IDB
Inter-American Development Bank

DELIVERING A CLIMATE AGENDA FOR LAC: IDB GROUP ACTIONS TO 2020

INTRODUCTION

Climate change presents challenges to ensuring global sustainable and inclusive development. The United Nations Framework Convention on Climate Change (UNFCCC) Paris Agreement and the new Sustainable Development Goals (SDGs) reflect an unprecedented level of commitment to deliver sustainable development to meet these challenges. The transformation of the global economy needs to start immediately if we are to meet the Paris objective for **keeping global temperature rise well below 2°C** by the end of the century, which most estimate will mean achieving **net zero greenhouse gas (GHG) emissions** by 2050. The Agreement recognizes the need to achieve zero net emissions, calls for the alignment of all financial flows to a pathway for low-carbon and climate-resilient development, and urges industrial countries to **jointly increase climate finance to US$100 billion** per year by 2020.

Latin America and the Caribbean (LAC) is particularly vulnerable to the effects of climate change such as sea level rise, natural disasters, water and vector-borne diseases, and changing precipitation and temperature patterns that jeopardize health, productivity, and food-producing crops. These impacts threaten poverty, inequality reduction and sustainable growth in the region. In the context of the Paris Agreement, 25 of the Inter-American Development Bank Group's (IDBG) 26 borrowing member countries have submitted Intended Nationally Determined Contributions or Nationally Determined Contributions (referred to as NDCs throughout this document), that include emissions reduction commitments and climate resilience plans (as of September 2017). Progress toward implementation of pledges will determine the rate at which the world will be able to act to tackle climate change.

LATIN AMERICA AND THE CARIBBEAN IS PARTICULARLY VULNERABLE TO THE EFFECTS OF CLIMATE CHANGE

The private sector will play an integral role in responding to this urgent issue. At the 21st Conference of the Parties, chief executives from industries ranging from cement to technology made pledges to[1] decrease their carbon footprint, buy more renewable energy, and engage in sustainable resource management.

In response, **the Multilateral Development Banks (MDBs) committed to increase climate finance**. At the 2016 Annual Meeting in the Bahamas, the Inter-American Development Bank (IDB) and Inter-American Investment Corporation (IIC) Boards of Governors endorsed "the goal of **increasing the financing of climate change related projects in LAC to 30 percent** of the IDB's and IIC's combined total approvals of loans, guarantees, investment grants, technical cooperation (TC), and equity operations by December 31, 2020, subject to demand from borrowing countries and clients and access to external sources of concessional financing."

This document is a summary[2] of the IDBG's action plan for achieving the 30 percent climate finance goal and systematically mainstreaming climate change into operations. While the goal is specific to 2020, the intention is to **set the IDBG on a long-term trajectory to mainstream climate change** across the IDBG portfolios, in order to "achieve sustainable growth". This action plan was developed through an extensive internal consultation process across the IDBG and includes actions that are both planned and already in progress. As the IDBG progresses toward its goal, some actions are expected to evolve to remain responsive to the changing regional and institutional context.

The plan consists of five action lines: aligning with IDBG strategies, strengthening collaboration and mobilizing external resources, mainstreaming climate change into operations, opportunities and actions by sector, and tracking financing and measuring results.

THE PRIVATE SECTOR WILL PLAY AN INTEGRAL ROLE IN RESPONDING TO THIS URGENT ISSUE

1 - These can be found on the United Nations Framework Convention on Climate Change Registry. Under the Paris Agreement, Intended NDCs become the first NDC when a country ratifies the agreement, unless a new NDC is submitted at that time.

2- The final version of the action plan is currently under approval and will be publicly available soon.

ACTION LINE I: ALIGNING WITH IDBG STRATEGIES

The IDBG has been taking significant steps toward providing the right institutional setting to achieve its climate-related objectives. In 2016, the organization created the Climate Change and Sustainable Development Sector (CSD) to consolidate responsibility for the Bank's strategic direction of the topic and benefit from cross-sectoral synergies. The new sector is responsible for mainstreaming climate change and sustainability considerations in the design and execution of projects and Country Strategies.

IDBG Country Strategies are prepared when new governments take office. These strategies offer an important opportunity to raise awareness among government officials and clients about the importance of **considering climate change across sector and ministry lines**, and about ways to reduce GHG emissions and vulnerabilities to climate change. Given that the 30 percent goal is subject to demand from borrowing member countries and clients, identifying climate change opportunities during the dialogue with governments and the annual programming exercise will be a key driver of the IDBG's ability to reach its goal. Since 2016, greater effort has gone into upstreaming climate change considerations into Country Strategies, including the preparation of NDC country profiles which summarize countries' NDC commitments, relevant domestic legislation and regulatory frameworks, and potential opportunities for IDBG support. The NDC profiles provide IDBG Country Representatives with information to engage the government and align emerging country strategy priorities with countries' NDCs.

Private sector clients are also becoming increasingly aware of the opportunities that low-carbon and climate-resilient investments provide, although the risk return profile and a range of financial and non-financial barriers are hindering investments at scale. At the same time, the private sector is seeing the **risks that climate change poses to their business**—from sea level rise to the increasing frequency and intensity of extreme weather events—and starting to factor them into risk management strategies to avoid future stranding of assets.

In terms of the overarching principles that guide the IDBG's work, it is important to highlight that many of the recent strategic documents—including the Update to the Institutional Strategy 2010-2020: Partnering with Latin America and the Caribbean to Improve Lives (UIS) (AB-3008) and accompanying Corporate Results Framework 2016-2019 (CRF) (GN-2727-6), the IIC Business Plan 2016 2019, and the MIF 2018-2020 Business Plan and Strategic and Financial Plan 2019-2023—already prominently feature climate change. Moreover, the rolling, three-year updates to the Sector Framework Documents (SFDs) provide an important opportunity to highlight links with climate change and identify operational opportunities. Finally, **several transversal working groups** that have been created within the organization are providing venues to discuss cross cutting issues, including creating joint projects or scaling up existing ones, exploring potential public-private partnerships, and generating knowledge products.

Topics being discussed include:

- SUSTAINABLE INFRASTRUCTURE: building a shared definition, improving upstream support to enhance sustainability of infrastructure portfolios and projects, and improving access to

THE PRIVATE SECTOR IS INCREASINGLY AWARE OF THE OPPORTUNITIES THAT LOW-CARBON AND CLIMATE-RESILIENT INVESTMENTS PROVIDE

financing for sustainable infrastructure investments.

- SUSTAINABLE ISLANDS: developing a platform for addressing high climate risks faced by Caribbean and Central American islands.
- COMMUNITY OF PRACTICE ON RESILIENCE: integrating approaches toward disaster risk and climate risk.
- SUSTAINABLE LANDSCAPES (under consideration): capturing synergies on sustainable agriculture-related initiatives and projects across the IDBG.

ACTION LINE II: STRENGTHENING COLLABORATION AND MOBILIZING EXTERNAL RESOURCES

Multilateral institutions have a critical role to ensure that development finance is aligned with the objective of a low-carbon, climate-resilient future. As agreed in their climate action plan for 2017-2019, MDBs will seek to intensify their collaboration with the UNFCCC Standing Committee on Finance, the Organization for Economic Cooperation and Development (OECD), the International Development Finance Club, private sector, and other key climate finance and industry actors. MDBs will also continue to share knowledge on measuring and evaluating the impact of their investments for resilience-building outcomes. During COP 21, various International Financial Institutions also committed to the Climate Action in Financial Institutions Initiative.

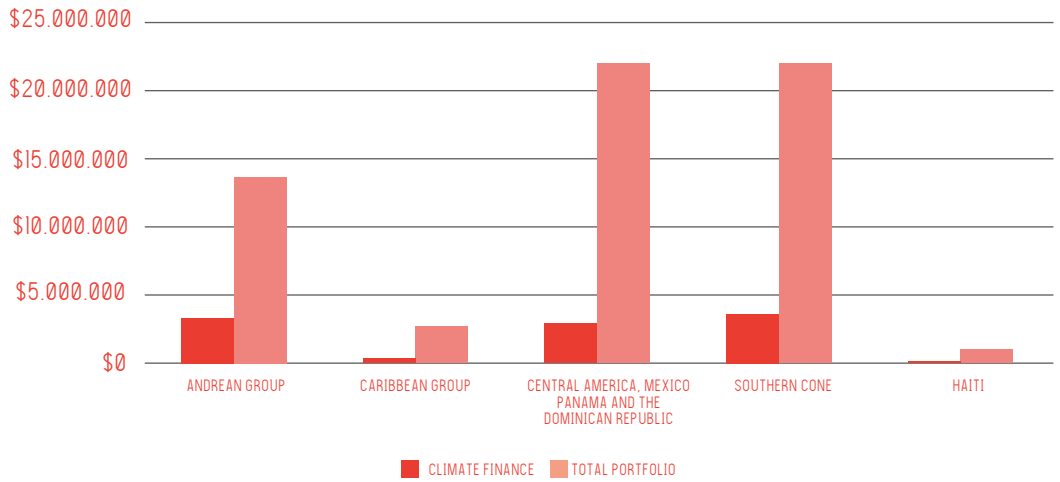
In terms of climate finance, the IDBG draws from its own resources and the funds it manages, while at the same leveraging external resources. In fact, external sources of concessional finance have been instrumental in overcoming barriers and addressing real and perceived risks of low-carbon and resilient investments.

The IDBG mobilizes substantial resources to contribute to both climate change mitigation and adaptation in the region. From 2012 to 2016, the IDBG approved a total of US$10 billion in climate finance. In that period, energy and transportation accounted for more than half of the IDBG's climate finance, although the figures have been influenced by a few large projects[3].

THE IDBG MOBILIZES SUBSTANTIAL RESOURCES TO CONTRIBUTE TO BOTH CLIMATE CHANGE MITIGATION AND ADAPTATION IN THE REGION

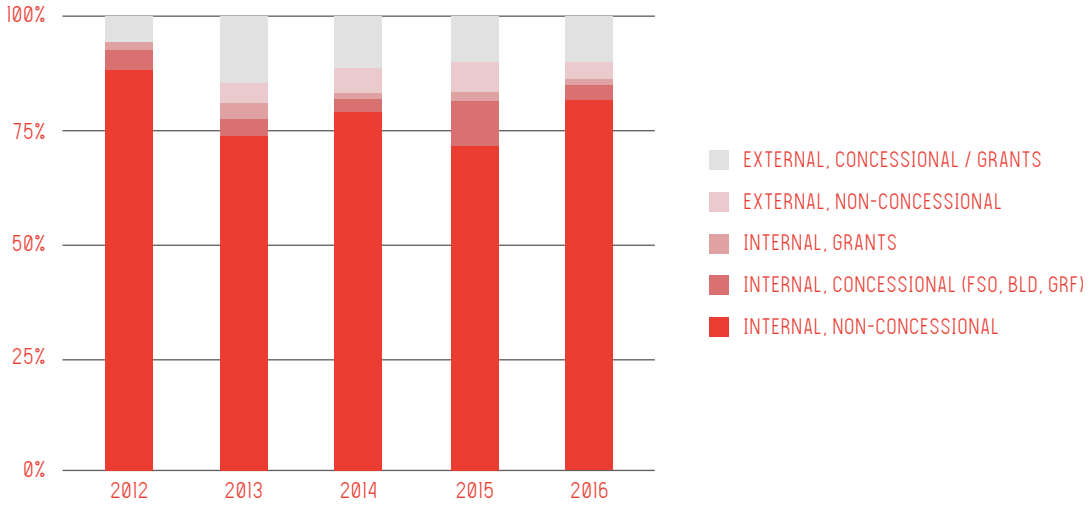
3- An example of this is the Lima metro, which accounts for most of the transport contribution in the Andean Country Department (CAN).

IDBG CLIMATE FINANCE (CF) BY REGION (TOTAL AMOUNT APPROVED 2012-2016)



Of the US$10 billion in climate finance approvals, US$1.3 billion was accessed through external sources. Needs for external climate finance are expected to increase as 2020 approaches and enhanced coordination can facilitate access to it.

CLIMATE FINANCE BY SOURCE OF FINANCE

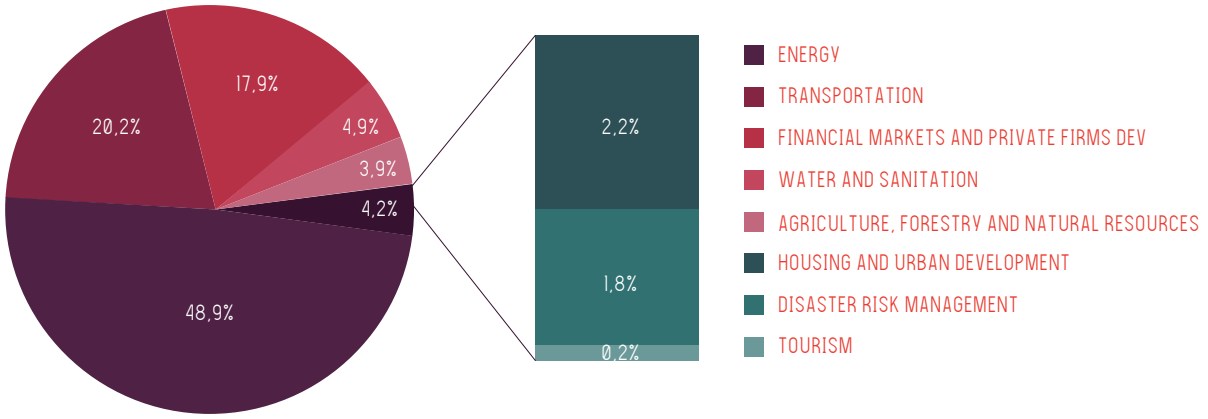


To date, the IDBG has been successful in accessing climate finance resources from numerous climate funds. The IDBG continues to be a key partner of the Climate Investment Funds (CIF), which co-invests with MDBs in large-scale renewable energy and energy efficiency projects through its Clean Technology Fund (CTF), and supports pilot investments in adaptation, forestry, and small scale sustainable energy through its Strategic Climate Fund (SCF). Additionally, the IDBG and the People's Bank of China approved the China Co-financing Fund for Latin America and the Caribbean to support public and private sector projects that promote sustainable economic growth in the region. Likewise, the IDBG has recently been accredited to collaborate with the Green Climate Fund (GCF). Since October 2015, the GCF Board has approved four operations presented by the IDB.

CLIMATE FINANCE BY FUND

FUND	CF MOBILIZED SINCE 2008 (US$ MILLION)	AREAS BENEFITED
CLIMATE INVESTMENT FUNDS (CIF)	608	FORESTRY, SUSTAINABLE ENERGY
CHINA CO-FINANCING FUND FOR LAC	391	ENERGY EFFICIENCY, RENEWABLE ENERGY, FINANCIAL MARKETS, TRANSPORTATION
GREEN CLIMATE FUND (GCF)	257	GEOTHERMAL ENERGY, ENERGY EFFICIENCY, CAPITAL MARKETS (GREEN BONDS)
CANADIAN CLIMATE FUND FOR THE PRIVATE SECTOR IN THE AMERICAS (C2F)	177	SUSTAINABLE ENERGY
GLOBAL ENVIRONMENTAL FACILITY (GEF)	137	SUSTAINABLE ENERGY, TRANSPORT, SUSTAINABLE CITIES, CLIMATE CHANGE TECHNOLOGIES
NORWAY INTERNATIONAL CLIMATE AND FOREST INITIATIVE	80	FORESTRY
NORDIC DEVELOPMENT FUND (NDF)	55	CIRCULAR ECONOMY, SUSTAINABLE ENERGY, ECOLOGICAL RESTORATION,AGROFORESTRY, CAPACITY BUILDING (INCLUDING FOR LOCAL COMMUNITIES, INDIGENOUS AND AFRICAN DESCENDANT PEOPLES)
KOREA INFRASTRUCTURE DEVELOPMENT CO-FINANCING FACILITY (KIF)	33	GEOTHERMAL ENERGY, CAPACITY BUILDING
NAMA FACILITY	11	SUSTAINABLE ENERGY (BIOMASS)
INTERNATIONAL CLIMATE INITIATIVE (IKI)	5	CAPITAL MARKETS

CLIMATE FINANCE BY SECTOR (AS PERCENT OF TOTAL CLIMATE FINANCE APPROVED 2012-2016)



THE SUSTAINABLE ENERGY FACILITY FOR THE EASTERN CARIBBEAN ILLUSTRATES THE IMPORTANT ROLE THE IDB PLAYS IN STRUCTURING PROJECTS AND PROGRAMS WITH MULTIPLE SOURCES OF CLIMATE FINANCE. THE PROJECT WAS APPROVED IN 2016 TO FINANCE COMMERCIAL GEOTHERMAL ENERGY PROJECTS AND STRENGTHEN LEGAL AND REGULATORY FRAMEWORKS TO UNDERPIN THE DEVELOPMENT OF GEOTHERMAL ENERGY POTENTIAL IN THE EAST CARIBBEAN REGION. IT BROUGHT TOGETHER A US$60 MILLION LOAN AND US$20 MILLION GRANT FROM THE GCF, A US$20 MILLION LOAN AND US$500,000 GRANT FROM THE IDB, AN ADDITIONAL US$19.1 MILLION FROM THE CTF, US$10 MILLION FROM THE CARIBBEAN DEVELOPMENT BANK, US$41 MILLION FROM JAPANESE INTERNATIONAL COOPERATION AGENCY, US$1.9 MILLION FROM THE GLOBAL ENVIRONMENTAL FACILITY (GEF), AND US$18 MILLION FROM THE UK'S DEPARTMENT FOR INTERNATIONAL DEVELOPMENT. THE PROGRAM IS EXPECTED TO MOBILIZE AN ESTIMATED US$340 MILLION IN ADDITIONAL PRIVATE SECTOR INVESTMENTS AND EXPECTED TO REDUCE GHG EMISSIONS BY 9.4 MILLION TONS OF CARBON DIOXIDE EQUIVALENT (CO2E).

ACTION LINE III: MAINSTREAMING CLIMATE CHANGE INTO OPERATIONS

To achieve its climate change mainstreaming goal, the IDBG must consider climate change throughout the project cycle —from knowledge generation to programming through execution— and in all types of operations —from Technical Cooperations to Loans to Guarantee and Equity.

KNOWLEDGE AGENDA

Considering the evolving international landscape, particularly with the commitments made at the SDG Summit and the Paris Agreement, the IDBG continues to advance its knowledge agenda, **moving beyond climate change as an environmental issue** to consider the challenges and opportunities that countries are facing from a social and economic perspective. Developing and strengthening partnerships with academic, intergovernmental, civil society, and private sector organizations to generate and disseminate the knowledge needed for the region to transition onto pathways for low carbon and resilient growth is key. Guided by alignment with country and client needs, the knowledge can generate demand for operations to deliver on the IDBG climate agenda.

Knowledge activities will focus on the following priorities: (i) deepening and applying sustainable infrastructure knowledge, particularly for bridging the investment gap; (ii) building an understanding of climate risks and increasing the uptake of measures to improve climate resilience across sectors; (iii) generating

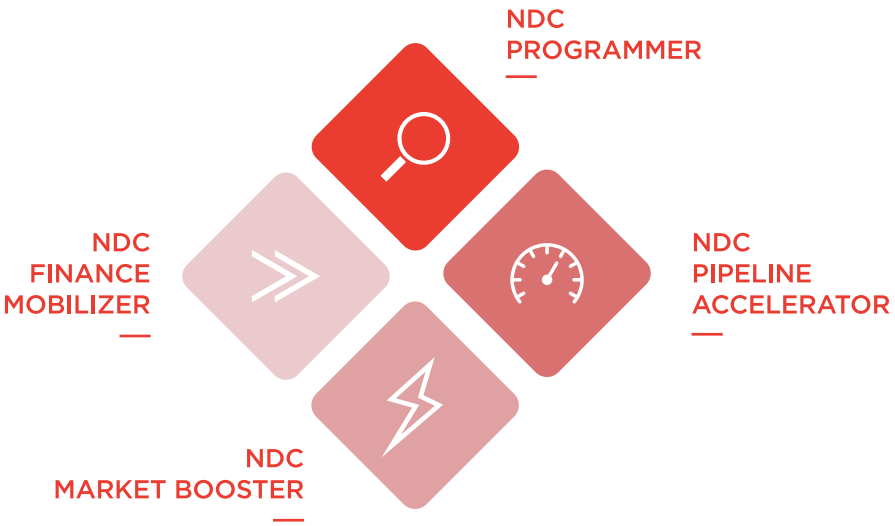
knowledge and capacity for economic decision-makers on design and implementation of decarbonization pathways aligned to inclusive growth and long-term sustainable development; and (iv) making knowledge available for mainstreaming and promoting its integration to improve the quality and quantity of climate-financed operations.

The IIC, in particular, can influence the private sector ecosystem in the region to leverage momentum and **support the pace and scale of change needed to transition to a low-carbon and climate resilient economy.** The IIC provides thought leadership and shares lessons learned from its more than ten years of experience working on innovative solutions in low carbon and resilient projects. By creating knowledge products, platforms, and joining global and regional initiatives, the IIC can help the private sector in the region reduce emissions and be resilient to future impacts. The IIC will work to generate climate products that can help clients in priority sectors understand how climate investments are a market opportunity or a means to reduce present and future costs.

ALIGNING IDBG RESOURCES WITH PARIS AGREEMENT OBJECTIVES

NDC Invest is an important platform to position the **IDBG as the partner of choice for climate change-related investments in the region.** The platform aims to bring together efforts to mainstream climate change considerations at the IDBG under one umbrella to facilitate interactions for member countries and private sector clients. NDC Invest has four elements to assist countries throughout the project cycle. First, the NDC Programmer helps member countries integrate NDCs into national development and sector planning and identify a portfolio of potential projects.

The Programmer helps assess the enabling conditions that allow transformational change, for example analyzing policies and regulations, and designing monitoring and reporting systems. Second, for potential pipelines of projects that require additional financial and technical assistance to get off the ground, the NDC Pipeline Accelerator offers support to upstream planning and design of programs or portfolios that can have transformational impact, alongside necessary pre-feasibility and other preparation studies. Third, the NDC Market Booster aims to correct market failures associated with private sector projects by financing pilots of new business and financial models. Finally, the NDC Finance Mobilizer aims to increase countries' access to concessional resources to reduce costs and manage the risks to scale up investments that are needed to meet NDC commitments.



EARLY ASSESSMENT AND IDENTIFICATION OF CLIMATE OPPORTUNITIES AND RISKS

Early assessment is essential for operational teams to be able to identify and effectively incorporate climate change considerations into project design. Two tools have been elaborated with this in mind—scanning and screening.

As projects enter the IDB pipeline, they are **scanned for climate-related opportunities.** Those that are identified as having significant climate change opportunities are then discussed with the project team to pinpoint specific measures to incorporate mitigation and/or adaptation aspects, as well as the additional technical and financial support that might be required.

As part of the commitments acquired in 2016 in Bahamas, the IDBG also pledged to **screen all relevant projects for climate risks** by 2018 to increase investments in resilience, particularly for countries that are most vulnerable to the impacts of climate change. Rooted in the existing Policy for Disaster Risk Management, the IDB is enhancing the tool for screening of disaster and climate change risk of projects. Projects that are classified as high-risk will continue to require a Disaster Risk Assessment.

A similar but private-sector oriented approach is being taken in the MIF and IIC to scan and screen operations for opportunities and risks. For MIF projects, officers have been designated as responsible for screening projects to ensure that all the risks and opportunities related to climate change are taken into consideration and that funds directed to climate change activities are tracked. At the IIC, scanning refers to the early identification of projects that may need support, either because there are significant opportunities to include climate resilience or GHG mitigation activities or because the project

potentially faces major climate risks that require further detailed analysis. IIC screening of investments refers to both the initial screening that investment officers can carry out when identifying potential projects and the detailed screening process conducted during due diligence.

ACTION LINE IV: OPPORTUNITIES AND ACTIONS BY SECTOR

The approach described earlier must be tailored to each sector and should take into account the following principles:

- ALIGNMENT WITH NDC: Climate change actions should be aligned to country objectives as described in the NDCs.
- EARLY OPPORTUNITIES: opportunities and risks must be identified early to address climate change concerns. In addition to bringing the NDC objectives into the dialogue with countries, the scanning and screening exercises will be important tools to identify climate opportunities and risks early in the project process.
- INTEGRATED SOLUTIONS: Tackling climate change requires integrated solutions across sectors and IDBG products.
- PUBLIC AND PRIVATE SECTOR COLLABORATION: Public-Private Partnerships (PPPs) are critical for meeting the challenge of sustainable development as public-sector resources alone are insufficient.
- PROMOTION OF INNOVATIVE TECHNOLOGIES AND INSTRUMENTS: continuous innovation across sector is necessary to support the transition to low-carbon and climate-resilient economies.

Some examples follow of possible sector-specific opportunities for the IDBG to help its member countries meet the objectives of their NDCs and the Paris Agreement. Sector opportunities identified here include examples of existing and potential areas of intervention, subject to borrowing member country demand.

1. AGRICULTURE, FORESTRY, NATURAL RESOURCES, AND COASTAL MANAGEMENT

The world's population is expected to increase by one third by 2050, increasing demand for food and adding pressure on natural resources. **Natural disasters and climate change affect food availability** since agricultural production in the region is exposed to droughts and floods.[4] LAC is also the second largest producer of agricultural emissions[5] and for each degree Celsius of global warming, crop yields are expected to decline by up to five percent, which would endanger food security. Common property or open-access natural resources (e.g. forest, fishery, and water) require appropriate policy and governance frameworks to avoid exploitation and possible irreversible exhaustion.[6]

FOR EACH DEGREE CELSIUS OF GLOBAL WARMING, CROP YIELDS ARE EXPECTED TO DECLINE BY UP TO 5%

SELECTED OPPORTUNITIES

- Include forestry-friendly and climate-smart technology and innovation elements to improve agriculture adaptation to climate impacts while also reducing emissions
- Include climate-smart land-use components in natural resource projects
- Increase climate-adaptive, integrated coastal zone management projects
- Support the adaptive capacity of farmers, coastal and other local communities, and indigenous peoples
- Develop private-sector models for conservation, habitat conservation, and carbon sequestration
- Leverage anchor companies and value chains to deploy climate-smart technologies across producers

2.DISASTER RISK MANAGEMENT

Climate change is increasing the frequency and intensity of natural hazards. This, compounded with increased vulnerability —due to insufficient natural resource management and land use planning, weak mainstreaming of risk analysis in investment decisions, and feeble enforcement of safe construction regulations, among other factors— is expected to further increase the impact of

4- Food Security SFD. (GN-2825-3).
5- Based on FAOSTAT emissions data.
6- Agriculture and Natural Resources Management SFD (GN-2709-5) based on Gordon, 1954 and World Bank, 2009.

disasters in many LAC countries. Disaster Risk Management (DRM) is called upon to reduce vulnerabilities before hazard events strike and to respond quickly to overcome the consequences of such events.

SELECTED OPPORTUNITIES

- Assess climate risk and vulnerability of infrastructure and communities
- Work with governments on governance for disaster risk management
- Enhance consideration and treatment of climate and geological risks in public financial management and improve financial resilience for such risks

3. TOURISM

Many tourism destinations in the region are highly vulnerable to the effects of climate change. Visitor numbers could be reduced by rising temperatures, greater water scarcity, sea level rise, deteriorating beaches and coral reefs, and increasing numbers of hurricanes and tropical diseases in the destination countries, among other consequences of climate change.[7] At the same time, **the tourism industry is carbon-intensive**, given its heavy reliance on air travel.

SELECTED OPPORTUNITIES

- Include resiliency aspects in infrastructure and supply chain components of tourism projects
- Support good environmental practice by the tourism private sector, including adoption of resource efficiency practices
- Identify best practices for environmental management and resilience practices in the tourism industry

4. HOUSING AND URBAN DEVELOPMENT

With eight out of ten people living in cities, LAC is the second most urbanized region on the planet. Between 1950 and 2014, the region urbanized at an unprecedented rate. Its urban population increased from 50 to 80 percent of the total, and is expected to reach 86 percent by 2050. Cities are the key driver of growth, accounting for 60 percent of LAC's GDP, but also for 80 percent of the region's emissions

CITIES ACCOUNT FOR 60% OF LAC'S GDP, BUT ALSO FOR 80% OF THE REGION'S EMISSIONS.

7- Tourism SFD (GN-2779-3) based on Mimura et al., 2007.

(energy, transport, and construction).[8] Additionally, cities' vulnerability to the negative effects of climate change is extremely high,[9] with 60 of the 77 most-populated cities in LAC located near the coast (since 1980, the sea level rise has already reached 3mm per year).[10]

After more than 50 years of urban growth, **the region exhibits an unsustainable urbanization pattern of expansion and low population density.**

SELECTED OPPORTUNITIES

- Promote housing programs that are adapted to the local bioclimate and geophysical conditions and include resiliency elements and energy efficiency standards
- Promote integrated investments based on land-use plans to expand and improve the quality of basic urban services, minimizing their vulnerability, helping to mitigate climate change, and ensuring a sustainable provision of basic services
- Support integrated land-use planning for more efficient, dense, and compact cities, allowing for more resilient urban dwellers

5. TRANSPORTATION

The world is rapidly transforming and the way people and goods travel within and across cities, regions, and countries is changing with it. By 2030, annual passenger traffic will exceed 80 trillion passenger-kilometers —a fifty percent increase. Some countries —including Brazil, Colombia, Argentina, Ecuador, Costa Rica, and Guatemala— have quantified targets to reduce transportation sector emissions in their NDCs. Transportation infrastructure is vulnerable to changes in climate variables, but is also key to ensure the resilience of communities and economies to climate change impacts. In this context, **the sector urgently needs to take steps toward mitigating climate change and increasing its resilience** to hydrological and climatological changes.[11]

8- Cities and Climate Change: Global Report on Human Settlements, UN-Habitat, 2011.
9- ICLEI, 2014.
10- State of Latin American and Caribbean Cities, UN-Habitat, 2012.
11- The incorporation of adaptation criteria into infrastructure design is more beneficial than any other mitigation measure (Pielke, 2007; Stern and Britain, 2006). Design modifications based on hydrological and climatological changes enhance infrastructure resilience and allow greater response capacity (Becker, Fischer, and Schwegler, 2011); Intergovernmental Panel on Climate Change, 2014).

SELECTED OPPORTUNITIES

- Support mass transit systems (including buses, trams, metros and ferries) and promote the use of cleaner technologies in transportation systems (e.g. clean buses)
- Support transportation demand management measures dedicated to reducing GHG emissions (e.g. speed limits, high occupancy vehicle lanes, parking management, and license plate auctioning); and supporting transit-oriented development
- Enable planning to complement transportation systems with green infrastructure: maximizing non-motorized transportation (e.g. pedestrian and bicycle space, bike sharing)
- Promote vehicle fuel efficiency (through a shift to low-carbon fuel and more efficient vehicles)
- Promote the use of technology for vehicle sharing, ride-hailing, and carpooling
- Support multi-modal transportation systems and promote a modal shift of freight and passenger transportation from roads to railways and waterways, which have lower per-mile emissions
- Incorporate adaptation criteria into infrastructure and operation, taking climate scenarios into consideration to design climate resilient infrastructure to more negative scenarios (e.g. bigger drains and higher bridges)

6. ENERGY

Power generation contributes modestly to total GHG emissions in LAC, but fossil fuels dominate supply and **almost 75 percent of all energy needs in the region are met with oil, gas, and coal.** The electricity matrix is characterized by a low CO2 emission factor due to the high share of hydropower (49 percent), but non-conventional renewable energy (NCRE) —such as solar, wind, or biomass— account for less than eight percent of generation. NCRE are increasingly the most economical solution for new grid connected capacity where good solar or wind resources are available. Investments in these two technologies have increased remarkably in the last couple of years, and **the IDBG has played a key role in supporting these investments**, as well as those in energy efficiency. The region faces multiple challenges for providing sustainable energy, especially in a context where climate change is affecting water availability for hydropower, one of the main sources of electricity. First, as the penetration of variable renewable

sources increases, power systems need to increase their flexibility. Second, the increase in distributed generation calls for a review of regulation that incentivizes efficiency and cost reductions considering its impacts on the utility business model. The electrification of other sectors, such as transport and industrial processes, presents new opportunities for innovation and decarbonization at the same time. These systemic transformations require designing new policies and regulations for energy markets, strengthening energy sector institutions, and making large upfront investments.

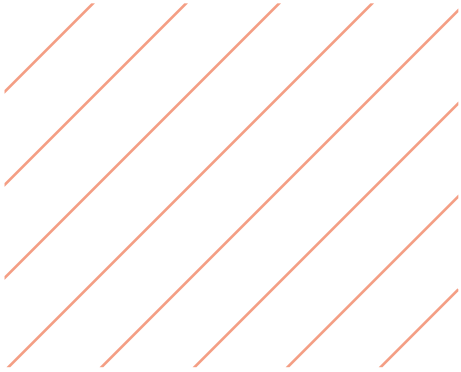
SELECTED OPPORTUNITIES

- Invest in renewable energy resources —including solar, wind, sustainable hydropower, sustainable biomass, and geothermal— and in transmission infrastructure assets, energy storage, and advanced metering systems to accommodate higher shares of variable renewable energy
- Develop tools for planning, designing, and operating climate-resilient infrastructure; and analyzing vulnerability of inputs to electricity generation and energy infrastructure assets
- Utilize private sector financing options, such as securitization platforms for small-scale renewable energy and energy efficiency projects and guarantees and subordinated note subscription facilities for project bonds for large-scale renewable energy projects
- Seek reforms to legal, policy, and regulatory frameworks to promote sustainable energy, increase the flexibility of electricity systems, and reform subsidy systems
- Act as a neutral party to support regional electricity integration
- Formulate methodologies to determine the economic benefits, incentives, and business models for distributed (on-site) generation based on renewable energy; formulate technical specifications to connect distributed generation to the grid; and determine the optimum paths for higher penetration of renewable energy in electricity systems

7. WATER AND SANITATION

Countries in the region are facing flooding and droughts because of climate change. Integrated water resource management solutions are needed to increase water security and strengthen

utilities' environmental and social management. Solid waste and wastewater have increased in the region and several waste disposal methods are themselves significant producers of GHGs. The combination of rising temperatures, increasing CO2 concentration levels, and nutrient over enrichment of rivers, streams, and lakes (due to deficient water treatment) is exacerbating the environmental degradation of local ecosystems and putting rural communities' livelihoods at risk given their dependence on this natural capital.



SELECTED OPPORTUNITIES

- Increase wastewater treatment capacity and coverage and improve wastewater treatment by implementing effluent treatment solutions that include business models for water reuse and commercialization to the industrial sector
- Reduce emissions through methane capture, waste-to-energy, solid waste reduction, recycling, energy efficiency, and operational improvements
- Widen drainage infrastructure to increase flood protection in response to increased exposure and risks to extreme weather events
- Consider expected changes in climatic conditions in water and sanitation governance schemes to ensure equity and efficiency in services allocation and distribution and to balance the needs of socio-economic activities and ecosystems
- Adopt financial mechanisms to guarantee long-term conservation of water resources, the promotion of sustainable low-carbon development practices, and smart infrastructure.
- Foster the use of integrated watershed management approaches to facilitate mainstreaming of climate risks and further identification of climate resilience measures, including ecological restoration activities and new technologies (e.g. constructed wetlands).
- Monitor and model hydro-meteorological conditions at the watershed level to better assess expected climatic changes that will affect local infrastructure services

8. EDUCATION

Education helps societies and individuals understand the causes of and adapt to the impacts of global warming and encourages changes in attitudes and behavior.

SELECTED OPPORTUNITIES

- Finance resource-efficient and climate-resilient schools and other education infrastructure projects
- Identify locations and introduce construction standards for building schools and other education infrastructure projects to avoid the riskiest areas and to increase preparedness in the face of an expected increase in extreme weather events (e.g. water and electricity continuity, emergency shelters)
- Integrate environmental sustainability and climate change education into school curricula and teacher training, using the IDB Rise Up Against Climate Change Lesson Plans, Green School Toolkits, Online Learning Games, Teacher Training MOOC, and Instructional Videos

9. HEALTH

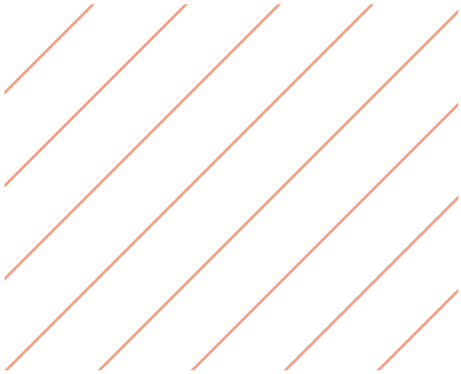
Climate change is affecting human health. Air pollution directly impacts health. Warmer temperatures and heavier rains associated with climate change in the Americas have already influenced epidemic patterns, for example by favoring the spread of mosquitoes and other vectors associated with infectious disease. There are also opportunities for reducing emissions from within the health sector through renewable energy and energy efficiency investments in health sector facilities, which must operate special equipment 24 hours/day.

SELECTED OPPORTUNITIES

- Finance resource-efficient hospitals, health clinics, and other health infrastructure projects
- Help to identify locations, building standards, and network organization for hospitals, health clinics, and other health infrastructure projects to avoid the riskiest areas and to increase preparedness for the effects of climate change (e.g. water and electricity continuity in emergency situations)
- Build knowledge on impacts of climate change on health and collaborate with health systems on using the knowledge to plan responses

10. SOCIAL PROTECTION

Disasters disproportionately affect the poor, who typically settle in more at-risk areas and lack formal savings and insurance to help them cope with and recover from climate change-related shocks. What savings they do have is often in kind (e.g. cement bags or cattle), and therefore vulnerable to floods and droughts that are occurring more frequently due to the changing climate. Strong social protection schemes can help households and workers cope with the adverse consequences of climate mitigation policies.

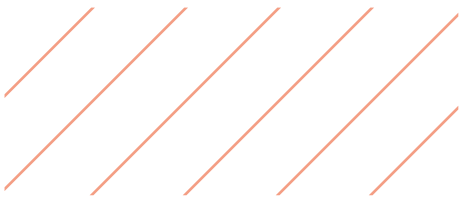


SELECTED OPPORTUNITIES

- Implement cash transfer schemes to help poor households manage the effects of natural disasters
- Use social protection schemes to make emission reduction policies more politically feasible (e.g. replace fossil fuel subsidies for the poor with targeted cash transfers)
- Finance resource-efficient infrastructure (e.g. care facilities for children and the elderly and community centers)

11. GENDER EQUALITY AND WOMEN'S EMPOWERMENT

Climate change threatens to harm the health and well-being of us all, but may impact women and men differently due to the distinct roles they play in society, the characteristics of their livelihoods, and their socio-economic status. The majority of the



population living in extreme poverty are women. A large portion of women's livelihoods is dependent on natural resources and yet women have unequal access to and control of land, water, and other natural resources impacted by climate change. Women can also be powerful agents of change —they may take up to 80 percent of the decisions related to household consumption in some countries. The economic transformation required to develop along a low-carbon, climate-resilient pathway could create opportunities for women in the 'jobs of the future' or the current low number of women in STEM careers could persist.

CLIMATE CHANGE THREATENS TO HARM THE HEALTH AND WELL-BEING OF US ALL, BUT MAY IMPACT WOMEN AND MEN DIFFERENTLY

SELECTED OPPORTUNITIES

- Increase women's preparedness for and access to quality jobs and economic opportunities in the transition to a low carbon economy
- Increase women's access to finance in key climate action areas: agricultural insurance, lines of credit for SME development, micro-credit, etc.
- Enable and strengthen women's participation through leadership training, public consultations, decision-making systems support at multiple levels to foster their role as caretakers of natural resources which are increasingly sensitive to climate change impacts

12. DIVERSITY AND SOCIAL INCLUSION

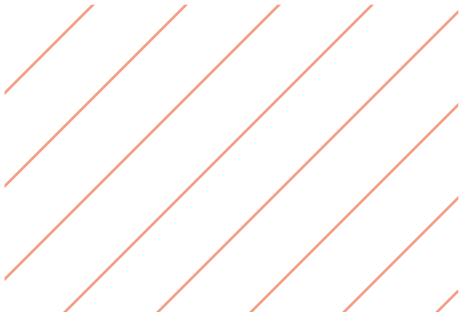
High levels of poverty, historical marginalization, and limited access to public services in rural areas make indigenous peoples among those most vulnerable to climate change. Indigenous peoples are also highly dependent on the quantity and quality of natural resources available in their territories—thus the effect of climate change on natural resources has a direct and immediate impact on them.

SELECTED OPPORTUNITIES

- Promote the use of sustainable agriculture practices, alternative energy sources, wastewater treatment, and watershed management in indigenous territories
- Given the significant surface footprint of renewable energy infrastructure consider carefully its effect on indigenous and traditional communities
- Strengthen governance of indigenous territories as a means of protecting forests and conserving biodiversity and support models of payment for ecosystems

13. LABOR MARKETS

There is growing awareness that employment and labor policies can contribute to a smooth transition to a net-zero emission economy by identifying opportunities for green jobs, greening existing jobs, and easing the phase out of unsustainable jobs. Green job strategies are set to become an increasingly important part of employment and labor ministers' responsibilities and of the activities of employee organizations and trade unions.



SELECTED OPPORTUNITIES

- Build knowledge on how climate change and climate change policies will impact demands for labor to avoid stranding human capital assets and to promote a just transition to a zero-carbon economy
- Develop capacity to inform and stimulate interest in green careers among future workers and the unemployed by providing information on vocational training, and professions in green sectors
- Build knowledge on regulations for enabling pension funds to invest in low-carbon assets

14. CAPITAL MARKETS AND FINANCIAL INSTITUTIONS

Creating the right conditions for financial institutions to boost green investments as business opportunities can transform the financial markets in the medium and long term. The development of public-private financial mechanisms and National Development

Banks (NDBs) can strategically address many of the shortcomings in the climate finance architecture—in particular, resolving market failures private actors often face when they want to invest.

SELECTED OPPORTUNITIES

- Support regulators to develop green financial markets, including promoting good practices for environmental risk management and developing new markets and assets (e.g. green bond and carbon markets)
- Address non-financial barriers, including structuring the demand for finance (promote business models and project incubation, and support technology and service providers)
- Work with NDBs to integrate climate change concerns in their businesses through capacity building and developing financial strategies geared to promote green finance in the region and catalyze private investments
- Prioritize green finance by helping financial institutions develop lending and risk sharing products for private sector clients to finance the incorporation of energy efficiency, renewable energy, and climate smart technologies

15. INNOVATION IN CITIZEN SERVICES

Transparent public policy, effective and efficient government solutions, and managing for results all have an important role to play as borrowing member countries work toward the goals they have set in their NDCs.

SELECTED OPPORTUNITIES

- Promote changes in regulations and procedures and develop e-government solutions to reduce GHG emissions (e.g. through reduced need for travel)
- Include climate change indicators in official environment statistics to provide evidence upon which to formulate public policy related to climate change-related natural disasters (e.g. to link climate change considerations to social programs)
- Strengthen the institutional capacity of environment ministries on climate change issues to promote implementation of the NDCs

16. FISCAL AND MUNICIPAL MANAGEMENT

Fiscal policies at the national and subnational levels of government represent a key sector for establishing the right incentives for the transition toward low-carbon, climate-resilient economies.

SELECTED OPPORTUNITIES

- Promote politically-acceptable fiscal reforms benefiting low-carbon development —especially creating or increasing taxes on GHG emissions or removing subsidies on energy and natural resources
- Help countries understand how the existing fiscal framework (including fiscal policies that are not *prima facie* related to climate change) incentivizes —or disincentivizes— investment in low-carbon and climate resilient options
- Promote fiscal management policies (contingent lines, fiscal reserves, etc.) that build the resilience of the governments to climate shocks.

17. COMPETITIVENESS, TECHNOLOGY, AND INNOVATION

Addressing climate change impacts will require substantial investment in science, technology, and innovation to transform the way LAC produces goods, provides services, and uses energy. Such investments have made climate adaptation and mitigation viable and attractive to the public and private sectors alike. Incorporating technology and innovation into most of the areas listed in this action plan is a core element to meeting member countries' NDC commitments.

INCORPORATING TECHNOLOGY AND INNOVATION IS KEY TO HELP MEMBER COUNTRIES MEET THEIR NDC COMMITMENTS

SELECTED OPPORTUNITIES

- Support high quality research in disciplines related to climate change adaptation and mitigation.
- Support advanced human capital formation in relevant areas (e.g. renewable energy or energy efficiency).
- Support social innovation platforms aimed at identifying innovation solutions to tackle climate change.

18. REGIONAL INTEGRATION AND TRADE

The incorporation of climate change considerations in trade and investment policies and programs can help catalyze private investments in green value chains and thereby contribute toward Paris Agreement goals. There is limited literature available on the subject in LAC, presenting the IDBG with an opportunity to build a cutting-edge and robust knowledge agenda, including publications on green or carbon neutral value chains, eco-industrial or economic zones, and carbon neutral and eco-certifications and standards.

SELECTED OPPORTUNITIES

- Develop logistics and transportation systems that consider CO2 emissions, optimization of trade routes, promotion of low-carbon transport modes, and environmentally friendly logistic hubs
- Support the development of low-carbon, green Special Economic Zones that incorporate effective measures for pollution control and environmental compliance
- Incorporate climate change into existing and new trade promotion operations (e.g. fostering exports of carbon-neutral goods and services)

The overall percentage of climate finance has been increasing, a trend which must continue for the IDBG to achieve its goal. So far, the climate finance figure, although balanced across country groups, has been influenced by a few large projects in key sectors. Moving forward, greater effort will be placed on mainstreaming climate change across all relevant projects, especially in countries that are most vulnerable to the effects of climate change. Some sectors, given the nature of their interventions and size of their portfolio, will continue to present bigger opportunities for climate finance than others.

ACTION LINE V: TRACKING FINANCING AND MEASURING RESULTS

The IDBG will continue applying the MDB harmonized methodology to track climate finance, covering operations financed with the Group's own resources and the external resources that the IDBG manages. This methodology has been applied since 2011 and is becoming the reference point for other organizations seeking to measure their efforts toward the Paris Agreement. MDBs have defined climate finance as "the financial resources committed by MDBs to development activities with climate change mitigation and adaptation benefits in developing and emerging economies." In the methodology, climate mitigation finance refers to resources to adopt and deploy low-emission approaches and technologies and adaptation finance refers to resources allocated to projects, or components thereof, that explicitly define a context of vulnerability, intend to reduce such vulnerability, and allocate resources to specific vulnerability-reduction tasks. Further details on the methodology and detailed MDB data can be found in the joint MDB report on climate finance. IDBG climate finance data will continue to be reported in the annual Joint Report on MDBs' Climate Finance and the IDB Sustainability Report, among others.

Beyond dollars, the IDBG will continue to measure results relying on the Corporate Results Framework (CRF), taking advantage that this is a group-wide tool that minimizes additional reporting burden. The IDB is required to calculate and record gross emissions on category A and B projects that produce significant quantities of GHG emissions in accordance with the Environmental and Safeguards Compliance Policy. For some projects, net emission reductions have also been

calculated. In line with the commitment to report on the reduction of emissions with the support of IDBG financing in the CRF, the IDB will review how to best calculate net emissions for a greater portion of the portfolio and seek greater consistency between these calculations and reporting on climate finance. In turn, the IIC will continue to calculate net emission reductions of projects and track ex-ante estimated annual emission reductions of loans and other instruments supporting climate change mitigation that are approved. The IDBG will also continue to participate in the Multilateral Financial Institutions working group on GHG accounting, working toward a standardized methodology. At the same time, the IDB recognizes the limitations of measuring emission reductions and will continue to explore alternatives that better reflect efforts to align operations with long-term decarbonization pathways.

CONCLUSION

The overall percentage of climate finance has been increasing, a trend which must continue for the IDBG to achieve its goal. So far, the climate finance figure has been influenced by a few large projects, although balanced across country groups, which have boosted the figures of several sectors. Moving forward, greater effort will be placed on mainstreaming climate change across all relevant projects, especially in countries that are most vulnerable to the effects of climate change.

Much greater effort will be placed upstream in the project cycle. Climate change considerations will be fully integrated within the country strategies and the strategic dialogue with the governments. This will aim to ensure countries' climate objectives as set out in their NDCs are aligned with the Bank's programming exercise and will allow for more timely consideration of relevant climate aspects at an early stage of project design.

The achievement of this action plan goals can only be delivered through the coordinated effort of IDB, IIC and MIF departments. Further work is underway to ensure incentives are aligned with the commitments acquired in Bahamas, including potential options for cascading incentives for contributing toward delivering this action plan, fostering collaboration across organizational boundaries, and ensuring continued alignment with the international agenda on climate change.

As the climate change agenda increasingly becomes a social, economic, and financial challenge for countries, the IDBG will need to continue to evolve mainstreaming efforts, develop capacity and align resources and activities towards countries' objectives under the Paris Agreement and the SDGs. By continuing to advance the knowledge

frontier, support for effective institutional arrangements and innovative use of financial instruments, the IDBG can continue partnering with LAC governments and the private sector in realizing the opportunities that will accompany a low carbon and resilient economic paradigm of development.

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