Global Environment Outlook

Policy options for Latin America and the Caribbean


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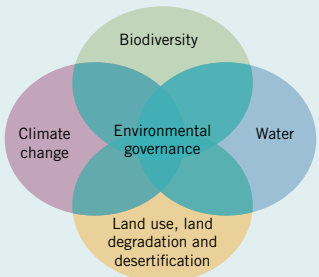
Although the overall richness and economical importance of Latin America and Caribbean's ecosystems and natural resources are undeniable, relatively high levels of poverty and inequity, as well as lack of coordinated actions, indicate that the region continues to be faced with the challenge of sustainable natural resources management. To address this challenge, governments need a stronger commitment to reaching out to all stakeholders, to developing new policies and to making existing policies, mechanisms and institutional frameworks more effective.

In accordance with the environmentally-related goals and targets of Millennium Development Goal (MDG) 7, and with many multi-lateral environmental agreements, this policy brief discusses key insights for improving environmental governance within Latin America and the Caribbean.

POINTS TO REMEMBER

- Environmental policies must be consistent with other economic and social policies, and their implementation requires coordination and cooperation between public institutions in different sectors;
- Access to timely and relevant information is a condition for the development and implementation of environmental policies;
- Formulation of environmental policies and action plans should be driven by prioritization of main national issues, in agreement with the country´s development interest and goals;
- Promoting an environmentally conscious culture and fostering environmental education provides the basis for people to experience nature first hand, to understand the interdependent state of the human / nature nexus, and to hold value for ecological well-being and what it provides;
- Co-management is one of the most effective and efficient approaches to incorporating public interests in environmental decision-making.

GEO5 process reflects priority areas for environmental action in LAC



SELECTED GOAL

GEO5 provides a scientific analysis of selected environmental challenges and the solutions available to address them, including their environmental and social costs and benefits.

A global intergovernmental and multi-stakeholder consultation undertaken as part of the GEO5 process established a High-Level Intergovernmental Advisory Panel to identify and concur on internationally agreed goals to be analyzed as part of the GEO5 process, to identify gaps in their achievement, and to frame the regional policy assessment. The Panel also provided high-level strategic advice to guide chapter authors when evaluating the gaps in achieving these goals and identifying the policy options for speeding up their achievement. The Latin America and the Caribbean Regional Consultation was held in Panama City, Panama, from 6 to 7 September 2010. Participants at the consultation selected a set of regional environmental challenges, together with a set of internationally agreed goals which were considered to be the most effective in addressing these challenges.

For Environmental governance the selected goal is the Millennium Development Goal 7 Target 7.A that reads as follow:

"Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources".

UNEP

Global environmental awareness has increased since environmental considerations incipiently entered the policy agenda in the early 1970s. In the past 40 years, a number of national, regional and international treaties, agreements, and conventions have arisen and summits convened, while considerable sums of money and a wide range of stakeholders have been mobilized. Yet, environmental degradation continues. While governance frameworks operate well in some respects, the fragmentation of decisions, lack of cooperation and collaboration among stakeholders, undue industrial influence upon the media and political decisions, as well as lack of implementation and enforcement of environmental decisions have contributed to reduce its effectiveness. This policy brief presents six ways forward that could help decision-makers in the LAC region for more effective environmental governance.

POLICY OPTIONS

Environmental governance comprises the rules, practices, policies and institutions that shape how humans interact with the environment[1]. Environmental policy and institutional frameworks, and the relationships between them, provide the essential foundation of a governance framework (see Figure 1). Sound policy frameworks include a set of environmental norms, policies and regulations at various levels – international, hemispheric, regional, sub-regional, national – as well as multilateral and bilateral environmental agreements (see Boxes 1 and 2).

Effective environmental governance is not the responsibility of governments alone. On the contrary, civil society (including the media) and the private sector are key stakeholders in it, and their commitment can make a crucial difference in terms of promoting change and progress[i].

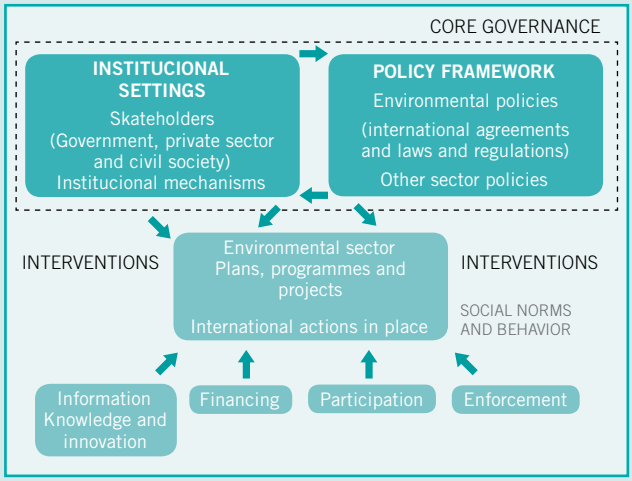


Figure 1: Environmental governance[2]

Addressing major challenges in improving environmental governance in the LAC region, this policy brief presents six components decision-makers need to consider.

a) Generating environmental information and improving the science-policy interface

Environmental policies for generating and disseminating information foster a better understanding of environmental conditions, problems, and potential solutions. Reliable and timely information enhances the quality of decisions and ultimately, improves their outcome or performance. Further, availability and access to credible information have the potential to increase public participation as well as help citizens hold policy-makers accountable for their decisions (see Case study 1).

To effectively meet the needs of policy-makers,

Box 1: Examples of environmental policies and institutional frameworks in LAC

In recent decades, most Latin American and Caribbean countries have developed national environmental legal and institutional frameworks to formulate strategies and action plans for sustainable natural resource use and environmental protection[1-17].Examples of local and national initiatives are[18-19-20]:

- The Colombia National Environmental Action Plan;
- The Peruvian National Law of Environmental Education;
- The participatory governance process in the Panama Canal watershed; and
- Capacity-building for environmental management in Antigua and Barbuda: strategy and action plan 2007-2012.

In an effort to jointly address environmental problems of a cross-border nature, countries have also ratified several Multilateral Environmental Agreements (MEAs) or conventions. Amongst them:

- The Ramsar Convention (1975);
- The Montreal Protocol (1989);
- Convention on Biodiversity (1993);
- The United Nations Framework Convention on Climate Change (UNFCCC) (1994); and
- The United Nations Convention to Combat Desertification (UNCCD) (1996).

In an attempt to address the complexity of environmental issues, regional stakeholders have also begun to transcend traditional, compartmentalized approaches by adopting more integrated and cross-sectoral strategies. Examples range amongst: collaborating with other agencies, to integrating environment with other compatible issues like education, economy and health[21].

Box 2: Levels of governance in LAC

Environmental and natural resources governance in Latin America and the Caribbean is a complex mosaic. This stems from the wide diversity of governance systems with different degrees of institutional development and approaches to environmental issues, and different levels of governance mechanisms.

- **Regional level:** Through the Forum of Ministers of the Environment of Latin America and the Caribbean, the most representative and important political gathering on environmental policies and responses with broad consensus at the regional level is maintained. Together with international institutions that joined the Forum i.e. (UNEP, UNDP, ECLAC, IDB and the World Bank) as part of its Inter-Agency Technical Committee (ITC), the Forum has been able to channel international cooperation activities into environmental areas in the region.
- **Wider Caribbean level:** In the case of the Caribbean Sea, a resource shared by 16 countries of LAC, is exemplified by the commitment towards the establishment of a the Cartagena Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region, and more recently by the establishment of the Caribbean Sea Commission under the auspices of the ACS (Association of the Caribbean States).
- **Sub-regional level:** The management of shared common resources has also imposed the need for coordination between different countries in the region, as reflected in regional integration movements e.g. (the Central America Integration System—SICA, the Caribbean Common Market—CARICOM, the Andean Community—CAN, the Common Market of the South—MERCOSUR);
- **National level:** National level governance is maintained through the integration of sustainable development inside national development programmes and planning instruments.
- **Sub-national:** In the Mexican state of Morelos, a new system of formal environmental education has been developed focused on the particularities and features of the natural environment surrounding the public schools. This programme has proved to be of interest to educators, environmental activists and international organizations worldwide[22].

Transboundary Governance: In addition, specific frameworks exist to manage shared resources. The Amazon Cooperation Treaty Organization (ACTO) is a good example as it is dedicated to achieve sustainable development in the Amazon region through coordinating and harmonizing different initiatives for the use, conservation and protection of its resources[23].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environmental information should be transformed - where possible - into easily understood, scientifically-derived indicators (such as environmental state, socio-economic and governance indicators). Researches indicate that the use of indicators could convey clear messages to policy-makers and the public, while helping to monitor and to evaluate (M&E) policies' effectiveness[3-4]. Indicators may be process-based (to measure progress) or outcome-based (to measure the effectiveness of the intervention) and should include the evaluation criteria of coverage, effectiveness, sustainability and replication[5].

While the generation of clear, accessible and credible environmental information is essential, special attention should be given to improving the science-policy interface. This could be achieved through means such as improved communication between scientific and decision-makers (e.g. to increase science-policy dialogues) and a better availability of information (in terms of costs and diffusion)[6-7]. Clear and evidenced-based information need to be ensured within the mainstream or popular media as well as successful public participation in environmental governance and policy development demands an informed civil society.

b) Education and environmental culture

By promoting an environmentally conscious culture, environmental education gives people a greater sense of awareness of nature

Case study 1: Environmental Information in Panama

Panama is upscaling the technology in its public institutions in order to better generate and disseminate environmental information. In 2005, the National Environmental Authority (ANAM) implemented an e-government web-based platform that allows public access to environmental information as well as standards for knowledge management[24].

In addition to a set of 136 statistics (generally collected monthly), 20 environmental indicators and 109 performance indicators, interactive maps (e.g. on protected areas, integrated watershed management and environmental business), reports, projects and other key documents (e.g. administrative fines and complaints) were also released and made available nationally and internationally. The information provided allows a better understanding of the state of the environment as well as the effects of human interventions and decisions on natural resources and ecosystems.

Benefits of the e-government go beyond generating environmental information and also include fostering interaction among stakeholders (e.g. NGOs, the media and the general public) and strengthening inter-institutional coordination as well as national and international strategic alliances[24].

Case study 2: Participatory approaches to natural resource management (Mankòtè Mangrove, St. Lucia)

Located in the Vieux Fort region (St. Lucia), the Mankòtè Mangrove is the island's largest remaining mangrove forest. In response to growing concern about the rate of forest degradation, Vieux Fort and its environs were targeted in 1981 for a programme aiming to reconcile economic and other human activities with conservation imperatives[25]. More specifically, the project had two main components: (1) the improvement of existing uses and management of the mangrove by the charcoal producers; and (2), the reduction of the pressure on the mangrove through the establishment of a fuelwood plantation and the diversification of economic activities.

In that context, the Aupicon Charcoal and Agricultural Producers Group (ACAPG) was created. Composed of 15 charcoal producers, the ACAPG plays an active role in managing the mangrove through a communal management system[25]. ACAPG also works closely with the Caribbean Natural Resources Institute (CANARI) and government agencies (e.g. forestry and fisheries).

One of the main challenges of the participatory approach is to designate the most advantageous form of participation to a particular circumstance. In the case of Mankòtè, the level of participation has evolved over time (i.e. from consultation to co-management). This situation demonstrates that participation is a dynamic process that can change as a function of the needs and capacities of key actors. It should also be noted that in order to give successful results, benefits of participation must be evident to all actors. In Mankòtè, benefits were: (1) exclusive cutting rights, access to land, training and support for ACAPG members; (2) financial support from donors' agencies for CANARI, and; (3) image enhancement and reduction of resources required for the management of mangrove by government agencies[25].

and natural processes as well as a deepened sense of the consequences of their actions. This could, in turn, help to build an interested critical mass that contributes to monitor government actions, preventing the imposition of spurious minority interests[8].

Often overlooked, environmental awareness and education encompass (but are not limited to) knowledge on pollution prevention, sustainable consumption and production, as well as social mobilization processes, such as the empowerment of vulnerable groups[9]. These are achieved through a long term process that includes: communication, knowledge management, dialogue and public participation. Accessibility by, and dissemination of, information to all strata of society should be ensured.

c) Improving public participation

Since the early 1990s, most countries have incorporated provisions for citizen participation into their environmental legislation or into thematic/sectoral laws, in addition to have created a variety of citizen participation councils or bodies[10]. Nevertheless, the effective implementation of these mechanisms continues to be a challenge.

Co-management is one of the most effective and efficient approaches to incorporating public interests in environmental decision-making[11]. The co-management of protected areas, forests, watersheds and other common lands, by local communities, civil society organizations, indigenous people and even the private sector, has become a model of stakeholder participation in LAC (see Case study 2). For example, public-private partnerships used in tandem with economic incentives to protect critical watersheds are evident in a number of LAC countries including Ecuador, Colombia, Peru, Brazil, Costa Rica, Jamaica, Trinidad and Tobago, St. Lucia and many others.

While governments, the private sector and civil society organizations are devoting increasing attention to fulfill informational needs, data presented is often too technical, cumbersome or of insufficient detail. This remains a significant obstacle to public participation, accountability and environmental policy formulation. Moreover, citizens are often only consulted at the very end of the decision-making process. This situation calls for mechanisms to ensure accountability and transparency to reduce risk of corruption in decision-making processes and to increase financial flows to environmental programmes[12].

d) Environmental Economics and market mechanisms

Negative externalities resulting from market forces are often considered as drivers of adverse environmental change. Thus, the formulation process of new environmental policies in the LAC region calls for the

Case study 3: System of environmental economic accounting to estimate the cost of environmental damage in Mexico

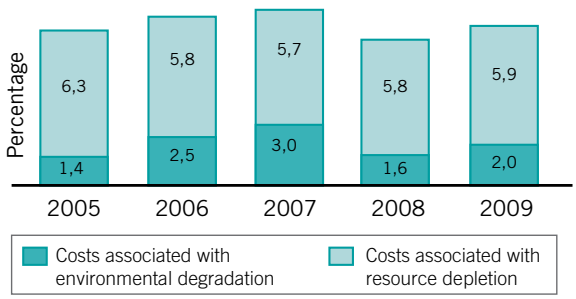
In an attempt to produce quantitative information regarding natural resources and environmental degradation, the National Institute for Statistics and Geography of Mexico (Instituto Nacional de Estadistica y Geografia – INEGI) has used the System for Integrated Environmental and Economic Accounting, since 1991, based on a methodology put forward by the United Nations and other international organizations[26]. The INEGI monetizes the impacts on the Gross Domestic Product (GDP) of climate change and of the loss of biodiversity caused by economic activities of production, distribution and consumption using the Green-GDP.

According to the Mexican Environmental and Economic Accounts (SCEEM for its Spanish acronym) for the period of 2005-2009, environmental degradation and resource depletion cost Mexico nearly 90 billion U.S. dollars annually (equivalent to 8% of its GDP). Among the total, air contamination represented 4.4% of the GDP, while rapid extraction of the country's proven oil and gas reserves accounted for 1.5 %, and exploitation of quickly shrinking aquifers and deforestation eroded another 0.5 %. Mexico, the world's seventh-largest petroleum producer, has undergone sharp decline in both oil output and proven reserves over the past five years. The following figure represents the total annual costs over the period 2005-2009 associated with resource depletion and environmental degradation as proportional to the GDP.

Because "what we measure affects what we do[27]" the ability to monetize environmental damages provides decision-makers with tangible criteria for the design of environmental policy[28]. While environmental economic accounting is a valuable tool - providing a link between the environmental pressures and their driving forces (i.e. economic activities) - some factors still limit its effectiveness. Amongst them are: (1) its measurement (ignores informal sector or self-production, changes caused by natural disaster, health proxy, etc.), (2) lack of data; and (3) costs.

Countries interested in incorporating environmental economic accounting into their policy agenda should first adopt basic indicators of GDP, gross national income and other socio-economic and natural resource primary indicators; consider partnership with research institutes; consider pilot, benchmark and/or annual compilations as part of the implementing strategy, as well as adapting to national concerns[29].

Total annual costs associated with resource depletion and environmental degradation as proportional to the GDP (2005 - 2009)



Source: SCNM. Cuentas económicas y ecológicas de México, 2005 - 2009

recognition of the economic value of ecosystem services, as well as the economic costs of environmental degradation and natural resources depletion.

The use of economic incentives has been shown to encourage citizens and businesses to make decisions based on the true long-term economic value of nature and the services it provides. Examples include:

- REDD+: Reducing Emissions from Deforestation and Forest Degradation, plus conserving and sustainably managing forests and enhancing forest carbon stocks;
- Payment for ecosystem services (PES): approaches, such as the Fund for the Protection of Water in Peru; and
- Feed in tariffs (FITs) to support renewable energy.

Valuing natural assets economically also allows decision-makers to optimize their cost-benefit analyses and may be used to adjust national accounts and other economic indicators (see Case study 3). Other tools, such as green funds and environmental taxes, can be utilized to raise funds for cash-strapped environmental agencies and causes. For example, the Trinidad and Tobago Green Fund couples sets of tools to fund biodiversity preservation with ecosystem management.

e) Collaboration and Coordination

Effective environmental governance, especially in the context of complex systems, requires that stakeholders collaborate and cooperate. It also requires coordination and harmonization of institutions, policies and other instruments. In that regard, the mainstreaming of environmental considerations into economic and social policies and programmes (e.g. energy production, mining, industrial agriculture, infrastructure development, etc.) has proven effective in halting and reversing the downward spiral of environmental decline and poverty, as well as improving cross-sector environmental benefits and reducing costs[13].

A number of platforms and mechanisms have been established to facilitate greater collaboration and coordination and improve coherence among governance systems. One such mechanism is the Caribbean Sea Commission (see Case study 4), which is one of several initiatives underway to strengthen the cohesiveness of the approximately 30

organizations involved from the sub-regional to the international level in coastal and marine management in the Caribbean Sea[14]. A multi-level governance framework is proposed for this large marine ecosystem, which accommodates the diversity of numerous policy cycles and the links between them (see Box 2). Such a framework could be adapted for other ecosystems or environmental issues.

Case study 4: Collaboration and Coordination- The Caribbean Sea Commission (Wider Caribbean Region)

The Caribbean Sea is a unique ecosystem of transboundary living marine resources. Assuring its sustained eco systemic health goes beyond national jurisdictions.

In order to protect the Caribbean Sea, LAC countries have taken part in a number of Multilateral Environmental Agreements (MEA), intergovernmental processes and/or have implemented national and local mechanisms[30]. The multiplication of initiatives has, however, considerable transaction costs (e.g. gathering data, consultation, participation in meetings, etc.) which can be burdensome, especially for small countries. This situation can in turn, reduce the effectiveness of those engagements.

The Caribbean Sea Commission, established by the Association of Caribbean States (ACS) in 2006, is a body set up to help advance work on the Caribbean Sea Initiative. This body has the potential to bring greater coherence to the policies and other governance structures associated with the Caribbean Sea[14]. Its objective is to address gaps in existing initiatives, provide scientific research and data collection, to strengthen legal and institutional frameworks by facilitating a regional and integrated approach to management[30].

Amongst the major challenges raised by the Caribbean Sea Commission are: (1) delimitation of maritime boundaries; (2) enforcement of national laws and consensus in regional approach to law enforcement; and (3) harmonization of marine research.

f) Improving Environmental Justice

Environmental justice is 'the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies'[15].

Although there are positive examples of judicial rulings in the region (see Case study 5), there are still many challenges to improving environmental justice, including institutional and legislative weaknesses, low public participation and lack of awareness and information about environmental rights.

The emerging role of the judiciary is also important. In many countries, civil society organizations, prosecutors and individual citizens are using the judicial system to defend environmental rights. This occurs mostly through constitutional courts, but also in criminal and civil courts. In addition, the justice system has been proactive in resolving technically and legally complex disputes by overcoming procedural obstacles and adapting traditional legal institutions to the specifics of environmental law. The judiciary still needs to develop a considerable amount of capacity in addressing environmental issues, particularly by training legal professionals, especially lawyers and prosecutors.

ADDRESSING CHALLENGES

Policy and institutional continuity is a main concern for environmental governance. The timescale over which environmental policies, programmes and projects are realized, does not always coincide with those of political terms of office[16]. Options to strengthen the political authority of environmental agencies and maintain essential medium-to long-term efforts include longer terms of office and greater autonomy for technical environmental officers and creative financing mechanisms to facilitate political independence.

Lack of financial resources is also a major obstacle for policy implementation and enforcement. Sometimes it is not only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Case Study 5: Environmental justice in practice: The Matanza-Riachuelo Case (Argentina)

The use of litigation, as a way of holding government´s accountable for environmental damage, was exerted in 2004 by 17 inhabitants of vicinities within Buenos Aires (capital of Argentina), including La Boca, and Barracas. In search of compensation for ill health, caused by the polluted Riachuelo watershed, residents sued their federal government, along with several industries blamed of contaminating the river over the past two centuries[31]. In July 2008, the court ruled that the federal government and the City and Province of Buenos Aires were responsible for the damages. They were therefore ordered to implement public policy programmes aimed at halting degradation and thus improving the lives of the population within the area, and restoring the watershed to ecological well-being.

As an unprecedented measure, the court included local NGOs in the ruling (Greenpeace, the Environmental and Natural Resources Foundation (FARN), the Centre for Legal and Social Studies (CELs), and the Neighborhood Association of La Boca). These groups were given the role of tracking the progress of the restoration process by monitoring the river and surrounding areas for pollution, and advising the Matanza-Riachuelo Basin Authority (Autoridad de Cuenca Matanza-Riachuelo – ACUMAR) of known offending actions and/or parties.

From the formulation of an integrated plan to rehabilitate the river, inclusion of the Ombudsman and NGOs in public hearings, creation of official enforcement mechanisms, and improvements in the funding for river clean up , the judgment has had, thus far, numerous direct and indirect positive impacts[31].

Table 1:
Examples of cross-linkages and cross-benefits of environmental governance on regional environmental priorities

	Water	Biodiversity	Land use, land degradation and desertification	Climate change	Oceans and seas
Environmental governance	• Inclusive stakeholder participation can reduce conflicts in coastal zones; • Multi-sector governance helps ensure coordination of sustainability of water resources.	• Collaboration and coordination can contribute to the reduction of biodiversity loss and integrity of ecosystem services (e.g. Convention on Biodiversity).	• Collaboration and coordination can prevent conflicts related to transboundary use of scarce resources; • Scientific Research and information can promote knowledge of ecosystems and information to halt deforestation; • Sound environmental governance systems can advance norms, standards and certification processes encouraging organic agriculture, REDD and other sustainable practices.	• Collaboration and coordination can contribute to the decrease of demand for fossil fuels, thus reducing air contamination and mitigate impacts on climate change; • Standard governance principles and values such as transparency, accountability add credibility to governmental and inter-governmental processes.	• The promotion of regional agreements or commissions can contribute to protect marine biodiversity and resilience in ocean ecosystems; • Sound marine governance can help maintain livelihoods for those dependent upon marine based resources.

a matter of money, but also a lack of priority setting and inadequate human capacity. Environmental matters are still in the peripheries of governance for most of LAC countries, and institutions are also younger compared to those in North America or Europe (except for Brazil and Mexico). Therefore, national budgets for environmental governance remain grossly insufficient.

CONCLUSIONS

Environmental governance need to be viewed as a cross-cutting and interactive theme linked with the other priority issues identified in Latin America and the Caribbean (i.e. water, biodiversity, climate change and land use, land degradation and desertification - see Table 1). Despite its complex environmental governance mechanisms, the region has made significant progress in developing national environmental legal and institutional frameworks. Poor legislative and institutional mechanisms and processes along with a limited capacity for implementation and enforcement, among other challenges, however, have hampered their effectiveness. A number of enabling conditions need to accompany these frameworks, including adequate financial resources, scientific research and information dissemination, environmental education and an improved environmental culture. They also involve the standard governance principles and values of transparency, accountability, equity, sustainability and inclusive stakeholder participation. Good governance is foundational to halting and reversing environmental degradation and elemental as a platform for the achievement and sustainability of the MDG's environmental targets and many MEAs.

Noted achievements

- The region has advanced in building capacity in environmental statistics. Whereas, in 1998, only three countries published official environmental statistics and sustainable development indicators, by 2009, numerous LAC countries were publishing systematic statistical compendia and reports on environmental (or sustainable development) indicators.
- In recent decades, several LAC countries have made important progress in promoting environmental justice. These progresses include enacting specialized procedures and mechanisms, as well as enhancing the capacity of judiciaries. In some cases, this has included establishing specialized tribunals (such as the Tribunal Ambiental Administrativo in Costa Rica) and designating environmental prosecutors (e.g., in Brazil, Panama and Peru).


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[i] *By partnering in the implementation of new policies, promoting effective access to - and transfer of - appropriate technologies, and providing financing sources.*

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