World Bank Group

A ROADMAP FOR CLIMATE ACTION IN LATIN AMERICA AND THE CARIBBEAN 2021-2025

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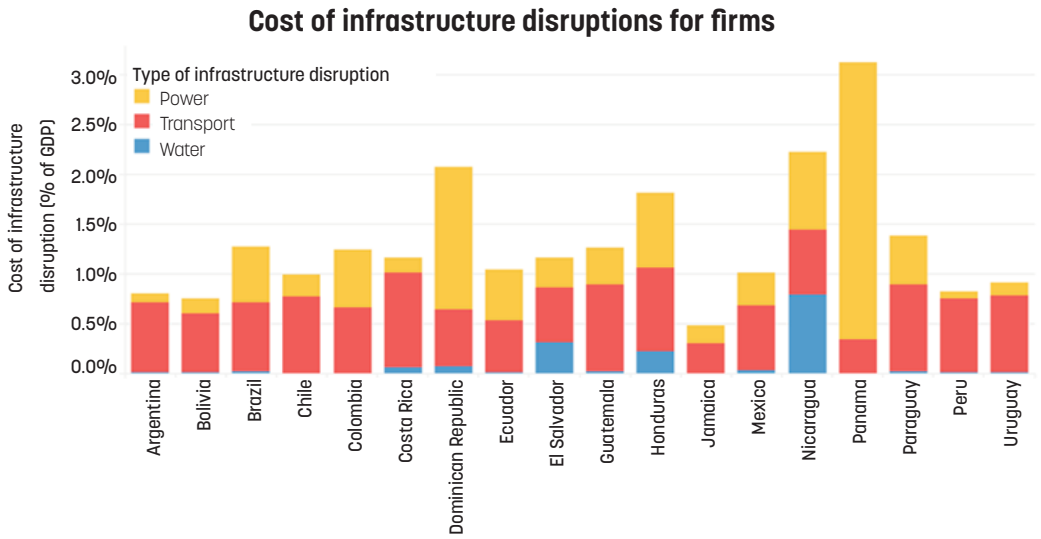
1. Introduction

Climate change is already causing economic damage in LAC and threatens to increase rates of extreme poverty.

In Latin America and the Caribbean (LAC) the rapidly changing climate is increasing the frequency and intensity of extreme weather-related events. The year 2020 saw the most catastrophic fire season over the Pantanal region and a record number of storms during the Atlantic cyclone season. Eta and Iota, two category 4 hurricanes, affected more than 8 million people in Central America, causing tens of billions of dollars in damage. In Honduras, annual average losses due to climate-related shocks are estimated at 2.3 percent of gross domestic product (GDP). In rankings of the impacts of extreme weather events from 2000 to 2019, five Caribbean nations figure among the top 20 globally in terms of fatalities per capita, while in terms of economic losses as a share of GDP eight of the top 20 countries are in the Caribbean.[1] Extreme precipitation events, which result in floods and landslides, are projected to intensify in magnitude and frequency due to climate change, with a 1.5°C increase in mean global temperature projected to result in an increase of up to 200 percent in the population affected by floods in Colombia, Brazil, and Argentina; 300 percent in Ecuador; and 400 percent in Peru.[2] Climate shocks reduce the income of the poorest 40 percent by more than double the average of the LAC population and could push an estimated 2.4–5.8 million people in the region into extreme poverty by 2030.[3]

Climate-related extreme events are also disrupting power and transport systems. Infrastructure disruptions cost more than 1 percent of GDP on average across the region, and up to 2 percent annually in several Central American countries (figure 1). Brazilian firms lose an average of US$22 billion

FIGURE 1: The Cost of Infrastructure Disruptions to Firms Exceeds 1 Percent of GDP in Many LAC Countries



Source: Hallegatte *et al.* 2019. Lifelines: The Resilient Infrastructure Opportunity. Sustainable Infrastructure. Washington, DC: World Bank.

per year (1.27 percent of GDP) due to infrastructure disruptions, the majority of which are in transport and power linked to extreme flooding events.[4] On average in LAC, 56 percent of losses to firms after climate shocks are due to transport disruptions.[5]

At the same time, slow onset effects of climate change are reducing productivity and adaptive capacity in many sectors. By July 2021, drought caused the Paraguay and Parana Rivers to shrink to their lowest levels in fifty years, hampering shipping and water security in five cities of Argentina. Climate change will have long-term negative impacts on yields for most crops in most countries in LAC, impacting food security and inflicting economic damage. In Argentina, droughts could lead to soybean yield losses of up to 50 percent by 2050.[6] Precipitation deficits are also particularly serious for the Caribbean region, as several of its territories are on the global list of the most water stressed countries.[7]

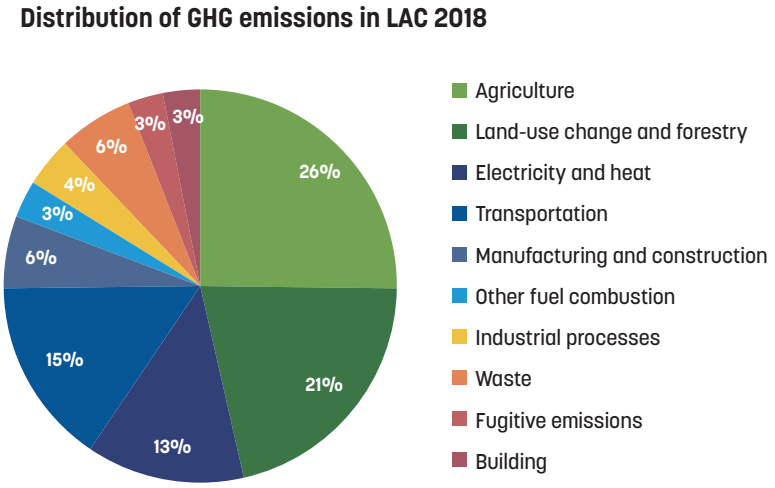
Slow onset climate change is also reshaping marine ecosystems and drying out forests. A transition from forest to savannah-like vegetation in the Amazon basin driven by a combination of climate change and deforestation could be triggered if the loss of forest area in the Amazon reaches 20–25 percent, a relatively small step from the 17 percent already lost to date.[8] This would radically alter the hydrological cycle, with local, regional, and global consequences. Other systems already approaching critical thresholds under current warming levels include glaciers in the Andes and coral reefs in Central America, as well as ocean and coastal ecosystems in virtually all subregions.[9]

Without concerted climate action, by 2050 over 17 million people in LAC could be forced to move to escape slow onset climate impacts,[10] swelling migration to cities and potentially increasing urban population growth by up to 10 percent. This would increase the load on basic services in the poorest urban neighborhoods most exposed to flooding, landslides and other climate impacts that are becoming increasingly frequent and severe. At the same time, endemic and emerging climate-sensitive infectious diseases are projected to increase over the coming decades through the expanded distribution of vectors.

Greenhouse gas emissions in LAC are dominated by agriculture, land-use change and forestry, transportation, and electricity production

A distinctive feature of greenhouse gas (GHG) emissions in LAC is the large share from agriculture, and land-use change and forestry, which together account for 47 percent of emissions across the region (figure 2), significantly exceeding the global shares of these sectors (19 percent of global GHG emissions). Emissions from energy systems, mainly linked to fossil fuel combustion, account for 43 percent of total emissions in LAC, including 15 percent from transport, and 13 percent from electricity and heat. The remaining emissions account for industrial processes, fugitive emissions, and building activities.

FIGURE 2: Agriculture, Land Use Change and Forestry, Transportation, and Electricity Production Account for Three-fourths of GHG Emissions in LAC



Source: CAIT/Climate Watch. 2020. Washington, DC: World Resources Institute. Available online at: https://www.climatewatchdata.org.

While most countries in LAC have updated their commitments to mitigate climate change, relatively few have developed long-term strategies to achieve net-zero GHG emissions.

LAC accounts for 8 percent of global GHG emissions and 12 percent of World Bank borrower country emissions. This relatively modest contribution would significantly increase, however, if high- and upper-middle-income countries reduce emissions to limit global warming to 1.5°C while low-middle and low-income countries in the region pursue business-as-usual development. Moreover, the region's contribution to global emissions could be significantly increased if a tipping point is reached in the Amazon basin leading to a transition from forest to savannah-like vegetation, with the potential to release the equivalent of several years of global GHG emissions. LAC GHG emissions are dominated by Brazil, Mexico, and Argentina, which account for two-thirds of the regional total. Almost every country in LAC has updated its nationally determined contribution (NDC) for climate adaptation and mitigation, and many have committed to achieving net-zero GHG emissions by 2050. So far, however, only a handful of countries have submitted long-term strategies (LTSs) to achieve this net-zero goal, including Chile, Uruguay, Costa Rica, Guatemala, Mexico, and Colombia.

The LAC Roadmap for Climate Action 2021–25 is intended to guide the World Bank Group's response for scaled-up, transformational climate action in the region.

The LAC Roadmap for Climate Action 2021–25 draws on the framework provided by the World Bank Group's (WBG's) Climate Change Action Plan (CCAP) 2021–2025. It provides a regional overview of potential new and transformative opportunities for WBG engagement in building resilience to climate impacts, achieving national targets for climate mitigation, and smoothing the transition to low carbon economies, while at the same time supporting a post COVID-19 green recovery and strengthening competitiveness for long-term economic growth.

The LAC Roadmap seeks to raise the bar for climate action by identifying ways to go beyond existing corporate climate commitments and past achievements to implement the transformational actions identified in the global CCAP, focusing on scale and systemic impacts. Building on country priorities and commitments, the LAC Roadmap aims to fully integrate climate and development to deliver on both objectives. Guided by current country partnership frameworks (CPFs) and by helping to shape future systematic country diagnostics (SCDs), CPFs, and performance and learning reviews (PLRs), the LAC Roadmap will inform country-specific programs to identify short-term actions and define medium-term priorities focused on achieving the greatest impact in each country. The LAC Roadmap is the result of an ongoing cross-sectoral approach that demonstrates climate leadership by placing climate at the center of the development policy dialogue and analytical work, fully integrating all parts of the WBG (the World Bank, the International Finance Corporation - IFC - and the Multilateral Investment Guarantee Agency - MIGA) to work with a broad range of partners to develop multisectoral solutions. The LAC Roadmap emphasizes the importance of building climate coalitions with the private sector, civil society, cities, subnational and national governments, and leveraging post-COVID-19 recovery investments to deliver resilient, low carbon growth.

The guiding principles for development of the LAC Roadmap include the need to:

(1) prioritize adaptation and resilience;

(2) build on country climate priorities and commitments such as NDCs and LTSs;

(3) focus on win-win solutions for resilience and emissions reduction that support inclusive growth;

(4) avoid irreversible impacts on natural capital and the lock-in of carbon intensive infrastructure;

(5) strengthen co-benefits such as reduced air pollution and enhanced access to public transport; and,

(6) respond to the challenges and opportunities of the low-carbon transition in key export markets, especially for agricultural products and fuels.

Recognizing the essential role that the private sector will play in financing climate action, the LAC Roadmap emphasizes the creation of markets for climate business solutions through policies, financial innovations, and market frameworks that support competition and innovation. Entry points to stimulate private sector investment for climate action include pricing and regulatory incentives, provision of information to act on these incentives, competitive markets that encourage innovation in the application of cleaner technologies, and instruments to enhance access to green finance.

Priority systems, cross-cutting areas and entry points for action

The WBG already supports a broad range of engagements in LAC for climate resilience, reduction of GHG emissions, and a transition to low carbon development. The LAC Roadmap for Climate Action builds on extensive internal consultations with sector and country experts, and the development of country climate profiles, to identify potential opportunities for additional WBG support for climate action under three priority systems and two cross-cutting areas. Together these provide a framework to address significant adaptation, mitigation, and economic transition opportunities and challenges.

Priority Systems

» **Landscapes, agriculture, and food systems:** Improving landscape management, agriculture, and food systems offers key opportunities to build climate resilience while also reducing emissions through carbon sequestration. Climate-smart agriculture, sustainable land use, and water resource management are essential, not only to achieve net-zero emissions, but also to ensure the long-term productivity of the natural resource base and meet growing market demand for deforestation-free, low carbon agricultural products.

» **Energy and transport systems:** focusing on making assets and networks more climate-resilient, and decarbonizing power generation, transport systems, and manufacturing. Avoiding the lock-in of carbon-intensive infrastructure by incentivizing private sector investment in low carbon solutions can stimulate growth and productivity while helping achieve GHG mitigation commitments.

» **Cities:** Up to 80 percent of total losses caused by disasters in LAC occur in urban areas, which also produce a one-third of regional GHG emissions. Making cities more resilient to climate shocks and decarbonizing urban systems is a priority for climate action, and can also make cities more efficient, which contributes to growth and well-being.

Cross-Cutting Areas

» **Economy-wide actions:** to establish the fiscal, financial, and institutional conditions for an economy-wide response to climate change, reducing financial and economic risks while promoting decarbonization, and meeting the challenges of the low carbon economic transition.

» **Support for vulnerable populations:** focusing on protecting the most vulnerable people against climate shocks and transition risks, as well as ensuring their involvement in decision-making for climate action.

Within each system and cross-cutting area, the LAC Roadmap for Climate Action identifies a set of entry points for new engagement in areas where the WBG can draw on global experience and financial instruments to provide clients with effective policy advice and investment solutions (see Box 1).

Box 1: Entry Points for WBG Action on Climate Change Adaptation, Mitigation, and Transition in LAC

Landscapes, agriculture, and food systems

- climate smart agriculture
- sustainable land management
- water resource management
- deforestation-free and low carbon agricultural and forestry products in response to market demand
- the protection of critical habitats

Energy and transport systems

- resilient energy and transport systems
- decarbonizing power
- enhancing private investment in renewables
- reducing GHG emissions from transport
- development of low carbon fuels and lithium resources

Cities

- low carbon urban design
- decarbonizing urban mobility
- cutting emissions from waste
- adaptation through planning and disaster preparedness
- investing in urban resilience

Economy-wide actions

- restructuring subsidies and taxes
- anticipating risks arising from the low carbon transition in export markets
- resilience of the financial sector and catalyzing green finance
- strengthening accountability, legislation, and institutional capacity for climate action

Support for vulnerable populations

- strengthening finance for resilience, including disaster risk warning systems, identification of communities at risk, and contingent financing for disaster response
- just and equitable transition for people most affected by decarbonization
- resilient health systems to respond to climate-related changes in disease, including access to water and sanitation
- safeguarding access to markets and services by strengthening the resilience of rural roads
- reinforcing adaptative social protection systems and access of the poor to financial services to deliver income support

2. Priorities for New WBG Engagement on Climate Action in LAC

Building on internal consultations with sector and country experts, the LAC Roadmap focuses on identifying priorities for new WBG engagement at the intersection of opportunities for transformational climate action with country priorities for recovery, development and growth, and areas of WBG comparative advantage (figure 3).

FIGURE 3: Prioritizing WBG Engagement for Recovery, Growth, and Resilient Low Carbon Development

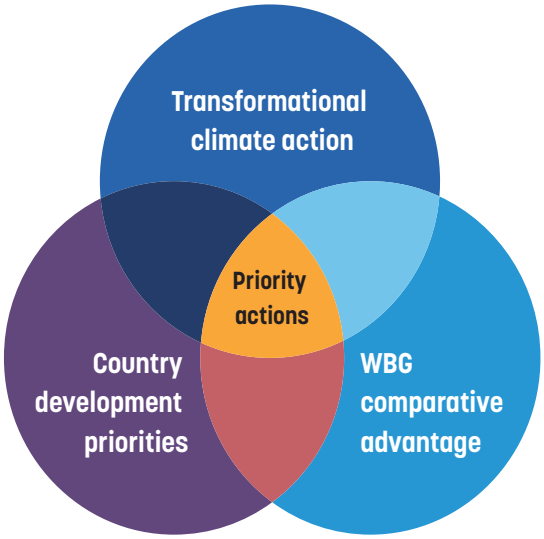


Table 1 identifies the existing WBG engagement on climate in LAC, and highlights priority opportunities for the WBG to support transformative new action on climate resilience, mitigation, and support for a low carbon transition in areas of WBG comparative advantage, emphasizing those that are aligned with current government priorities and urgent. For the purpose of this analysis, new engagement refers to initiatives that are not currently supported by the WBG nor in the confirmed pipeline of proposed operations, and urgent actions are defined as those for which delay would increase their cost.[11] These opportunities for new WBG support for enhanced climate action in LAC through both finance and policy advice are discussed below.

TABLE 1: Priority Areas for new WBG Engagement on Climate Resilience, Mitigation, and Transition in LAC

	Argentina	Belize	Bolivia	Brazil	Colombia	Costa Rica	D. Republic	Ecuador	El Salvador	Guatemala	Guyana/ Suriname	Haiti	Honduras	Jamaica	Mexico	Nicaragua	Panama	Paraguay	Peru	Uruguay	Caribbean SIDS*
Landscapes, Agriculture and Food Systems																					
Climate-Smart Agriculture	Existing WBG engagement	Existing WBG engagement	Existing WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Existing WBG engagement	Existing WBG engagement	Existing WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Existing WBG engagement	Existing WBG engagement	Existing WBG engagement	Existing WBG engagement	Existing WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Existing WBG engagement
Sustainable Land Management	Existing WBG engagement	Priority areas for new WBG engagement	Areas for new WBG engagement not aligned with current government priorities	Urgent priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Existing WBG engagement	Existing WBG engagement	Urgent priority areas for new WBG engagement				Priority areas for new WBG engagement		Areas for new WBG engagement not aligned with current government priorities	Existing WBG engagement	Existing WBG engagement		Existing WBG engagement	Urgent priority areas for new WBG engagement	Existing WBG engagement	Existing WBG engagement
Water Resource Management	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement		Priority areas for new WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement		Priority areas for new WBG engagement	Existing WBG engagement		Existing WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement
Leveraging Market Forces	Areas for new WBG engagement not aligned with current government priorities		Areas for new WBG engagement not aligned with current government priorities	Priority areas for new WBG engagement	Priority areas for new WBG engagement			Existing WBG engagement			Existing WBG engagement			Existing WBG engagement				Existing WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement
Protection of Critical Habitats	Existing WBG engagement	Existing WBG engagement	Areas for new WBG engagement not aligned with current government priorities	Urgent priority areas for new WBG engagement	Existing WBG engagement			Urgent priority areas for new WBG engagement		Existing WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement		Existing WBG engagement	Existing WBG engagement	Existing WBG engagement		Areas for new WBG engagement not aligned with current government priorities	Existing WBG engagement	Areas for new WBG engagement not aligned with current government priorities	Priority areas for new WBG engagement
Energy and Transport Systems																					
Build System Resilience	Priority areas for new WBG engagement	Existing WBG engagement	Urgent priority areas for new WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Urgent priority areas for new WBG engagement	Urgent priority areas for new WBG engagement		Priority areas for new WBG engagement	Urgent priority areas for new WBG engagement		Urgent priority areas for new WBG engagement	Urgent priority areas for new WBG engagement			Existing WBG engagement	Urgent priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Existing WBG engagement
Decarbonize Power	Existing WBG engagement	Priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Existing WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement		Priority areas for new WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement
Catalyze Private Renewables Investment	Existing WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Urgent priority areas for new WBG engagement	Existing WBG engagement			Priority areas for new WBG engagement	Existing WBG engagement	Existing WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Existing WBG engagement	Urgent priority areas for new WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement
Transition to Green Transport	Urgent priority areas for new WBG engagement		Areas for new WBG engagement not aligned with current government priorities	Urgent priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Urgent priority areas for new WBG engagement		Urgent priority areas for new WBG engagement		Existing WBG engagement		Priority areas for new WBG engagement	Areas for new WBG engagement not aligned with current government priorities	Priority areas for new WBG engagement		Urgent priority areas for new WBG engagement		Priority areas for new WBG engagement	
Leverage Transition Opportunities	Priority areas for new WBG engagement		Priority areas for new WBG engagement	Priority areas for new WBG engagement		Priority areas for new WBG engagement		Priority areas for new WBG engagement			Priority areas for new WBG engagement					Existing WBG engagement	Priority areas for new WBG engagement		Priority areas for new WBG engagement	Priority areas for new WBG engagement	
Cities																					
Low Carbon Urban Design	Urgent priority areas for new WBG engagement		Areas for new WBG engagement not aligned with current government priorities	Urgent priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Existing WBG engagement	Existing WBG engagement	Urgent priority areas for new WBG engagement				Existing WBG engagement		Priority areas for new WBG engagement	Urgent priority areas for new WBG engagement			Existing WBG engagement	Urgent priority areas for new WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement
Decarbonize Mobility	Urgent priority areas for new WBG engagement		Urgent priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Existing WBG engagement	Existing WBG engagement		Priority areas for new WBG engagement	Existing WBG engagement		Urgent priority areas for new WBG engagement		Priority areas for new WBG engagement		Existing WBG engagement		Urgent priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement
Cut Waste Emissions	Priority areas for new WBG engagement			Priority areas for new WBG engagement	Priority areas for new WBG engagement			Priority areas for new WBG engagement	Priority areas for new WBG engagement			Priority areas for new WBG engagement	Priority areas for new WBG engagement		Existing WBG engagement				Priority areas for new WBG engagement	Areas for new WBG engagement not aligned with current government priorities	Existing WBG engagement
Adaptation through Planning and Preparedness	Priority areas for new WBG engagement		Existing WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Priority areas for new WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement		Priority areas for new WBG engagement	Existing WBG engagement	Existing WBG engagement	Existing WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Existing WBG engagement
Invest in Resilience	Existing WBG engagement	Existing WBG engagement	Existing WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Urgent priority areas for new WBG engagement	Urgent priority areas for new WBG engagement	Priority areas for new WBG engagement	Existing WBG engagement	Urgent priority areas for new WBG engagement	Existing WBG engagement	Urgent priority areas for new WBG engagement		Existing WBG engagement	Existing WBG engagement			Existing WBG engagement	Priority areas for new WBG engagement		Urgent priority areas for new WBG engagement

Key:

- Urgent priority areas for new WBG engagement
- Areas for new WBG engagement not aligned with current government priorities
- Priority areas for new WBG engagement
- Existing WBG engagement

TABLE 1: Priority Areas for new WBG Engagement on Climate Resilience, Mitigation, and Transition in LAC

	Argentina	Belize	Bolivia	Brazil	Colombia	Costa Rica	D. Republic	Ecuador	El Salvador	Guatemala	Guyana/ Suriname	Haiti	Honduras	Jamaica	Mexico	Nicaragua	Panama	Paraguay	Peru	Uruguay	Caribbean SIDS*
Economy-Wide Actions																					
Restructure Subsidies and Taxes																					
Anticipate Transition Risks																					
Safeguard Financial Sector and Catalyze Green Finance																					
Strengthen Institutional Leverage for Climate Action																					
Support for Vulnerable Populations																					
Strengthen Knowledge/Finance for Disaster Response																					
Launch a Just and Equitable Transition																					
Build Resilience of Health Systems																					
Safeguard Rural Access																					
Reinforce ASPS** and Access to Financial Services																					

** = Small island developing states, which include Saint Vincent and the Grenadines, Dominica, Grenada, St. Lucia, St. Maarten, and Barbados;*
***= Adaptive social protection systems.*

Key:

- Urgent priority areas for new WBG engagement
- Areas for new WBG engagement not aligned with current government priorities
- Priority areas for new WBG engagement
- Existing WBG engagement

2.1. Landscapes, Agriculture, and Food Systems

The resilience of landscapes, agriculture, and food systems can be strengthened through climate-smart agriculture, integrated water resource management and sustainable land management practices.

Climate-smart agricultural practices combined with water resource management can build the resilience of food systems. Investing in food systems, including by reducing waste, is an immediate priority in the post-COVID-19 recovery, as food insecurity has risen significantly due to the pandemic and now affects 16 million people across LAC. Given that water scarcity in many LAC countries is likely to worsen and that almost 90 percent of farmland in LAC is rainfed, climate-smart approaches to water resource management are critical, including measures such as precision irrigation, sustainable landscape management to increase water retention and reduce runoff, rainfall capture and storage, communal water resource monitoring and budgeting to recharge aquifers, and the re-use of wastewater. In the Mexico Valley, for example, the re-use of municipal wastewater for agriculture is proving to be a more reliable resource that also conveys nutrients.

Climate-smart agricultural practices important for adaptation include diversifying farm production, using drought-resistant seeds and breeds, and integrating revegetation through agro-forestry and silvopastoral systems. Through the adoption of silvopastoral systems complemented by other landscape management tools in Colombia, milk productivity increased by about 25 percent, while the cost of milk production fell, and stocking rates increased. While there is already a broad WBG engagement on climate-smart agriculture across the region, new WBG support for climate-smart agriculture is a priority in Brazil, Costa Rica, Guyana, Paraguay, and Peru.

Integrated watershed planning and landscape restoration are important to sustain agricultural productivity and support water security for long-term growth. At the same time such measures reduce vulnerability to flooding, landslides, and drought, and maintain flows for hydropower reservoirs and other hydraulic infrastructure, while generating local employment and contributing to emission reduction goals. Many Central American and Caribbean countries are highly threatened by drought and increasing rainfall variability, with losses associated with drought in the Central American Dry Corridor extending from Panama up to southern Mexico estimated at US$10 billion over the last 30 years, one-half of which were in the agricultural sector. As a result, new WBG support for water resource management is a priority in Belize, the Dominican Republic, El Salvador, Haiti, Nicaragua, Panama, and many Caribbean nations, as well as in countries in South America increasingly affected by drought and changing precipitation regimes, including Argentina, Bolivia, Brazil, Ecuador, Peru, and Uruguay.

Sustainable land-use practices deliver overlapping climate adaptation, mitigation, and transition benefits while providing recovery-boosting employment. Natural capital is a key input to regional productivity, resilience, and growth. The achievement of national long-term development goals will require the recognition and protection of key environmental services such as water regulation, local and global climate stabilization, nutrient cycling, pollination, soil retention, and sedimentation control. Payments for ecosystem services, protection of critical natural habitats, and private investment in climate-smart agriculture and sustainable forestry can help promote sustainable land management. New WBG engagement on sustainable land management is a priority in Brazil, Colombia, Ecuador, and Peru, where such action is urgently required to avoid the threat of reaching an ecological tipping

point in the Amazon; in Belize and Haiti to reduce flooding and erosion as a result of increasingly intense rainfall; and in Uruguay to increase carbon sequestration through pasture management.

Reducing emissions from agriculture and land-use change is essential, not only to meet national targets, but also to seize opportunities for growth and competitiveness as markets decarbonize.

Agriculture and land-use change in LAC generate 46 percent of regional emissions, significantly higher than the global average of 19 percent for these two sectors. The livestock sector and associated land-use changes alone account for one-third of regional GHG emissions. Over the last decade, land-use changes have driven the largest share of growth in regional emissions, contributing two-thirds of the net increase. Emissions from deforestation have been increasing since 2016, with the largest annual increase since 2010 occurring in 2020, largely due to accelerating deforestation in Brazil following a decline in the 2000s.

At the same time, growing consumer and cross-border regulatory demand for deforestation-free, low carbon agricultural value chains present an important challenge for LAC exporters. In 2021, the European Commission adopted a proposal for a regulation that would impose a ban on imports of selected agricultural commodities if proof cannot be provided that they are deforestation free, and in the same year a bill was submitted to the US Congress seeking to constrain imports of deforestation-linked products. Improved environmental management will be important to sustain LAC's dominant position in global food markets, and will require a mix of policy nudges, incentives, and access to information and finance. In addition to international trade regulations, policy instruments such as carbon credits and offsets can play a role in incentivizing greener agricultural production. To respond to market forces for reduced-emission agricultural products, new WBG support for deforestation-free, low carbon agricultural value chains and associated certification systems is a priority in Brazil, Colombia, Paraguay, Peru, and Uruguay, which are among the countries likely to be most affected by the proposed EU regulation on deforestation-free agricultural products.

2.2. Energy and Transport Systems

Strengthening the resilience of power and transport infrastructure through investment, combined with risk-based planning and preparedness, will be important to reduce climate-related economic disruption.

Demand side management strategies, energy efficiency measures, and improved watershed management practices have important roles to play in strengthening the resilience of power systems, in addition to upgrades of transmission and distribution infrastructure, the diversification of power generation, storage, and smart grid solutions. Investing in the resilience of transport infrastructure could save up to US$6 billion in annual losses, with an estimated US$12 saved for every dollar invested in resilience. In addition to investments in all-weather access, critical areas to strengthen climate resilient transport include updated design standards, the broader application of nature-based solutions, better asset management to ensure maintenance, and enhanced emergency response capacity. Investing in the climate resilience of energy and transport infrastructure systems can reduce the life-cycle cost of assets by reducing needs for rehabilitation and repair, while providing more reliable services to households and enabling firms to be more productive.

The impact of extreme climate events on infrastructure costs more than 1 percent of GDP annually in Costa Rica, the Dominican Republic, Guatemala, Haiti, Honduras, Panama, and Paraguay. In Bolivia, the impacts of intense rainfall events are becoming increasingly severe. New WBG support is urgently needed in these countries to reduce infrastructure vulnerability and build resilience.

Avoiding the lock-in of carbon-intensive power and transport infrastructure can stimulate growth and productivity, while helping achieve national emission reduction goals.

Near-term investment in renewable energy, green transport, energy efficient industrial processes, and the circular economy are important to avoid locking in carbon-intensive infrastructure over the long term. Energy efficiency measures are among the most cost-effective means to reduce emissions and will play a key role in reducing GHG emissions while enhancing competitiveness, potentially contributing 40 percent of total energy emissions savings through 2050.[12] Gains in energy efficiency also contribute to fiscal savings through reductions in energy and fuel subsidies, including fiscal transfers to distressed public utilities. Energy efficiency funds can be used to provide reduced-cost financing for firms and households to invest in energy efficiency, since up-front costs may discourage some investors despite the longer-term savings. With low carbon solutions becoming increasingly cost-effective, the energy transition is an investment and employment opportunity for LAC that can be further supported through policies such as tariff smoothing mechanisms to mitigate the impact of renewable electricity cost volatility on firms and households.

Countries that continue down a path of short-term expansion of investments in fossil fuel technologies face growing risks that future climate change mitigation actions will create stranded assets. It is estimated that meeting the Paris Agreement goals in LAC could result in stranding US$37–90 billion of carbon-intensive assets before the end of their useful lifetimes.[13] Transitioning toward cleaner technologies that emit fewer greenhouse gases in the cement, glass, chemical, and pulp and paper sectors will be important to help decarbonize the manufacturing sector in LAC. Targeting larger manufacturing hubs with significant GHG emission profiles, such as heavy industries in Brazil and Mexico, the cement sector in Colombia and Peru, and agro-processing in Argentina or Central America, would contribute towards a material reduction in manufacturing's carbon footprint across the region.

No-regret measures that enhance competition and productivity are needed to catalyze private finance for the rapid transformations required in the energy sector. Renewable energy auctions in Argentina, Brazil, Colombia, Mexico, Chile, and Peru are accelerating the move toward renewables across the region. LAC now hosts some of the most dynamic renewable energy markets in the world, with Colombia recently procuring more than 2 gigawatts (GW) of renewable energy through auctions and Argentina committing almost 5 GW through a guarantee program. Increasing the participation of the private sector in the provision of renewable energy will require further competition-enhancing measures. These include the vertical and horizontal unbundling of the electricity sector, as well as cost-recovery tariff setting by an independent regulator, combined with incentives to cut technical losses and commercial theft. New WBG support to enhance private renewables investment is an urgent priority in Brazil, Colombia, Ecuador, and Paraguay. Regional integration can also play an important role in enabling the addition of larger shares of clean energy, especially in Central America, Belize (with Mexico), and the Arco Norte (Guyana, Suriname, Brazil, and French Guiana).

New WBG support to decarbonize power is a priority in Mexico and Brazil, which account for more than one-half of regional emissions from this sector, as well as in Bolivia, Colombia, the Dominican Republic, and Peru. These countries are among the top 10 regional emitters from the power sector, and the need for action is urgent to avoid the lock-in of carbon-intensive systems.

To decarbonize passenger transport, the growing motorization rate must be curbed by investing in cleaner modes. These also deliver productivity-enhancing co-benefits, such as improved accessibility and the reduction of congestion, pollution, and road accidents. E-mobility programs are gaining momentum in most countries in LAC, resulting in the development of charging station corridors in 11 countries and electric bus systems in 13 countries. Incentives for e-mobility as well as emissions reduction in the trucking industry (which transports nearly 75 percent of domestic freight in LAC) include the reduction of fossil fuel subsides, tighter emissions standards, and fleet renewal programs. Such measures can also boost innovation and support regional transformation, for example by stimulating manufacturing of electric buses and trucks through the greening of transport fleets. In countries that import fossil fuels, decarbonizing the energy system and transport will improve the balance of payments and reduce currency risks associated with fossil fuel price volatility. Moving away from fossil fuels will also reduce the scale of and demand for fuel subsidies, releasing resources to fund social programs in line with long-term development goals.

New WBG engagement to support the greening of transport is a priority in Brazil, which accounts for one-third of regional emissions from this sector, as well as in Argentina, Brazil, Colombia, the Dominican Republic, Ecuador, Guatemala, and Paraguay. Urgent action is required to avoid the lock-in of carbon-intensive transport systems in these countries, which are among the top 10 regional emitters from the transport sector.

2.3. Cities

Cost efficient investment in urban resilience means combining grey and green infrastructure with risk-based urban planning and disaster preparedness.

As much as 80 percent of total losses caused by disasters in Latin America are produced in urban areas, with cities in Caribbean nations at particularly high risk. Land-use regulations can help reduce exposure to more concentrated risks, such as floods and landslides, by ensuring that new development occurs in places that are relatively safe or that can be protected at a relatively low cost. They can also help avoid unchecked urban development that leaves too little green space, as large impervious areas increase runoff and flood risks. When investing in urban resilience, civil works can often be combined with green infrastructure to deliver more cost-efficient solutions. Nature-based solutions such as catchment management, revegetation of slopes, creation of urban wetlands to serve as buffers from flooding, and the reestablishment of mangroves to protect against storm surges can reduce the cost of physical adaptation while contributing additional benefits, such as the reduction of GHG emissions. They can also be implemented in the short term as an element of employment programs for post-COVID-19 recovery.

Implementing risk-based urban planning requires strong institutions that can ensure land-use plans are enforced. In addition to zoning and investment to reduce exposure to hazards, early warning systems and disaster preparedness have important roles to play in building urban resilience to residual risks. By reducing risks to assets, measures to strengthen resilience can open new economic opportunities and incentives for investment in safer areas.

In Costa Rica, the Dominican Republic, Guatemala, Haiti, and many Caribbean nations, where cities are at high risk from climate-related extreme events additional WBG support for urban resilience, planning, and preparedness is an urgent priority.

Cities offer opportunities to reduce GHG emissions, avoiding the lock-in of carbon-intensive urban form and infrastructure, while contributing to growth and the achievement of development goals.

Irreversibility is a significant consideration in urban planning, with land-use and infrastructure decisions affecting growth patterns for years to come. Compact urban planning, low carbon construction, energy efficient buildings, and waste minimization not only reduce GHG emissions, but also enhance productivity by promoting a more efficient use of resources. Local governments can encourage urban density through zoning, building regulations, and the strategical location of public infrastructure, as well as policy tools, including incentivizing infill development, applying a vacant land tax, and varying property taxes by building type. Tools such as the International Finance Corporation's (IFC's) Advanced Practices for Environmental Excellence in Cities (APEX) and Excellence in Design for Greater Efficiencies (EDGE) certification help cities chart paths to a carbon neutral future by assisting planners in making cities more sustainable in key dimensions, including energy, water, waste, and public transport. Financial institutions also have a role to play in mobilizing resources for the development of energy efficient buildings through instruments that link financing to sustainability certification and green building regulations.

Cities produce one-third of regional GHG emissions, and transport is one of the highest emissions emitting sectors in urban areas, contributing 30 percent of emissions in Buenos Aires, 38 percent in Bogotá, and 61 percent in São Paulo. Despite being one of the most urbanized regions in the world, LAC only has 10 km of mass transit system for each 1 million habitants, while the regional average in Europe is 35 km per 1 million. In addition to improving accessibility, the co-benefits of low emission public transport systems include improved health outcomes through both reduced pollution and avoided road accidents, as well as time saved from reduced congestion, generating positive long-term effects on growth.

Investment needs for urban transport systems are huge, and enhanced participation of the private sector will be needed to close urban transport infrastructure gaps. Public-private financing modalities have proven successful in the electrification of the public transport fleet, for example in Chile, where 700 electric buses are running in Santiago thanks to such agreements. The provision of infrastructure for charging electric vehicles is a promising new area for private sector contribution to more sustainable urban transport systems.

Enabling safe nonmotorized mobility has substantial emissions reduction potential, especially when combined with policies to disincentivize the use of motorized vehicles. Moving people from their private cars and motorcycles to nonmotorized modes such as walking or biking can save up to 62 percent of life-cycle GHG emissions for each trip. Successful initiatives include the large investment in biking infrastructure in Bogota that led to an 8 percent increase in the biking modal share. Such investments can be combined with "push" measures, including the definition of low-emission zones, congestion pricing and parking management. In Mexico City, Bogota, and Santiago de Chile, congestion pricing, resulted in a reduction of motorized travel of up to 29 percent.

Additional WBG support for low carbon urban design and the decarbonization of urban mobility is an urgent priority to avoid the lock-in of carbon-intensive urban forms in Argentina, Bolivia, Brazil, Colombia, Ecuador, Haiti, Mexico, and Peru, some of the countries with the largest urban populations in the region.

3. Cross Cutting Areas

3.1. Economy-Wide Actions

Strengthening the resilience of financial systems to physical and transition climate risks will help underpin efforts to reduce climate-related economic disruption.

More than 10 percent of the banking sector credit portfolio is exposed to risks of flooding in Brazil, Mexico, Colombia, Argentina, Bolivia, and the Dominican Republic. Driven by the agriculture sector, more than one-fourth of banks' credit portfolios in Argentina, Uruguay, and Bolivia are exposed to growing demand for low carbon and deforestation-free products in export markets.

The potential exposure of LAC financial institutions to the physical and transition risks associated with climate change mean the sector can benefit from integrating climate into risk assessment models and including an assessment of climate risk in strategic underwriting tools. In addition, initiatives to broaden the range of green asset classes can contribute to making additional resources available to invest in resilience. New WBG support for managing financial sector exposure to physical and transition-related climate risks is a priority in Brazil, Colombia, Costa Rica, Ecuador, Nicaragua, and Peru.

Meeting mitigation commitments will require rebalancing fiscal incentives.

The rebalancing of fiscal incentives will provide essential pricing signals to complement sectoral measures in driving the low carbon transition. Given the fiscal constraints of the post-pandemic recovery, it will be important to maximize opportunities to redirect rather than increase public spending to achieve national climate goals. In the face of low regional growth forecasts and rising inflation, with post-COVID-19 debt levels high and harder to finance internationally by higher US interest rates, countries across the region are moving from fiscal expansion to adjustment. Consequently, most national priorities for climate action will favor initiatives to reorient rather than expand subsidies. These will also seek to maximize productivity enhancing co-benefits, focusing on no-regret policies that strengthen competitiveness and innovation, while mobilizing private sector investment for resilient, low carbon growth.

Governments in LAC subsidized consumption of fossil fuels by an estimated US$43.67 billion in 2020.[14] Though declining in recent years, these subsidies encourage consumption of fossil fuels and make it more difficult for renewable energies to compete. Subsidy reform is urgently needed to provide the price signals required for clean energy transition. It needs to be accompanied by programs to compensate the poor and vulnerable for the disproportionate negative impacts such reforms tend to have on these groups.

Similarly, the reorientation of agricultural subsidies toward the adoption of sustainable practices can discourage expansion of the agricultural frontier while improving productivity on existing agricultural land. The value of agricultural subsidies coupled to the production of specific commodities or the use of specific inputs in LAC countries in 2019 was US$5.05 billion.[15] Replacing these with decoupled payments can be used to encourage good environmental and agricultural practices and raise farm revenues.

Even as fossil fuel subsidies are eliminated, the full costs of these fuels are not borne by the user but incurred by society more broadly through the impacts of climate change and local pollution. Carbon pricing not only serves to reduce GHG emissions, but also yields co-benefits from reduced air pollution, road fatalities, and congestion. Mexico, Argentina, Colombia, Chile, and Uruguay are implementing or have scheduled carbon taxes, but the path to more widespread adoption remains challenging.[16] In the few countries where carbon pricing exists, it is low (often in the region of US$3–5 per ton) and covers only some economic sectors. While carbon pricing will be an important tool in driving shifts toward lower carbon technologies and generating resources to support a just and equitable transition, complementary sectoral investments are still needed to ensure that low carbon alternatives are available.

Priority economy-wide actions for additional WBG support include initiatives to restructure subsidies and taxes to accelerate the low carbon transition, including through the potential expansion of carbon pricing in Brazil, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, and Paraguay, where new WBG engagement on these topics would be aligned with government priorities.

The transition away from fossil fuels in export markets presents opportunities as well as risks.

The lithium triangle of Argentina, Chile, and Bolivia holds 60 percent of global reserves, representing an increasingly valuable resource as a key component of the battery-based energy storage that will be needed as more sectors electrify. In addition, several LAC countries have expressed an interest in producing green or blue hydrogen,[17] or ammonia, to meet an expected demand for low carbon fuels, with Chile and Brazil estimated to have some of the most competitive green hydrogen production potential globally, and Panama well positioned to meet new demand for low carbon fuels in the marine sector. New WBG support to seize opportunities associated with the development of low carbon fuels and lithium resources is a priority in Argentina, Bolivia, Brazil, Costa Rica, Ecuador, Guyana, Panama, Peru, and Uruguay.

In contrast, fossil fuel producing countries may face significant revenue impacts and liabilities from stranded assets as markets decarbonize. Some oil and gas reserves currently planned for extraction may become uneconomical in Argentina, Brazil, Ecuador, Colombia, Mexico, and Peru. Stringent global climate action could reduce fiscal hydrocarbon revenues in LAC to US$1.3–2.6 trillion by 2035, compared to US$2.7–6.8 trillion if reserves were strongly exploited.[18] New WBG support for the assessment of risks associated with climate policy transitions in fossil fuel export markets is a priority in Bolivia, Colombia, and Ecuador.

Economy-wide measures for a low carbon transition include no-regret reforms that support competitive markets, innovation, green finance, and transparent, participative institutions.

Competitive markets that encourage innovation are needed to attract private sector investment in resilient, low carbon infrastructure and the production of green goods and services. To promote low carbon, climate-smart investment, no-regret reforms that enhance competition can be combined with regulatory and price incentives, plus information and access to technology. Broader access to digital infrastructure will play a major role in enabling the green transition of critical sectors such as transport and energy.

Green finance in LAC, while growing significantly in recent years and exceeding US$1 billion each in Brazil, Chile, and Mexico over the last five years, falls short of that required to meet climate and environmental objectives. The achievement of LAC's climate-smart potential can be accelerated through the development of green financing solutions, including green taxonomies and sustainability standards, systems for monitoring, reporting and verification aligned with accepted sustainability standards, and disclosure of climate-related risks and achievements by financial intermediaries and the broader corporate sector.

Finance raised by carbon market mechanisms can play an important role in narrowing the capital gap for a low-carbon transition and in reducing the cost of meeting climate commitments. Mexico, Colombia, and Chile have advanced carbon pricing policies and are in the process of launching carbon markets. One of the main obstacles to expanding carbon markets is fragmented, heterogeneous standards, and the WBG is currently testing the concept of a Climate Warehouse for emissions reductions to underpin the development of the carbon market infrastructure in Chile, Peru, and Costa Rica.

While LAC is ahead of other regions in adopting climate framework legislation to establish binding commitments, fewer than one-half of LAC countries have done so to date. There is also significant room for improvement in the use of public finances to translate climate policy into action through fiscal risk statements, budget practices, public investment management, public procurement, and intergovernmental transfers. LAC is also ahead of other regions in making climate finance information available to the public, which is important to ensure accountability for climate action, including through innovative online platforms such as Colombia's *Monitoring, Reviewing, and Verification (MRV) de Financiamiento Climático,* an interactive platform providing information on domestic and international climate finance, and Chile's State of the Environment Platform, which provides easily accessible data on environmental and climate indicators. However, only five countries have a system for providing an independent expert review of climate targets, policy, and action. Based on the country demand for addressing these gaps, additional WBG support for institutional strengthening is a priority for more effective climate action in Bolivia, Colombia, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Haiti, Mexico, Paraguay, and Peru.

3.2. Support for Vulnerable Populations

Protecting the communities most vulnerable to climate change requires strengthening health systems and physical access in rural areas, combined with social protection and contingent sources of finance.

Anticipating climate-related health impacts requires investments in resilient health systems and safeguarding access to water supplies and sanitation. These include higher capacity for monitoring diseases, more coordination at the regional level, higher capacity to redeploy medical staff and supplies between health facilities, and investments in more resilient infrastructure. As climate change may increase water scarcity, affecting water quality and hygiene habits, ensuring adequate access to water and sanitation will be fundamental for building climate resilience by protecting the health of vulnerable households. Priorities for new WBG support include building health system resilience to climate-related changes in disease in Bolivia, Mexico, Peru, Uruguay, and the Dominican Republic.

Climate proofing rural roads can help ensure the continued physical access of marginal communities to markets and services in the face of increasingly frequent extreme events. In protecting vulnerable populations, priorities for new WBG support include investing in the resilience of rural roads in El Salvador, Honduras, and Peru where threats to rural infrastructure from climate-related flooding and landslides are particularly high.

While investment, planning, and preparedness can strengthen resilience to climate change, adaptive social protection will be an important tool to protect the most vulnerable populations from climate risks and to prevent a rise in extreme poverty. Despite recent progress, the social safety net in LAC has room to improve in terms of coverage and depth, with median social safety net spending of 1.5 percent of GDP compared to the Organisation for Economic Co-operation and Development (OECD) average of 2.7 percent. New WBG support for reinforcement of adaptative social protection systems is an urgent priority in Colombia. Based on their potential for climate-induced increases in extreme poverty and the limited coverage of their current social protection systems, it would also be important in Belize, Bolivia, El Salvador, Guatemala, Guyana, Mexico, Nicaragua, Paraguay, and Peru, although it is not yet identified by these governments as a development priority.

Contingent sources of finance, including instruments such as Development Policy Loans with Catastrophe Deferred Drawdown Options (CAT DDOs), catastrophe bonds (CAT-Bonds), insurance, and disaster funds, can help ensure governments have resources in the face of extreme events. New WBG support to identify the expected social and spatial distributional impacts of climate change and to prepare access to contingent finance for disaster response is a priority in Belize, Bolivia, Brazil, the Dominican Republic, Ecuador, Haiti, Paraguay, and Peru.

If net-zero pathways are to be socially and politically feasible, the transition must be just and equitable.

Many emission reduction measures can benefit the poor by improving public services and environmental quality, while the social investment of carbon pricing revenues can facilitate a just transition. Conversely, poorly managed economic transition can leave entire regions with high unemployment rates for decades. Historical examples from deindustrialization in the US or transitions

away from coal in Europe demonstrate that entire regions can be left behind after major industries close if governments do not intervene to boost the competitiveness of the region or retrain workers.

A just and equitable transition requires inclusive job creation and reskilling of workers, combined with social protection systems. A variety of policies can help countries prepare workers for green jobs by addressing gaps in the quantity and quality of education, limitations in social insurance coverage, efficiency of labor market regulations, and gender disparities in education and employment. In addition, many of the actions for resilient, low carbon growth identified under the priority systems above can support job creation. Landscape restoration, reforestation, and climate-smart agriculture can support the incomes and employment of informal workers in rural areas. The maintenance of infrastructure assets to build resilience to climate shocks can catalyze job creation, and renewable energy may generate more jobs per unit of public investment than fossil fuel sectors. Similarly, investment in urban resilience and decarbonization can generate employment, for example through public employment programs supporting nature-based solutions and retrofitting buildings and infrastructure for energy efficiency and resilience, creating many low and medium skilled jobs.

Engaging local communities as partners and devolving climate finance to promote locally led climate action can help ensure a more equitable transition. Experience with the provision of finance for climate action at the local level, such as the Forest Investment Program's Dedicated Grant Mechanism that works directly with indigenous communities, has shown that traditional coping systems and knowledge can be drawn on as sources of strength, resilience, and adaptation in the face of climate change impacts.

Opportunities for new WBG support for just and equitable transition initiatives are priorities in Belize, Bolivia, Colombia, the Dominican Republic, Ecuador, El Salvador, Jamaica, Mexico, Nicaragua, Paraguay, and Uruguay, reflecting the broad range of potential climate transition impacts across a wide variety of sectors, including fossil fuels, agriculture, and tourism.

4. Ambition for Climate Action in the LAC Region

This Roadmap forms a plan for ambitious WBG support to the countries of the LAC region for stepped up climate action with the following objectives:

- **The targets of the LAC Roadmap are grounded in the WBG's Climate Change Action Plan (CCAP) 2021–2025** which sets the ambitious target of committing an average of 35 percent of the lending portfolio for climate finance over the next five years.
- **The LAC Roadmap balances a focus on both adaptation and mitigation.** In line with the WBG CCAP, at least 50 percent of IDA and IBRD climate finance will be allocated to adaptation reflecting country-specific demands. Implementation of the LAC Roadmap will also support the delivery of country climate priorities and commitments, and will provide analysis, technical assistance, and financing to countries as they continue to update and implement their NDCs and LTSs.
- **All new World Bank operations and 85 percent of IFC and MIGA's new real sector operations in LAC will be aligned with the objectives of the Paris Agreement by July 2023.** This is in line with the WBG CCAP, which defines alignment as providing support to clients that is consistent with pathways toward low carbon and climate resilient development.
- **The WBG will continue to deepen climate mainstreaming in LAC** by screening projects for climate risks and building appropriate risk mitigation measures, disclosing both gross and net GHG emissions, and applying a shadow carbon price for all material investments.

5. Implementation of the LAC Roadmap for Climate Action 2021–25

Implementation of the LAC Roadmap will be achieved through integration of the priority actions identified for new WBG support into strategic country dialogues, key engagement instruments (including Sistematic Country Diagnostic [SCD] and Country Partnership Frameworks [CPFs]), and regional initiatives, leading to the identification of new investment and development policy operations for transformative climate action. This process will be further informed by Country Climate and Development Reports (CCDRs), which together with the LAC Roadmap provide a focus for the inclusion of climate risks and opportunities in the knowledge and analytical agenda of all WBG institutions, emphasizing win-win solutions and the avoidance of irreversibility. A coordinated WBG approach will combine World Bank analytical, advisory, and financial support for policy and project development with IFC and MIGA initiatives to mobilize capital and mitigate risk to maximize private sector participation. IFC and MIGA will work closely with the World Bank to use CCDRs to identify new private sector opportunities for climate business, while continuing to integrate climate in all new country private sector diagnostics.

Concessional funds will play an important role in leveraging WBG financing to deliver scaled-up climate action. The Global Climate Investments Funds (CIFs), Forest and Land Use Funds (FCPF and ISFL), the Global Facility for Disaster Risk Reduction (GFDRR), the Green Climate Fund (GCF), the Global Environment Facility (GEF), and the Adaptation Fund, as well as other sources of finance under development, such as the WBG Climate Emissions Reduction Facility (CERF), will be key resources to support investment, capacity building, and advisory services for implementation of the LAC Roadmap. The WBG's umbrella climate trust fund, the Climate Support Facility (CSF), will also play a critical role in providing additional resources to support implementation of the LAC Roadmap by embedding green recovery measures in projects, providing specialized advice on climate action, and developing tools for the design and evaluation of climate policies in support of NDCs and LTSs. The CSF's new Whole of Economy Program will focus on strengthening the economic analysis of climate policies and building regional capacity to this end.

Building on the foundation provided by the LAC Roadmap, the CCDRs will further identify and define transformative actions, providing a more detailed assessment of economic costs and benefits, as well as associated fiscal consequences and institutional roles. The CCDRs will capture the interplay between development (including poverty reduction, growth, and inequality) and climate policies, providing an opportunity to analyze the social and spatial distribution of the costs and benefits of climate action, and to identify skill development opportunities in the low carbon transition. In LAC, CCDRs will be prepared for Argentina, Brazil, Colombia, Honduras and Peru in FY2022, and for the Dominican Republic, Ecuador, Guyana, members of the Organisation of Eastern Caribbean States, Paraguay and Uruguay in FY2023.

Partnerships for collective climate action will be essential for the effective implementation of the LAC Roadmap. Thematic partnerships with global and regional organizations will be important for acting collectively on issues such as climate finance and goal setting (for example through the Coalition of Finance Ministers for Climate Action and the CARICOM Council for Finance and Planning)

and protection of the Amazon (for example through the Amazon Cooperation Treaty Organization), as well as for sharing innovation and best practices, such as through the Low Emission Development Strategies LAC and NDC Partnership, and the C40 Cities global network of mayors. Collaboration between financial institutions will be important to align financial flows with national climate and development priorities, through forums such as the Network for Greening the Financial System (a network of 83 central banks and financial supervisors) and the Glasgow Financial Alliance for Net Zero (a global coalition of leading financial institutions committed to accelerating decarbonization). Partnerships will also play a significant role in strengthening the capacity of national and sub-national institutions to collaborate for the alignment of climate action, while knowledge partnerships with academia, think tanks, civil society organizations, and youth networks will provide a platform for the exchange of bold ideas for climate resilience, mitigation, and the low carbon transition.

Periodic updates on the delivery of the LAC Roadmap's recommendations will serve both to inform WBG regional leadership on progress in undertaking transformative climate action, and to furnish updates on regional contributions toward implementation of the WBG CCAP. The LAC Roadmap provides country-specific guidance on priority areas for climate action that can serve as a basis for country and sector teams to monitor implementation. Given that such strategic areas are defined in part by country development priorities, they can be expected to evolve in line with the changing development programs of new administrations.

Endnotes

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11 Urgent actions are defined as those for which delay would increase their cost by either: (i) creating an irreversibility with negative long-term impacts on growth through the permanent loss of ecosystem services; (ii) creating lock-in of carbon-intensive power, transport, or urban infrastructure; (iii) failing to reduce the vulnerability of power, transport, and urban infrastructure already highly exposed to climate-related extreme events; (iv) failing to prevent a significant increase in extreme poverty as a result of climate change; or (v) failing to identify and mitigate financial sector exposure to physical or transition-related climate risks.

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