

The technical assistance project for agriculture and rural development in Central America, RUTA, has the following members: UNDP, IDB, IBRD, International Fund for Agricultural Development, Inter-American Institute for Cooperation on Agriculture, FAO, and the governments of the United Kingdom, Japan, and Sweden. The project's development objective is to contribute to the relief of poverty in Central America by increasing the contribution of the rural production sector to generate a greater share of jobs and incomes and to offer a stable food supply, access to foodstuffs, and foreign exchange earnings, while at the same time improving the sustainable use of natural resources.

Pilot Program to Conserve the Brazilian Rain Forest

The Pilot Program is a joint undertaking of the Brazilian government, Brazil's civil society, and the international community that seeks ways to conserve the tropical rain forests of the Amazon and Brazil's Atlantic coast. The project aims to (a) demonstrate that sustainable economic development and conservation of the environment can be pursued simultaneously in tropical rain forests, (b) preserve the biodiversity of the rain forests, (c) reduce deforestation to help control global warming, and (d) set an example of international cooperation between industrial and developing countries on global environmental problems.

Box 14. The LAC Environment Ministers Forum

Established in 1982 as a mechanism to exchange information and promote regional collaboration, the Forum of Environmental Ministers is now the region's principal political intergovernmental body on environmental matters. The Forum has established four priority areas for regional cooperation, namely (a) institutional frameworks, policies, and instruments for environmental management, (b) integrated watershed management, (c) biological diversity and protected areas, and (d) climate change. The Forum is supported by an Interagency Technical Committee, consisting of UNEP, UNDP, IDB, ECLAC, and the World Bank.

collaboration with our partners, namely the Regional Unit for Technical Assistance (RUTA) and the Pilot Program to Conserve the Brazilian Rain Forest, are described in Box 13. The CDF, of course, will be an essential tool to ensure this complementarity at the country level. In selecting our programs we will take into consideration the comparative advantage of our partners with respect to such parameters as presence in the field, length of intervention, etc. In particular, we propose to focus on meeting the commitments of the Interagency Technical Committee of the Forum of Environment Ministers with UNEP, IDB, and ECLAC (see Box 14); the Shared Agenda for Environmental Health in the Americas with IDB and PAHO; environment-health indicators with PAHO; capacity building, training, and seminars with the IDB; transboundary issues, especially water, biodiversity, disaster management, and environmental law with the OAS; and land degradation, desertification, and disaster management with FAO.

The main thrust of our special partnership with the GEF in coming years is to help our clients integrate global environmental concerns into their national development strategies. As mentioned earlier, the focus of GEF attention in LAC has traditionally been on biodiversity conservation. Although this focal area continues

to dominate, energy issues—particularly conservation, rural electrification, and off-grid renewable energy technologies—are now receiving greater attention as a means to reduce GHG emissions and associated climate change risks as well as to promote poverty alleviation. International waters and desertification are also themes that are likely to receive greater attention in coming years. The Montreal Protocol program is completing a cycle of phasing out ozone-depleting substances (ODS) in major sectors and will be focusing in the coming years on wholesale approaches to ODS phaseout in remaining small end-users as well as on phaseout of ODS production in LAC.

Mainstreaming of global issues and GEF and MP operations is occurring in LCR through a number of mechanisms, including (a) integrating national global commitments in CAS preparation and updates, (b) piloting the development of strategic frameworks for a country, subregion, or sector, (c) promoting more "blend" IBRD/GEF operations rather than stand-alone GEF operations, and (d) increased contact with a broad range of task teams in different sectoral units (rural development, environment, social, energy, urban, transport, etc.), as a result of the decentralization of the Regional GEF Coordinator since March 1998, resulting in increased identification of synergies between Bank-supported development programs and GEF goals.

We also expect the private sector to play an essential role in this Bank strategy as (a) stakeholders in Bank project work, for example in projects with private provision of infrastructure, (b) as beneficiaries in Bank Competitiveness projects, and (c) through Bank NLS-type initiatives such as the Guadalajara

Environmental Management Pilot (though to a lesser extent as we continue to mainstream the results of this activity into World Bank Competitiveness projects). In addition, the private sector is also a direct beneficiary of IFC's technical assistance, loans, and equity participation. We believe that the private sector's role in promoting responsible environmental management is especially important, in particular their involvement in compliance with regulations, voluntary schemes such as public disclosure and EMS implementation, and use of economic instruments for cost-effective pollution management.

We will continue to work with NGOs on a number of fronts: (a) as key participants in consultations during preparation and implementation of projects, (b) as implementing agents in IBRD, IDA, and GEF projects, and (c) in broad-based policy and strategic dialogue. We specifically propose to support client countries in strengthening mechanisms for effective public participation, negotiation, and conflict resolution in decisionmaking with respect to environmental policy and projects.

Challenges and Risks of Implementation

The challenges of implementing this first LCR Environment Strategy include (a) agreeing on realistic goals and targets with the regional

Management Team, (b) working out the implications of this strategy for individual unit business plans and work programs, including gradual shifts in the assistance strategy, budgets, strategic staffing, and partnerships (see below), (c) establishing the right incentive structure to support implementation of the strategy, especially mainstreaming (for example joint products and increased cross-support), (d) ensuring compatibility with other sector strategies, including Fuel for Thought, forestry, water, rural, and urban transport strategies, (e) incorporating this program into CAsSs, and (f) developing instruments and funding mechanisms for regional initiatives and nonlending services, such as support to the Mesoamerican Biological Corridor Program, Pan-Amazonian Initiative, Clean Air Initiative, Disaster Warning Systems, and the Regional NGO and Ministerial Dialogue.

Next Steps

By June 2001, LCR's country and sector management units will prepare a detailed implementation schedule of key activities, together with a monitoring and evaluation plan. During this period we also intend to negotiate partnerships, develop terms of reference for our fiscal 2002 activities, and secure funding (including Bank budget and other resources) and staffing for fiscal 2002 and beyond. Implementation progress of this strategy will be monitored on a yearly basis over the next five years, as with other sectoral strategies.

Annexes

- 1. Key Environmental Problems in Latin America and the Caribbean**
- 2. Current Portfolio of Environmental Projects in LCR (as of June 30, 2000)**
- 3. Major Environmental Conventions to which LAC Countries are Signatories**
- 4. Subregional Priorities Identified by World Bank Staff and Consultative Working Groups**
- 5. Implementation Matrix: Instruments, Responsibilities, and Tentative Timetable**

Annex 1. Key Environmental Problems in Latin America and the Caribbean

<i>Region/country</i>	<i>Land</i>	<i>Forestry</i>	<i>Biodiversity</i>	<i>Marine and coastal environments</i>
Mexico	<ul style="list-style-type: none"> • Desertification • Erosion 	<ul style="list-style-type: none"> • Deforestation (due to expansion of agriculture, forest fires) 	<ul style="list-style-type: none"> • Changes in key areas used by migratory birds • Habitat change and degradation • Endangered species 	<ul style="list-style-type: none"> • Endangered ecosystems (mangroves) • Contamination of coastal water (toxic and dangerous substances) • Impact of tourism
Central America	<ul style="list-style-type: none"> • Soil Erosion (poor agricultural practices) • Overexploitation of resources • Land tenure problems (unequal land distribution) • Climate variations and adverse meteorological conditions 	<ul style="list-style-type: none"> • Deforestation (due to overexploitation of resources) 	<ul style="list-style-type: none"> • Habitat changes (Chaco) 	<ul style="list-style-type: none"> • Sedimentation (from erosion of inland areas—Costa Rica and Panama) • Contamination of coastal water (high concentration of population and activities—Guyana, Honduras) • Contamination of coastal waters (toxic and dangerous substances, mainly oil)
Caribbean	<ul style="list-style-type: none"> • Land management, poor zoning, and land degradation, particularly in connection with beach erosion and watershed degradation 	<ul style="list-style-type: none"> • Deforestation (due to expansion of agriculture and high demand for firewood and construction materials) 	<ul style="list-style-type: none"> • Environmental vulnerability reinforced by ecosystem fragmentation (due to fast topographic changes); high concentration of population and activities; high frequency of natural disasters 	<ul style="list-style-type: none"> • Sedimentation (from erosion of inland areas) • Diversity of activities related to coastal and marine resources, including fishing, arts and crafts, and tourism • Overexploitation of marine resources • Intense tourism activity leading to high pressures on coastal areas • Contamination of coastal waters (sewage discharges without treatment, waste dumping) • Endangered ecosystems (coral reefs)
Andean countries	<ul style="list-style-type: none"> • Desertification (Peru) 	<ul style="list-style-type: none"> • Deforestation (Bolivia, Ecuador, Venezuela) 	<ul style="list-style-type: none"> • Significant number of endangered species (birds in Peru and Colombia) 	<ul style="list-style-type: none"> • Important fish industry (Peru) • Fast transformation in coastal zones due to increase in port activities (Ecuador) • Contamination of coastal waters (toxic and dangerous substances, mainly oil—Colombia, Venezuela)
Brazil	<ul style="list-style-type: none"> • Access to land • Land degradation, resulting in soil erosion, gullyling, and siltation of rivers • Contamination by agrochemicals (fertilizers and pesticides) 	<ul style="list-style-type: none"> • Deforestation, both clearcutting and selective removal of valuable species • Fire damage • Loss and fragmentation of major biomes 	<ul style="list-style-type: none"> • Habitat loss • Habitat fragmentation • Endangered species of plants and animals (land and aquatic) • Low percentage of area under protection and poor management of existing protected areas 	<ul style="list-style-type: none"> • Tourism and second residence development causing land degradation, coastal water pollution, etc. • Contamination of coastal waters, especially urban beaches • Destruction and conversion of sanctuaries, especially estuaries and mangroves • Overfishing
Southern Cone	<ul style="list-style-type: none"> • Desertification (Argentina—Patagonia) • Contamination by agrochemicals (fertilizers and pesticides) 	<ul style="list-style-type: none"> • Deforestation (Paraguay) 	<ul style="list-style-type: none"> • Rural poverty and problems with fauna and flora conservation (Chile) • Significant number of endangered species (mammals) 	<ul style="list-style-type: none"> • Overexploitation of commercial fisheries (Chile, Argentina, Uruguay) • Fast transformation in coastal zones due to increase in port activities (Argentina, Uruguay) • Dislocation of fishing industry

Sources: GEO América Latina y el Caribe 2000 – Perspectivas del Medio Ambiente, UNEP; World Resources 1998-99, World Resources Institute; World Bank Staff.

Annex 1. Key Environmental Problems in Latin America and the Caribbean *continued*

	<i>Air</i>	<i>Water</i>	<i>Urban areas</i>	<i>Natural disasters</i>
Mexico	<ul style="list-style-type: none"> Significant production of CFCs High level of air pollution due to urban transport and industrial activities (Mexico City) 	<ul style="list-style-type: none"> Arid areas in the northern and central parts of the country Contamination of surface and groundwater (due to disposal of crude industrial and urban effluents) High costs for water provision High demand for water for irrigation Overexploitation of aquifers Pricing/subsidies issues 	<ul style="list-style-type: none"> Sprawling slum settlements in major cities Poorer segments of the population with inadequate shelter/housing coupled with lack of access to safe water and sanitation Fast urban growth without urban planning Inadequate solid waste disposal and sewage treatment facilities Poor hazardous waste management 	<ul style="list-style-type: none"> High occurrence of natural disasters (hurricanes, floods, earthquakes, droughts, erosion, landslides, mudflows, volcanic activity)
Central America		<ul style="list-style-type: none"> Rivers highly contaminated by wastewater from urban, industrial, and agricultural activities (El Salvador and Costa Rica) Lack of wastewater collection systems and treatment facilities Contamination of surface water 	<ul style="list-style-type: none"> Sprawling slum settlements in major cities (El Salvador, Honduras, Nicaragua) Poorer segments of the population with inadequate shelter/housing coupled with lack of access to safe water and sanitation Fast urban growth without urban planning Inadequate solid waste disposal and sewage treatment facilities 	<ul style="list-style-type: none"> High occurrence of natural disasters (hurricanes, floods, erosion, landslides, mudflows) Absence of planning, prevention, and mitigation measures for vulnerable areas
Caribbean		<ul style="list-style-type: none"> High costs of desalination Lack of wastewater collection systems and treatment facilities 	<ul style="list-style-type: none"> Sprawling slum settlements (Haiti, Dominican Republic, Jamaica) Inadequate solid waste disposal and sewage treatment facilities Fast urban growth without urban planning 	<ul style="list-style-type: none"> Tectonic events (earthquakes and volcanoes) Frequent meteorological events (hurricanes, floods) Absence of planning, prevention, and mitigation measures for vulnerable areas
Andean countries	<ul style="list-style-type: none"> Significant production of CFCs (Venezuela) High level of air pollution due to urban transport and industrial activities (Bogotá) 	<ul style="list-style-type: none"> Arid areas in Peru and Bolivia Contamination of watersheds (Peru) leading to increases in treatment costs Lack of wastewater collection systems and treatment facilities 	<ul style="list-style-type: none"> Sprawling slum settlements in major cities (Bolivia, Colombia, Ecuador) Poorer segments of the population with inadequate shelter/housing coupled with lack of access to safe water and sanitation Fast urban growth without urban planning Inadequate solid waste disposal and sewage treatment facilities (Bolivia, Ecuador, Peru) Poor hazardous waste management (Venezuela, Colombia) 	<ul style="list-style-type: none"> High occurrence of natural disasters (erosion, mudflows) Occupation of environmentally sensitive areas (riversides, hillsides) more likely to be affected in the event of natural disasters (Venezuela) Meteorological events (rain—Venezuela) Absence of planning, prevention, and mitigation measures for vulnerable areas
Brazil	<ul style="list-style-type: none"> Poor air quality in large cities, especially in Rio and São Paulo and many other locations due to pollution from industrial and transport sources, and in other locations due to industrial emissions and agricultural burning Poor indoor air quality, particularly from burning of fuels in domestic kitchens GHG emissions 	<ul style="list-style-type: none"> Inadequate management of water sources especially in water scarce areas such as the Northeast Inadequate access to safe drinking water, particularly by the urban poor Contamination and degradation of water bodies especially around highly developed areas 	<ul style="list-style-type: none"> Poorer people with inadequate shelter coupled with poor sanitary conditions (water, sewerage, solid waste) Rapid urban growth and urban sprawl without adequate planning Transport systems skewed to use of private automobiles resulting in increased air pollution, noise pollution, and traffic congestion Inadequate solid and hazardous waste disposal and sewage treatment facilities Expansion of settlements, especially squatters, into unsuitable high-risk locations such as hillsides and floodplains 	<ul style="list-style-type: none"> Occupation of sensitive areas (floodplains, hillsides) exposing people to risk of natural disasters Lack of watershed management leading to erosion, siltation, and flooding Inadequate management of hazardous substances, for example petroleum Increased vulnerability to forest fires due to poor fire management and climate change
Southern Cone	<ul style="list-style-type: none"> High level of urban air pollution due to urban transport and industrial activity (Santiago, Córdoba) Significant production of CFCs 	<ul style="list-style-type: none"> Pollution of groundwater in urban areas Low efficiency of irrigation leading to salinization and soil loss Contamination of aquifers (Argentina) Intensive pollution in river and water bodies in urban and peri-urban areas (Argentina) Overexploitation of aquifers (Argentina) Contamination of surface water due to crude urban and industrial effluent disposal (Argentina) 	<ul style="list-style-type: none"> Sprawling slum settlements in major cities (Paraguay, Buenos Aires) Poorer segments of the population with inadequate shelter/housing coupled with lack of access to safe water and sanitation Fast urban growth without urban planning High solid waste production (Santiago) 	<ul style="list-style-type: none"> High damage caused by frequent floods (flash floods) in urban and rural areas due to inadequate drainage, zoning, and response planning High occurrence of natural disasters (erosion, landslides, mudflows in foothills—Argentina)

Sources: GEO América Latina y el Caribe 2000 – Perspectivas del Medio Ambiente, UNEP; World Resources 1998-99, World Resources Institute; World Bank Staff.

Annex 2. Current Portfolio of Environmental Projects in LCR (as of June 30, 2000)

<i>Country</i>	<i>Fiscal year</i>	<i>Project title</i>	<i>Loan/grant amount (in US\$ millions)</i>
Biodiversity			
Argentina	1998	Biodiversity Conservation Project	10.1
Belize	1999	Northern MBC Consolidation	0.8
Bolivia	1993	Biodiversity I	4.5
Brazil	1996	Biodiversity Fund	20.0
Brazil	1996	National Biodiversity	10.0
Colombia	1999	Sustainable Use of Biodiversity—Serranía del Baudo	0.7
Colombia	2000	San Andres Archipelago	0.7
Colombia	2000	Sierra Nevada Sustainable Development	5.0
Colombia	2001	Mataven Forest	0.9
Costa Rica	1998	Biodiversity Resource Development	7.0
Ecuador	1994	Biodiversity Protection	7.2
Ecuador	1999	Monitoring the Galapagos Islands	0.9
Ecuador	1999	Wetlands Priorities for Conservation Action	0.8
Ecuador	2000	Choco-Andean Corridor	1.0
El Salvador	1998	Biodiversity Coffee	0.7
Haiti	1997	Forest and Parks Protection	21.5
Honduras	1998	Biodiversity in Priority Areas	7.0
Mexico	1999	Biodiversity Conservation—El Triunfo Biosphere Reserve	0.7
Nicaragua	1997	Atlantic Biological Corridor	7.1
Panama	1998	Panama Mesoamerican Biological Corridor (PAMBC)	8.4
Peru	1995	National Parks—GEF	5.0
Peru	2000	Community Management—Northwest Biosphere Reserve	0.7
Peru	2000	Conservation in Vilcabamba	0.7
Venezuela	2000	Conservation Los Llanos	0.9
Disaster management			
Brazil	1999	Emergency Fire Prevention	15.0
Caribbean	1997	Planning for Adaptation to Global Climate Change	6.3
Ecuador	1998	El Niño	60.0
Honduras	2000	Emergency Disaster Management	10.8
Institution building			
Brazil	2000	National Environment 2	15.0
Colombia	1996	Urban Environment	20.0
Dominican Republic	1998	Environmental Policy	3.0
Ecuador	1996	Environmental Management	15.0
Honduras	1995	Environmental Development	10.8
Trinidad and Tobago	1995	Environmental Management	6.2
Venezuela	1998	Environmental Management	28.0
Natural resources management			
Argentina	1996	Forestry Development	16.0
Argentina	1997	Native Forests and Protected Areas	19.5
Brazil	1992	Mato Grosso Natural Resources	205.0
Brazil	1992	Rondonia Natural Resources	167.0

Annex 2. Current Portfolio of Environmental Projects in LCR (as of June 30, 2000) continued

Country	Fiscal year	Project title	Loan/grant amount (in US\$ millions)
Natural resources management continued			
Brazil	1998	Land Management 3 (São Paulo)	55.0
Chile	1996	Secano Agricultural Development	15.0
Colombia	1994	Natural Resources Management	39.0
Colombia	1998	Peasant Enterprise	5.0
El Salvador	1996	Land Administration	50.0
Guatemala	1999	Land Administration	31.0
Guatemala	1999	Land Fund	23.0
Honduras	1997	Rural Land Management	34.0
Mexico	1997	Community Forestry	15.0
Mexico	1998	Rural Development in Marginal Areas	47.0
Mexico	1999	Oaxaca Sustainable Hillside Management	0.7
Mexico	2000	Rural Development in Marginal Areas II	55.0
Nicaragua	1994	Agricultural Technology and Land Management	44.0
Nicaragua	1997	Rural Municipalities (PROTIERRA)	30.0
Nicaragua	1999	Private Forestry	9.0
Nicaragua	2000	Agricultural Technology and Rural Education	23.6
Panama	1997	Rural Poverty and Natural Resources	22.5
Panama	1999	San Lorenzo	0.7
Paraguay	1994	Natural Resources Management I	50.0
Peru	1997	Sierra Natural Resources	51.0
Peru	2000	Research and Extension	9.6
Uruguay	1994	Irrigation and Natural Resources Management	41.0
Venezuela	1995	Inparques	55.0
Pollution management			
Argentina	1997	Reduction of Ozone	25.0
Argentina	1998	Pollution Management	18.0
Bolivia	1996	Environment, Industry, and Mining	11.0
Brazil	1994	ODS Phaseout Program	8.5
Chile	1993	Montreal Protocol	1.2
Chile	1997	Montreal Protocol Phase II	1.2
Mexico	1994	Northern Border Environment I	67.1
OECS	1995	Ship Waste Management	12.5
OECS	1995	Solid Waste Management	11.5
Uruguay	1995	Reduction of Ozone	5.0
Uruguay	2000	Landfill Methane (MSP)	1.0
Water resources			
Brazil	1990	Northeast Irrigation I	210.0
Brazil	1997	Ceará Water Pilot	9.6
Brazil	1998	Bahia Water Resources	51.0
Brazil	1998	Federal Water Management	198.0
Dominican Republic	1995	Irrigated Land and Watershed Management	28.0
Ecuador	1991	Guayas Flood Control	59.0
Ecuador	1994	Irrigation Technical Assistance	20.0
Mexico	1996	Water Resources Management	186.5

Annex 3. Major Environmental Conventions to which LAC Countries are Signatories

Topic	Convention	Goal	Signatories
Hazardous materials			
Transboundary movements and disposal	Basel Convention	The objective of the convention is to provide for a comprehensive regime for liability as well as adequate and prompt compensation for damage resulting from the transboundary movement of hazardous wastes and other wastes, including incidents occurring because of illegal traffic in those wastes.	Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, Uruguay, Venezuela
Biodiversity			
Conservation	Convention on Biological Diversity	The objectives of the convention are conservation of biological diversity, sustainable use of its components, and fair and equitable sharing of the benefits arising from the utilization of genetic resources; and reducing any potential risks resulting from the transboundary movement of living modified organisms (LMOs).	Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela
Conservation	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	Limiting international trade of endangered species of wild flora and fauna.	Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela
Conservation	Convention on Wetlands of International Importance especially as Waterfowl Habitat (RAMSAR)	To stem the progressive encroachment on and loss of wetlands now and in the future, recognizing the fundamental ecological functions of wetlands and their economic, cultural, scientific, and recreational value.	Argentina, Bolivia, Brazil, Ecuador, Guatemala, Honduras, Mexico, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay, Venezuela
Conservation	Convention on Migratory Species	The Convention on the Conservation of Migratory Species of Wild Animals (also known as CMS or the Bonn Convention) aims to conserve terrestrial, marine, and avian migratory species throughout their range.	Argentina, Chile, Jamaica, Panama, Paraguay, Peru, Uruguay
Conservation	International Tropical Timber Agreement	To provide an effective framework for cooperation and consultation between countries producing and consuming tropical timber, to promote the expansion and diversification of international trade in tropical timber and the improvement of structural conditions in the tropical timber market, to promote and support research and development with a view to improving forest management and wood utilization, and to encourage the development of national policies aimed at sustainable utilization and conservation of tropical forests and their genetic resources and at maintaining the ecological balance in the regions concerned.	Bolivia, Brazil, Colombia, Ecuador, Guyana, Honduras, Panama, Peru, Trinidad and Tobago, Venezuela

Annex 3. Major Environmental Conventions to which LAC Countries are Signatories *continued*

Topic	Convention	Goal	Signatories
Chemicals			
Restricted production and transport of banned chemicals	Rotterdam Convention	The convention requires that hazardous chemicals and pesticides that have been banned or severely restricted in at least two countries shall not be exported unless explicitly agreed by the importing country. Countries are also obliged to stop national production of those hazardous compounds. The treaty covers a list of 27 pesticides and industrial chemicals, including aldrin, DDT, dieldrin, HCH, lindane, mercury compounds, polychlorinated biphenyls (PCBs), and others.	Argentina, Barbados, Brazil, Colombia, Ecuador, Paraguay, Peru, Uruguay
Minimization of emissions and release of persistent organic pollutants (POPs)	Stockholm Convention (not yet in force)	The convention seeks international action to protect health and the environment through measures that will reduce and/or eliminate emissions and discharges of persistent organic pollutants, including the development of an international legally binding instrument. The convention will enter into force 90 days after ratification by 50 signatories.	Antigua and Barbuda, Argentina, Bahamas, Bolivia, Brazil, Chile, Colombia, Cuba, Dominican Republic, Haiti, Jamaica, Mexico, Nicaragua, Panama, Peru, Uruguay, Venezuela (signatories as of June 30, 2001; none have ratified)
Ozone layer			
Elimination of ozone depleting substances	Vienna Convention/ Montreal Protocol	This agreement regulates the production of CFCs and other ozone-depleting substances through measures to reduce the production and consumption of a number of CFCs (CFC-11, 12, 113, 114, and 115) and several halons (1211, 1301, 2402), with the final objective of eliminating these substances.	Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela
Forests			
Sustainable forestry	Intergovernmental Forum on Forests	To establish an intergovernmental negotiation process to promote the management, conservation, and sustainable development of all types of forests.	Bolivia, Brazil, Chile, Colombia, Cuba, Guatemala, Guyana, Mexico, Nicaragua, Panama, Paraguay, Peru, Venezuela
Climate change			
Reduction of greenhouse gases	UN Framework Convention on Climate Change	The objective of the convention is the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic human-induced interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner.	Antigua and Barbuda, Argentina, Bahamas, Bolivia, Brazil, Chile, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, Uruguay
Fisheries			
Sustainable fisheries	FAO Compliance Agreement	Agreement to promote compliance with international conservation and management measures by fishing vessels on the high seas.	Argentina, Mexico, St. Kitts and Nevis

Annex 3. Major Environmental Conventions to which LAC Countries are Signatories *continued*

Topic	Convention	Goal	Signatories
Water			
Clean water; watershed management	Ministerial Declaration of The Hague on Water Security in the 21st Century	To provide water security for the twenty-first century by ensuring that freshwater, coastal, and related ecosystems are protected and improved, that sustainable development and political stability are promoted, that every person has access to enough safe water at an affordable cost to lead a healthy and productive life, and that the vulnerable are protected from the risks of water-related hazards.	
Desertification			
Desertification prevention	Convention to Combat Desertification	To combat desertification and mitigate the effects of drought in arid, semi-arid, and dry subhumid areas through long-term integrated strategies that focus on improved productivity of land, and rehabilitation, conservation, and sustainable management of land and water resources, leading to improve living conditions, particularly at the community level. To adopt an integrated approach that addresses the physical, biological, and socioeconomic aspects of the process of desertification and drought.	Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela
Heritage			
Protection	Convention Concerning the Protection of the World Cultural and Natural Heritage	To establish an effective system of collective protection of the cultural and natural heritage of outstanding universal value, organized on a permanent basis and in accordance with modern scientific methods.	Antigua and Barbuda, Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, St. Lucia, Suriname, Uruguay, Venezuela

Annex 4. Subregional Priorities Identified by World Bank Staff and Consultative Working Groups

Development objectives/ desired outcomes	Andean countries				Brazil		Caribbean		Central America		Mexico		Southern Cone	
	World Bank (Colombia, Venezuela)	World Bank (Bolivia, Ecuador, Peru)	Working Group 1	Working Group 2	World Bank	Working Group	World Bank	Working Group	World Bank	Working Group	World Bank	Working Group	World Bank	Working Group
Improving health through:														
• Better understanding of environment–health linkages	H	H	n.r.	H	H	H	M	H	M	H	M	M/H	H	H
• Access to safe water; collection and disposal of sewage; solid waste management	H	H	H	H	H	H	H	H	M	H	H	H	H	H
• Wastewater treatment for highly polluted or sensitive water bodies	H	M	M	M	M	M	H	H	L	n.r.	H	H	L	M
• Air quality improvement in critical urban areas, industrial corridors, and areas of agricultural burn-off	L	M	M	M	H	H	L	L	L	M*	H	H	H	H
• Reduction in exposure to toxic substances in industry, agriculture, and mining	M	M	n.r.	M	L	L	L	L	L	n.r.	L	L	M	M/H
Improving livelihoods through:														
• Better understanding of environment–poverty–economic growth linkages and trade-offs	H	H	n.r.	H	H	M	H	H	M	L*	H	M/H	M	H
• Sustainable integrated natural resources management (e.g., water, fisheries, forestry), with a focus on highly degraded or threatened ecosystems, disaster-prone areas, and indigenous and poor communities	M	H	M	H	H	M	H	H	H	L*	H	H	H	H
• Assisting clients to prepare for and respond to natural and human-induced disasters and accidents	M	M	M/H	H	L	L	H	H	H	H	H	H	M	M/H
• Promoting clean industrial production, including environmental management systems in small and medium enterprises	H	M	M/H	H	L	L	M	H	L	n.r.	M	H	M	H

Note: The priorities shown in this matrix were identified by staff from the World Bank's Country Management Units and by working groups composed of government, NGO, and private sector representatives. (see Box 5). The priorities indicate potential future areas of work for the Bank, provided they are supported by the individual country dialogues and corresponding CAs.

H = High—areas in which significant progress is expected within the five-year time frame, where conditions are favorable, and the Bank should strive to be involved and has a comparative advantage.

M = Moderate—areas which are of lesser importance within this time frame, or where progress is expected to be modest in the five-year time frame or where other IFIs are likely to be as effective as the Bank.

L = Low—areas which are not very relevant for the subregion or where the Bank does not have a comparative advantage.

n.r. = not rated by working group during regional consultations.

* = The Central America Group rated this as "high" priority and thought that the World Bank has "medium" to "high" comparative advantage in this area. However, the group noted that the issue was not likely to be taken up or that significant progress would be unlikely because of insufficient awareness or weak institutional capacity, or because of insufficient cross-sectoral coordination in the World Bank.

Annex 4. Subregional Priorities Identified by World Bank Staff and Consultative Working Groups *continued*

Development objectives/ desired outcomes	<i>Andean countries</i>				<i>Brazil</i>		<i>Caribbean</i>		<i>Central America</i>		<i>Mexico</i>		<i>Southern Cone</i>	
	World Bank (Colombia, Venezuela)	World Bank (Bolivia, Ecuador, Peru)	Working Group 1	Working Group 2	World Bank	Working Group	World Bank	Working Group	World Bank	Working Group	World Bank	Working Group	World Bank	Working Group
Promoting an appropriate enabling environment through:														
• Promotion of environmentally appropriate macroeconomic and sectoral policies and instruments	H	H	L	M/H	L	L	H	H	L	L*	H	H	M	H
• Targeted institution building	H	H	L	H	M	M	M	H	H	L*	H	H	H	H
• Strengthening of awareness and management capacity	H	H	H	M	M	M	L	H	L	L*	M	L	L	H
• Strengthening mechanisms for effective participation, negotiation, and conflict resolution	M	M	H	H	H	L	H	n.r.	H	H	M	n.r.	H	H
Promoting equitable solutions to regional and global environmental challenges and harmonizing global and local agendas through:														
• Assisting countries to prepare for and respond to climate change	M	M	L/M	M	L	M	H	H	L	n.r.	M	M	M	M
• Biodiversity conservation focusing on comprehensive approaches, generation of positive impacts on local livelihoods, and sustainable financing	M	M	L	H	H	M	H	H	H	M*	H	H	H	H
• Phasing out CFCs	M	M	L	L	L	L	L	L	L	n.r.	L	L	M	M
• Protecting and restoring international waters	L	L	n.r.	n.r.	M	n.r.	H	n.r.	L	n.r.	M	n.r.	H	n.r.

Note: The priorities shown in this matrix were identified by staff from the World Bank's Country Management Units and by working groups composed of government, NGO, and private sector representatives. (see Box 5). The priorities indicate potential future areas of work for the Bank, provided they are supported by the individual country dialogues and corresponding CASSs.

H = High—areas in which significant progress is expected within the five-year time frame, where conditions are favorable, and the Bank should strive to be involved and has a comparative advantage.

M = Moderate—areas which are of lesser importance within this time frame, or where progress is expected to be modest in the five-year time frame or where other IFIs are likely to be as effective as the Bank.

L = Low—areas which are not very relevant for the subregion or where the Bank does not have a comparative advantage.

n.r. = not rated by working group during regional consultations.

* = The Central America Group rated this as "high" priority and thought that the World Bank has "medium" to "high" comparative advantage in this area. However, the group noted that the issue was not likely to be taken up or that significant progress would be unlikely because of insufficient awareness or weak institutional capacity, or because of insufficient cross-sectoral coordination in the World Bank.

Annex 5. Implementation Matrix: Instruments, Responsibilities, and Tentative Timetable

A. Improving Health

<i>Development objectives/ desired outcomes¹</i>	<i>Instrument²</i>	<i>Units involved³</i>	<i>Fiscal 2002⁴</i>	<i>Fiscal 2003-06</i>	<i>Funding sources⁵</i>	<i>Partnerships</i>
Better understanding of environment-health linkages	NLS TA	LCSHD LCSES LCSFP	• Guatemala Indoor Air Pollution Study	<ul style="list-style-type: none"> • Analytical and advisory activities (AAA) on linkages between health and land, air, and water pollution; development of environment-health indicators in context of project preparation • Collaboration on the Shared Agenda for Environmental Health in the Americas • AAA on lessons learned from health surveillance projects, focusing on policy implications, impact indicators, and improved design criteria 	BB CTF ESMAP DGF	PAHO, IDB on the Shared Agenda
Access to safe water; collection and disposal of sewage; solid waste management	Lending	LCSFP LCSES LCSHD	<ul style="list-style-type: none"> • Peru National Rural Water Supply (tentative) • Colombia Water Sector Reform • Dominican Republic Solid Waste LIL • Brazil Comunidade Solidaria • Brazil Recife Urban Upgrading • Brazil Rural Poverty Alleviation (3) • Mexico Rural Municipal Development • El Salvador Local Development • Guatemala Social Infrastructure 	<ul style="list-style-type: none"> • Ten urban projects or project components (for example, in urban upgrading and municipal development) • Ten rural projects or project components (such as rural community-driven development and infrastructure projects) • Four social funds projects 	BB CTF	Cities Alliance on urban upgrading
Wastewater treatment for highly polluted or sensitive water bodies	Lending	LCSFP LCSES	• Colombia Water Sector Reform	<ul style="list-style-type: none"> • Four Projects or project components with a focus on pollution control in critical water bodies 	BB CTF	
Air quality improvement in critical urban areas, industrial corridors, and areas of agricultural burn-off	NLS TA Lending	LCSES WBI LCSFP	<ul style="list-style-type: none"> • Brazil Fortaleza Transport • Brazil São Paulo Metro IV • Mexico City Air Quality Management TA 	<ul style="list-style-type: none"> • Two air quality projects or components in urban transport projects • Clean Air Initiative (cont.) 	BB CTF ESMAP private sector	WBI and various donors on Clean Air Initiative
Reduction in exposure to toxic substances in industry, agriculture, and mining	Lending	LCSFP LCSES	• Argentina Mining Decontamination		BB CTF	

Annex 5. Implementation Matrix: Instruments, Responsibilities, and Tentative Timetable *continued*
B. Improving Livelihoods

<i>Development objectives/ desired outcomes¹</i>	<i>Instrument²</i>	<i>Units involved³</i>	<i>Fiscal 2002⁴</i>	<i>Fiscal 2003-06</i>	<i>Funding sources⁵</i>	<i>Partnerships</i>
Better understanding of environment-poverty-economic growth linkages and trade-offs	NLS TA	LCSPR LCSES	<ul style="list-style-type: none"> • Regional Flagship Project on Trade • Mexico study of poverty-environment linkages 	<ul style="list-style-type: none"> • AAA on poverty-environment linkages • AAA on macroeconomic policy-environment linkages, including export-led growth, persistent reliance on natural resource base, emerging environmental services markets (e.g. carbon offsets), greening of industry, interregional integration 	BB CTF DGF	DEC and ENV
Sustainable integrated natural resources management (land, freshwater, and marine ecosystems)	Lending	LCSES	<ul style="list-style-type: none"> • Brazil Rural Poverty Alleviation (3) • Guatemala Western Altiplano • Panama Canal Watershed • Ecuador Rural Poverty • Nicaragua Land Administration • Mesoamerican Biological Corridor Program (cont.) 	<ul style="list-style-type: none"> • Ten projects or project components with a focus on highly degraded or threatened ecosystems, disaster-prone areas, and indigenous and poor communities • Mesoamerican Biological Corridor Program (cont.) 	BB CTF GEF BNPP	FAO on land degradation, desertification, disaster management OAS on transboundary issues (especially water and biodiversity)
Assisting clients to prepare for and respond to natural and human-induced disasters	TA Lending NLS	LCSES LCSFP	<ul style="list-style-type: none"> • Review of El Niño Disaster Management Projects • OECS APL IV for Contingency Lending • Nicaragua Disaster Management Strategy on Disaster Management for LAC 	<ul style="list-style-type: none"> • Four projects with a focus on disaster preparedness, flood control, and landslide mitigation • Technical assistance on risk assessment and early warning systems 	BB CTF	UNDP UNEP especially on prevention/control of forest fires and natural disaster warning systems LAC Forum of Ministers OAS on transboundary issues
Promoting clean industrial production, including environmental management systems in small and medium enterprises	NLS TA	LCSES LCSFP	<ul style="list-style-type: none"> • Honduras Competitiveness 	<ul style="list-style-type: none"> • Two projects on competitiveness/export promotion/SMEs that incorporate clean production, environmental management systems, occupational health and safety, etc. • AAA on environmental constraints to competitiveness 	BB CTF private sector	

Annex 5. Implementation Matrix: Instruments, Responsibilities, and Tentative Timetable *continued*

C. Promoting an Appropriate Enabling Environment

Development objectives/ desired outcomes¹	Instrument²	Units involved³	Fiscal 2002⁴	Fiscal 2003-06	Funding sources⁵	Partnerships
Promotion of environmentally appropriate macroeconomic and sectoral policies and instruments	NLS TA	LCSRP LCSFP LCSES	<ul style="list-style-type: none"> Colombia Water Sector Reform Participation in Technical Secretariat of the LAC Forum of Environment Ministers 	<ul style="list-style-type: none"> Four water/urban transport/energy sector reform projects with a focus on regulatory frameworks, pricing policies, environmental impact assessment (EIA) capacity, monitoring and evaluation, environmental cost/expenditure accounting AAA on valuation: green accounting for top priority issues Pilot/AAA on environmental expenditure accounting for key infrastructure/productive sectors Include environment in 1 PER Meeting of LAC Environment and Finance Ministers Support to UNCED +20 Participation in Technical Secretariat of the LAC Forum of Environment Ministers 	BB CTF DGF	DEC and ENV ECLAC and UNEP to support the Regional Action Plan of the LAC Forum of Environment Ministers
Targeted institution building, including: regulatory and enforcement frameworks and decision support systems; comprehensive planning approaches (e.g. watershed management, urban land use plans); sectoral mainstreaming and gradual decentralization; and sustainable financing	NLS TA Lending	LCSES LCSFP LCSRP	<ul style="list-style-type: none"> Brazil Environmental Plan (within Brazil NEP II) AAA on Brazil Pluriannual Budget Participation in Technical Secretariat of the LAC Forum of Environment Ministers 	<ul style="list-style-type: none"> AAA to assess lessons of LCR projects Four water/urban transport/energy sector reform projects with a focus on regulatory frameworks, pricing policies, EIA capacity, monitoring and evaluation, environmental cost/expenditure accounting Mainstreaming in 10 sector operations (e.g. municipal development, finance and decentralization projects, privatization, public sector reform, and infrastructure projects) Two programmatic approach operations in institution building in the environment sector Pilot/AAA on sustainable financing for environmental agenda 	BB CTF DGF IDF	IDB with joint training, seminars UNEP through Regional Action Plan of the LAC Forum of Environment Ministers WBI on INECE, targeted training programs, distance learning, and regional seminars
Strengthening of awareness and management capacity through environmental education and vocational training	TA Lending	LCSES LCSHD	<ul style="list-style-type: none"> Brazil Teachers Development OECS Education Development Project Chile Technical Education Uruguay Basic Education Quality Improvement Project 	<ul style="list-style-type: none"> Three projects on primary/secondary/nonformal education Four projects on higher education, vocational training, and research and development 	BB CTF IDF	WBI
Strengthening mechanisms for effective participation, negotiation, and conflict resolution	TA Lending	LCSFP LCSES	<ul style="list-style-type: none"> Colombia Magdalena Medio II Ecuador Hydrocarbons 	<ul style="list-style-type: none"> Ensure appropriate participation and conflict resolution mechanisms in resettlement components Strengthen EIA procedures with relation to information disclosure, consultation, due process, etc. 	BB CTF IDF ESMAP	OAS on participation mechanisms in environmental management and environmental law

Annex 5. Implementation Matrix: Instruments, Responsibilities, and Tentative Timetable *continued*
D. Promoting Equitable Solutions to Regional and Global Environmental Challenges

<i>Development objectives/ desired outcomes¹</i>	<i>Instrument²</i>	<i>Units involved³</i>	<i>Fiscal 2002⁴</i>	<i>Fiscal 2003-06</i>	<i>Funding sources⁵</i>	<i>Partnerships</i>
Assisting countries to prepare for and adapt to climate change	NLS TA Lending Grants	LCSES LCSFP	<ul style="list-style-type: none"> • Mexico City Air Quality Management TA • Mexico Off-Grid Rural Electrification LII • Mexico Hybrid Solar-Thermal • Nicaragua Rural Electrification Study • Uruguay Energy Efficiency • Argentina NSS II • Chile NSS I • Colombia NSS II 	<ul style="list-style-type: none"> • Six operations on rural electrification, renewables, and energy efficiency • National Strategy Studies (NSS) in four countries • One energy–environment review • Promote methane capture in solid waste management operations • Strategy paper to guide Bank assistance in response to international developments in climate change 	GEF BB PCF CTF	UNDP ECLAC
Biodiversity conservation	Lending Grants	LCSES	<ul style="list-style-type: none"> • Ecuador National Parks and Biodiversity • Brazil Amazon Region Protected Areas • Brazil Rain Forest Pilot Program (cont.) • Mesoamerican Biological Corridor Program (cont.) • PanAmazonian Initiative 	<ul style="list-style-type: none"> • Develop biodiversity strategies for six specific countries/regions • Ten biodiversity projects or project components focusing on comprehensive approaches, generation of positive impacts on local livelihoods, and sustainable financing (e.g. in rural development projects) • Brazil Rain Forest Pilot Program (cont.) • Mesoamerican Biological Corridor Program (cont.) 	GEF BB BNPP	LAC Forum of Environment Ministers OAS
Phasing out CFCs	Grants	LCSES	<ul style="list-style-type: none"> • Strategy paper • Exit strategies for Mexico, Argentina, Colombia, and Uruguay 	<ul style="list-style-type: none"> • Phaseout of CFC production in Mexico, Argentina, and Venezuela • Apply wholesale approach to remaining small end-users • Strengthen regulatory frameworks 	MP	
Protecting and restoring international waters	TA Lending Grants	LCSES	<ul style="list-style-type: none"> • Guarani Aquifer (tentative) 	<ul style="list-style-type: none"> • Four operations 	GEF BB	OAS Subregional organizations (e.g. OECS)

Annex 5. Implementation Matrix: Instruments, Responsibilities, and Tentative Timetable *continued*

E. Incorporating the Environmental Dimension in Bank Operations and Promoting Compliance with Bank Safeguard Policies

Development objectives/ desired outcomes¹	Instrument²	Units involved³	Fiscal 2002⁴	Fiscal 2003-06	Funding sources⁵	Partnerships
In Country Assistance Strategies, Structural Adjustment Loans, and Poverty Reduction Strategy Papers	---	LCSPR CMUs QAT	<ul style="list-style-type: none"> • Background papers as input to Mexico CAS, Peru CAS, Guatemala CAS • Monitoring of PRSP implementation • One SAL with pilot focus on environmental (and social) issues 	<ul style="list-style-type: none"> • Eight background papers as input to CAs with critical environmental problems • Operational support to monitor implementation of PRSPs 	BB CTF	
In Sectoral Adjustment Loans	EIAs RAPs IPDPs	LCSPR LCSFP LCSHD QAT		<ul style="list-style-type: none"> • Operational support in preparation of SECALs 	BB CTF	
In investment operations <ul style="list-style-type: none"> • Public sector reform, judicial reform, and decentralization projects • Health, education, and social fund projects • Private sector development, energy, transport, urban, water, and sanitation projects • Rural development, natural resources management, and disaster management 	EIAs RAPs IPDPs	LCSPR LCSHD LCSFP LCSES QAT	<ul style="list-style-type: none"> • Operational support from LCSES in preparation and supervision of investment operations • Review by QAT of specific operations ensuring agreement with project proponents early in the project cycle on project preparation plans • Training for task managers and clients • Preparation of two best practice notes (technical guidelines) • Two reviews of safeguard policy implementation (indigenous issues, natural habitats) • Thematic supervision 	<ul style="list-style-type: none"> • Operational support from LCSES in preparation and supervision of investment operations • Review by QAT of specific operations ensuring agreement with project proponents early in the project cycle on project preparation plans • Training for task managers and clients • Preparation of eight best practice notes (technical guidelines) • Periodic review of safeguard policy implementation (once every two years) 	BB CTF	

1. In addition to the development objectives and desired outcomes indicated above, LCR will ensure compliance with the Bank's environmental and social safeguard policies in all its operations.
2. Instrument most likely to be used; does not exclude eventual use of other instruments as needed. NLS=nonlending services; TA=technical assistance; EIA=environmental impact assessment; RAP=resettlement action plan; IPDP=indigenous peoples development plan.
3. Sector Management Units in the World Bank's Latin America and Caribbean Office: LCSES=Environmentally and Socially Sustainable Development; LCSFP=Finance, Private Sector, and Infrastructure; LCSHD=Human Development; LCSPR=Poverty Reduction and Economic Management. Other units: QAT=Quality Assurance Team (based in LCSES, monitors compliance with Bank safeguard policies); CMUs=Country Management Units.
4. Does not include projects under supervision as of Dec 2000.
5. BB=Bank Budget; BNPP=Bank-Netherlands Partnership Program; CTF=Consultant Trust Funds, including the Policy and Human Resources Development (PHRD) Fund; DGF=Development Grant Facility; ESMAP=Energy Sector Management Assistance Programme; GEF=Global Environment Facility; IDF=Institutional Development Fund; MP=Montreal Protocol; PCF=Prototype Carbon Fund.

The World Bank

Latin America and the Caribbean Regional Office



COUNTRY MANAGEMENT UNITS

LCC1C - MEXICO, COLOMBIA, VENEZUELA

LCC2C - CENTRAL AMERICA

LCC3C - THE CARIBBEAN

LCC5C - BRAZIL

LCC6C - BOLIVIA, ECUADOR, PERU

LCC7C - ARGENTINA, CHILE, PARAGUAY, URUGUAY

CHILE

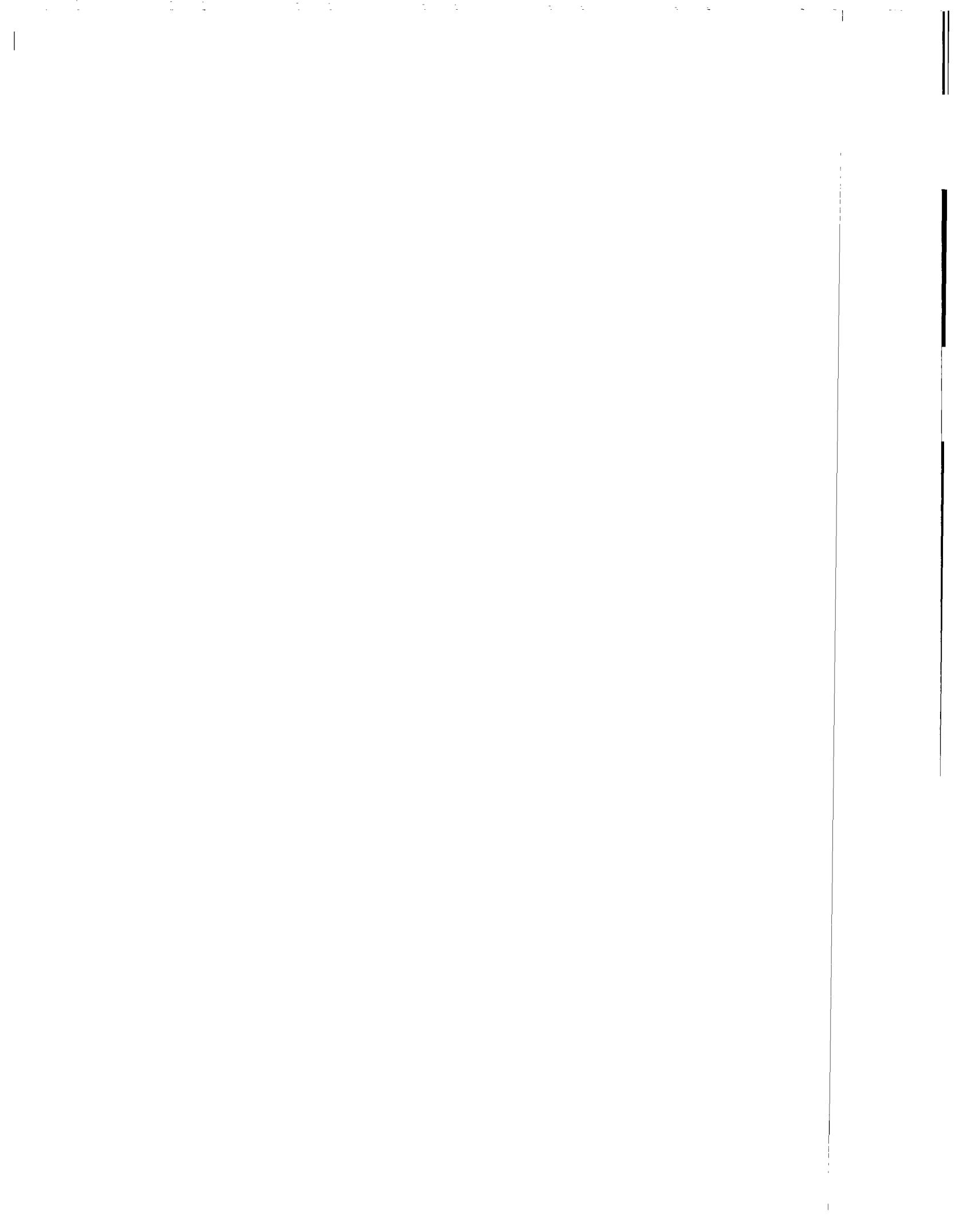
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URUGUAY

● Resident Missions and Other Field Presence

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