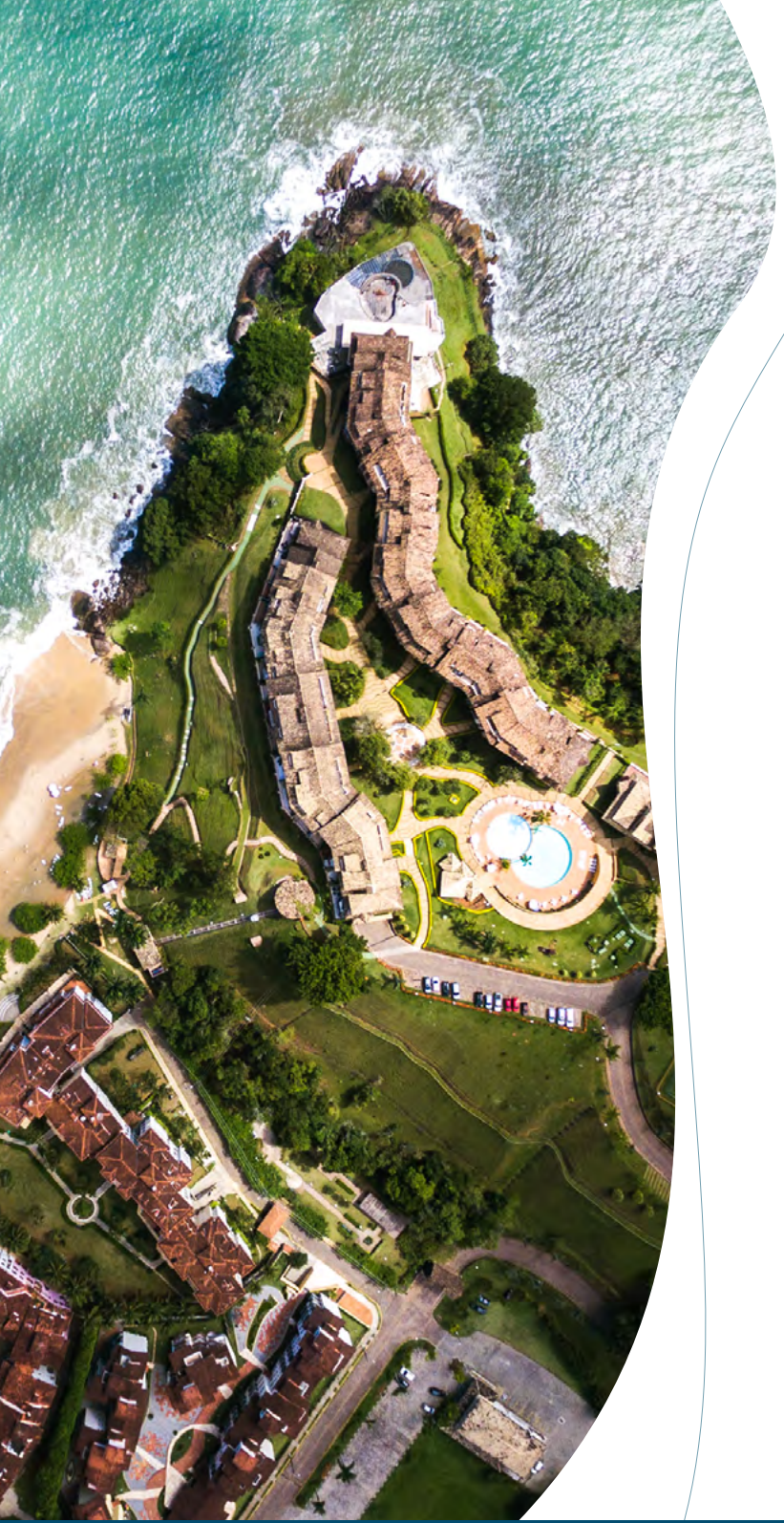
IDB
Inter-American Development Bank

SUSTAINABILITY REPORT **2019**



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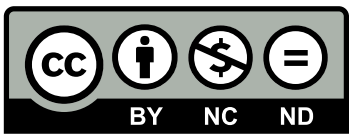


CONTENTS

At the Inter-American Development Bank (IDB), we work to improve lives in Latin America and the Caribbean.

Through financial and technical support for countries working to reduce poverty and inequality, we help improve health and education and advance infrastructure. Our aim is to achieve development in a sustainable, climate-friendly way. Today we are the leading source of development financing for Latin America and the Caribbean. We provide loans, grants, guarantees, and technical assistance, and we conduct extensive research. We maintain a strong commitment to achieving measurable results and the highest standards of integrity, transparency, and accountability.

The IDB´s current focus areas include three development challenges—social inclusion and equality, productivity and innovation, and economic integration—and three cross-cutting issues—gender equality and diversity, climate change and environmental sustainability, and institutional capacity and the rule of law. In 2019, the IDB approved 106 sovereign-guaranteed-loan projects, totaling more than $11.3 billion. Disbursements for sovereign-guaranteed loans totaled $8.9 billion in 2019. At the end of 2019, the approved value of the IDB's project portfolio in execution stood at $54.1 billion.

The IDB Group is composed of two separate legal entities: the IDB and the Inter-American Investment Corporation (IIC), which was rebranded as IDB Invest in 2017. The IDB Lab is a trust fund administered by the IDB and serves a unique function as the IDB Group's innovation laboratory. This report pertains to the IDB, including the IDB Lab.

LOCATION

The IDB is headquartered in Washington, D.C., and has offices in each of its 26 borrowing member countries. These country offices play an essential role in identifying and preparing new projects and in executing and evaluating ongoing work. We also have offices in Madrid and Tokyo to facilitate work with European and Asian governments, firms, and nongovernmental organizations (NGOs) interested in the development of Latin America and the Caribbean.

STAFF

The IDB Group has more than 3,200 employees, including staff and consultants. Approximately one-third of our employees are posted in Latin America and the Caribbean to foster close cooperation with clients and partners. The IDB is committed to gender equality, diversity, and inclusion in our operations and in our internal talent management practices. A more diverse and inclusive IDB is a better IDB—better able to attract the best talent, better able to deliver effective solutions for our borrowers, and better able to meet the expectations of all our shareholders. We are proud of what we have achieved to date and excited about the prospect of achieving even more going forward.

In 2019, the IDB obtained, for the second time, the EDGE (Economic Dividends for Gender Equality) certification, at the Assess level, which recognizes our commitment to transforming our culture and reshaping our strategies to continuously improve gender equality in our workplace. The IDB has seen many improvements in employee perceptions and in the effectiveness of policies and practices. Among the highlights is our progress in having women fill mid- and senior-level rolls. By the end of 2019, women filled 40% of mid- and senior-level positions; our goal is 43% by the end of 2023. Additionally, 130 women have graduated from our Emerging Women Leaders Program, which identifies and supports the development of women of high potential in the organization. The IDB also began tracking actions to promote diversity and inclusion in its Corporate Results Framework to capture its efforts to attract a diverse workforce and foster an inclusive work environment.

GOVERNANCE

The IDB's highest authority is its Board of Governors, made up of representatives from each of the 48 member countries. Most governors are finance ministers or central bank presidents. The Board of Governors holds an annual meeting to, among other things, approve the Bank's financial statements and make major policy and corporate decisions. The Board of Executive Directors, composed of 14 individuals representing the 48 member countries, oversees the Bank's day-to-day operations. It approves country and sector strategies, operational policies, loans, technical cooperation, guarantees, and investment grants, in accordance with its regulations and guidelines. It also sets the financial charges for Bank loans, authorizes borrowings in the capital markets, and approves the institution's administrative budget. The IDB president, elected by the Board of Governors for a five-year term, manages the Bank's operations and administration, together with an executive vice president and three vice presidents (for countries, for sectors and knowledge, and for finance and administration). Each country's voting power is determined by its contributions to the Ordinary Capital, the IDB's main source of lending. At the IDB, borrowing members have majority voting power (just over 50% of the vote).

MESSAGE FROM THE PRESIDENT

During my time as President of the IDB, I have consistently believed that sustainability must be embedded in our organization's DNA. I have asked all the Bank's operational and nonoperational departments to always strive to make our work better in terms of the impact we have on our planet. We have done a great deal to increase the sustainability of the work we do—on both the international front and internally. We have supported countries in their approval and endorsement of major international agreements, including the Addis Ababa Action Agenda, Sustainable Development Goals, Paris Agreement, and Sendai Framework for Disaster Risk Reduction. Under my leadership, the IDB has embraced sustainability as a core element of the way we work.

We launched our first sustainability report in 2005, approved our environmental and social safeguards policy in 2006, and made our offices carbon neutral in 2007. More recently, in 2016, we created the Climate Change and Sustainable Development Sector, putting climate change, the environment, rural development, disaster risk management, and urban development under a single, strategic umbrella. This has enabled us to maximize the impacts of our efforts while mainstreaming sustainability. In 2019, we launched a process to update the IDB's environmental and social safeguard policies to ensure their continued relevance. In 2020, we recommitted to our goal of devoting 30% of our financing to climate-related projects and established a new goal for 100% of projects with considerable disaster and climate change risk to identify resilience actions by 2023.

Since our first sustainability report, we have strived to capture our contributions to the region's sustainable development, including on climate change, rural and urban sustainability, gender, and natural capital. The sustainability report has covered our work on sustainable infrastructure, sustainable cities, and, this year, natural capital and resilience. Our efforts through the years show that delivering sustainable development requires aligning our strategy with the best global standards for financial, environmental, social, and institutional sustainability. Our recently updated institutional strategy further advances the Bank's efforts to do so.

As many recall, recently, citizens took to the streets of countries across the world, including in Latin America and the Caribbean, to demand socioeconomic justice, greater action against climate change, among other demands. These calls are interrelated, because poverty is a key driver of vulnerability to climate change and climate change effects risk driving more people into poverty. It is essential that we listen to these voices, which underscore the urgency of improving access to economic opportunities while simultaneously transitioning to tomorrow's low-carbon economy. The calls for socioeconomic justice also highlight the vital role social protection continues to play in building resilience and reducing the impact of disasters on poverty.

Beyond employment and social protection policies, we must also leverage the power of nature to confront these challenges. Nature plays a key role in building resilience and storing carbon. Natural capital provides us with vital goods and services, including the food we eat and the air we breathe. Mangroves and reefs protect us against rising sea levels and intense storms. As we increase our efforts to minimize waste and reuse resources, we can make economic development more sustainable and enable a virtuous cycle.

In 2019, we celebrated the IDB's 60th anniversary. Since our member countries established the Bank, we have worked to foster the economic and social development of our borrowing member countries, both individually and collectively. We continue to pursue the overarching objectives of reducing poverty and inequality and achieving sustainable growth. We believe that lasting development can only happen when we respect the environment and include everyone in the gains of progress.

I invite you to read this year's sustainability report, which focuses on the work we have been doing throughout the region to build resilience in the face of natural disasters and the effects of climate change. Looking ahead, the IDB stands ready to help its member countries continually increase their ambition on achieving more sustainable development, in line with future international agreements expected at the 2020 United Nations Conferences on Climate Change and Biodiversity.

Luis Alberto Moreno
President

INTRODUCTION

Long-term economic growth and the reduction of poverty and inequality in Latin America and the Caribbean depend on development that is economically, financially, environmentally, socially, and institutionally sustainable. We at the IDB are committed to maximizing the positive outcomes of our work, and sustainability has long been a core element of that work. Our institutional strategy reinforces the critical role sustainability plays in the region's development, building on the goals of the IDB's Ninth General Capital Increase of reducing poverty and inequality and achieving sustainable growth.

In our annual Sustainability Report, we share our approach to sustainability and showcase projects and publications the IDB financed and worked on with partners to contribute to the region's sustainable development. A new theme is selected for the report each year. Our 2019 theme is building resilience, or the ability to anticipate, prepare for, respond to, and recover from threats with minimal damage to social well-being, the economy, and the environment.[1] This includes work on climate change adaptation and disaster risk reduction, which complement one another in building resilience. A glossary of key terms is included on page 56.

Box 1 Global Reporting Initiative

The IDB's fourth **GRI annex** has been prepared as a supplement to this report. The annex reports on both corporate and operational topics using standardized indicators. The following material topics are included in the annex: active ownership; anticorruption and ethics; biodiversity; climate resilience; employment and labor relations; energy; engagement and coordination; feedback mechanisms; financial inclusion; gender equality and diversity; GHG emissions; health and safety; human rights; indirect economic impacts; market presence; material use; monitoring and evaluation; responsible portfolio; supply chain management; training and education; waste; and water.

In addition to showcasing projects, we share key figures on the climate finance we provide, the greenhouse gas (GHG) footprint of our lending portfolio, our assessment of disaster and climate change risk in our projects, and our environmental and social safeguards. We close the main report with information on our corporate sustainability, looking at efforts to reduce our direct footprint where we live and work. In addition, this report is accompanied by a Global Reporting Initiative (GRI) annex. The GRI sets global standards for sustainability reporting, relying on best practices for reporting on a range of economic, environmental, and social impacts (Box 1).

1 National Research Council. 2010. *America's Climate Choices: Panel on Adapting to the Impacts of Climate Change.*

KEY MILESTONES IN 2019

SOME KEY SUSTAINABILITY MILESTONES WE ACHIEVED IN 2019 ARE:

1. The **Second Update to the Institutional Strategy** and accompanying **Corporate Results Framework** were approved in 2019. Both maintain a clear focus on environmental sustainability and climate change.

2. In 2019, we financed just under $5 billion in climate-change-related activities to benefit Latin America and the Caribbean, accounting for 29% of total IDB Group annual approvals and keeping us on track to meet our Governor-mandated goal to have financing for climate change reach 30% of total approvals by 2020 (see page 41). In addition, we expanded the goal so that it will apply each year through 2023.

3. France became the founding donor of the **Natural Capital Lab**, launched in 2018, contributing €24 million.

4. We updated our **Policies for the Procurement of Goods and Works**, which apply to the procurement of goods, works, and services for loans and technical assistance operations. The policies now include considerations for sustainable procurement.

5. We launched a process to **modernize the IDB's environmental and social safeguard policies** (see page 47).

OUR APPROACH TO SUSTAINABILITY

At the IDB, we take an ambitious, integrated approach to sustainability, working across our organizational boundaries to provide member countries and clients with financial resources and knowledge, considering all aspects of sustainability, and applying sustainability concepts throughout the project cycle. An integrated approach allows us to maximize synergies and develop comprehensive solutions. Our overall approach to sustainability is guided by our **institutional strategy** and **corporate results framework**.

The 2030 Sustainable Development Agenda, which includes 17 **Sustainable Development Goals (SDGs)**, informed the development of the IDB Group's current institutional strategy. Each strategic priority is aligned with at least one of the SDGs, and all 17 SDGs are covered by the strategy (Figure 1). The strategy reaffirms the IDB's two broad objectives: fostering sustainable growth and reducing poverty and inequality, both of which are at the core of the 2030 Sustainable Development Agenda.

Figure 1
Our Strategic Approach and the SDGs

IDB Group Strategic Priorities	Sustainable Development Goals
Social Inclusion and Equality	1 NO POVERTY; 2 ZERO HUNGER; 3 GOOD HEALTH AND WELL-BEING; 4 QUALITY EDUCATION; 6 CLEAN WATER AND SANITATION
Productivity and Innovation	4 QUALITY EDUCATION; 7 AFFORDABLE AND CLEAN ENERGY; 8 DECENT WORK AND ECONOMIC GROWTH; 9 INDUSTRY INNOVATION AND INFRASTRUCTURE
Economic Integration	8 DECENT WORK AND ECONOMIC GROWTH; 9 INDUSTRY INNOVATION AND INFRASTRUCTURE; 17 PARTNERSHIPS FOR THE GOALS
Climate Change and Environmental Sustainability	11 SUSTAINABLE CITIES AND COMMUNITIES; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 13 CLIMATE ACTION; 14 LIFE BELOW WATER; 15 LIFE ON LAND
Gender Equality and Diversity	5 GENDER EQUALITY; 10 REDUCED INEQUALITIES
Institutional Capacity and Rule of Law	16 PEACE, JUSTICE AND STRONG INSTITUTIONS

TAKING AN INTEGRATED APPROACH TO SUSTAINABILITY

WE WORK ACROSS INSTITUTIONAL BOUNDARIES.

WE CONSIDER ALL ASPECTS OF SUSTAINABILITY.

Economic & Financial

Environmental

Social

Institutional

WE APPLY SUSTAINABILITY THROUGHOUT THE PROJECT CYCLE.

Programming → Preparation → Approval → Execution → Completion & Reporting

We continually adjust and improve our approach to reflect the LAC region's evolving needs, consider what we have learned, and incorporate innovations.

WE WORK ACROSS INSTITUTIONAL BOUNDARIES

We work across the IDB to provide financial resources and knowledge. Our approach requires shared commitment and responsibility, from the president (see page 6 for his 2019 message on sustainability) to technical specialists.

Our Climate Change and Sustainable Development Sector is responsible for setting the Bank's strategic direction on sustainability. The sector fosters a regional network to develop and share cutting-edge research and best practices that can be used in a variety of thematic areas, including sustainable cities, agricultural development, climate change, tourism, forestry, and biodiversity.

Tackling sustainability issues requires integrated solutions, and all IDB sectors are committed to the sustainability agenda. Transversal working groups—composed of staff from a variety of IDB sectors—address crosscutting issues, including sustainable infrastructure, sustainable islands, resilience, gender, diversity, and disability.

Our Environmental and Social Safeguards Unit independently ensures that all IDB operations comply with the Bank's social and environmental safeguards policy. Staff from the unit participate in teams for all Category A and B projects[2] (see page 47).

Our Office of Outreach and Partnerships is responsible for collaborating with international donors and mobilizing resources for sustainability in the region.

The **Independent Consultation and Investigation Mechanism** (known as MICI, based on its Spanish acronym) and other oversight bodies play important roles in ensuring that sustainability is given due consideration. Individuals who believe they have been or may potentially be harmed by an IDB-financed operation due to the failure of the IDB to comply with relevant operational policies may communicate their concerns directly to the IDB through MICI. MICI prepares its own **annual report**.

We also promote sustainability through our Corporate Sustainability Program, which leads the effort to reduce the corporate environmental footprint of the IDB Group (see page 51).

The IDB also collaborates extensively on climate change and sustainability with **IDB Invest**, the private-sector arm of the IDB Group, and **IDB Lab**, a platform that mobilizes capital, knowledge, and connections for innovation in Latin America and the Caribbean.

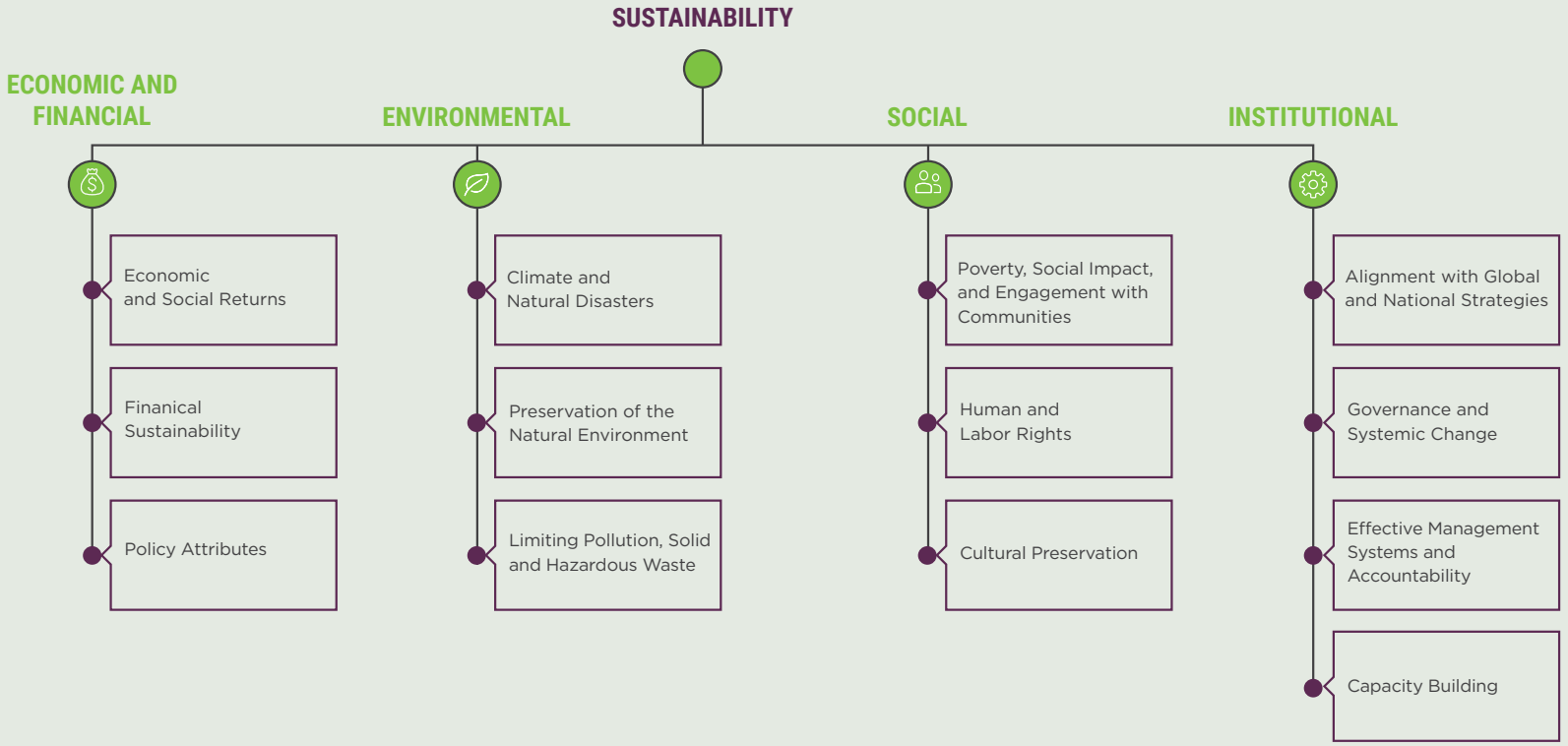
This structure positions the IDB to integrate sustainability into everything we do. Further information on the IDB's structure, roles, and responsibilities can be found on our **website**.

2 As defined in the IDB's 2006 **Environmental and Social Safeguards Compliance Policy**.

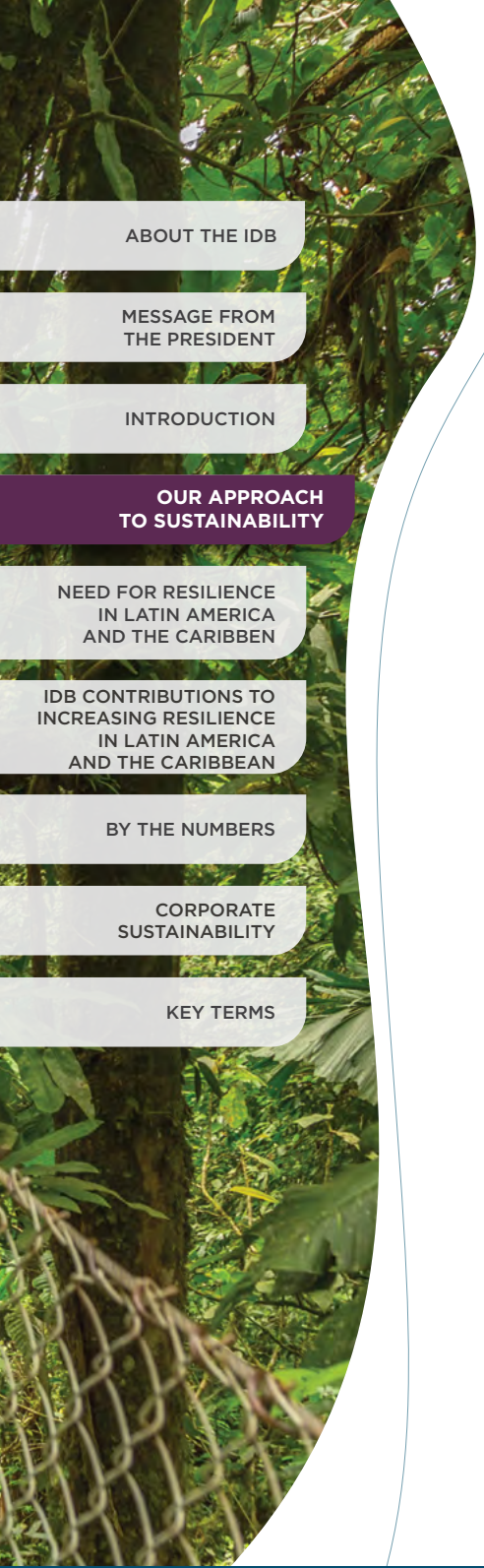
WE CONSIDER ALL ASPECTS OF SUSTAINABILITY

An integrated perspective on sustainability must consider elements from all aspects—economic and financial, environmental, social, and institutional (Figure 2).[3]

Figure 2
Aspects of Sustainability



3 Based on the IDB's 2018 **What Is Sustainable Infrastructure? A Framework to Guide Sustainability Across the Project Cycle**.



WE APPLY SUSTAINABILITY THROUGHOUT THE PROJECT CYCLE

PROGRAMMING

- We align our sustainability actions with those of our borrowing member countries through the country strategies prepared every time a new country administration takes office.
- We prepare sector framework documents to provide guidance to project teams on what the IDB seeks to accomplish in the sector.
- We scan the pipeline of operations each year for climate change opportunities.
- We screen all operations for potential environmental and social risks (see page 48) and disaster and climate change risks (see page 45).

PREPARATION

- We prepare an environmental and social strategy for the project profile for Category A and B projects.
- Project teams present a results matrix and a monitoring and evaluation plan for tracking the project's achievements, including for sustainability.
- Climate change and gender and diversity specialists get involved early to provide technical advice.
- We prepare an environmental and social management report for the Proposal for Operation Development (step before the draft loan proposal) for Category A and B projects. We help clients prepare any additional environmental and social impact assessments and consult with stakeholders through various activities.
- We support clients in preparing any additional disaster and climate change risk assessments.
- We measure the GHG footprint of our lending portfolio in gross and net terms (see page 43 for details).
- We verify that project documents are disclosed on the IDB website.

APPROVAL

- Teams consider how projects align to the IDB's strategic priorities.
- The multilateral development bank (MDB) climate finance tracking methodology is applied to each IDB Group project to determine the portion of climate-related financing (see page 41 for details).
- Loan agreements include key environmental and social clauses.

EXECUTION

- We determine the level of required supervision of safeguards using an environmental and social risk rating.
- Project teams work closely with executing agencies, building capacity along the way, and submit two progress monitoring reports each year.
- We analyze safeguard performance across the portfolio (see page 48 for details).

COMPLETION AND REPORTING

- At completion of the project, results, including environmental and social lessons, are reported in the Project Completion Report (which the Office of Evaluation and Oversight independently validates). The Project Completion Report is a tool for accountability and learning, aiming to replicate successes and avoid mistakes in the future.

NEED FOR RESILIENCE IN LATIN AMERICA AND THE CARIBBEAN

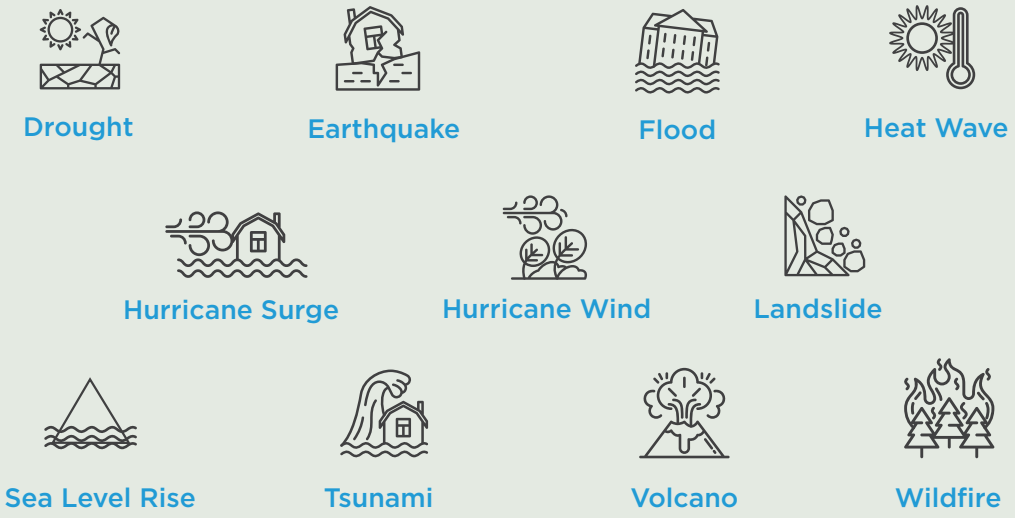
1. Latin America and the Caribbean is exposed to multiple natural hazards.

Climate change is making many of these hazards more frequent and severe (Figure 3).

2. The geographic location and socioeconomic context of Latin America and the Caribbean make it highly vulnerable to the effects of climate change.

- Poverty and vulnerability create a vicious cycle. Poverty is a critical driver of vulnerability to climate change impacts. And climate change impacts and extreme weather events push people into poverty.
- The size, geography, and location of small island states make them particularly vulnerable to climate change.

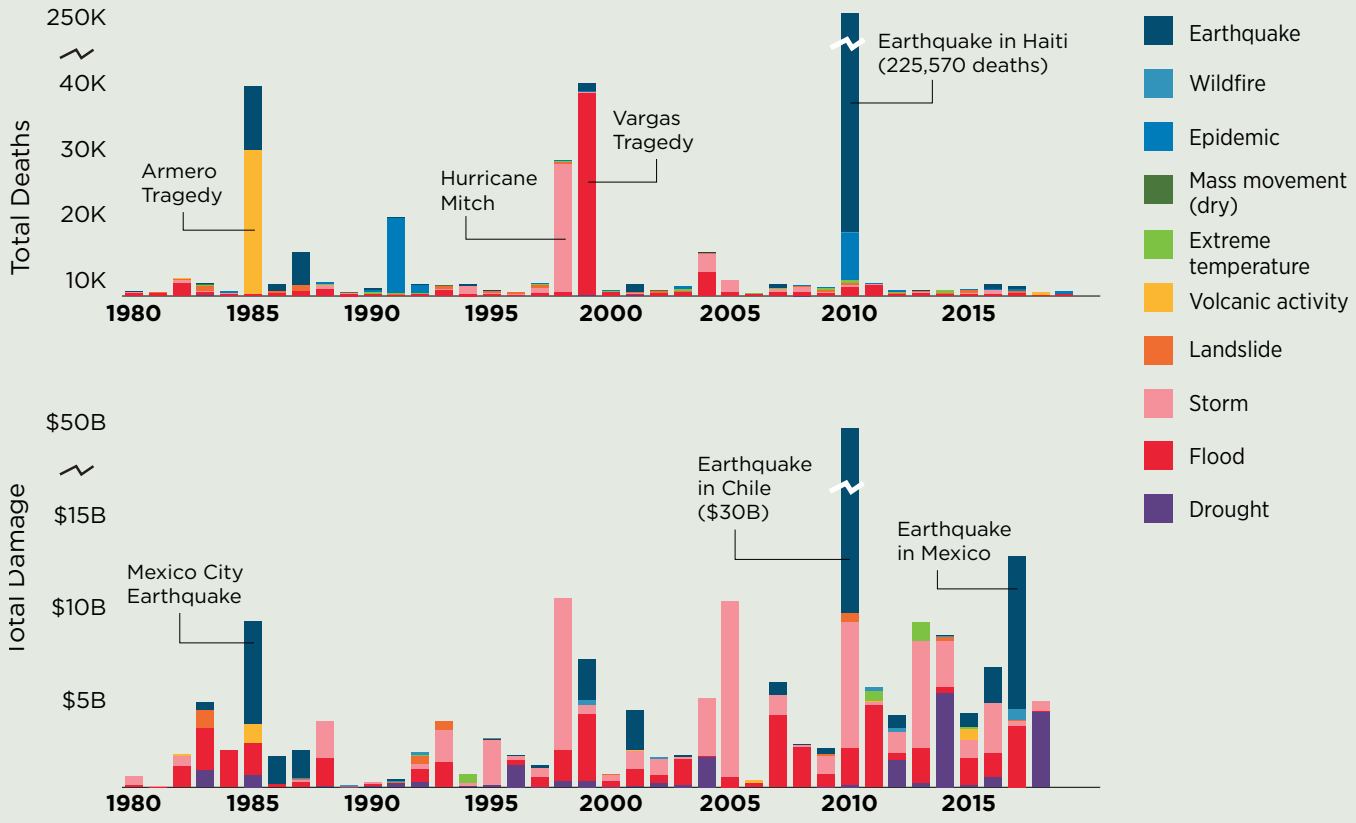
Figure 3
Most Common Natural Hazards in Latin America and the Caribbean



3. The impact of natural disasters is devastating, in both human and economic terms (Figure 4).

A variety of data should be considered when assessing the impact since single sources can be misleading. For example, after the 2010 earthquakes, far more people died in Haiti than in Chile (222,570 and 562, respectively), while Chile's total damages were more than three times Haiti's ($30 billion and $8 billion, respectively). Seemingly smaller disasters can accumulate to significant losses when they recur (e.g., damages from flooding made up 23% of natural disaster losses in the region from 1980 to 2018).

Figure 4
Damages and Deaths from Disasters



Note: Damages ($) are not adjusted for inflation.
Source: Centre for Research on the Epidemiology of Disasters. 2019. International Disaster Database (EM-DAT).

4. Comprehensive disaster risk management (DRM) is cyclical, and the IDB offers a suite of complementary instruments and platforms to meet the needs of its member countries (Figure 5).

- A crucial element of managing disaster risk at the country level is assessing it. Since 2014, to inform the design of mitigation and planning measures, the IDB has prepared **Disaster Risk Profiles** about probable average annual economic and social damages for 17 countries (Figure 6): **Argentina**, the Bahamas, Belize, **Bolivia**, **Chile**, Dominican Republic, Ecuador, **El Salvador**, Guatemala, Guyana, Honduras, **Jamaica**, **Paraguay**, **Peru**, Trinidad and Tobago, Uruguay, and **Venezuela** (available only in each country's national language, and some are pending publication).

- The **Contingent Credit Facility for Natural Disaster Emergencies** (CCF) is an ex ante financial instrument that provides loans quickly in the event of natural disasters. These loans include strong incentives to reduce risks and improve DRM through the Comprehensive Natural Disaster Risk Management Program.[4] In 2019, the Board of Executive Directors approved changes to the CCF, including expanding the scope of the instrument to cover a broader range of disaster risks.

4 The Comprehensive Natural Disaster Risk Management Program is agreed upon by the country and the IDB and includes disaster risk management governance, risk identification, risk reduction, preparation for emergency and response, and financial protection and risk transfer.

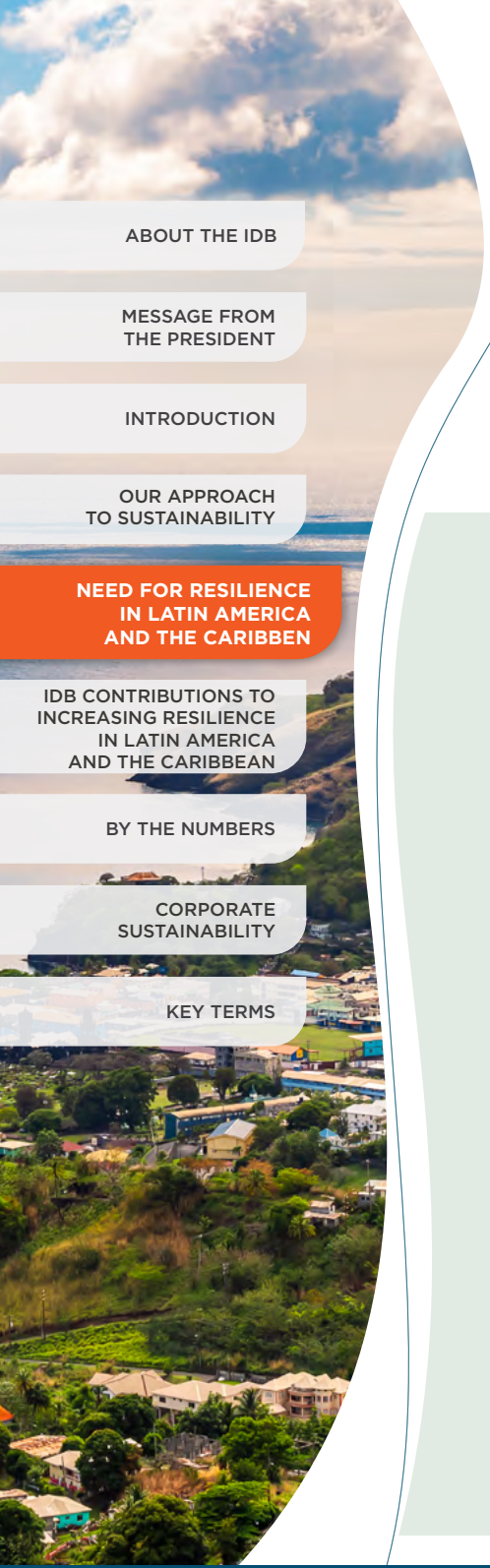
Figure 5
DRM Cycle

Source: Adapted from United Nations Office for Outer Space Affairs.

Figure 6
Summary of Country DRM Profiles

- The **Immediate Response Facility for Emergencies Caused by Disasters** (IRF) is an ex post financing instrument for revitalizing economic activities and development. The IDB provides investment support to reestablish damaged infrastructure, provide necessary services and safety for the affected population, and normalize economic activities, taking into account lessons learned from the disaster to avoid recreating vulnerability.
- The IDB is supporting countries through **NDC Invest** to implement the Paris Agreement by, among other approaches, integrating climate resilience into their Nationally Determined Contributions (NDCs), which are plans to reduce GHG emissions and adapt to the impacts of climate change.
- The **Natural Capital Lab** is a risk-tolerant hub within the IDB Group designed to drive innovation in the conservation, regenerative agriculture, biodiversity, and marine ecosystem finance spaces. It seeks to bridge the gap between traditional environmental and financial actors from the public and private sectors to incubate, accelerate, and scale novel solutions to pressing problems.

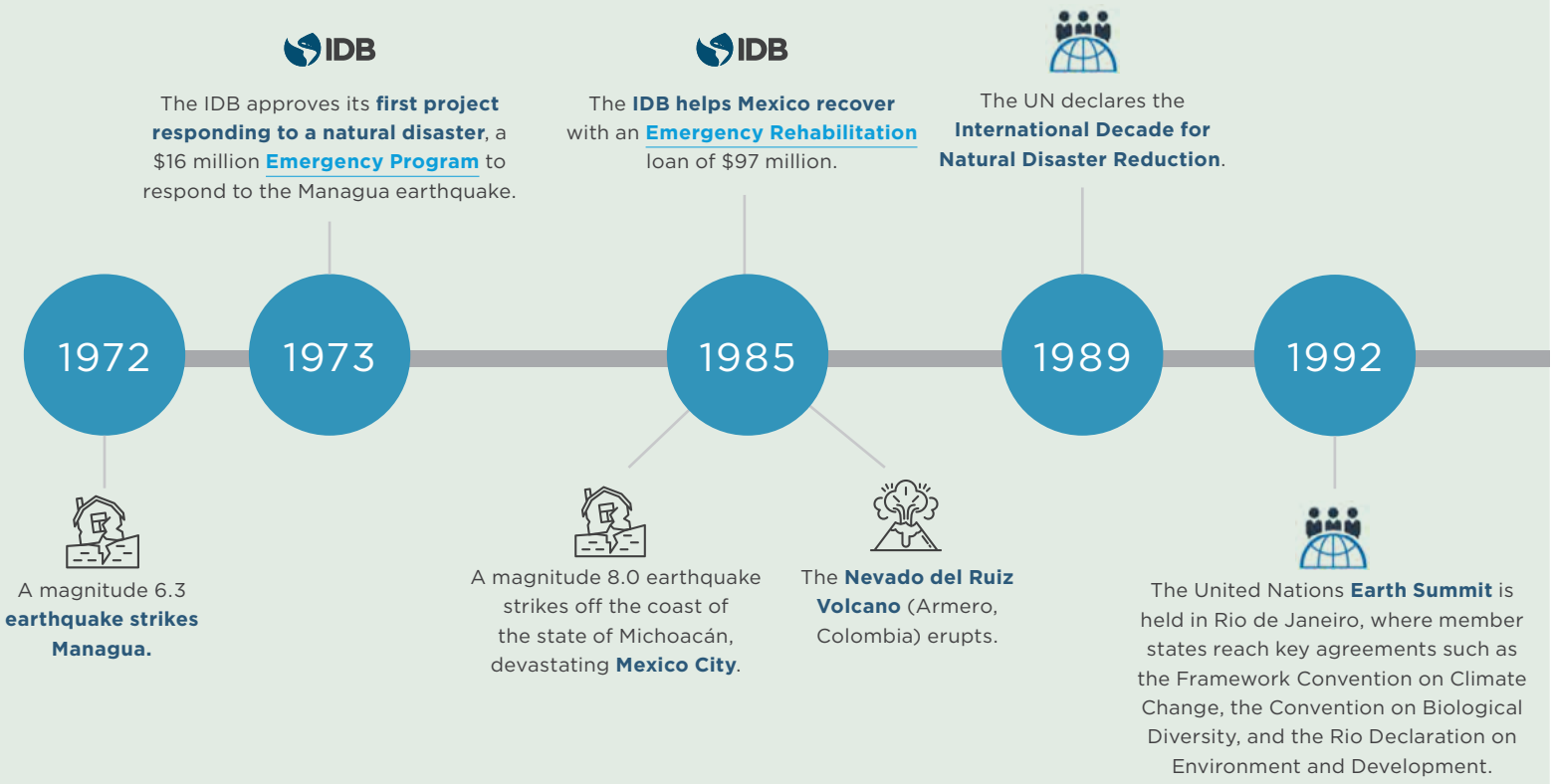
5. **Through a holistic development approach, the IDB integrates resilience measures across these sectors:**
   - Finance
   - Coastal zones
   - Forests and other natural resources
   - Agriculture
   - Water
   - Energy
   - Transportation
   - Housing and cities



RESPONDING TO DISASTERS AND BUILDING RESILIENCE THROUGH THE YEARS

Supported by appropriate institutional arrangements, guiding policies, and strategic goals, the IDB has been able to continually enhance its approach to building resilience to climate change and natural disasters—shifting from disaster response to disaster prevention and risk management, from exclusively gray, or built, infrastructure to nature-based solutions that make use of the region's wealth of natural resources, and from add-on, component-based adaptation activities to a more holistic, integrated approach. A timeline of these and other key milestones of the IDB's resilience journey is presented in Figure 7.

Figure 7
Milestones of the IDB's Resilience Journey



1994

The United Nations holds the **First World Conference on Disaster Risk Reduction**, adopting the Yokohama Strategy for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness, and Mitigation.

1998

Hurricane Mitch, one of the greatest catastrophes to ever strike the region, increases poverty levels in Honduras, El Salvador, and Nicaragua.

The **IDB responds to Hurricane Mitch** by providing humanitarian assistance, rehabilitating public infrastructure, and reformulating loans.

1999

Torrential rains cause flash **flooding in Vargas** (Venezuela).

The IDB approves a $40 million **emergency loan to Venezuela** to help remove debris and reestablish public services, among other activities, after the flooding.

2000

The IDB approves a $20 million **emergency loan to Belize** following Hurricane Keith.

2002

The devastation of Hurricane Mitch focuses attention on helping countries prepare for disasters, and the IDB develops its **first policy on disaster risk management**.

2005

At the **Second World Conference on Disaster Risk Reduction**, UN member states approve the Hyogo Framework for Action 2005–2015.

The IDB establishes an **Environment, Rural Development, and Disaster Risk Management Division** to manage natural disasters.

2006

The IDB approves its **Environmental and Social Safeguards Policy**.

2007

The IDB launches the **Sustainable Energy and Climate Change Initiative**, which later evolves into the Climate Change Division.

The IDB approves its **Disaster Risk Management Policy**.

2008

With financial support from the IDB's Multidonor Disaster Prevention Trust Fund and the Japan Special Fund, the IDB develops its first set of **disaster risk and risk management indicators**.

2008-2012

IDB

The IDB approves its first **policy-based loans for climate change**.

2009-2010

IDB

Loans to **Honduras** and **Nicaragua** shape some of the IDB's first experiences in **building resilience** to climate events.

2010

Major earthquakes strike in **Haiti** and **Chile**.

IDB

In the immediate aftermath of the Haiti earthquake, the IDB redirects resources for **emergency assistance and reconstruction**. Later, the IDB commits to providing Haiti with $200 million a year in grants for the next decade and—with a contribution from the United States—cancels Haiti's remaining IDB debt of $484 million.

IDB

The IDB sets its first **institutional goal related to climate action**: to increase lending for climate change, renewable energy, and environmental sustainability from 5% to 25% of total approvals by 2015.

2010-2014

IDB

The IDB approves its **first policy-based loans for disaster risk management** in Peru.

2011

IDB

The IDB launches the **Emerging and Sustainable Cities Initiative** to assist cities in managing dynamic demographic and economic growth (later integrated into the Housing and Urban Development Division).

IDB

The IDB begins helping countries in Latin America and the Caribbean access the **Climate Investment Funds**.

2012

IDB

The IDB launches a **Biodiversity and Ecosystems Services Platform** to help the region leverage its natural capital to achieve sustainable development.

IDB

Multilateral development banks (MDBs) publish their first **joint report on climate finance**.

2015

UN member states adopt the **Sendai Framework** for Disaster Risk Reduction 2015–2030 at the third World Conference for Disaster Risk Reduction.

2015

The **Paris Agreement** is adopted, with reducing vulnerability and increasing climate resilience as one of its three main objectives.

IDB publishes **Guidance for Assessing and Managing Biodiversity Impacts and Risks in IDB-Supported Operations** and **Good Practices for Biodiversity Inclusive Impact Assessment and Management Planning**.

2016

The IDB creates the **Climate Change and Sustainable Development Sector**, uniting the divisions for Climate Change, Environment, Rural Development and Disaster Risk Management, and Housing and Urban Development.

Building on its 2010 finance goal, the IDB Group sets a new, more precise goal to **increase financing for climate-change-related projects to 30%** by the end of 2020.

2016-2019

The IDB develops and pilots its **Disaster and Climate Change Risk Assessment Methodology**.

2017

A major **earthquake** strikes Mexico, but, fortunately, compared to the 1985 earthquake, Mexico City was **better prepared** and the destruction was not as severe.

2018

The IDB approves a $20 million **emergency loan to Costa Rica** following Tropical Storm Nate.

The IDB continues **shifting focus toward nature-based solutions**, approving a $35 million loan for the **Climate Resilient Coastal Management and Infrastructure Program** for the Bahamas (page **30**).

2019

MDBs develop **climate resilience metrics**, aiming to track how financing climate change adaptation is contributing to climate resilience goals.

The IDB **extends its 30% climate finance goal** to apply through 2023, incorporating it into the **Corporate Results Framework 2021–2023**.

The IDB launches a process to **modernize its safeguard policies**.

IDB CONTRIBUTIONS TO INCREASING RESILIENCE IN LATIN AMERICA AND THE CARIBBEAN

Efforts to build resilience to climate change and natural disasters span sectors and require different financial instruments. In this section, we explore the contributions of IDB-financed projects and research to building resilience in Latin America and the Caribbean by (1) considering its role in finance, fiscal management, and public policy; (2) protecting coastal zones, forests, and other natural capital and promoting sustainable agriculture practices; (3) incorporating sustainable approaches into water and sanitation, energy, and transportation systems; and (4) developing cities in a sustainable way.

A committee of IDB employees with an interest in sustainability selected the projects and publications featured in the report from among an IDB-wide call for proposals. Selection criteria included relevance to the 2019 report theme and capturing contributions across IDB member countries and sectors.

FINANCE, FISCAL MANAGEMENT, AND PUBLIC POLICY

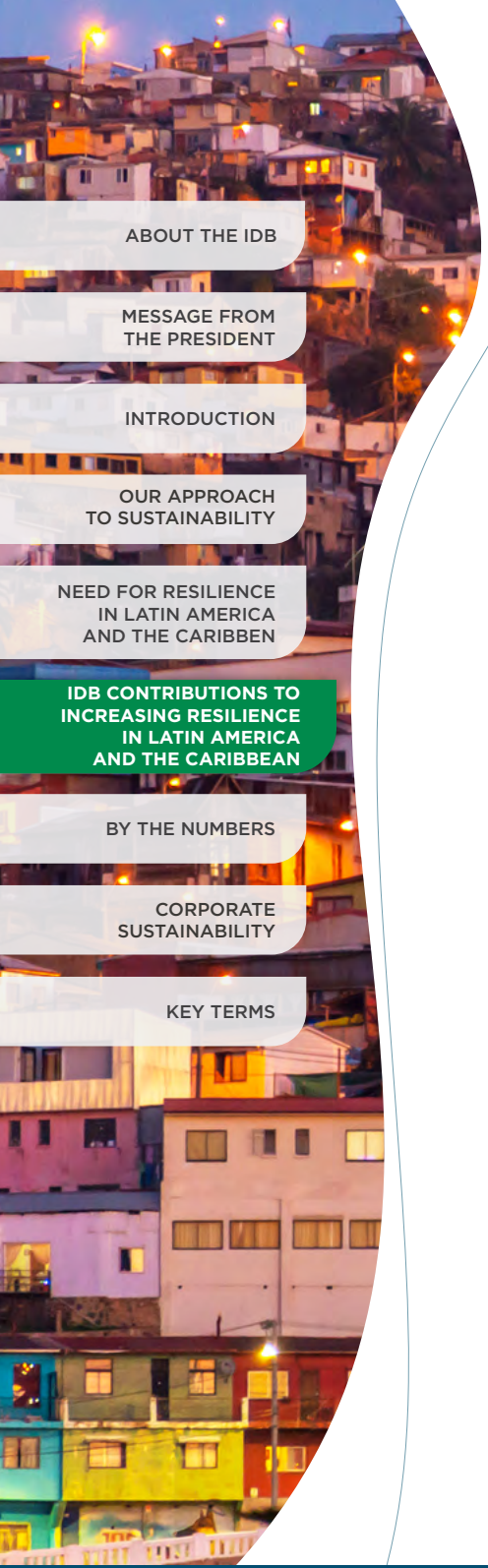
An effective institutional context is essential for supporting resilient development. Policies related to finance, fiscal management, and public policy all lay the groundwork for strategic action. A variety of financial tools can be used, from risk financing through contingent loans to green bonds for providing resources for climate and environmental projects. Using accurate data and up-to-date modeling techniques can help countries shape robust agendas. Building public support for resilient development through education is also important. Some examples of our work in these areas follow.

Building Resilience in Public Finance for Natural Disaster Emergencies

A crucial element of a comprehensive disaster risk management program is building resilience in public finance. The IDB's Contingent Credit Facility for Natural Disaster Emergencies (CCF) is an ex ante risk-financing instrument specifically designed to support member countries with liquid resources to cover urgent financing needs that arise immediately after a severe and large-scale natural disaster (e.g., earthquake, hurricane, extreme flooding). CCF loans include a Comprehensive Natural Disaster Risk Management Program (CDRMP) to reduce risks and improve DRM.

The CCF has been active since 2009 and used successfully throughout the region. In 2019, the IDB expanded the CCF to cover hazards that are slow onset or that cannot be easily described given existing technology but are significant enough to affect the population, economy, and fiscal accounts (e.g., tropical storms, droughts, tsunamis).

In 2018 and 2019, the IDB approved six contingent loans for natural disasters in Argentina, the Bahamas, Belize, Ecuador, Jamaica, and Suriname, totaling $885 million. The loans and the types of hazards each country faces are described below. The Intergovernmental Panel on Climate Change (IPCC) considers contingency loans for disaster emergencies an adaptation measure. Following the joint MDB approach on climate finance tracking, 100% of these loans were counted as climate adaptation finance in the year they were approved.



Country: Argentina
Year Approved: 2019
IDB Amount: $300 million

Argentina's geography and the location of its main urban areas expose it to a variety of natural hazards—primarily flooding, but also earthquakes and volcanic eruptions. Over the past 50 years, 58 severe flooding events were reported in the country, affecting 14 million people.[5] There have also been five major earthquakes in the past 75 years, with devastating effects on people and the economy. The section of the Andean mountain range that crosses Argentina is home to numerous active volcanoes.

Country: The Bahamas
Year Approved: 2018
IDB Amount: $100 million

The Bahamas consists of 30 inhabited islands, 661 cays, and more than 2,000 islets dispersed over 668,600 square kilometers of maritime territory. The most severe hazards experienced are hurricanes. In the past 50 years, 18 hurricanes have hit the Bahamas.[6]

In September 2019, Hurricane Dorian made landfall as a Category 5, devastating the Abaco and Grand Bahama regions (in the northern Bahamas). The storm battered the islands for nearly two days and caused life-threatening storm surges of 18–23 feet above normal tide levels. The disaster triggered eligibility to disburse against the contingent loan. The IDB also provided an emergency donation of $200,000 in response to the disaster. The IDB's assistance will support government efforts to provide relief to the affected population.

Country: Belize
Year Approved: 2019
IDB Amount: $10 million

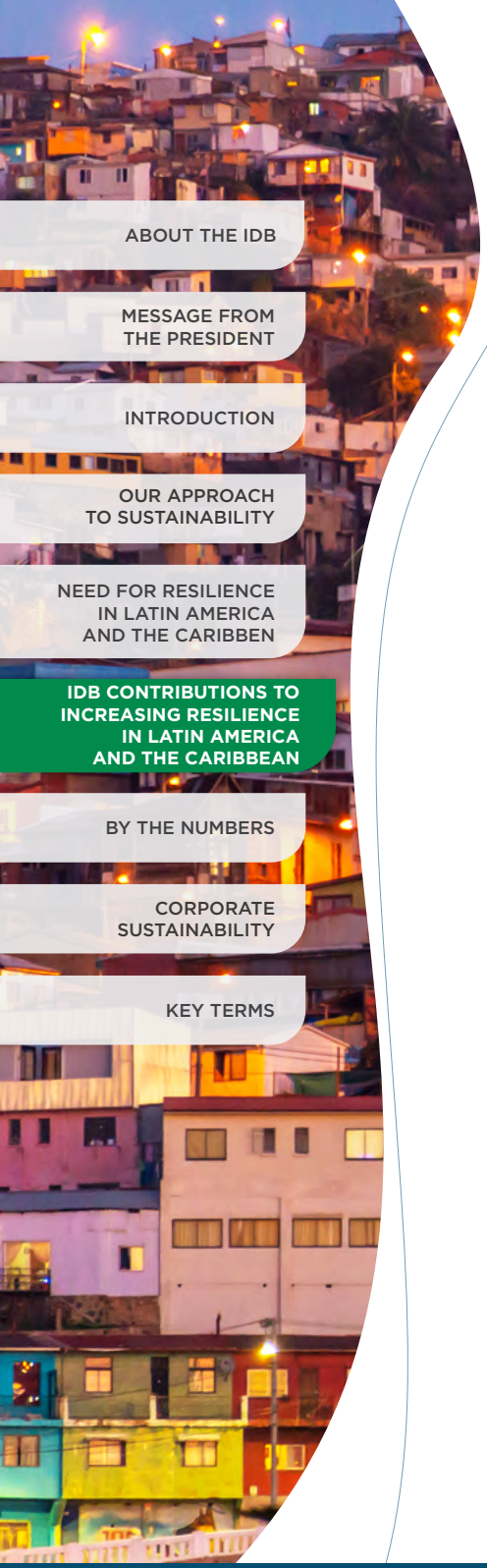
Belize spans more than 350 kilometers of vulnerable low-lying coastline that is home to 45% of its population, ports, and industries—all in the path of late-season hurricanes. Belize has historically been subject to significant natural disasters, particularly caused by hurricanes and flooding, with the former having the most severe effects due to damages derived from winds and storm surges in the low-lying coastal areas that are particularly exposed and where there is a high concentration of population and economic activity. According to the Global Climate Risk Index 2019, on the basis of losses as a proportion of GDP, Belize is one of the countries most affected by extreme weather events.

Country: Ecuador
Year Approved: 2019
IDB Amount: $160 million

Ecuador is among the 15 countries with the highest exposure to natural hazards worldwide.[7] Since the country is located in the highly complex tectonic setting between the Nazca and South American plates, it faces a high risk of seismic and volcanic activity. Ecuador also falls under the influence of the El Niño–Southern Oscillation, which produces hydrometeorological hazards such as floods and droughts. In the past decade alone, 24 natural disasters were recorded in Ecuador, including floods, volcanic activity, earthquakes, and droughts.[8]

A 7.8-magnitude earthquake struck a portion of Ecuador's coastal region in April 2016. In response to the emergency and at Ecuador's request, the IDB disbursed $160 million against the prevailing **contingent loan** of $300 million. The country's quick access to funds and the IDB's support helped the Ecuadorian government deploy a coordinated and rapid response to the situation. The 2019 loan was a reformulation to replenish the total available contingent financing to $300 million.

5 Centre for Research on the Epidemiology of Disasters. 2018. International Disaster Database (EM-DAT).
6 National Oceanic and Atmospheric Administration (NOAA) Historical Hurricane Tracks and Bahamas Department of Meteorology.
7 INFORM. 2019. Global Risk Index Report.
8 Centre for Research on the Epidemiology of Disasters. 2019. International Disaster Database (EM-DAT).



Country: Jamaica
Year Approved: 2018
IDB Amount: $285 million

Jamaica is highly exposed to natural hazards of varying intensity and severity, including hurricanes, earthquakes, droughts, floods, and landslides. Between 1988 and 2012, 11 named storms made landfall in Jamaica, causing significant physical and financial damage.[9] Furthermore, Jamaica is located at the boundary between the Caribbean and North American plates, and many potentially active fault lines traverse the country.[10]

Country: Suriname
Year Approved: 2019
IDB Amount: $30 million

Floods are the most prevalent hazard in Suriname, in the coastal zones and interior, and the population is highly exposed to them. Recently, Suriname has been subject to unpredictable high-intensity seasonal rainfall, and the frequency and magnitude of floods have increased.

The Green Bond Potential

Green bonds (bonds whose proceeds are designated for climate and environmental projects) are a powerful tool for mobilizing investment to meet climate targets, especially valuable in the context of countries' commitments to the Paris Agreement and the Sustainable Development Goals. Since the first green bond in 2014, sovereign and private issuance in Latin America and the Caribbean has reached $12.6 billion.

The IDB announced the **Green Bond Transparency Platform** in 2019. The platform is an innovative digital tool that brings greater transparency to the green bond market in Latin America and the Caribbean. The platform uses blockchain (distributed-ledger) technology and facilitates harmonized issuance reporting and verification. Issuers, investors, and other market actors can upload and research information on transaction details, bond performance, use of proceeds, and environmental impacts of green bonds in the region. The platform, currently in its beta stage and set for official launch in 2020, will provide a greater level of confidence in the market. It is supported by more than 30 organizations.

In 2019, the IDB launched its inaugural **Sustainable Development Bond** to begin leveraging the green bond market to mobilize resources to finance IDB projects aligned with the SDGs.

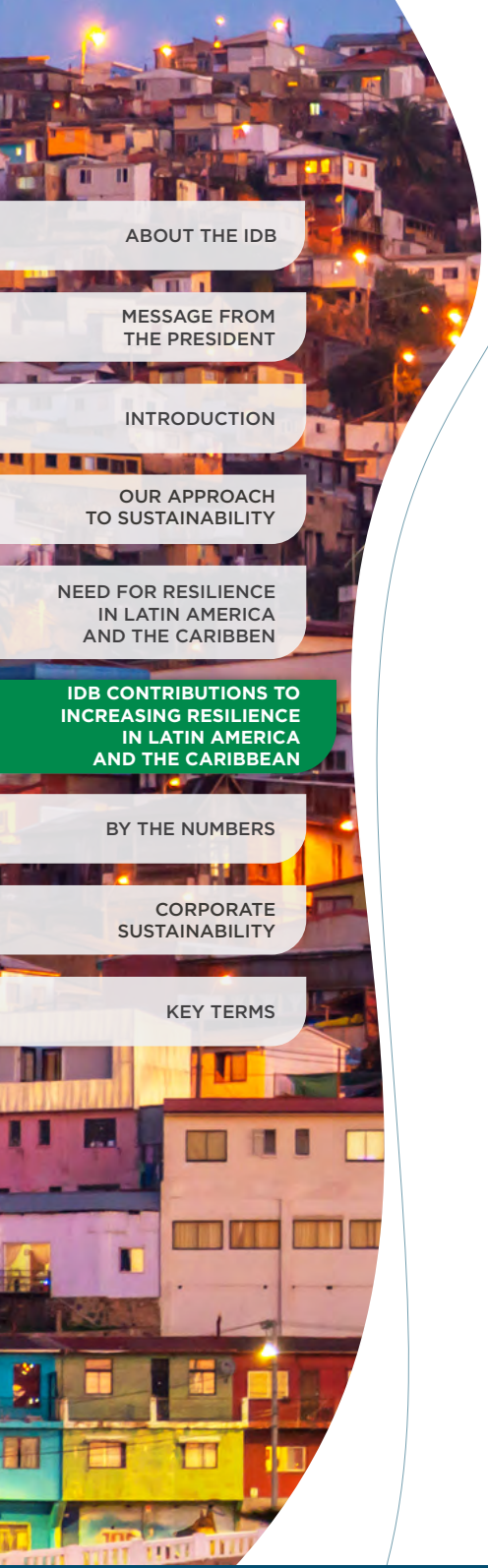
Some of the IDB's recent projects and publications related to green bonds follow.

Project: Delivering Sustainable Finance: Connecting Financial Markets with Sustainable Assets

Country: Regional
Year Approved: 2019
IDB Amount: $1 million

In Chile, the IDB is the lead supporting institution helping the Ministry of Finance and other financial regulators agree on a roadmap for the green finance transition, including improving management of climate-related risks and creating new opportunities. Work is underway to identify how the Chilean financial sector and capital markets can analyze, consider, and report the risks and opportunities arising from climate change, using international best practices as a reference (e.g., the Taskforce for Climate Related Disclosures). The IDB accompanied the Ministry of Finance and other financial regulators at a **Green Finance Roundtable** discussion

9 World Bank. 2018. Advancing Disaster Risk Finance in Jamaica.
10 Koehler et al. 2013. Enriquillo-Plantain Garden Fault Zone in Jamaica: Paleoseismology and Seismic Hazard.



with the private sector in 2019. As a result, financial sector regulators signed a Green Agreement for the Financial Sector and published a *Declaration on Climate-Related Risks and Opportunities*.

In addition, the IDB supported Chile's Ministry of Finance in issuing the **first sovereign green bond** in the region, which won the GlobalCapital **Latin America Green Bond** of 2019. Specifically, the IDB helped structure the bond issuance framework, the expenditure eligibility criteria, and monitoring and reporting mechanisms. Chile had two highly successful issuances in 2019 ($1.4 billion and €861 million). In 2020, the Ministry of Finance plans to issue more bonds under the framework. Thanks to these and other efforts, Chile is quickly emerging as a leader in the transition toward a low-carbon and climate-resilient financial system.

The work in Chile was based on regional research—**Climate Risk and Financial Systems of Latin America: Regulatory, Supervisory and Industry Practices in the Region and Beyond**—that examines the relationship between climate change and financial markets in Latin America and the Caribbean.

Project: LAC Green Finance Program to Mobilize Private Investment in Mitigation Actions and Low-Carbon and Sustainable Business Models through National Development Banks

Country: Regional
Year Approved: 2016
IDB Amount: $5.5 million

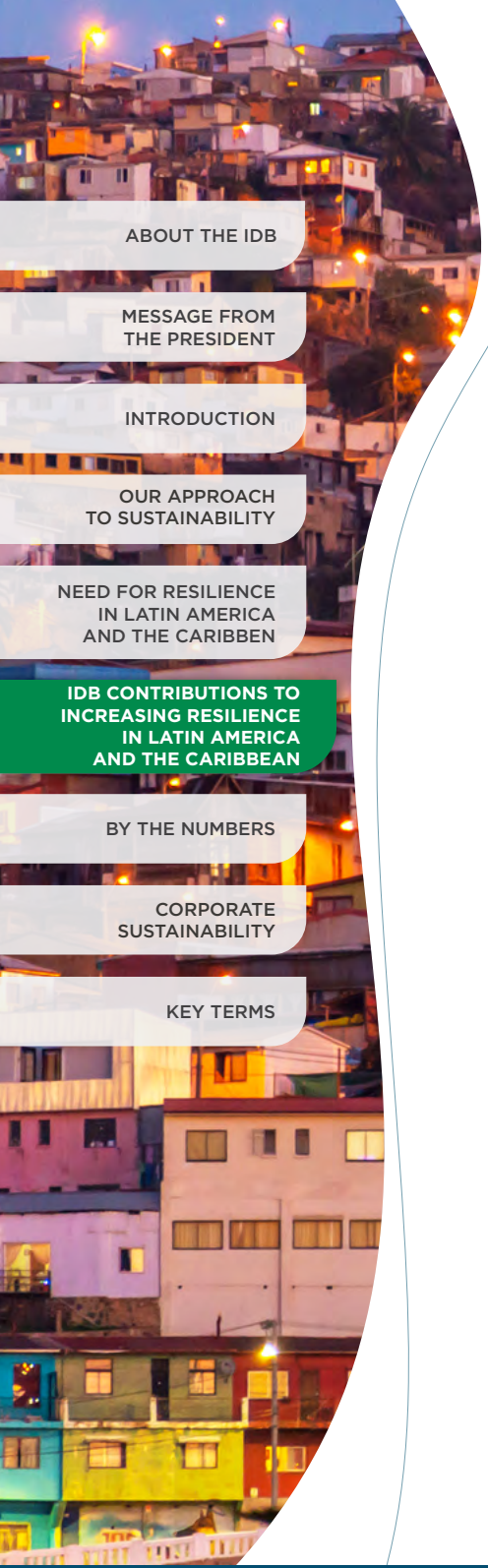
While the issuance of green bonds has grown rapidly in recent years, agricultural green bonds have lagged, likely due to difficulties in developing international certifications, such as the **Climate Bonds Standard**. These types of certifications require criteria that are comparable across several financial asset classes. In the case of agricultural green bonds, developing criteria has proven to be methodologically complex given the variety of environmental and social benefits that span vastly different geographic and climatic regions. In Mexico, the IDB supported the development of a **methodology** to issue the world's first Certified Agricultural Green Bond.

To date, $150 million has been raised and used to finance more than 500 green agriculture projects, **resulting** in reduced use of water, pesticides, and fertilizers.

Publication: Transforming Green Bond Markets: Using Financial Innovation and Technology to Expand Green Bond Issuance in Latin America and the Caribbean
Year: 2019

Despite exhibiting remarkable growth, the green bond market still represents less than 1% of the global bond market. This paper identifies two challenges that might slow the adoption of green bonds and presents a menu of responses that policymakers, regulators, and public financial institutions can use to offset these challenges. It explores two key dimensions: the risk profile of the green bond instrument and the transaction costs associated with the issuance of and reporting on green bonds.

New approaches to risk design and technology are essential to untap the potential of green bond markets, particularly in Latin America and the Caribbean and other developing regions. The incorporation of financial mechanisms such as covered bonds and guarantees can adequately address the risk of the issues, making the market more attractive for investors. Enhanced regulation and education and leveraging efficiencies of new technologies, such as distributed-ledger technologies, can substantially reduce monitoring and reporting costs while improving transparency in the use of proceeds and market integrity.



Integrating Natural Capital

Publication: Advancing the Integrated Economic-Environmental Modeling Platform
Year: 2019

The Integrated Economic-Environmental Modeling (IEEM) Platform integrates natural capital into public policy and investment decision making. Since its development in 2014, it has been applied to hundreds of policy and investment questions ranging from strategies to achieve the SDGs and green growth to sector-specific analyses for investments in agriculture, forestry, and tourism.

The platform has recently been applied to the analysis of Costa Rica's ambitious decarbonization plan, focusing on sector strategies for transportation and agriculture/forestry, and to Colombia's proposal for a Payment for Ecosystem Services Program.

The platform's value added lies in its ability to shed light beyond the GDP impacts of public policy and investment and on long-run sustainability and wealth, the winners and losers of policy implementation, and trade-offs and synergies. The platform has demonstrated that policy assessments that consider changes in natural capital stock and the supply of ecosystem services can yield very different results from conventional economic assessments.

Watch this **video** to learn how we can integrate natural capital into public policy and decision making.

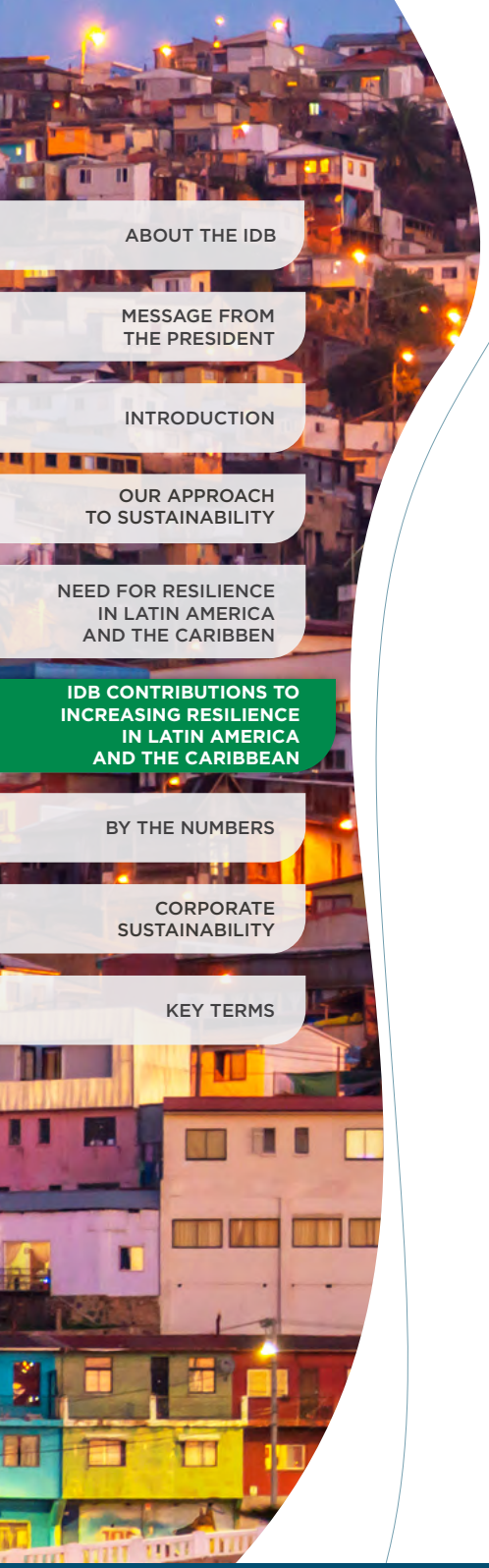
IEEM

Strengthening Environmental Statistics

Publication: Toolkit for Strengthening Official Environmental Statistics
Year: 2019

This toolkit contains methodological and technical materials to develop and strengthen the production of environmental statistics in Latin America and the Caribbean. The tools can analyze the state of environmental statistics and improve their technical quality, promote country-level coordination for research and formulating environmental policy, and strengthen regional collaboration to encourage standardization and comparability of common environmental statistics.

The toolkit is part of a regional framework for Latin America and the Caribbean. The National Institute of Statistics and Geography of Mexico manages the project, with support from the **IDB's Regional Public Goods Initiative** and the Economic Commission for Latin America and the Caribbean. Thus far, 11 countries have participated in the project: the Bahamas, Belize, Costa Rica, Colombia, Dominican Republic, Ecuador, Jamaica, Mexico, Panama, Suriname, and Venezuela. It is expected that the framework and the toolkit will be used across Latin America and the Caribbean.



Agricultural Insurance for Climate Risk in Peru

Project: Climate Risk: Identification, Management, and Opportunities
Country: Peru
Year Approved: 2016
IDB Amount: $1.5 million

This technical cooperation project is supporting countries in the region to manage the challenges and opportunities associated with climate change. As part of the project, the IDB is supporting the Agricultural Bank of Peru (Agrobanco) to develop and strengthen commercial agricultural insurance, including through the following efforts:

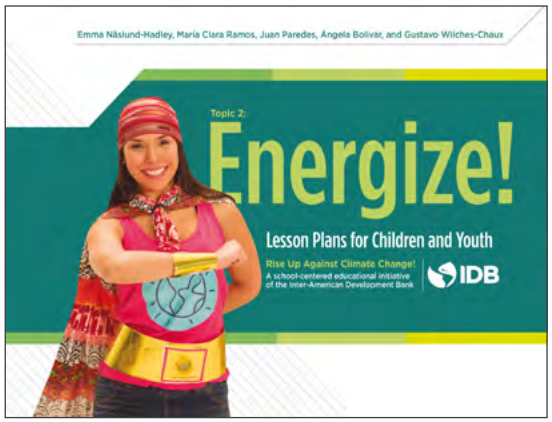
- Presentations of the study analyzing the agricultural insurance coverage that Agrobanco offers to agricultural producers to Agrobanco management; the Superintendency of Banking, Insurance, and Private Pension Fund Administrators; the Ministry of Agriculture and Irrigation; the Ministry of Economy and Finance; the Peruvian Association of Insurance Companies; and other relevant institutions.
- Field visits to analyze the reality of small Peruvian producers and how insurance works in practice.
- A workshop on technological innovation in the agricultural insurance market.
- A presentation to Agrobanco management of a comprehensive reform program to strengthen the commercial agricultural insurance, including concrete measures such as mandatory insurance for new commercial agricultural loans, increased insurance coverage, a tariff scheme optimized by producer risk level, a georeferencing system for insured lots, and a training plan for analysts and technical assistants to promote the advantages of insurance. Several of these measures have been implemented or are underway.

Addressing Climate Change through Education

Project: Education Quality Improvement Program
Country: Belize
Year Approved: 2019
IDB Amount: $10 million

One of the program's main objectives is to improve the quality and gender equity of education at the primary and secondary levels, focusing on innovation in science, technology, engineering, arts, and mathematics (STEAM) education.

Belize is committed to combatting and adapting to climate change, including establishing itself as a frontrunner in Central America and the Caribbean on climate change education. The program includes construction of a STEAM Laboratory School, designed to be an exemplary green and climate-resilient building, meeting EDGE certification standards. Green measures include energy efficiency and sustainable materials. The building will include important adaptation measures—responding to Belize City's vulnerability to sea level rise, river flooding, and increased hurricane frequency and severity—such as elevating the buildings and using waterproof and water-resistant materials. In addition, 50% of Belize's primary school teachers will be trained in climate change education, using the IDB **Rise Up Against Climate Change** materials, to help students understand climate change—and how to adapt to it and care for the environment.



NATURAL CAPITAL AND AGRICULTURE

Latin America and the Caribbean is home to 40 percent of the biodiversity on Earth and to many unique ecosystems. The region's wealth of natural capital is at the core of its economic and social development. At the same time, the region's increasing population and economic growth are also partly responsible for the growing threats to environmental sustainability and the loss of natural capital. Recognizing this, the region is leading the world in biodiversity conservation.

In this section we provide examples of projects aiming to protect and enhance natural capital as an essential part of building resilience.

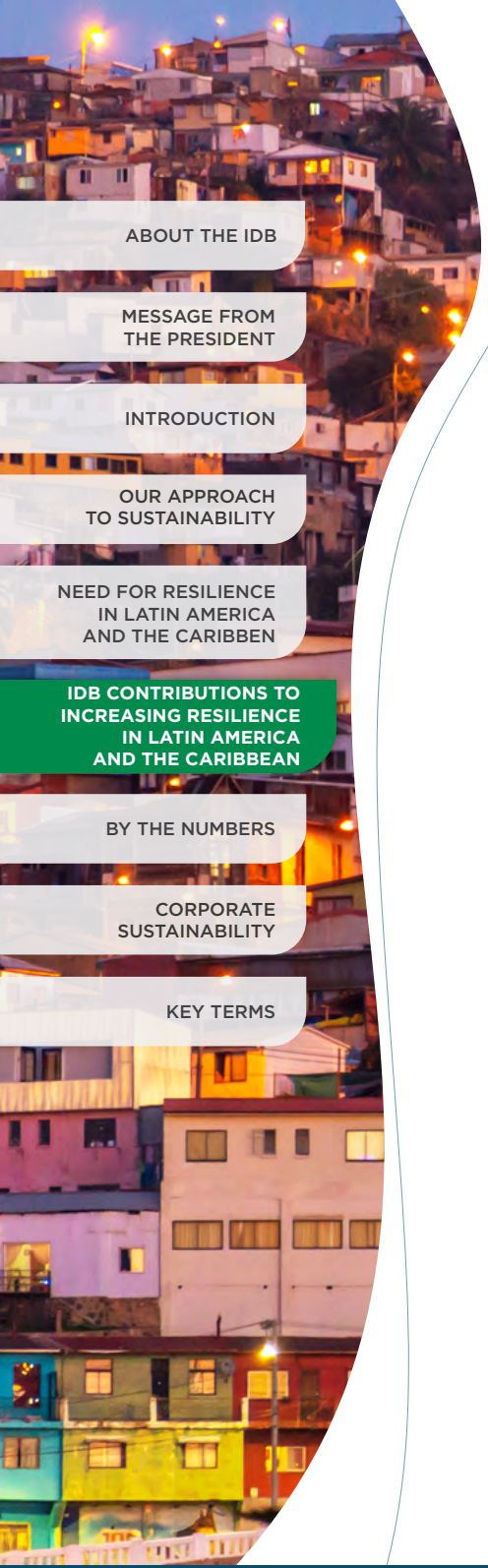
Building Coastal Resilience

Project: Climate Resilient Coastal Management and Infrastructure Program
Country: The Bahamas
Year Approved: 2017
IDB Amount: $35 million

Through the **Climate Change and Sustainable Landscapes** technical cooperation, the IDB is helping decision makers from the public and private sectors cope with the challenges of climate change for the management, use, and conservation of sustainable landscapes. The work is focused on strengthening capacity for planning and designing approaches that promote sustainable landscapes and on supporting technical inputs for future investment plans under NDCs.

IDB-financed **research** conducted at Stanford University predicts that degradation or loss of protective ecosystems (e.g., coral reefs and mangrove forests) could lead to a tripling of storm-related damages. The Bahamas is using these findings to identify key areas where investment in natural ecosystems could support a more storm-resilient future.

The IDB is financing a $35 million Climate Resilient Coastal Management and Infrastructure Program, which aims to improve coastal protection infrastructure (including nature-based solutions) and integrated management of the coast. The program will finance science-based shoreline stabilization and coastal flooding control measures in East Grand Bahama, Central Long Island, and Nassau/Junkanoo Beach in New Providence; restoration of mangroves and reefs in Andros; and institutional strengthening for coastal risk management. The program seeks to reduce economic losses due to natural disasters and to increase local economic activity.



Adaptation in the Fishery Sector

Publication: Progress in Adapting to Climate Change in the Fishery Sector and the Marine Coastal Ecosystem in Peru **(available only in Spanish)**
Year: 2019

The Adaptation to Climate Change of the Fisheries Sector and the Marine-Coastal Ecosystem of Peru project (completed in 2018) supported the government of Peru in reducing coastal communities' vulnerability to impacts of climate change on marine-coastal ecosystems and fishery resources. The project financed a set of adaptation measures at the national and local levels through institution-strengthening activities and work with artisanal fishing communities in the towns of Huacho-Chancay and Ilo. The project proposed a national policy, a national program, and local plans (pilot areas) for integrated management of marine-coastal areas (IMMCA). Adaptation actions at the pilot sites included improving the sustainability of artisanal fishing practices through good practices when capturing and preserving the catch.

This study considers the vulnerability of anchovy fisheries to climate change and its ecological and socioeconomic impacts. The study also presents recommendations for future projects that seek to improve the resilience of the productive system (i.e., communities of artisanal fishermen, fisheries, and ecosystems) through an adaptive process framed by the SDGs.

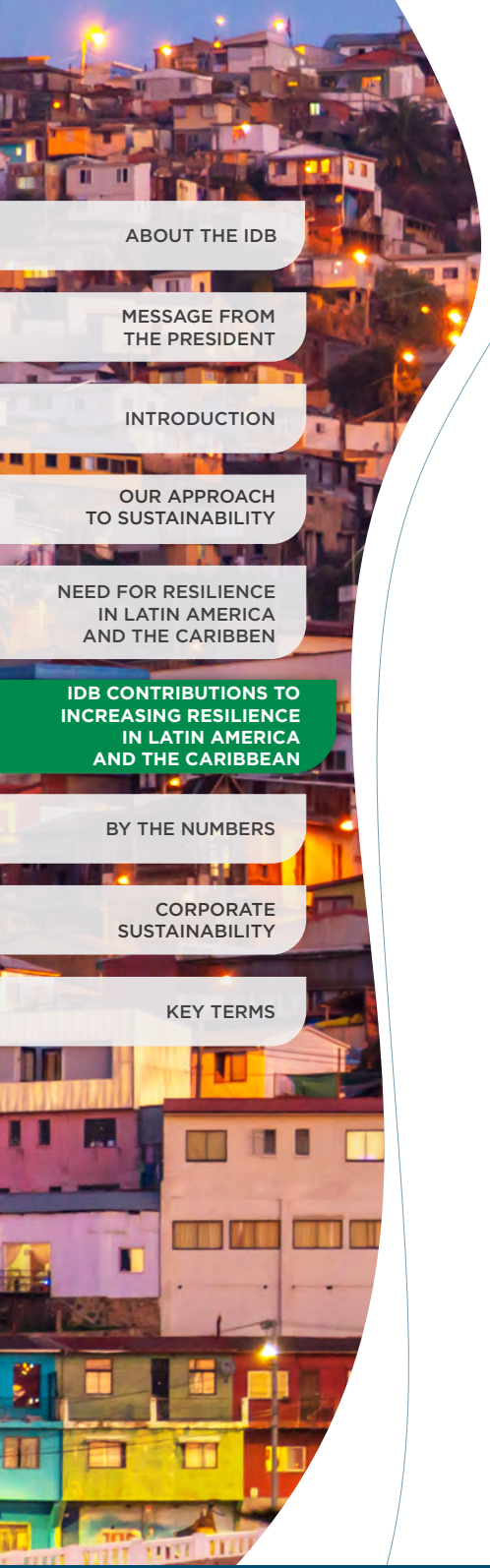
Protecting Forests to Improve Water Quality

Project: Program for the Restoration of Climate-Resilient Forests and Forestry for Sustainable Water-Related Ecosystem Services
Country: Honduras
Year Approved: 2019
Amount: $10.7 million loan and a $24.3 million grant from the Green Climate Fund

This program aims to improve the climate resilience of forests in areas that are critical sources of water by restoring forest cover and strengthening governance. It has been designed to foster a paradigm shift in forest management in Honduras, moving from a reactive to a preventive model. The model is characterized by active participation of local communities and the private sector, diversification of livelihoods, and strengthening of the governance and financial sustainability of the forestry sector.

A 2016 Sustainable Forest Management project aims to recover and maintain the ecosystem services of coniferous forests affected by the pine beetle plague that hit Honduras between 2014 and 2016. The new program complements the 2016 project by having long-term adaptation actions in overlapping and new areas. It supports the restoration of private pine forests, promotes agroforestry systems (to alleviate pressure on the forest perimeter), and encourages a long-term compensation mechanism for environmental services in exchange for implementing adaptive forest management actions.

A water fund will also establish public-private partnerships to mobilize resources from the beneficiaries of the ecosystem services that will be used to invest in adaptive management of forests in water-supplying areas. Through the management of 270,000 hectares of forest, the project is expected to increase water availability during the dry season, increase carbon sequestration, and reduce emissions from deforestation.



Protecting Essential Water Resources

Project: Study of Water Resources and Climate Vulnerability of the Patiño Aquifer
Country: Paraguay
Year Approved: 2016
Amount: $0.9 million, funded by the Latin America Investment Facility of the European Union through the Spanish Agency for International Development Cooperation

The Patiño Aquifer is a main source of water for domestic, agricultural, and industrial use in the Metropolitan Area of Asunción. Overexploitation of the aquifer has led to dropping water levels, compromising the water availability for more than 1 million people. Beyond quantity, the area is facing a water-quality issue. Poor controls in the construction and management of wells and the lack of sewer systems mean that saline water is intruding and uncontrolled wastewater and chemical and industrial discharge are contaminating the aquifer.

Global climate models indicate that Paraguay will likely experience significant variations in temperature and precipitation patterns, which suggests that climate change has the potential to further jeopardize the availability and quality of water in the aquifer. Pessimistic scenarios from the World Bank indicate that by 2100, the average annual temperature will be 6.2°C higher than it is today, and rainfall will be up to 34% lower.

This project formulated an **Integrated Water Resources Management Plan** (available in Spanish only) for the Patiño Aquifer, based on a dynamic three-dimensional model of water flow and quality. An institutional arrangement to implement it was developed that will allow the government of Paraguay to take appropriate measures for the proper protection and management of the aquifer, including implementing sanitation projects in the area.

Engaging Communities to Stop Deforestation

Project: Support for the REDD+ Project Portfolio in the Chocó Biogeographic Region
Country: Colombia
Year Approved: 2018
Amount: $3.3 million, supported with the Sustainable Colombia Fund

Forestry, mainly deforestation, constitutes 36% of Colombia's GHG emissions. Responding to deforestation in Colombia, this project supports the participation of Afro-Colombian and indigenous communities in REDD+ efforts. (REDD+ stands for reduce emissions from deforestation and forest degradation and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks.)

Among other results, the REDD+ portfolio supported by the project has:

- Linked 19 Afro-Colombian communities to REDD+ projects and trained them to integrate project objectives with their own development objectives
- Involved women, youth, and children, recognizing the unique roles each play in the community
- Generated more than 100 community jobs in REDD+ support units
- Conserved more than 400,000 hectares, protecting at least 70 threatened species

Recovering Natural Capital to Improve Nutrition and Adapt to Climate Change

Project: Recovery of Natural Capital of the Dry Corridor Region and Climate Adaptation
Country: Guatemala
Year Approved: 2012
IDB Lab Amount: $3.6 million

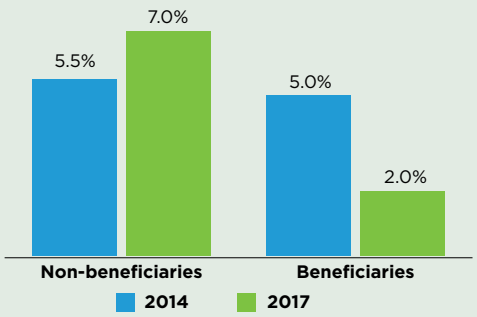
The effects of climate change can be seen clearly in Guatemala. Guatemala's Dry Corridor is drought stricken, leading to decreased productivity and, thus, increased poverty and food insecurity for the people living there. In this context, four municipalities in the Chiquimula department (Camotán, Jocotán, Olopa, and San Juan Ermita) faced profound ecosystem deterioration. This IDB Lab project is the first in the Dry Corridor area and was cofinanced with the government of Guatemala. The Mancomunidad Copan Chorti executed the project, and the National Forest Institute and the Eastern University Center were key partners.

Lessons learned from previous initiatives in the region and ancestral knowledge of local species preservation were used to design a comprehensive and innovative model to increase the communities' climate resilience through sustainable natural capital practices.

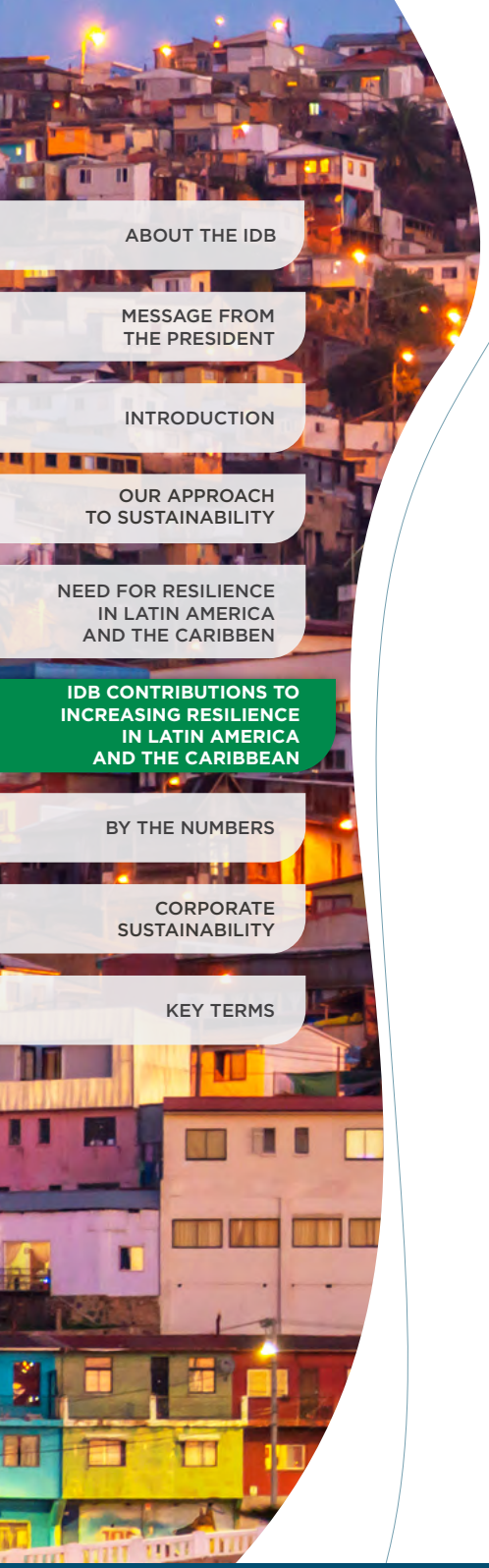
The project piloted a series of activities, including adopting agroforestry practices, increasing forest cover through a forest incentives program to improve watershed management, recovering native species of flora and fauna that have greater resistance to the climate conditions to contribute to food security, training local organizations on climate change adaptation, establishing an early warning system to inform communities about climate conditions, and planning for the strategic provision of quality food in case of drought or shortages.

An impact assessment (available in Spanish only) looked at the project's food security efforts. Families received a poultry package if they completed a two-month poultry course at a local farming school and built chicken coops and areas for forage plants. The poultry package gave each family 10 chickens and two local fowl, which are resistant to local climate conditions. The beneficiary families were asked to pay benefits forward to other families in the future. Limited capacity meant that intervention was staggered across communities (on a randomized basis). This approach created a beneficiary group and a control group that could be used for evaluation. The results of the assessment indicate that in areas facing very high temperatures, beneficiary households had higher egg production and higher reported calorie and protein consumption. This had a marked effect on food security for girls between six months and five years of age (Figure 8).

Figure 8.
Changes in the Percentage of Girls with Severe Low Weight



Watch this **video** to learn more about the project. The project was also featured on the **news** in Guatemala.



Salvadorian Coffee Forests

Project: Strengthening the Climate Change Resilience in El Salvador's Coffee Forests
Country: El Salvador
Year Approved: 2019
IDB Amount: $45 million

Salvadorian coffee is produced in agroforestry systems known as coffee forests. These ecosystems represent 22% of the country's forests and are known for their rich biodiversity.[11] They also provide crucial ecosystem services such as carbon sequestration, water regulation, aquifer recharge, and erosion control.[12] In recent years, however, the range of the coffee forests has been reduced dramatically (by about 12%) and replaced with single-crop systems that can be harmful to the environment.

Climate change is among the main causes of the decline in coffee forests. It has affected coffee productivity through changes in temperature and rainfall that disrupt the optimal conditions for coffee production. It has also increased the prevalence of plagues and diseases such as coffee rust and coffee berry. In the 2012–2013 agricultural season, the country experienced an outbreak of coffee rust that affected 74% of coffee areas, reducing the harvest by 54% and employment in the coffee sector by 59%. These costly effects all illustrate El Salvador's high vulnerability to climate change.

To design this IDB project, a climate change model was applied to a sample of more than 10,000 coffee farms to identify areas at risk of becoming unsuitable for growing coffee. The analysis showed that by 2050, an estimated 70% of farms will require significant changes in their production systems to remain suitable for growing coffee (systemic adaptation) and 16% will need to completely shift to growing other crops (transformative adaptation). Furthermore, the analysis suggests that the altitude suitable for growing coffee will increase from 825 to 958 meters above sea level by 2050.

The project will help smallholder farmers adapt in areas that will lose suitability for coffee growth using agroforestry systems, improving farmers' income security, and maintaining the ecosystem services provided by the coffee forests.

Using Evidence to Design Better Projects

Project: Technology Transfer to Small Farmers Program and Agricultural and Agroforestry Technological Innovation Program
Country: Haiti
Year Approved: 2011 and 2017
IDB Amount: $15 million and $76 million

These two programs encourage smallholder farmers in Haiti to adopt sustainable, climate-smart agricultural technologies to improve farm profitability and facilitate adaptation to climate change. For the 2011 project, technologies were prioritized based on the relative importance of crops and socioeconomic and environmental sustainability factors. The technologies spanned the harvest cycle and included sustainable soil recovery and agroforestry approaches. The project was finalized in 2018, benefitting more than 35,000 farmers. An **impact evaluation** showed that the agroforestry packages led to a 38% increase in production and a 63% increase in income. Other packages—mainly focused on annual crops like rice and vegetables—did not generate any significant improvements.

Lessons from the 2011 program were considered in designing the 2017 program, making it a good example of evidence-based policy making. The 2017 program aims to provide more than 65,000 farmers with technology packages and is focused on applied agronomic research and climate-smart technologies, especially agroforestry.

11 El Salvador Ministry of Environment. 2018.
12 International Center for Tropical Agriculture. 2012.

SUSTAINABLE INFRASTRUCTURE

Infrastructure is an engine for inclusive growth and crucial to the delivery of services—it provides energy, transport, water, sanitation, and communication services for increasingly urbanized populations. Yet infrastructure needs in Latin America and the Caribbean exceed current investment levels.

Beyond the need for additional investment, there is the fundamental question of what type of infrastructure to prioritize. Infrastructure assets are long-lived, making their sustainability key. Increasing infrastructure's resilience to climate change impacts has become a high priority, along with developing nature-based solutions for infrastructure challenges.

In this section, we look at some examples of our work to build resilient infrastructure in Latin America and the Caribbean.

Nature-Based Solutions

Publication: Nature-Based Solutions: Increasing Private Sector Uptake for Climate-Resilient Infrastructure in Latin America and the Caribbean
Year: 2019

Nature-based solutions can be a cost-effective way to build infrastructure resilience in response to a changing climate while delivering a range of other benefits to society. There is growing awareness and understanding of their value, yet adoption of nature-based solutions to infrastructure challenges in Latin America and the Caribbean (especially by the private sector) remains low. Nature-based solutions have particular potential in the region, where natural capital is being threatened, vulnerability to climate change is increasing, and rapid urbanization is creating significant demand for infrastructure. This publication presents the barriers to—and enablers of—private-sector uptake of nature-based solutions that will increase infrastructure resilience in Latin America and the Caribbean.

Publication: The Role of Green Infrastructure in Water, Energy and Food Security in Latin America and the Caribbean: Experiences, Opportunities and Challenges
Year: 2019

Changing demographics and climate change in Latin America and the Caribbean pose challenges to the balance of the water-energy-food nexus that traditional engineering approaches (i.e., gray infrastructure) are not able to meet. Green infrastructure, by contrast, leverages ecosystems and can be implemented rapidly and provide cost-effective solutions. Historically, green-infrastructure solutions have focused on constructed wetlands for wastewater treatment, but the approach has recently broadened to encompass integrative technologies in addressing urban sustainability in water, energy, and food. Changing water availability across

the region due to climate change and increasing demand is affecting overall water resources downstream, and increased attention is being paid to using green infrastructure for water conservation, storage, and reuse. Challenges remain with fully implementing the green-infrastructure approach, but there is increased recognition of its potential and use as part of hybrid systems with gray infrastructure.

Solving Water Scarcity for Climate Smart Caye Caulker

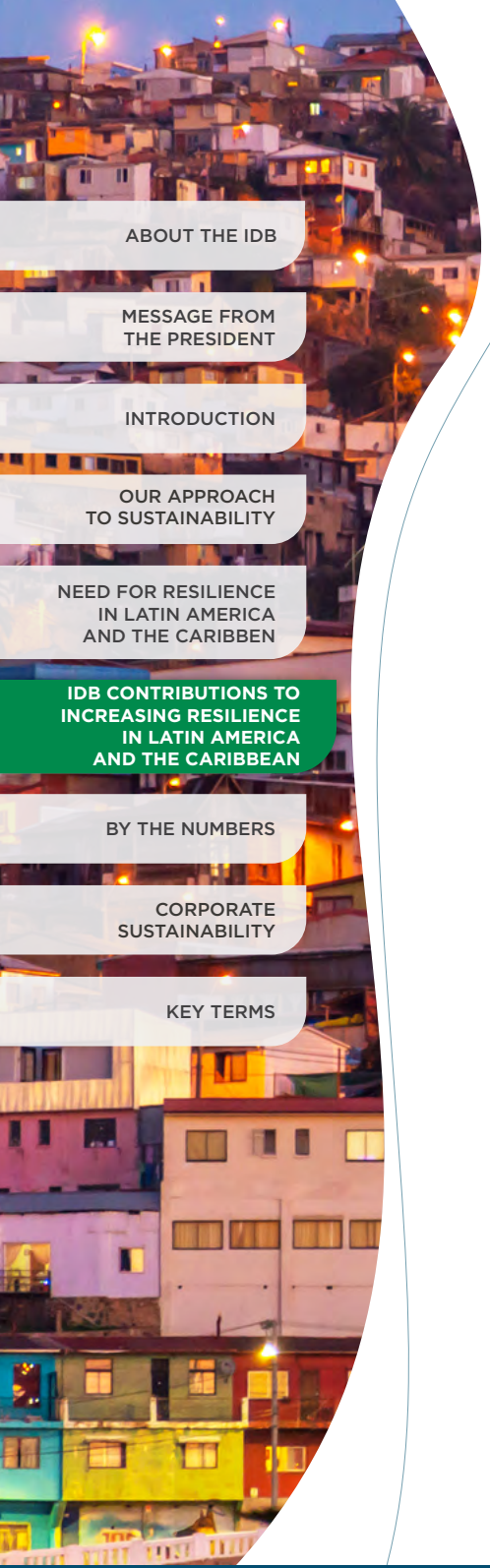
Project: Caribbean Climate Smart Islands Program
Country: Belize
Year Approved: 2014
IDB Amount: $1 million

The IDB's Caribbean Climate Smart Islands Program (CCSIP) aims to build resilience against climate change and demonstrate low-carbon transition pathways on the islands of Tobago (Trinidad and Tobago), Caye Caulker (Belize), and Harbour Island (the Bahamas). The program focuses on identifying, analyzing, and piloting innovative measures in priority sectors, including transport, infrastructure, energy, water, waste treatment, and tourism.

As a sandbar island with an elevation of a little over eight feet at its highest point, the threat of climate change is very real for Caye Caulker. Flooding and storm damage hamper daily life and, in recent years, floods have covered the island. Water scarcity is a major issue for the community, particularly after natural disasters. These challenges made Caye Caulker an ideal setting for a **pilot project** to install an off-the-grid water-producing system. The Caye Caulker Roman Catholic School was selected as the main site for the system since it could be used in both daily life (for school children throughout the year) and in emergency situations (as the community's hurricane shelter).

The system—created by **Zero Mass Water**—is a set of hydro-panels that create drinking water from sunlight and air by using solar power to draw moisture from the atmosphere. Water is purified and mineralized to ensure it is safe to consume and then dispensed from a tap system. The system also has a small battery to enable water delivery on cloudy days and at night and can be monitored with an app. Twenty-one panels were installed on the school's roof in 2019, and two more panels are scheduled for installation at the Caye Caulker Community Center. Each panel produces an average of 4–10 liters per day, depending on sunshine and humidity, and holds 30 liters in a reservoir. About 170 liters of water a day will be collected and supplied to the school children for free—a significant benefit for families, who typically pay for bottled water at the school, and for the environment, as Belize sets out to eliminate single-use plastic.

IDB partnered with the **Belize Ministry of Tourism and Civil Aviation** and the **Caye Caulker Village Council** to facilitate the project at the regional and community levels, as well as with **ERM** consulting services for environmental assessment and project management and with **Caye Solar** for installation.



Vulnerability of Hydroelectricity

Publication: Climate Change Vulnerability and Adaptation Measures for Hydroelectric Systems in Andean Countries **(available in Spanish only)**
Year: 2019

The hydroelectric sector faces significant risks due to climate change. In the coming decades, water availability will be significantly altered across large areas, which will alter the operating capacity of hydroelectric plants. This study considers the impact of climate change on hydroelectric generation in the Andean region and the advisability of implementing adaptation measures. Ministries responsible for energy planning in Bolivia, Colombia, Ecuador, Peru, and Venezuela have supported the study.

In large areas of the Andean region, climate models point to an increase in average precipitation in the coming decades that will alter hydroelectric production. However, the impacts of climate change are expected to vary significantly geographically, so analyzing long-term water-availability trends in specific basins is recommended when any new hydropower developments are being planned or when existing plants are being adapted to new precipitation patterns.

The study concluded that climate change has the potential to exaggerate the seasonality of the hydropower resource. Projections indicate that there will be more rain in the wet season and less in the dry season, causing longer periods of drought. This has important consequences for the operation of plants that do not have seasonal storage capacity. The study confirmed the economic benefits of regional electricity integration, which can help countries in the Andean region mitigate the variability and seasonality of hydropower.

Chile's Water Future

Publications: Water Radiography: Water Gap and Risk in Chile **(available only in Spanish) and** Water Transition: The Future of Water in Chile **(available only in Spanish)**
Years: 2018 and 2019

The north of Chile faces different conditions from the south. The country is affected by both droughts and floods, and it stands out as the only Latin American country expected to face extreme water stress by 2040, due to rising temperatures in critical regions and changes in precipitation patterns. Annual GDP growth rates could diminish by 6% by 2050 in some Chilean regions because of water-related problems. Analyzing possible changes in water availability is a crucial step in ensuring that future infrastructure projects can meet their operational, financial, and economic objectives.

Water Radiography: Water Gap and Risk in Chile analyzes the water cycle in an integrated way, considering trends related to surface water, groundwater, events of excess water, glaciers, water quality, water consumption in seven productive sectors, and meteorological components, among others.

Water Transition: The Future of Water in Chile proposes a change of approach, emphasizing four strategic axes: water management and institutions, measures to protect and conserve the water ecosystems, efficiency and strategic use of the resource, and relocation and incorporation of new water sources.

Green Solutions for Road Resilience

Project: Border Integration Project—Axis Road No. 4 Bellavista-Zumba-La Balza Zamora-Chinchipe Province
Country: Ecuador and Peru
Year Approved: 2019
IDB Amount: $128.2 million

The Border Integration Project is financing improvements to the remaining 52-kilometer section of Axis Road 4. It will contribute to strengthening the economies of southern and southeastern Ecuador and northern Peru, improving trade between the two countries, and addressing social accessibility needs for isolated populations. It is also emblematic for complying with the 1998 peace accord.

Ecuador and Peru are exposed to multiple natural hazards, including earthquakes, tsunamis, floods, landslides, droughts, and volcanic eruptions. The two provinces in the project intervention area—Loja and Zamora Chinchipe—are especially susceptible to landslides due to intense rain. More than 1,600 landslides were recorded between 2000 and 2018, a number that is expected to increase because of climate change. As a consequence of the landslides, the existing road is in very bad condition, which decreases its reliability and increases travel times and maintenance costs.

At the request of Ecuador's Ministry of Transportation and Public Works, a **Study on Disaster Risk Management Including Effects of Climate Change** was conducted to identify critical areas at risk of landslides and to design structural risk-reduction measures, taking into account the IPCC's future climate change scenarios. As a result of the study, 83 critical points were identified under several climate change scenarios at which partial or total closure of the road could occur due to the landslides. The study proposed several types of structural slope-stability measures, including green-infrastructure measures such as forestation and reforestation of critical areas.

The study also proposed piloting an early warning system and an emergency plan for landslides that use innovative approaches, including drones to monitor hazards, algorithms to detect areas at risk of future landslides, and smartphones to communicate warnings.

Increasing Transportation Resilience in the Dominican Republic

Project: Resilient Transportation Infrastructure: Support for the Development of Transportation Infrastructure Adaptable to Climate Change
Country: Dominican Republic
Year Approved: 2018
IDB Amount: $650,000

The Dominican Republic's road network is essential for the country's connectivity; failures can seriously affect the economy and society. Although indicators of road quality there are positive, the Dominican Republic is highly vulnerable to extreme weather events, which may be exacerbated in the future because of climate change. Incorporating strategies to address future challenges due to flooding, torrential rains, earthquakes, tsunamis, landslides, and other threats has become a priority.

Decision makers today face deep uncertainties about future conditions, and they need to be confident that decisions they make now will continue to be suitable in the future. This project—focused on the national road network and local roads in the southwest of the country—applies techniques for making decisions under deep uncertainty to **strategically invest in road infrastructure**. It incorporates a risk assessment for natural hazards and the impacts of both climatic and socioeconomic uncertainties. Alternative adaptation interventions are compared for performance under different future scenarios. The alternatives are then evaluated based on robustness, effectiveness, costs, and benefits. This systematic analysis of critical points in a transportation network—or Blue Spot Analysis—allows interventions to be prioritized based on resilience and enables more efficient public spending. The project is also actively engaging with stakeholders to build local capacity to incorporate resilience into future projects.

SUSTAINABLE CITIES

The IDB is committed to fostering better urban planning and responses to challenging, multisectoral urban development agendas, in partnership with cities and national governments. We aim to improve the lives of vulnerable communities and to build resilient and inclusive urban environments in the region.

Below is an example of our work to protect cultural heritage in Peru.

Protecting Cultural Heritage

Project: Investment Program to Improve the Historic Centers of Lima, Arequipa, Trujillo, and Ayacucho
Country: Peru
Year Approved: 2019
IDB Amount: $40 million

The historical centers of Ayacucho and Lima-Rímac are home to invaluable cultural heritage that must be protected through sustainable management. This project aims to improve the urban and natural environment, promote local economic development, and strengthen the institutional capacities of the Ministry of Culture and municipalities.

The project integrates disaster and climate change risk, including:

- Measures to reduce seismic vulnerability in structures to bring buildings into compliance with earthquake-resistant construction codes
- Hydrological studies in landscape-improvement interventions to manage climate change risk
- Training for private owners and civil society that integrates risk management and climate change
- Institutional strengthening for monitoring and managing environmental and climate change risk in the historic centers

BY THE NUMBERS

For the first time in our sustainability report, we are including data on our efforts to systematically assess our projects' disaster and climate change risks. Including the data complements ongoing efforts to present progress on key indicators of our sustainability, including climate finance, GHG emissions, and environmental and social safeguards.

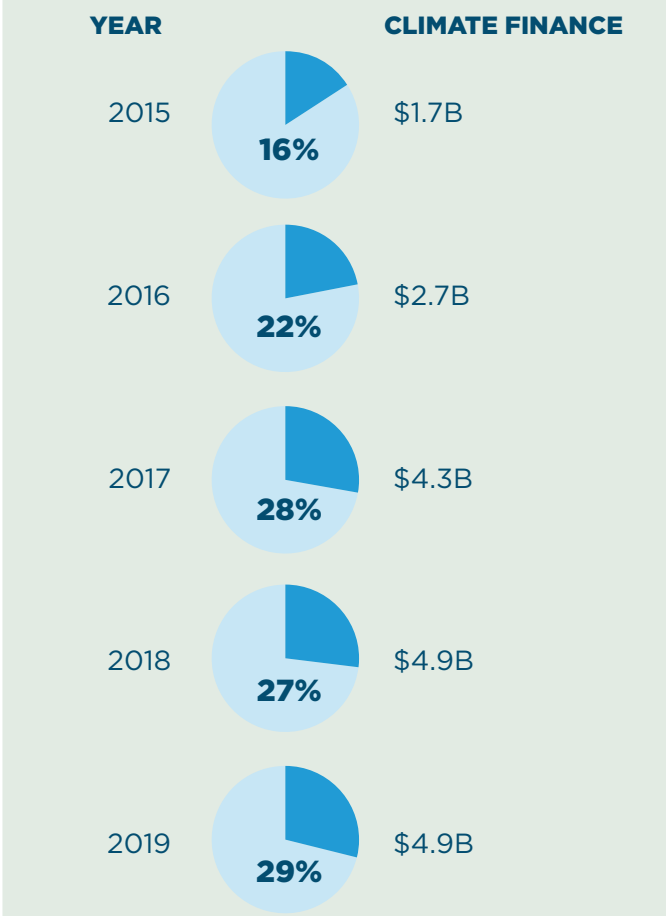
CLIMATE FINANCE

Significant levels of finance are needed to fulfill the commitments made in the 2015 Paris Agreement. Recognizing this, the IDB Governors endorsed the goal to double our climate finance to 30% of approvals by 2020, subject to demand from our borrowing countries and clients and to access to external sources of concessional finance.

Eight of the largest MDBs have agreed on and apply a common methodology to track climate finance in operations financed with their own resources and the external resources they manage. Joint annual reporting on MDBs' climate finance refers to the financial resources MDBs commit to development operations and the components that enable activities that mitigate climate change and adaptation to climate change in developing and emerging economies. In mid-2019, the MDB Working Group released its eighth **joint annual report** with detailed statistics and a full description of the applied methodology.

In 2019, the IDB Group financed $4.9 billion in climate-change-related activities benefiting Latin America and the Caribbean—through loans, grants, technical cooperation, guarantees, and equity investments—accounting for 29% of total IDB Group annual approvals (Figure 9).

Figure 9.
IDB Group Climate Finance, 2015–2019



Climate mitigation finance ($2.6 billion) refers to efforts to reduce or capture GHG emissions to lessen the risks of climate change. During 2019, IDB Group operations with climate mitigation activities enabled emissions reductions via investments in renewable energy and energy efficiency, connecting households to sewage systems, refurbishing and expanding wastewater treatment systems, restoring climate-resilient forests, and digitizing public services.

Climate adaptation finance ($1.4 billion) refers to the resources that finance the change processes aimed at lowering the current and expected risks or vulnerability posed by climate change. Such finance is identified in projects that explicitly define a context of climate vulnerability, intend to reduce such vulnerability, and allocate resources to specific vulnerability-reduction tasks. Increases in adaptation finance in 2019 were made up largely of a series of contingent loans for disaster risk management planning (see page 24).

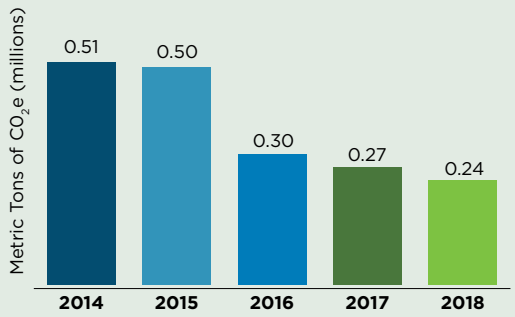
In 2019, the IDB Group provided additional climate finance through a few projects that benefit mitigation and adaptation simultaneously. **Dual-benefit climate finance** accounted for $941 million in 2019, 19% of total reported climate finance.

GREENHOUSE GAS EMISSIONS

Our **Environmental and Social Safeguards Compliance Policy** commits us to calculate gross (or absolute) emissions from IDB-financed projects that may generate significant amounts of GHG emissions. We work with our member countries and clients to incorporate GHG emission-reduction technologies into project designs. For selected projects, we also calculate net (or relative to a business-as-usual scenario) GHG emissions to better understand the projects' expected mitigation contribution.

Reporting GHG emissions at the portfolio level in a harmonized way with other international financial institutions allows us to compare and report consistently. For both gross GHG emissions and net emissions reductions, we follow the guidelines set in the **International Financial Institution Framework for a Harmonized Approach to Greenhouse Gas Accounting**.

Figure 10.
IDB Gross GHG Emissions, 2014–2019



Gross GHG Emissions

Our Environmental and Social Safeguards Unit estimates gross GHG emissions at the project level as part of the project-assessment process. This analysis focuses on investment loans with potentially medium, high, or substantial environmental or social impact (i.e., projects that have an environmental and social impact classification as Category A or B as defined in the IDB's **Environmental and Social Safeguards Compliance Policy**). All Category A or B projects that include greenfield expansion or infrastructure operations are selected for a detailed gross GHG emissions assessment. These projects typically involve large infrastructure works in the energy, transportation, urban, and water and sanitation sectors. The assessment includes emissions from both construction and operations, focusing on a project's scope 1 (direct) and scope 2 (energy indirect) emissions.[13] In 2019, gross GHG emissions were reported for 34 greenfield and expansion projects, generating an estimated 214,000 metric tons of carbon dioxide equivalent, or CO_2e (Figure 10).

13 Emissions from projects are estimated as the annual emissions expected to be produced during a representative year measured over an assumed 20-year project lifetime.

Net Emissions Reductions

Net emissions reductions compare the gross GHG emissions from a project with the gross GHG emissions that would have occurred in a reference scenario, defined as either a "without project" scenario or an "alternative scenario" that reflects the most likely alternative means of achieving the same project outcomes or level of service.

Our Climate Change Division estimates GHG emissions reductions at a project level. This analysis focuses on investment loans with significant potential for GHG emissions reductions and on activities that, under the joint MDB methodology for climate finance, can only be counted as having climate change mitigation finance if net GHG emission reductions are demonstrated.[14] For most projects, the estimate covers scope 1 or scope 2 emissions. Scope 3 (indirect) emissions are also included for projects where changes in emission are concentrated in a scope 3 source—for example, public transportation projects intended to replace private transportation or centralized wastewater systems intended to replace household systems.

In 2019, we assessed and reported emissions reductions for 17 investment projects and one credit line of about 557,000 tons of CO_2e per year during projects' lifetimes.

We financed four **renewable energy and energy efficiency** projects this year. Investments included energy efficiency programs in the Dominican Republic, sustainable energy in Barbados, and the expansion and improvement of grid and mini-grid infrastructure to increase energy access and accommodate more renewable energy generation in Haiti and Panama.

In the **transportation** sector, we are financing a sustainable urban-mobility program in Curitiba, Brazil, and road infrastructure that prioritizes public transportation and private electric vehicles in Costa Rica.

In the **water and sanitation** sector, we approved financing for installing household sewage system connections or refurbishing and expanding existing wastewater treatment systems in Ecuador, Brazil, Uruguay, and Paraguay. These efforts were also aimed at improving climate change resilience and local river water quality.

The project estimated to deliver the greatest mitigation benefit (350,000 tons of CO_2e per year) focuses on restoring climate-resilient forests and implementing **sustainable forest management practices** in Honduras (see page 31).

Finally, we invested in projects that, through **streamlining and digitizing public services**, are expected to reduce the number of in-person interactions citizens will need to have to obtain desired services. This would lead to a reduction in trips when a private vehicle would be used and in associated GHG emissions.

14 Under the MDB methodology, demonstrating GHG emission reductions is required for geothermal power, hydropower plants, biomass or biogas power, production of biofuels, wastewater treatment, and waste collection.

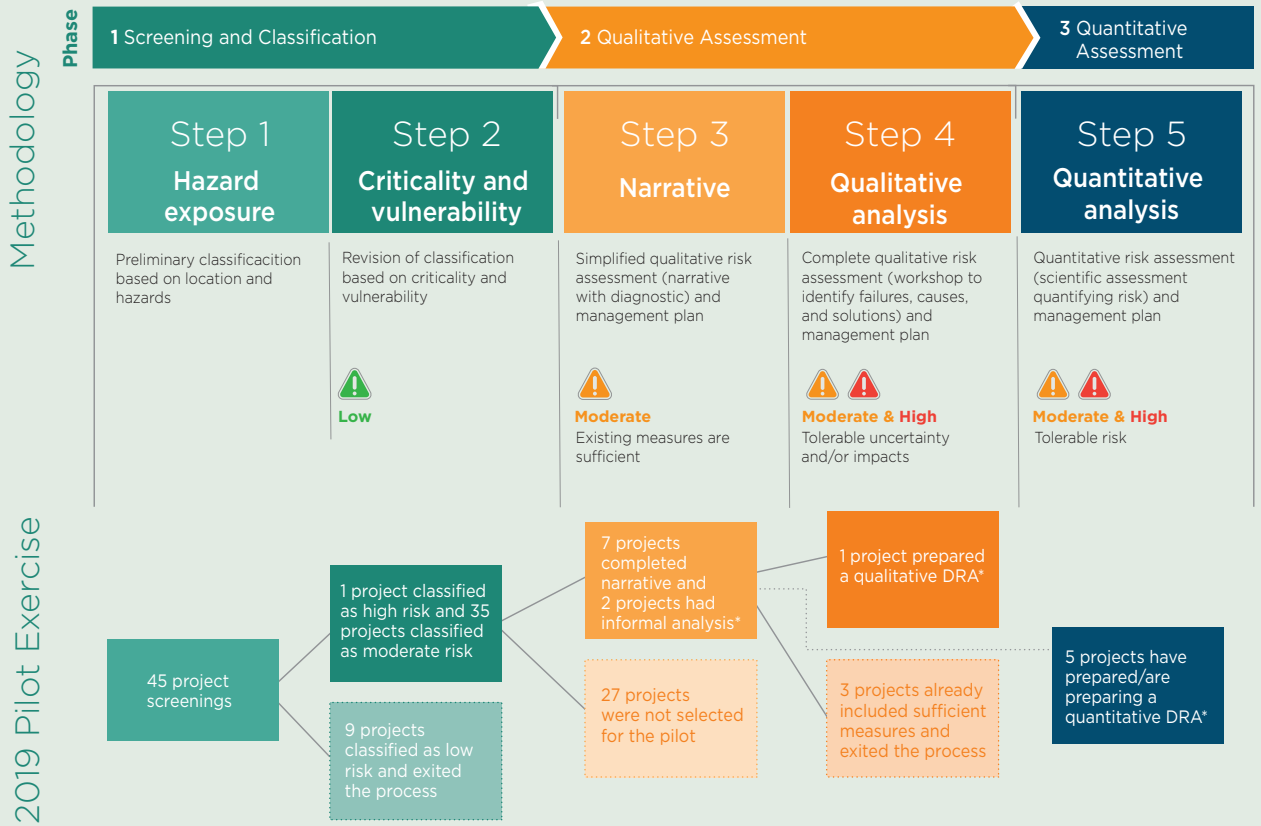
DISASTER AND CLIMATE CHANGE RISK

The IDB is committed to assessing disaster and climate change risk and identifying opportunities for resilience and adaptation measures in the projects it finances. Our **Disaster and Climate Change Risk Assessment Methodology** (DCCRA) takes a phased approach that allocates resources commensurate with project risk. The methodology is organized around five steps: (1) classify hazard exposure; (2) revise classification based on criticality and vulnerability; (3) conduct a simplified qualitative analysis; (4) conduct a qualitative analysis; and (5) conduct a quantitative analysis, grouped into three phases.

The methodology provides practical guidance to project teams, executing agencies, technical experts, and external consulting and design firms about how to integrate disaster and climate change risk considerations into projects in a meaningful and relevant way. Ignoring the potential impact of future climate conditions puts investments at risk, but it is also possible to overengineer solutions and apply costly or inappropriate mitigation measures.

Given the inherent uncertainty of climate change impacts, the methodology focuses on low-regrets solutions (i.e., solutions likely to minimize costs and achieve co-benefits that will be valuable even if the future climate differs from the central trend of model predictions).

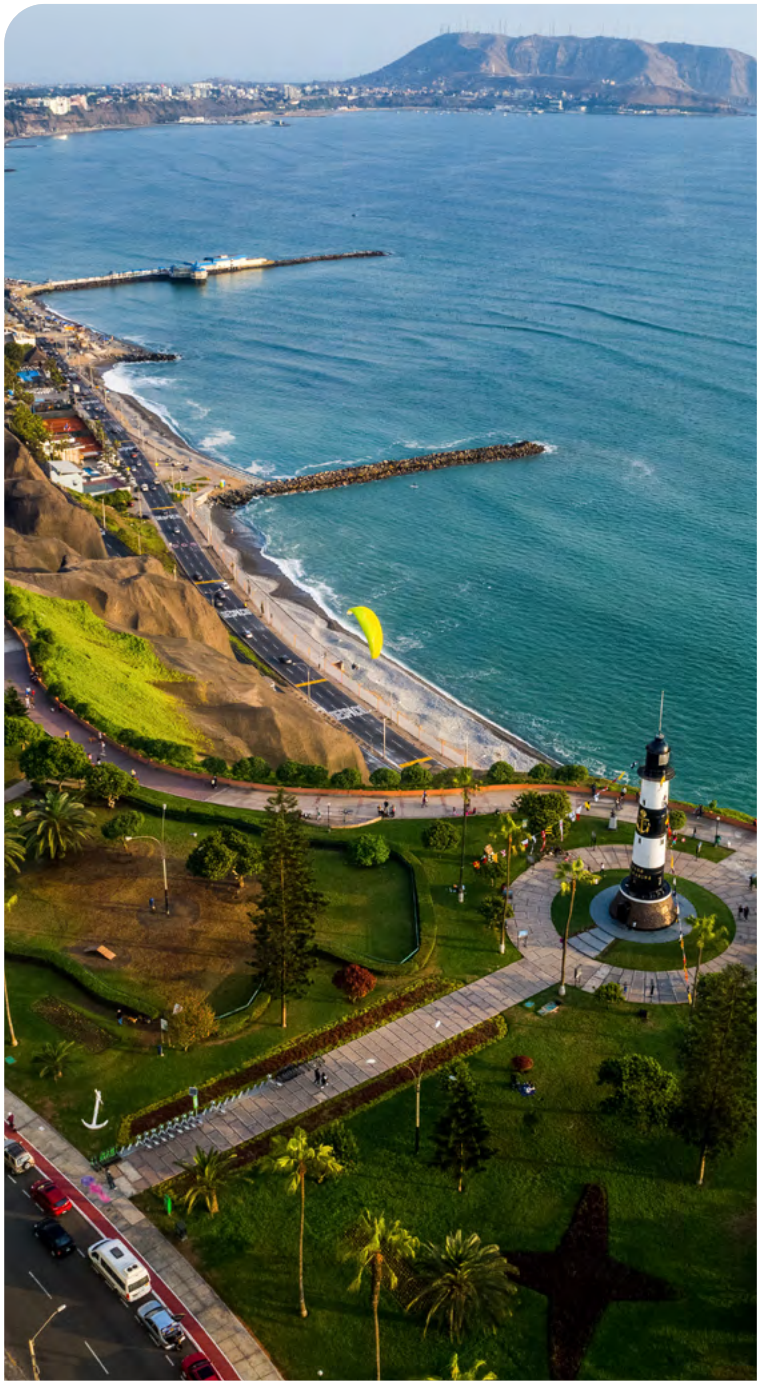
Figure 11.
DCCRA Methodology and the 2019 Pilot



*The methodology calls for a narrative for all high- and moderate-risk projects. Because the 2019 exercise was a pilot and there were resource constraints, a formal narrative was not completed in some cases where informal analysis demonstrated a clear need for a DRA.

The methodology is applied to loans and investment grants classified as Category A or B under the IDB's **Environmental and Social Safeguards Compliance Policy**. The 2019 pilot of the approach screened 45 Category A or B projects, classifying one as high risk, 35 as moderate risk, and nine as low risk. The process ultimately led to the preparation of a narrative (Step 3) or a Disaster Risk Assessment (DRA) (Step 4 or 5) for nine projects in 2019 (see Figure 11). The DRA may be prepared after approval because the preparation sometimes depends on detailed designs available only during implementation.

Beginning in 2020, the IDB's commitment on disaster and climate risk will be monitored through the Corporate Results Framework. Our goal is for 100% of projects with moderate or high disaster and climate change risk to be analyzing risks to identify resilience actions by 2023 (i.e., completing Step 3 or beyond in the methodology).

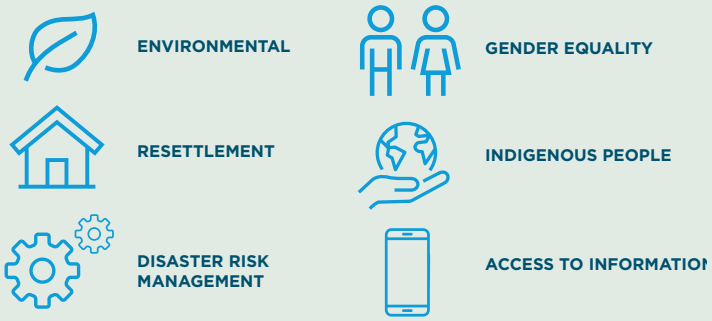


SAFEGUARDS

One way we show our commitment to sustainability is through our environmental and social safeguard policies, which are modeled after international best practices. Specialists in our Environmental and Social Safeguards (ESG) Unit work closely with project stakeholders and Bank colleagues to identify and solve challenges that may arise in IDB-financed projects and programs. In this section, we look at the work we are doing to strengthen our safeguards framework, how we apply safeguards to projects, and how we manage safeguards in complex projects.

We apply a suite of safeguard policies and guidance to identify and effectively mitigate potential negative environmental and social impacts and the risks associated with our investments. We implement safeguards to protect against environmental and social harm, improve the value of projects for all stakeholders, and enable clients to meet international practices and standards (Figure 12). To learn more about the IDB's environmental and social safeguard policies, please visit our sustainability and safeguards **website**.

Figure 12. **IDB Safeguards**



We are **modernizing and consolidating our environmental and social policies** to more effectively respond to the challenges countries in the region face. The IDB is preparing a new Environmental and Social Policy Framework (ESPF) that will incorporate a comprehensive set of performance standards and replace our five existing environmental and social policies (the **Access to Information Policy** is treated separately). The new performance standards will specify requirements borrowers must meet when developing and implementing IDB-financed projects. The ESPF will set out a systematic approach to environmental and social risk management that protects people and the environment and is harmonized with international best practices. It will be based on the International Finance Corporation's eight performance standards, adapted to the IDB context and with two additional performance standards for (1) gender equality and (2) stakeholder engagement and information disclosure. The proposed framework is currently at the public consultation stage.

Risk-Based Safeguards Management

We assess and monitor environmental and social risks throughout the project cycle as part of our commitment to managing the environmental and social impacts associated with our operations. We work closely with borrowers and stakeholders to manage environmental and social risks and ensure that each project complies with our safeguards and with specific national and international standards.

When **entering the portfolio**, all[15] IDB projects are classified according to potential environmental and social impacts to establish the scope of impact assessments and public consultations. Projects are classified as Category A, significant; B, moderate; C, minimal; or B13, noninvestment lending and flexible lending instruments.[16]

15 Except for loans of the Immediate Response Facility for Emergencies Caused by Natural and Unexpected Disasters, which are exempt from the requirements of the **Environment and Safeguards Compliance Policy.**
16 Please refer to Section B.3, Screening and Classification, of the **Environment and Safeguards Compliance Policy,** for more information on the categories.

We assign safeguard specialists to all projects in Categories A and B. ESG classified new sovereign-guaranteed loan projects as follows:

- **Category A** (significant): four loans ($323.4 million), all of which received safeguards support
- **Category B** (moderate): 35 loans ($2.96 billion), all of which received safeguards support
- **Category C** (minimal): 35 loans ($1.73 billion), one of which received safeguards support
- **Category B13** (noninvestment lending and flexible lending instruments): 32 loans ($6.27 billion), three of which received safeguards support

Figure 13 shows the 2019 classification.

At the **quality-review stage of preparation**, each project is assigned an environmental and social risk rating (ESRR) to guide risk-based supervision efforts. Project risk is rated as high, substantial, moderate, or low. The rating is updated annually. Figure 14 shows the risk ratings for the 2019 portfolio in execution.

Finally, during **execution**, high- and substantial-risk projects are assessed for safeguards compliance (Figure 15).

- Satisfactory: All actions implemented
- Partially Satisfactory: Not fully consistent with commitments; without material negative adverse impacts
- Partially Unsatisfactory: Prompt corrective action required
- Unsatisfactory: Reasonable expectation of material adverse impacts; noncompliance with IDB safeguard policies

Safeguards compliance is expected to improve in the coming years as environmental and social specialists are transferred to country offices and as IDB employees and executing agencies receive training.

Figure 13.
Loan Classification of 2019 Approval

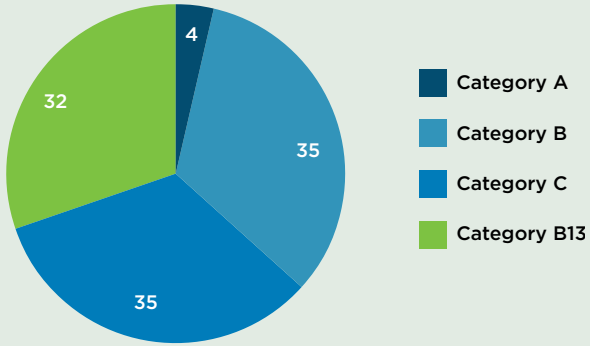


Figure 14.
Risk Ratings for 2019 Loan Portfolio in Execution

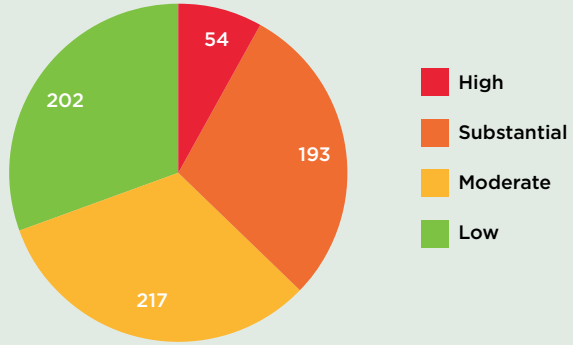
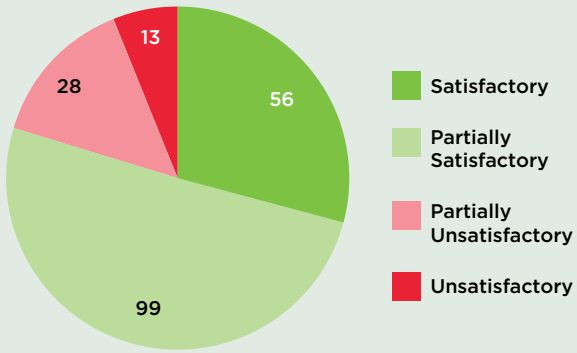


Figure 15.
Safeguards Performance of Projects with ESG Support



Managing Safeguards in Our Most Complex Projects

Development projects can be environmentally and socially complex. The IDB offers a comparative advantage to our member countries by providing our collective expertise and support. Combined with robust safeguards and structured mitigation and supervision measures, IDB support aims to ensure that complex projects are developed with resilience and long-term sustainability in mind. In this section, we look at some examples of this kind of project in Brazil, Colombia, and Ecuador.

Project: Urban Upgrade Program in the Western Area of Aracaju—Building for the Future

Country: Brazil
Year Approved: 2019
IDB Amount: $75.2 million

Aracaju is the capital of the state of Sergipe on Brazil's northeast coast. Its development has been hindered by a lack of strategic city planning and management of natural resources. This project includes numerous activities related to improving the roads, urban areas, residential infrastructure, and public services.

The primary environmental and social risks are related to the construction of the Presidente Juscelino Kubitschek Avenue, a road corridor connecting the north and west of the city, which includes construction and improvement of existing road infrastructure and of drainage, water and sanitation works, sidewalks, a central promenade, cycle paths, and a bridge. The avenue will pass through small fragments of critical natural habitat composed of mangroves, dunes, wetlands, and areas of permanent preservation. These areas have been affected by the advances of residential occupation and urban services. In addition, the road and sanitation works will affect properties, shops, and public services, which will require resettling people and businesses.

Nearly 500 housing units will be built for families displaced by road works as part of the main compensation and management measures. This expansion will also meet the growing demand for housing in the municipality, benefiting low-income and vulnerable families (mainly households headed by women). In addition, a 181-hectare ecological park (Río Poxim) will be created within the municipality to protect the mangroves. The park will help create areas for wildlife research and monitoring, as well as urban areas that will include reforestation, landscape recovery, and institutional strengthening for the management of natural resources.

Project: Environmental Sanitation, Macrodrainage, and Recovery Project for the Igarapés and the Banks of the Parauapebas River

Country: Brazil
Year Approved: 2019
IDB Amount: $70 million

This project aims to improve the quality of life in Parauapebas (state of Pará, Brazil) through basic sanitation infrastructure, improved accessibility and urban mobility, public spaces, and mitigating and controlling flood risks affecting the city.

Project works will be built in urban areas with protected natural sites, areas of archaeological interest, or indigenous territories, so many are subject to environmental and social assessments. The project includes recovering and cleaning up areas that have been degraded by informal settlement. It will prioritize resettlement activities, ensuring access to basic services, educational equipment, and social support.

Three rounds of public consultations were conducted through local television and social networks. Several topics were addressed during the consultations, including the project's total investment and its socio-environmental impacts and benefits. Suggestions were collected and incorporated into the project design. A community participation committee was formed so that representatives from the community and the project execution unit can monitor project execution.

Project: Program for the Adoption and Implementation of a Rural-Urban Multipurpose Cadaster

Country: Colombia
Year Approved: 2019
IDB Amount: $50 million

Nearly 30% of Colombia's territory has no land recordings of its real estate, otherwise known as cadasters, and the cadasters for over half of all property in the country are outdated. This contributes to informal land ownership in rural areas, which is particularly challenging for rural women, indigenous people, and other minorities. There is no official registry of land owned by women, so it is impossible to tell the extent to which their right to own land is being honored. One-third of the national territory corresponds to indigenous or afro-descendant collective lands, where almost 90% of the area is covered by forests. However, the uncertainty of boundaries and lack of appropriate-scaled cartography lead to frequent disputes between communities, adjacent private property owners, and settlers who claim land within collective territories.

This project aims to improve land management in Colombia by implementing a multipurpose cadastral system that will increase the legal certainty of land tenure, strengthen fiscal management, and plan land use more effectively. The project will increase the capacity of the national agencies that work with the cadaster, land formalization, property management, and land-use planning. Moreover, it will finance the formalization and titling of rural properties in selected municipalities.

The main environmental and social risks include:

- Potential expansion of the agricultural frontier by people occupying areas with environmental restrictions
- Exacerbation of land-related conflicts
- Disregard of women's right to own property
- Impacts on the legal certainty of ethnic territories

The project will apply specific safeguards to tackle these risks. A Social Communication and Participatory Plan will be implemented during all stages of the cadastral process to foster the participation of beneficiaries and communities and reduce the risk of social conflict. In addition, land formalized by the project will be jointly titled in the names of both members of a couple. The project has benefitted from extensive consultations with civil society, public- and private-sector organizations, and representatives of ethnic organizations at the national level. Cadastral activities in ethnic territories will follow the principles and guidelines set out in methodological guides that ethnic authorities will develop and agree to. Community participation during execution will be a key factor to ensure the social acceptance and sustainability of the project.

Project: Border Integration Project—Axis Road No. 4 Bellavista-Zumba-La Balza Zamora-Chinchipe Province

Country: Ecuador and Peru
Year Approved: 2019
IDB Amount: $128.2 million

This project aims to improve regional connectivity by improving rural roads in southern Ecuador (see page 38). The affected area is inside the Marañon Biome, whose bird diversity is among the world's highest. Four small towns are located along the existing road, and civil works could affect local inhabitants.

From inception, the project was designed taking these social and environmental factors into consideration, especially to minimize resettlement and avoid affecting critical natural habitats and landslide areas. Based on several studies that defined the best routes and technical options, four bypasses were designed around the main towns. Thus, only 22 families will need to be resettled before construction activities, and only 67 hectares of critical natural habitats will be affected.

The project requires habitat conservation and restoration inside the right-of-way and the creation of new protected areas in the same biome with a surface area of at least 201 hectares, all in cooperation with local government, producer associations, and cooperatives. The cooperatives will benefit from training, the promotion of sustainable agriculture and cattle ranching, and bird watching and ecotourism.

CORPORATE SUSTAINABILITY

At the IDB, we are committed to preserving the environment in which we live and work—both in our projects and in our workplace. Our commitment includes empowering neighborhood communities, maximizing the potential of employees, and minimizing the environmental impact of our facilities. The actions we take in our own work routines enhance the IDB's contribution to addressing global environmental and social responsibility issues, and they set an example of stewardship for stakeholders in Latin America and the Caribbean.

The IDB has a long-standing commitment to ensuring that our internal operations are environmentally sound. The Corporate Sustainability Program (CSP) works in partnership with IDB departments to reduce the corporate environmental footprint of the IDB Group.

CSP measures the IDB Group's **overall footprint**—on carbon, energy, waste, water, and paper—to identify trends, design employee awareness and engagement programs, and develop and implement practices that contribute to being more environmentally responsible. Below are a few of the ways we advanced these goals in 2019.

COMMUNITY RELATIONS PROGRAM

The IDB Community Relations Program began in 1998. It includes volunteering, donations, and corporate philanthropy. A volunteer fair is held at the IDB headquarters and, in 2019, 50 employees commited to volunteer activities. Every year, we donate computer equipment and furniture to organizations enrolled in the program. In 2019, we donated more than 1,000 items to 12 organizations. Through the Improving Lives Grant, every year we select 10 local organizations that work with populations in Latin America and the Caribbean to receive a donation of $25,000 each.

GREEN BUILDINGS

All workplaces consume energy and other natural resources and generate waste. In 2019, lighting, heating, and cooling IDB offices represented 42% of the IDB's corporate carbon footprint. We employ several strategies to reduce this footprint.

The IDB is committed to incorporating environmental measures into the design and construction of all its corporate facilities, and we strive to manage our buildings in the best ways possible. In 2019, two IDB headquarters buildings in Washington, D.C., earned platinum-level certification under the **Leadership in Energy and Environmental Design (LEED) standards**. Platinum certification—the highest level available under LEED and awarded to only a small percentage of buildings worldwide—recognizes the IDB's constant improvement of its building equipment, infrastructure, and operations.

In addition, five other IDB offices qualified at the certified level under LEED standards: one each in Brazil, Panama, and Peru and two in Costa Rica. We are pursuing LEED certification for new offices in the Dominican Republic and Jamaica. Buildings are a major contributor to climate change, and earning certification for our offices is one way to signal the importance of taking action.

Between 2012 and 2018, we replaced lightbulbs in all country offices with **LEDs**. Since 2014, we also replaced nearly 5,000 high-use bulbs in our headquarters with LEDs, generating a cumulative savings of 1.8 million kilowatt hours through 2019. Recognizing the importance of reducing energy use even further, in 2019, we began a detailed energy audit of our headquarters buildings and conducted feasibility studies for **energy-efficiency investments** in 11 country offices.

The IDB is implementing a multiyear plan to install on-site **solar panels** in several country offices. In 2019, we installed a 120-kilowatt system in our Nicaragua office and a 175-kilowatt system in our new office in the Dominican Republic. Together with systems previously installed in the Bahamas, Brazil, Haiti, Jamaica, and Uruguay, these met up to 35% of the offices' energy needs. We also launched a feasibility study for installing or expanding solar systems on 11 IDB country offices last year. By investing in renewable energy for our offices, we are also supporting local renewable energy markets.

In keeping with a multiyear project to create **efficient, open-layout offices** that maximize access to natural light and reduce the need for artificial lighting, we converted more than 52,000 square feet of office space in the IDB headquarters buildings to open layouts in 2019. The most recent projects also incorporated highly efficient lighting and sensors to control energy use, including more than 1,000 LED fixtures in 2019. We are piloting wireless technology for computers and mobile devices, which saves significantly on cabling and lowers energy consumption for network access by 50%.

These and other efforts have helped the IDB reduce its carbon footprint from facilities by 4% (407 tons) from 2018 to 2019.

Solar Panels in IDB's office building in Brazil

WASTE REDUCTION

Reducing waste is another important aspect of greening the IDB and our work. In 2019, CSP was deeply engaged in efforts to help the IDB Group reduce the waste we generate and divert unavoidable waste from landfills by reducing single-use products and promoting the reuse and recycling of materials. A deep-dive waste audit at our Washington, D.C., headquarters calculated current rates of recycling (31%), composting (23%), and diversion of waste from landfills (54%). The audit identified opportunities to divert up to 90% of waste, informing a multiyear zero-waste plan.

Partnering with our on-site food service company, we have implemented a series of measures to **reduce disposables** from our headquarters cafeteria and events. As part of a refresh of our café and menu, we replaced all single-serve condiments, such as ketchup and sugar, with bulk dispensers, thus reducing a significant amount of nonrecyclable trash from our waste stream. This comes in addition to our past steps to:

- Eliminate sales of water in plastic bottles
- Offer a coffee-discount program for reusable mugs
- Use reusable china, silverware, and drinkware
- Provide long-lived, dishwasher-safe reusable boxes for takeout food
- Supply all new employees with reusable water bottles and coffee mugs
- Replace nearly all remaining disposable service items, such as utensils and soup mugs, with plant-based, compostable materials

To increase composting, more accurately separate waste, and improve recycling rates over a single-stream approach, we rolled out a **new five-stream waste-collection system** in the IDB café and in one new office area. The introduction of new bins was accompanied by a significant investment in staff awareness through volunteer educators, signage, and other techniques. We will track the effectiveness of the system and consider expanding it to other areas.

The IDB has used technology and tools in a multiyear effort to **reduce paper and printing**. We offer a "Re-think Print" Award and use other techniques to motivate heavy paper users to cut back on printing. From 2016 to 2018, these efforts resulted in a 30% reduction in pages printed (from 9.8 million to 6.8 million), and 2019 saw another 9% reduction (to 6.2 million pages). Default duplex settings and a print-management system that prints documents only after a user ID has been scanned have saved the IDB nearly 4 million printed pages per year.

CARBON NEUTRALITY

The IDB was the first multilateral development bank to commit to carbon neutrality, beginning with measuring and offsetting GHG emissions from our 2006 Annual Meeting. Over time, we have expanded on and reiterated this commitment, and today it covers all our emissions from corporate activities (including our facilities, transportation fleet, and employee business travel) at our headquarters and country offices.

In 2019, we took the further step of setting a **Board-approved target** in our Corporate Results Framework to reduce emissions from our facilities and fleet by 14% by 2023. We also began a process to understand and explore ways to address emissions from our international airline travel.

Although we have worked toward reducing our emissions, in 2019, we emitted about 25,000 tons of CO_2e. We compensated for this through renewable energy credits and verified emissions reductions.

The IDB invested in 20 million kilowatt hours of **Renewable Energy Credits** (RECs)—from wind energy—to cover the entire 2019 electrical usage at IDB headquarters buildings.

The IDB Group's remaining unavoidable carbon footprint is offset through a series of investments in carefully selected **Verified Emissions Reductions** (VERs) from projects in Latin America and the Caribbean. In 2019, the IDB supported three projects for this purpose:

- One in Honduras that distributes efficient cookstoves in rural areas to reduce emissions and pollution from burning wood, reduce deforestation, and improve the health and livelihoods of women
- Two, in Brazil and Peru, that prevent deforestation by helping local communities protect 386,000 hectares of Amazonian forest and generate sustainable income from native trees, Brazil nuts, and açai

A beneficiary of an efficient cookstove installed in rural Honduras

EMPLOYEE ENGAGEMENT AND EDUCATION

Our employees' practices at work and beyond affect the sustainability of the IDB Group and the communities we operate in. By providing ongoing education and sustainability-related events, cultivating a community of environmental champions, and managing programs to support employee-led initiatives, CSP raises the visibility of sustainability issues and fosters action. In 2019, we continued this work by engaging employees in green commuting, reducing waste, celebrating Earth Day, the Green Ambassadors program, and the Country Office Environmental Sustainability Competition.

Employee commuting is a key component of the IDB's impact (although it is not included in our carbon-footprint calculations). Encouraging **green commuting** benefits employees' health and well-being as well as the environment.

- IDB Group employees in Washington, D.C., were encouraged to ride their bikes to work during the U.S.-wide Bike-to-Work Day in May. To help prepare and motivate them, CSP offered an educational seminar featuring the Washington Area Bicyclists Association and several members of the IDB Group's cycling club (BID Ciclistas). We also offered free bicycle tune-ups and a welcome pit stop for riders.

BID Ciclistas, group of cyclists from the Bank's headquarters

- To motivate employees to "drop the key" for a day or more and enjoy the many benefits of walking, cycling, carpooling, or taking transit to work during **Car Free Day**, an international event in September, the IDB held two educational workshops, a photo contest, and a raffle for employees showing off their car-free commute.

- To inspire and recognize employees who bike to work, especially during the summer of 2019—when the Washington, D.C., metro system closed several stations for repairs—the IDB held a **summer bike challenge**, with different tiers of rides qualifying for different raffle prizes. In all, 168 riders took part, and 97 rode to work on at least 10 days.

- As part of a project to restore and refresh the parking garages at the IDB headquarters, the **facilities for bicycle commuters** were greatly enhanced with new hanging bike racks, lock docks, bicycle repair tools, and lockers. The space can now accommodate up to 188 bicycles.

- To encourage the use of public transportation for staff commuting to headquarters, the IDB launched a financial **incentive for transit users** in 2017. In 2019, we had 869 participants, representing roughly 80% of eligible employees. We also brought in a representative from the Washington Area Metro Authority to speak about the many perks for frequent transit riders.

A series of **waste-reduction activities** was also organized.

- In recognition of the 2019 **World Environment Day** and its *Beating Plastic Pollution* theme, the IDB held a weeklong Waste Wise expo at our headquarters. The event featured interactive exhibits and displays on fighting food waste, reducing paper waste, and beating plastic pollution, as well as innovations in reusing waste. The event aimed to raise employee awareness about the impacts of waste, what the IDB Group is doing about waste management in its offices and projects, and individual options for reducing waste at home and work.

- To recognize **America Recycles Day** and reinforce many of the other waste-reduction efforts underway at the IDB, we organized a carnival-style celebration with several types of games, staff-commitment activities, prizes, and giveaways aimed at educating employees about reducing waste and proper recycling at home and work.

- In the U.S., all obsolete IDB-owned equipment is properly recycled at the end of its life. The service is also available to employees for disposing of personal electronics. In 2019, the IDB ran two **e-waste drives** to encourage employees to responsibly recycle technology that often contains rare and harmful components. In total, the IDB collected and recycled 40,000 pounds of e-waste at headquarters in 2019.

- For several years, CSP has operated a **Green Room** at headquarters where IDB employees can donate or "shop" for gently used office supplies, desk accessories, and more. In 2019, we also began accepting used clothing, which is then donated or upcycled by an outside organization.

To educate the next generation—and, through them, their parents, grandparents, and other adults—children of IDB employees (BIDKids) celebrated **Earth Day** by performing a play about biodiversity and the dangers that waste and pollution present to plants and animals.

The IDB's **Green Ambassadors** program celebrated its one-year anniversary in 2019 and now counts nearly 100 ambassadors in its ranks. These volunteers—representing all country offices and headquarters-based departments—have been instrumental in expanding awareness of sustainability initiatives with their colleagues, providing useful feedback on CSP strategies and plans, and suggesting and volunteering to carry out many of the activities and events mentioned above.

Annually, the IDB holds a **Country Office Environmental Sustainability Competition** and grants funds to the winning office(s) to complete the proposed project(s). The goal is to engage employees and other local stakeholders in reducing their environmental footprint using innovative approaches.

The following country offices, selected in 2018, carried out projects in 2019:

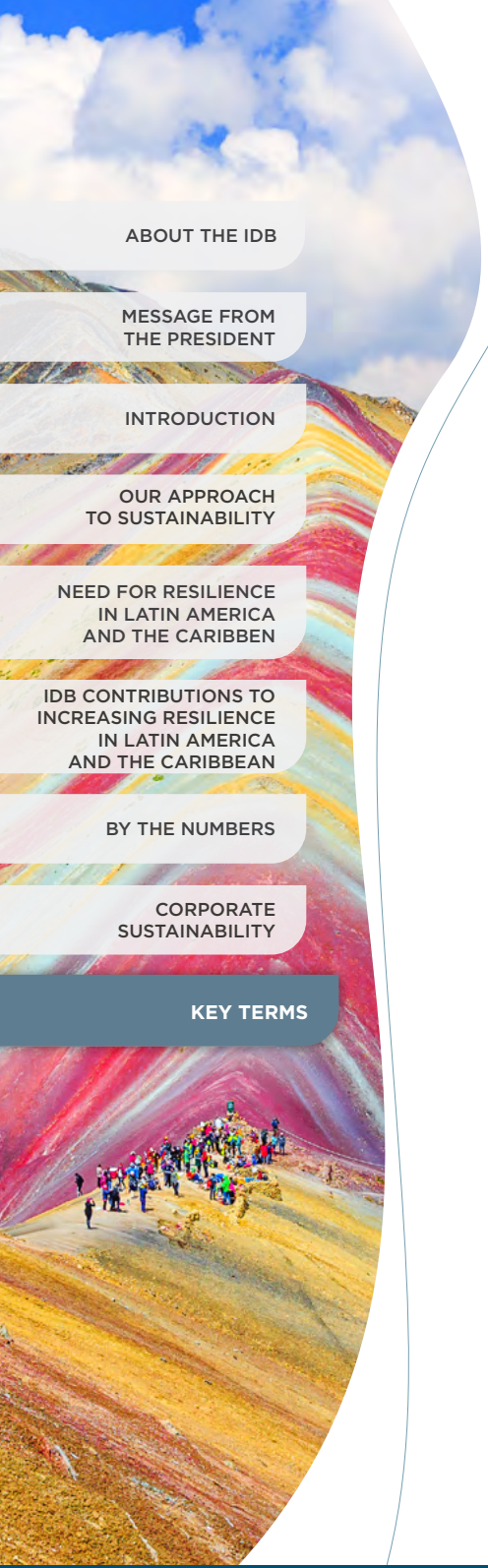
- Belize conducted a detailed waste audit and developed and began implementing a comprehensive solid waste management project that promotes reducing, recycling, and composting waste and using biodegradable and reusable products.

- Suriname focused on increasing energy and water efficiency and waste reduction by installing lighting sensors, solar films on windows, a rainwater-reuse system, filtered drinking-water dispensers, a hydroponics system, and an energy-use tracker.

- Trinidad and Tobago worked to reduce the amount of plastic water bottles and other dry recyclables added to the environment with investments in bottle-less water coolers, reusable drinkware, and a series of engagement events with staff and partners.

In 2019, three more countries (Argentina, the Bahamas, and Nicaragua) were awarded prize money to implement sustainability projects in 2020.

Starting with changes at home, IDB employees in our country offices are showing their dedication to reducing our footprint.



KEY TERMS

- **Adaptation:** Process of adjustment to actual or expected climate change and its effects. Adaptation cannot be instantaneous, so it is implemented in phases.[17] By its nature, adaptation must be a continuous, repetitive, and inclusive process and must actively involve various levels of government.
- **Adaptive capacity:** The ability of a system to adjust to climate change (including climate variability and extremes) by moderating potential damages, taking advantage of opportunities, or coping with the consequences.[18]
- **Disaster risk management:** The systematic process that integrates risk identification, prevention, mitigation, and transfer, as well as disaster preparedness, emergency response, and rehabilitation/reconstruction, to lessen the impacts of hazards.[19]
- **Maladaptation:** Actions that may lead to increased risk of adverse climate-related outcomes, including through increased GHG emissions, increased vulnerability to climate change, or diminished welfare, now or in the future. Maladaptation is usually an unintended consequence.
- **Natural capital:** The living and nonliving components of ecosystems—other than people and what they manufacture—that contribute to the generation of goods and services of value for people.[20]
- **Nature-based solutions:** Activities associated with the protection, management, enhancement, and restoration of natural capital to develop climate-resilient infrastructure.[21]
- **Resilience:** The capability of a system to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimal damage to social well-being, the economy, and the environment.[22] This concept recognizes the complementarity of climate change adaptation and disaster risk reduction.
- **Risk:** A combination of the magnitude of the potential consequence(s) of a hazard and the likelihood that the consequence(s) will occur.[23]
- **Risk transfer:** The process of formally or informally shifting the financial consequences of particular risks from one party to another. Insurance is a well-known form of risk transfer, where coverage of a risk is obtained from an insurer in exchange for ongoing premiums paid to the insurer.
- **Vulnerability:** The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed and the system's sensitivity and adaptive capacity.[24]

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18 National Research Council. 2010. *America's Climate Choices: Panel on Adapting to the Impacts of Climate Change.*
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