



World Bank Group

CLIMATE
CHANGE
ACTION
PLAN

2021-2025

Supporting Green, Resilient,
and Inclusive Development

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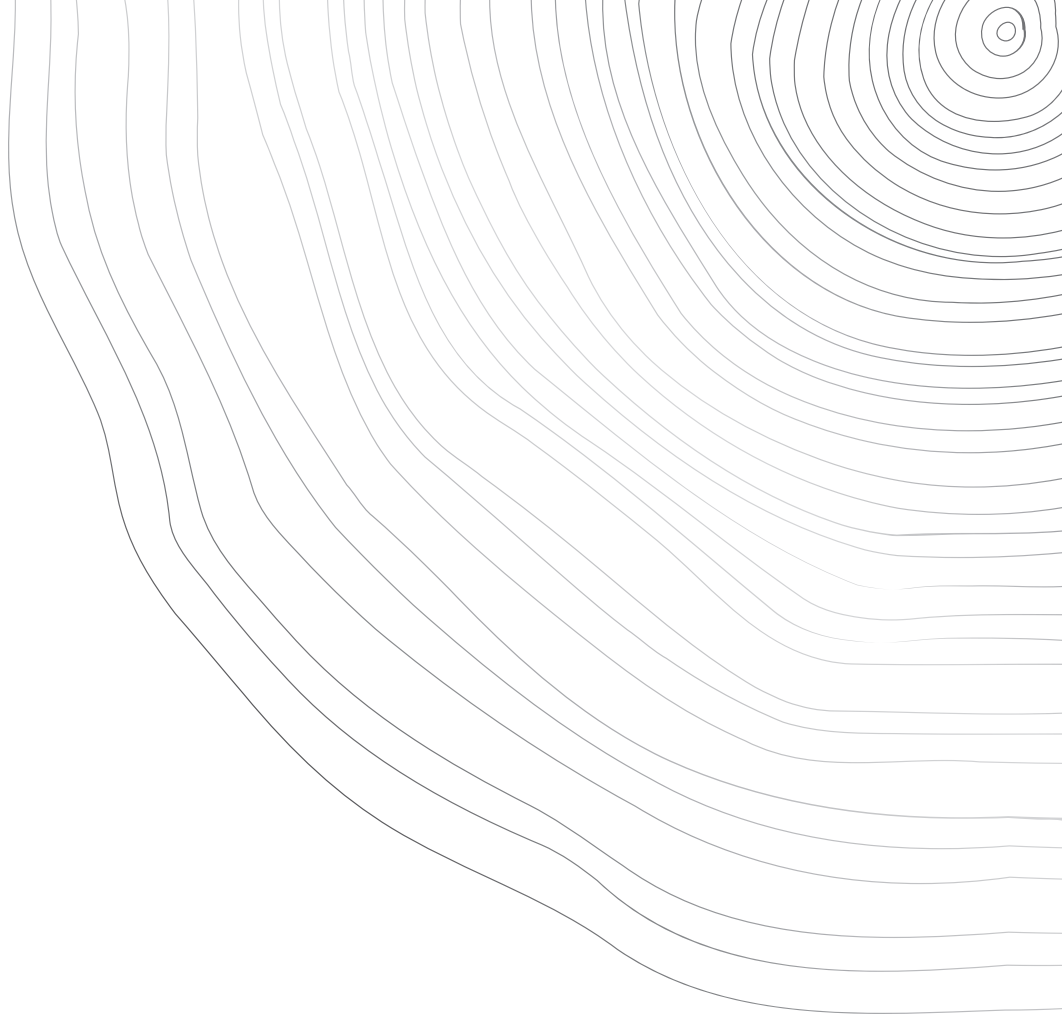
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CLIMATE CHANGE ACTION PLAN

2021-2025

Supporting Green, Resilient,
and Inclusive Development

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A program in Zambia has established nearly 250 farmer field schools that are training over 10,000 farmers on climate-smart agricultural practices, boosting yields and incomes while helping conserve forests. —PHOTO: SARAH FRETWELL/WORLD BANK



EXECUTIVE SUMMARY



Introduction

Our collective responses to climate change, poverty, and inequality are defining choices of our age. We must tackle them together to deliver on our twin goals of reducing poverty and boosting shared prosperity. The COVID-19 pandemic and economic crisis have been devastating, and as we support countries to respond to the ongoing crisis and build back, there is an urgent need to integrate climate and development strategies to deliver green, resilient, and inclusive development. There will be trade-offs when implementing an ambitious climate agenda, including transition costs, but these can be reduced through a people-centered approach, effective fiscal and social policies, and policies supportive of attracting private sector investment. The cost of not addressing climate change is already immense and will only get more expensive. The World Bank Group (WBG) recognizes that globally, the poor, who are the least responsible for greenhouse gas (GHG) emissions, often suffer the most from climate change impacts.

WBG client countries and private sector clients have powerful reasons to fight climate change. Not only are many of them highly vulnerable to climate impacts, which threaten their ongoing development and the well-being of their people, but as the global economy moves toward a net-zero future, they need to stay competitive. A well-managed transition can ensure that climate action brings more and better jobs and reduces poverty. Accelerating economic transformation is the best way to boost employment sustainably. The WBG will work with both the public and private sectors to support the climate agenda. For example, public sector interventions can help countries implement policy and regulatory reforms and create incentives to crowd-in private sector participants and to catalyze private sector investment, using our menu of advisory and financial instruments.

The WBG is the largest multilateral provider of climate finance for developing countries and has increased financing to record levels over the past two years. Building on our long-standing support for climate action, we intend to go further and faster to help countries integrate climate into their development agendas. The context today is vastly different from 2016, when the WBG launched its first Climate Change Action Plan 2016–2020. In addition to the COVID-19 pandemic, in the last two years major advanced and developing countries have committed to net-zero targets by 2050 and pathways to peak in 2030.

The Climate Change Action Plan 2021–2025 aims to advance the climate change aspects of the WBG's Green, Resilient, and Inclusive Development (GRID) approach, which pursues poverty eradication and shared prosperity with a sustainability lens. In the Action Plan, we will support countries and private sector clients to maximize the impact of climate finance, aiming for measurable improvements in adaptation and resilience and measurable reductions in GHG emissions. The Action Plan also considers the vital importance of natural capital, biodiversity, and ecosystems services and will increase support for nature-based solutions, given their importance for both mitigation and adaptation. As part of our effort to drive climate action, the WBG has a long-standing record of participating in key partnerships and high-level forums aimed at enhancing global efforts to address climate change.

The new Action Plan represents a shift from efforts to “green” projects, to greening entire economies, and

from focusing on inputs, to focusing on impacts. It focuses on (i) integrating climate and development; (ii) identifying and prioritizing action on the largest mitigation and adaptation opportunities; and (iii) using those to drive our climate finance and leverage private capital in ways that deliver the most results. That means helping the largest emitters flatten the emissions curve and accelerate the downward trend and ramping up financing on adaptation to help countries and private sector clients prepare for and adapt to climate change while pursuing broader development objectives through the GRID approach.

The WBG will advance efforts on a number of fronts:

I. Aligning Climate and Development

This Action Plan starts from the premise that climate and development need to be integrated, both to facilitate successful mitigation and adaptation, and to ensure economic development is sustainable. We will do so by (i) ramping up engagement at the country level on climate and development diagnostics, planning, and policies to help countries reach their climate and development objectives; (ii) aligning WBG financial flows with the goals of the Paris Agreement to further mainstream climate into our development activities; and (iii) increasing climate finance for mitigation and adaptation in ways that deliver the most results.

Country Climate and Development Diagnostics, Planning, and Policies

We will build a strong analytical base at the global and country level, including by introducing Country Climate and Development Reports (CCDRs) that address the interplay between climate and development. CCDRs will be used to inform, prioritize, and sequence climate action through the country engagement process and thus implement the Action Plan. These CCDRs will investigate how climate change and decarbonization may impact a country's development path and priorities, and identify potential mitigation, adaptation, and resilience-building actions to improve development outcomes. They will support the preparation and implementation of our client countries' Nationally Determined Contributions (NDCs) and Long-Term Strategies (LTSs) and will feed into the WBG's Systematic Country Diagnostics, Country Private Sector Diagnostics, and Country Partnership Frameworks. Over the next year, we plan to complete up to 25 CCDRs, focusing for this first round on developing countries with particularly large carbon emissions and/or great climate vulnerabilities. These diagnostics will underpin country-level dialogue on policy directions and institutional strengthening. We will support a "whole of economy" approach that focuses on policies and plans to create the right enabling environment for climate action and deliver transformative change, including private sector led growth. Beyond greening projects, the WBG will focus on the greening of entire economies, while supporting a just transition.

Aligning our Financial Flows with the Paris Agreement

The WBG is committed to aligning its financing flows with the objectives of the Paris Agreement. We define alignment as providing support to clients that is consistent with pathways toward low-carbon and climate-resilient development. For the World Bank, we plan to align all new operations by July 1, 2023, the start of fiscal year 2024. For IFC and MIGA, 85 percent of Board-approved real sector operations will be aligned starting July 1, 2023, and 100 percent two years later, starting July 1, 2025. To achieve this, both institutions will begin aligning 100 percent of their projects at the concept stage

well ahead of July 1, 2023. Once a methodology for financial institutions and funds is finalized among multilateral development banks (MDBs), a similar approach will be taken for this business as well. The Paris Agreement recognizes that countries have different circumstances and gives countries latitude in the pathways they choose to achieve the overarching goal of low-carbon, resilient development. Our support to countries and private sector clients similarly respects individual country needs and circumstances in integrating climate and development outcomes and shaping green, resilient, and inclusive pathways. The WBG will produce a Paris alignment implementation plan with clear timelines and deliverables.

Increasing our Climate Finance and Impact

We commit to achieving 35 percent in climate finance for the entire WBG, as an average over the five years of 2021–2025. This is a big step up from the average of 26 percent on average achieved in FY2016–2020 and an even bigger step up in dollar terms, as the WBG’s total financing has also expanded. This Action Plan highlights the centrality of adaptation, with at least 50 percent of IDA and IBRD climate finance to be allocated to adaptation, to support a range of activities that reduce vulnerability in line with the strategic directions set in the WBG Action Plan on Climate Change Adaptation and Resilience.¹ Similarly, IFC and MIGA understand that adaptation is critical and are stepping up efforts to identify private sector investment opportunities in this area. A new WBG report will guide efforts as we work across the WBG to pilot approaches in several countries to develop supportive policies and regulations to help drive private sector investment.² We will also enhance our results orientation by developing metrics, where relevant, that better capture our climate impact, including as measured through GHG emissions reduction.

II. Prioritizing Key Systems Transitions

We will support transformative public and private investments in five key systems: energy; agriculture, food, water, and land; cities; transport; and manufacturing. These systems are being prioritized because they contribute the most to emissions—together, they produce over 90 percent of global GHG emissions—and face significant adaptation challenges, which makes support for adaptation a critical priority for all five. These systems are also critical to achieving development goals. Transforming them is key for countries at all stages of development and requires action from the public sector to catalyze the private sector, both to unlock major economic opportunities and create new jobs and to reduce emissions and limit the impacts of climate change. The WBG will give priority to climate action across these sectors—where possible, also supporting natural capital and biodiversity—to deliver impactful country operations and programs, including public and private sector investments, guarantees, and advisory services. Significant investment in education, training, and retraining to develop skills in these key sectors is essential for people in our client countries to benefit from the new and better jobs created through these systems transitions.

Energy

As the WBG invests in expanding energy access—about 800 million people worldwide still lack electricity—we urgently need a global transition to low-carbon energy that is resilient to climate change and extreme events. WBG priorities in the sector include helping countries with power sector planning, energy subsidy reforms, and improving the operational and financial performance of utilities;

investing in projects to increase energy access, including through renewable energy and improved energy efficiency; and a just transition away from coal. Priorities for climate-focused action in this sector will depend on the country context: in high-emitting middle-income countries, for example, key steps may include retiring coal-fired power plants, replacing fossil fuels across the economy, and removing market barriers for green technologies, all while maintaining a just transition, which requires appropriate financing. For lower-income countries still working to provide energy access to all, it is crucial to invest in low-carbon baseload capacity, including renewable energy.

Agriculture, Food, Water, and Land

The WBG will step up support for climate-smart agriculture (CSA) across the entire agriculture and food value chains, including the blue economy, via policy and technological interventions, using nature-based solutions where appropriate. Doing this can achieve triple-win benefits: enhancing productivity, reducing GHG emissions, and improving resilience. The WBG will address policy options and trade-offs involved in tackling food loss and waste. It will help countries manage flood and drought risks together, reducing the water-related shocks and protecting livelihoods and productive resources. The WBG will pilot in operations a low-cost, near real-time Monitoring, Reporting and Verification (MRV) Protocol that can leverage private capital for enhanced soil carbon sequestration. IFC will work with clients to improve productivity while reducing input use, GHG emissions per ton of output, and decreasing post-harvest losses in supply chains globally.

Cities

The WBG will step up support to cities, including technical assistance and financing, to help them decarbonize and build resilience, while supporting broader development goals. This means supporting policies, regulations, and investments to improve urban air quality; decarbonize urban energy systems; promote green and resource-efficient buildings and infrastructure; promote integrated solid-waste management and circular-economy approaches; improve urban transportation; and improve the coverage, efficiency, and resilience of urban water supply, sanitation, and wastewater treatment. Improving urban land use planning and regulations is particularly important. IFC will scale up strategic partnerships through a fully integrated investment and advisory approach to help cities address current market failures, such as limited funds for project preparation, low creditworthiness, and lack of technical expertise. IFC and MIGA will scale up their green building business, both through direct financing and de-risking of asset owners, and by increasing the use of green mortgages and green construction finance through financial intermediaries. The WBG is helping countries and cities adopt integrated waste management and circular economy approaches to advance climate, development, and broader sustainability goals.

Transport

The WBG approach to low-carbon, resilient transport will support improvements in urban mobility and accessibility as well as in logistics and freight. This includes planning, developing, and managing integrated transport systems, including high-quality public transit to replace private vehicles and fragmented informal urban transport services, as well as supporting active mobility (such as walking and cycling). Digital technologies and electric vehicles (EVs) hold significant potential, especially as the power sector is decarbonized, as do pricing and regulatory reforms for fuels and vehicles. Interventions to decarbonize the freight sector and deliver competitive logistics include re-engineering supply chains, including supporting the development of third-party logistics and temperature-controlled logistics,

changing inventory practices, bringing production closer to customers, shifting to lower-carbon transport modes, switching to energy-efficient and low-carbon vehicles across modes—including in maritime transport—and optimizing networks. IFC and MIGA will also support investments in energy-efficient equipment and infrastructure, particularly in ports and airports.

Manufacturing

The WBG will help manufacturing sectors to get on a path toward decarbonization via resource efficiency, low-carbon solutions, and circularity. The WBG will work with industrial parks to help them offer low-carbon industrial infrastructure and services through its eco-industrial parks program. It will also support countries and their industries in developing sectoral policies that promote low-carbon and resilient growth, while helping to improve their green competitiveness, engage the private sector, and improve disaster preparedness. IFC leverages and promotes climate finance products and advisory services, and MIGA provides de-risking products, to support proven abatement measures and innovative technologies that clients would like to implement. IFC and MIGA will work with corporate clients in manufacturing, especially in GHG-intensive base materials sectors, to help them meet their climate strategies and targets.

III. Financing to Support the Transitions

Meaningful climate action will require scaling up finance. This is especially important to help poorer countries make large investments in global public goods, such as reducing coal usage, and finance adaptation efforts, which require spending upfront but provide growing benefits over time. Developing countries will need an estimated \$4 trillion per year in investments up to 2030 to build infrastructure to meet their development needs. These investments will enable developing countries to build sustainable and resilient infrastructure, create new jobs, and where relevant leapfrog to low carbon solutions. Current finance flows fall far short of that. To successfully achieve climate and development objectives, the world must mobilize trillions of dollars in the coming decade. Existing public, private, and concessional climate finance needs to be deployed in more transformative and catalytic ways, leveraging additional capital to bridge the gap between available resources and needs.

IBRD, IDA, and IFC have a financial model of issuing AAA-rated bonds in the capital markets, which leverage scarce shareholder capital with substantial private capital mobilization. To further increase the financing available and maximize the use of finance for climate action, the WBG will: (i) help client countries boost their public domestic resources; (ii) increase mobilization of international and domestic capital, including catalyzing domestic private capital; and (iii) support global efforts to raise and strategically deploy concessional climate finance to de-risk climate investment.

The broader financial sector can and must play a key role as well, both in mobilizing capital for green and low-carbon investments, and in managing climate risks. The WBG will support greening the financial sector across emerging markets through its work with central banks, national development banks, and private sector financial institutions, including through targeted advisory engagements to equip clients with the necessary frameworks to create enabling environments and risk mitigation practices to embrace climate action, while also enabling innovative and scalable funding mechanisms in support of sustainable investments.

Conclusion

Tackling the climate crisis while meeting urgent development needs is the fundamental challenge of our time. Building on the achievements of the WBG Climate Change Action Plan 2016–2020, this second Action Plan has been developed in the exceptional context of a global pandemic, with a global economic collapse of a speed and scale not seen in decades, and deep uncertainty about the future. There is now a window of opportunity—and an imperative—to transition to a low-carbon and resilient development pathway, and to do so while supporting natural capital, economic growth, and job creation. The WBG, through its global advocacy, convening power, and support to client countries and the private sector, will be a key participant in this effort. With new diagnostics that will help identify the most impactful adaptation and mitigation opportunities, expanded support for the development of country-owned NDCs and LTSs, and stepped up support for a just transition, our goal is to integrate climate and development by ramping up financing for climate and a just transition to deliver the best results for the people of our client countries.

01

In Niger, Amadou is adapting to drought and desertification by diversifying his crops to grow casava and planting drought-resistant millet seeds. —PHOTO: KAIA ROSE/ WORLD BANK

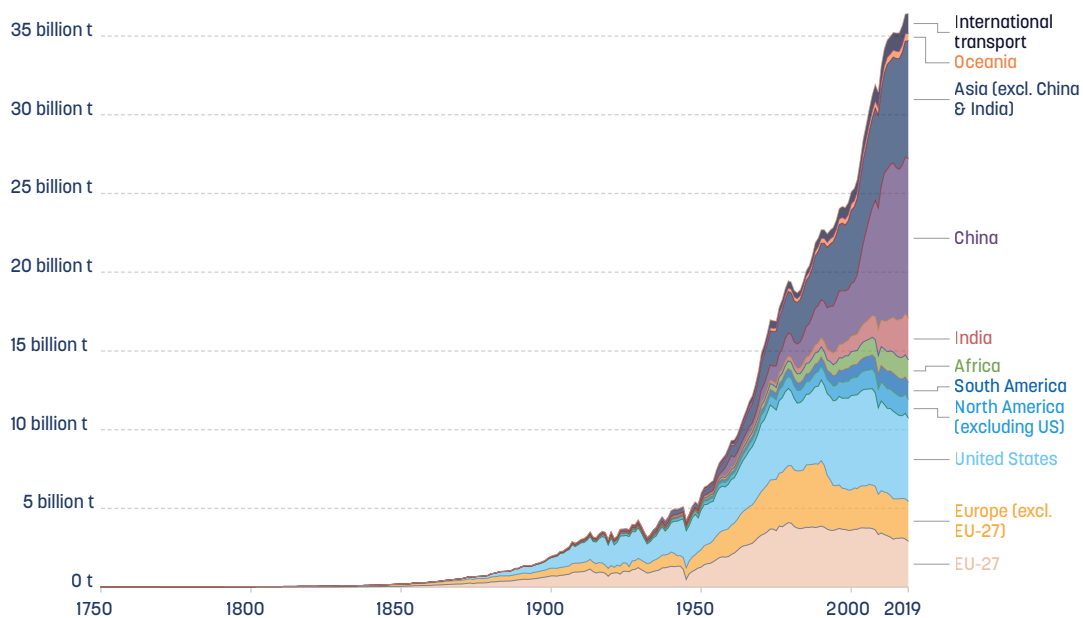


INTRODUCTION

OVERVIEW

Climate change, poverty, and inequality are defining challenges of our time—and it is crucial that we tackle them together, recognizing the interconnections between people, the planet, and the economy. The COVID-19 pandemic and its economic impacts have been devastating, and many countries are still deep in the COVID crisis, even as they face growing climate change impacts. These crises have further aggravated growing structural weaknesses of the last decade. As we support countries and private sector clients in responding to the ongoing crisis and build back, there is an urgent need to integrate climate and development strategies to support green, resilient, and inclusive development.³ Even if the Sustainable Development Goals (SDGs) are achieved by 2030, climate change could easily erode those gains.

FIGURE 1: Annual Total CO₂ Emissions by World Region, 1750–2019



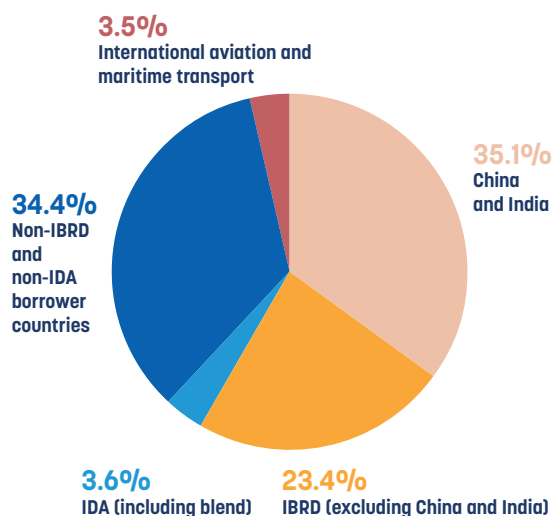
Note: This measures CO₂ emissions from fossil fuels and cement production only—land use change is not included. 'Statistical differences' (included in the GCP dataset) are not included here.

Source: Our World in Data based on the Global Carbon Project

Climate change impacts—in terms of lost livelihoods, food and water insecurity, and adverse human capital impacts—together with poverty and inequality, present a serious threat to the World Bank Group's (WBG) twin goals of alleviating extreme poverty and boosting shared prosperity. Where climate change interacts with other social, economic, and environmental pressures, compound risks emerge that can increase vulnerability, exacerbate grievances, and deepen pre-existing fragility.⁴ Climate change also increases the risks of internal displacement, migration, and instability. The costs of unabated climate change mount every year, and prompt and ambitious climate action is needed in all countries. Leveraging and mobilizing private capital in support of this agenda is also of paramount importance, to achieve both scale and impact.

Historically, industrialized countries have been the largest contributors to global emissions, but some emerging economies are now among the top emitters in absolute terms. In 2019, China and India collectively contributed 35.1 percent of global CO₂ emissions; all other IBRD borrowers combined, 23.4 percent, non-IBRD and non-IDA borrowers, 34.4 percent; and IDA-eligible countries, only 3.6 percent.⁵ As emerging and developing economies account for over half of global growth in output and consumption—and are going to drive global growth—it is crucial to flatten the GHG emissions curve and accelerate the downtrend, especially for the highest-emitting emerging economies, and decouple emissions from growth through green, resilient, and inclusive development, which will also bring new jobs and growth opportunities.

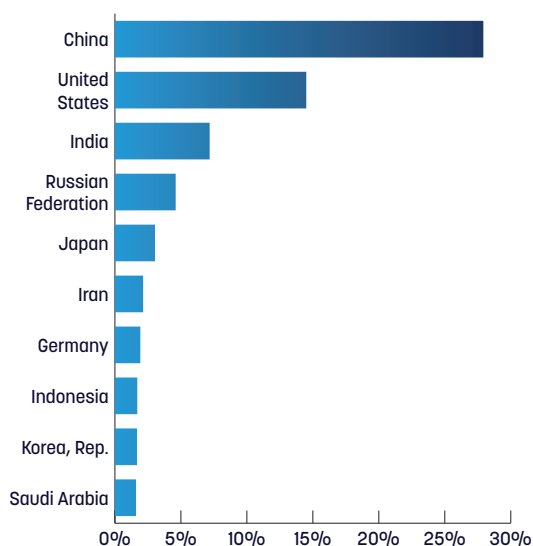
FIGURE 2: Share of Global CO₂ Emissions by World Bank Lending Category, 2019



Note: This figure is an estimate based on combined data from the Global Carbon Project (2020) and World Bank Country and Lending Groups (2019).

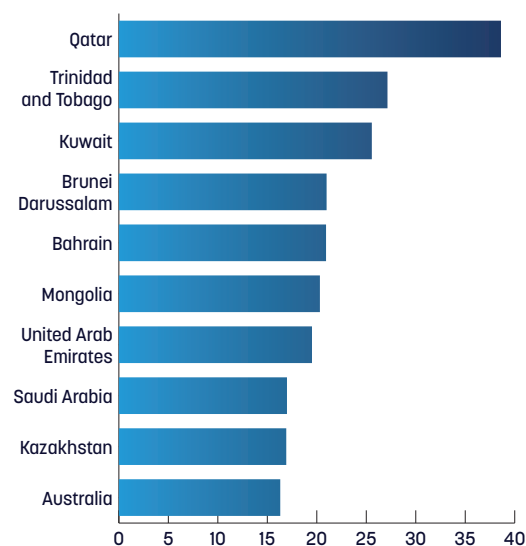
Globally, the poor, who are the least responsible for GHG emissions, often suffer the most from climate change impacts. In the last decade, IDA countries were affected by almost eight times as many natural disasters as in the 1980s, resulting in a tripling of economic damages.⁶ Similarly, Small Island Developing States (SIDS), countries affected by fragility and conflict, and low-income countries

FIGURE 3: Highest-Emitting Countries, 2019 (% of absolute global CO₂ emissions)



Source: Our World in Data based on Global Carbon Project (2020).

FIGURE 4: Highest-Emitting Countries per Capita, 2019 (tons CO₂ per capita)



Source: Our World in Data based on Global Carbon Project (2020).

FIGURE 5: WBG Climate Change Action Plan 2021-2025 at a Glance



are among those facing severe impacts from climate change. This means that even countries that have historically been low GHG emitters have powerful reasons to fight climate change: many are highly vulnerable to climate impacts, which threaten their ongoing development and the well-being of their people. This Plan affirms the centrality of adaptation efforts for the poorest and most vulnerable countries and commits to boosting our support for adaptation and resilience.

The Climate Change Action Plan 2021–2025 aims to advance green, resilient, and inclusive development by enhancing support for WBG clients to integrate climate into their development strategies. The new Action Plan has been developed in the midst of the COVID-19 pandemic, an unprecedented humanitarian and economic crisis, resulting in rising unemployment, lower growth, and fiscal and debt sustainability crises in a number of client countries. The core of the Plan is to ramp up climate finance in ways that make the greatest impact, addressing client countries and private sector clients' short-term and long-term needs. That means helping the largest emitters flatten the GHG emissions curve and accelerate the downtrend, while also ramping up financing on adaptation to help countries build resilience to climate change. The integration of climate and development is critical to the Plan's success: finding the best opportunities to combine mitigation and adaptation with economic growth and poverty reduction. Private sector engagement is equally important, given the limited capacity available to governments to build and scale climate action. Through partnerships, global advocacy and leadership, and its convening power, including by leveraging the private sector, the WBG will strive to move the needle on global climate action, and to move from greening projects, to greening whole economies.

The WBG's support will be tailored to individual client demand and based on country-specific circumstances. While the contexts and focus areas may be different, there are opportunities to support a low-carbon transition and build resilience across all client countries, including private sector clients. In low-income countries, we will focus on supporting climate-smart development, adaptation, and resilience-building, while advancing development goals such as improved access to energy, greater agricultural productivity, enhanced mobility, and sustainable urbanization. This will help those countries avoid locking into high-carbon development pathways. For countries dealing with fragility, conflict, and violence, we will prioritize resilience-building, with a particular focus on the nexus of climate and other risks. Adaptation and resilience are also top priorities in SIDS, but with an emphasis on building local capacity and preparedness to respond to catastrophic risks. In middle-income countries, many of which are already large or fast-growing carbon emitters, there will be a strong focus on accelerating the low-carbon transition—aiming to avoid stranded assets and ensure a just transition—while building resilience.⁷ WBG engagements with upper-income clients—countries above the IBRD graduation discussion income levels, including upper-middle-income countries and high-income countries—will prioritize innovative approaches, knowledge generation, and delivery on global mitigation goals, with positive spillovers for other WBG clients.

DELIVERY UNDER CCAP 2016–2020

The WBG has a significant track record of advancing climate action. In 2016, just after the landmark Paris Agreement, the WBG unveiled an ambitious five-year Climate Change Action Plan 2016–2020 to increase financial and technical support to client countries and private sector clients for mitigation and adaptation, and to unlock opportunities for low-carbon, climate-resilient development. The WBG

committed to increasing climate finance from 20 percent of lending in 2016 to 28 percent by 2020—a target that has been exceeded every year since 2018.

Today, the WBG is the largest multilateral funder of climate investments in developing countries, with \$83 billion committed to climate-related investments over the past five years. In 2020, climate-related financing reached a record \$21.4 billion, up from \$17.8 billion the year before, and from \$10.8 billion in the first year of the action plan. The share of WBG projects with some climate finance rose from 26 percent in 2015 to 62 percent in 2020.

FIGURE 6: Achievements under the WBG CCAP 2016-2020

The WBG exceeded its target to increase climate finance to 28% by 2020 in the fiscal years 2018, 2019, and 2020. The WBG delivered over \$83 billion in climate finance, reaching the highest levels ever in 2020 at \$21.4 billion, making it the largest climate financier for developing countries.



Renewable Energy

World Bank added **18 GW** of variable renewable energy into grids and **16 GW** of renewable energy generation; IFC added **8 GW** and MIGA added over **5 GW** of generation and integration; totaling **48 GW** for WBG of renewable energy to help communities, businesses and economies thrive.



Adaptation Finance

Boosted adaptation support from 40% of climate finance in 2016 to **52%** in 2020. IFC and MIGA diversified their support for climate financing, expanding beyond the renewable energy sector.



Hydromet

Ensured that **120 million people** in **50 countries** gained access to hydro-meteorological data and early warning systems crucial to saving lives in disasters.



NDCs

Supported **30 countries** to implement or enhance NDCs and supported over **35 national or sub-national governments** in their efforts to put a price on carbon.



Green Bonds

World Bank issued **\$5.9 billion** equivalent in green bonds in 17 currencies; IFC issued more than **\$6.6 billion** equivalent in green bonds in 18 currencies; and MIGA's issued its first greenfield infrastructure project bond in Turkey.



Green Buildings & FIS

IFC and MIGA advanced certification programs, and scaled investments in green buildings, and continued to green the financial sector through investments in Financial Intermediaries and through the Sustainable Banking Network.



Under the 2016–2020 Action Plan, the WBG invested in renewable energy and energy efficiency to help clients reduce emissions, adding 48 GW of renewable energy, to help business and communities thrive, backing some of the world's biggest solar projects, such as the Noor concentrated solar power plant in Morocco.⁸ The WBG increased energy access through renewable, off-grid solutions, which have reached millions of people in South Asia and Africa; 40 percent of new electricity access for Africans could be provided from renewable, off-grid solutions.⁹ The WBG also promoted climate-smart agriculture, increasing productivity while reducing emissions. In addition, we helped countries to mitigate disaster risks, building resilience in people, infrastructure, and economies.¹⁰ Today, the WBG provides a substantial majority of multilateral finance for adaptation in developing countries.

The WBG has been carbon-neutral since 2009 for GHG emissions related to all global facilities and global business travel. Between fiscal years 2010 and 2019, the WBG reduced its facilities-based emissions (Scope 1 and 2) by 27 percent, and it is on track to meet the current target of 28 percent emissions reduction by 2026 from a 2016 baseline, having reduced Scope 1 and 2 emissions by 9 percent as of fiscal year 2019.¹¹ On the risk side, the WBG's Treasury analyzes climate risks in its investment portfolio along a range of transition and physical climate risk scenarios, estimating both the risks and the opportunities associated with everything from low-carbon technologies, to extreme weather hazards. The WBG will continue to improve its risk assessment for its investment portfolio.

PROMOTING GREEN, RESILIENT, AND INCLUSIVE DEVELOPMENT

The Climate Change Action Plan 2021–2025 is guided by three fundamental principles that drive the WBG's work across all sectors:

- » First, people must benefit from the transition to a low-carbon and resilient future. People are at the center of climate action and need support in managing the transition and the changes that come with climate-focused policies. A people-centered approach is essential for the political feasibility of climate action and to ensure that gains and losses from the transition to a low-carbon, resilient economy are shared equitably. This approach requires citizen engagement and participatory processes that consider diverse viewpoints, including gender. The WBG will mainstream gender-sensitive approaches to climate action on the ground. The WBG will increase support for social protection programs including job training, retraining, and education that help people adapt to climate change.
- » Second, natural capital is critical to address climate change. Ecosystems are affected by climate change, with negative consequences for human health and well-being. Conserving natural capital, including biodiversity and ecosystem services, can contribute significantly to both mitigation and adaptation. Scaling up investments in emerging markets to strengthen and expand the waste value chain, including to address marine plastics, is critical to generating a sustainable circular economy.
- » Third partners are crucial to success. Along with our country clients, the WBG will collaborate with the International Monetary Fund (IMF), development banks, other international organizations, monetary and financial institutions, including central banks, institutional investors, the private sector, think tanks, and civil society organizations to complement our work.

The Climate Change Action Plan 2021–2025 aims to advance the climate change aspects of the WBG's Green, Resilient, and Inclusive Development (GRID) approach, which has been adopted to promote economic progress through a recovery path that is inclusive and consistent with environmental and social sustainability. GRID has five key aspects. First, it prioritizes the creation of opportunities for poor and vulnerable populations in the recovery from COVID-19. Second, it recognizes that the challenges of poverty, inequality, and sustainability are interrelated. Third, it aims to accelerate and scale up interventions and investments to match the urgency of these crises, including by addressing countries' fiscal constraints. Fourth, since impacts are global, GRID recognizes that effective responses require international cooperation. Fifth, GRID is tailored to country circumstances and is

operationalized through our country programs. In the near term, WBG is helping countries navigate the COVID-19 crisis, repairing their economies, and making them more sustainable and resilient. Integrated, longer-horizon GRID planning will aim to repair the structural damage caused by the crisis and accelerate climate action while restoring momentum on economic development, poverty reduction, and shared prosperity.¹²

BOX 1

Partnerships to Drive Climate Action

As part of its efforts to drive climate action at the country level, the WBG has a long-standing record of participating in key partnerships and high-level forums aimed at enhancing global efforts to address climate change. In particular, the WBG maintains a prominent presence at global summits and conferences, including the UNFCCC Conference of Parties (COP), the Convention on Biodiversity, the One Planet Summit, Finance in Common, Innovate4Climate, the G20 Venice Conference on Climate, the UN Climate Action Summit, and the United Nations General Assembly/NY Climate Week.

One area of particular importance is the support we provide each year to the incoming COP presidency to help achieve climate priorities. Such engagement allows us to elevate the work we and our country and private sector clients are doing on the ground, reinforcing our role as the leading multilateral financier of climate action in the developing world. These events also give us the opportunity to showcase new WBG-led research, initiatives, and strategies.

In addition, the WBG is a proud member of various external partnerships that promote mainstreaming climate policies into national planning, including the NDC Partnership (NDCP), the Coalition of Finance Ministers for Climate Action, the Global Commission on Adaptation (GCA), and the Carbon Pricing Leadership Coalition (CPLC). The WBG also partners with MDBs, the IMF, bilateral donors, and other development agencies to harmonize approaches in incorporating climate considerations into project lending and operations in the context of the global agreements.

Source: World Bank.

IDA and IBRD countries will need different approaches as they move to GRID. IDA countries tend to be more vulnerable to climate risks, suggesting the need for greater investments that support adaptation and build resilience, address poverty, deliver basic services, and create jobs. It is also important to avoid investments that increase future risks or leave countries with stranded assets. Many IBRD countries need to make significant shifts toward low-carbon pathways. There are also opportunities to embrace new sources of growth that come from shifting market preferences, leapfrogging to modern, efficient, and competitive technologies. As major companies and investors pivot to greener standards, countries will need to end unsustainable practices that constrain their competitiveness and their access to capital. Developed countries have an important role to play, offering knowledge, innovation, and financial resources to help support developing countries with this approach. The Action Plan will support the climate policy commitments and actions of the IBRD-IFC Capital Increase and IDA19, and inform the strategic directions of the IDA20 climate change special theme.

02

Ramesh, a salt pan worker, cleans his solar panels as the sun rises in the Little Rann of Kutch, India.

—PHOTO: © DOMINIC CHAVEZ/INTERNATIONAL FINANCE CORPORATION



ALIGNING CLIMATE AND DEVELOPMENT



The WBG will step up support to client countries and private sector clients in order to meet both climate and development objectives. We will do so by (i) ramping up engagement at the country level on climate and development diagnostics, planning, and policies to help countries reach their climate and development objectives; (ii) aligning WBG financing flows with the objectives of the Paris Agreement to further mainstream climate into our development activities; and (iii) increasing climate finance for mitigation and adaptation in ways that deliver the most results.

COUNTRY CLIMATE AND DEVELOPMENT DIAGNOSTICS, PLANNING, AND POLICIES

At the country level, the WBG recognizes the need for a consistent and informed country climate discussion, including the interrelated issues of biodiversity and natural capital, anchored in country development objectives. Therefore, we are committed to major engagements on diagnostics and analytics to support national policy and planning for climate. This work will aim to identify and prioritize adaptation and mitigation opportunities—considering trade-offs and transition costs—to deliver the most results in the context of the unique needs, circumstances, and priorities of each of our client countries.

BOX 2

Climate Risks and Macroeconomic Policies

Changes in climate affect macroeconomic outcomes through physical and transition risks. **Physical risks** derive both from gradual changes in temperature, precipitation, and seasonal patterns that can affect crops and labor productivity, and from sudden-onset impacts, such as extreme weather events (droughts, forest fires, hurricanes, floods), which are becoming more frequent and severe and can directly affect consumption, investment, and trade. **Transition risks** result from the adjustment of asset prices in response to climate policies and technological changes during the transition to a low-carbon economy. Countries face transition challenges in managing the potential negative impacts of domestic and international mitigation policies on equity, labor markets, or external competitiveness. The introduction of global carbon prices and other mitigation efforts has adverse impacts on exporters of fossil fuels and high-carbon activities.

The analysis of physical and transitions risks must be systematically included in macroeconomic management. The WBG will support client countries in designing and implementing climate-smart macroeconomic policies by (i) mainstreaming climate considerations in key macroeconomic work and macro-projections via the development of national level macro-models with a climate lens, to assess the impact of climate shocks and climate policies on macroeconomic outcomes and fiscal sustainability; (ii) designing climate strategies that are fiscally sustainable by introducing tailored and politically viable environmental tax reforms that use revenues to maximize development co-benefits; and (iii) linking environmental tax reforms with public investment in adaptation and measures to maintain fiscal space and ease borrowing constraints.

Source: World Bank.

BOX 3

Supporting Clients to Design and Implement Carbon Pricing

Carbon pricing can be a cost-effective policy tool for governments and companies to use as part of their broader climate strategy. Carbon prices are needed to incorporate climate change costs into economic decision-making. If well-designed and sufficiently ambitious, and successfully incorporated into fiscal policy and decision making, carbon pricing can send a strong price signal to incentivize commercial entities and citizens to reduce emissions and the private sector to co-invest in the key systems transitions, reducing the extent of additional public investment needed. Carbon pricing policy options include explicit policies, such as carbon taxes, fossil fuel subsidy reform, emissions trading systems (also known as cap-and-trade systems), and crediting mechanisms, and implicit policies, such as revenue-neutral fee-and-rebate systems and internal and shadow carbon pricing.

Carbon pricing is effective as part of a broader policy package that can tackle other climate change challenges and market failures. Other policies are needed to drive research and development, unlock noneconomic barriers to mitigation, and create low-carbon alternatives and reduce abatement costs in the sectors that are the most difficult and expensive to decarbonize. Carbon pricing can minimize the economic cost of decarbonization when used in conjunction with public investment (e.g., in infrastructure and targeted incentives for technology and innovation), regulatory changes (e.g., for building norms and urban planning), and in the appropriate enabling environment (such as functioning capital markets). Assessing and addressing the distributional impacts of carbon pricing through the design of carbon pricing instruments and/or complementary policies is critical to enable a socially just transition and to contribute to the long-term sustainability of the carbon pricing mechanism.

Well-designed carbon pricing systems can play a role in raising revenues, which can help reconcile the need to finance decarbonization with the need for fiscal sustainability post-COVID. Raising carbon taxes to the level recommended by the Stiglitz-Stern Commission could add between 1 and 3 percent of GDP in national tax revenues in 2030. Carbon pricing revenues can be channeled to catalyze clean investment flows, ease transitions, and support poverty alleviation.

There is increasing client demand for the WBG's technical support on carbon pricing, including its mainstreaming into countries' wider fiscal policy and long-term decarbonization strategies. The WBG, through its combination of macro-fiscal, sectoral, and technical expertise, along with its convening power, is able to provide an integrated perspective of how carbon pricing policies can simultaneously advance environmental, fiscal, sectoral, and macroeconomic objectives.

The WBG is implementing several initiatives to support client countries and the private sector on carbon pricing. On advisory services and analytics, the World Bank is developing a new Carbon Pricing Assessment Tool (CPAT) and is leading work on the inclusion of carbon pricing in long-term climate strategies, the combination of carbon pricing with sectoral mitigation instruments, and its relation to international climate finance. The Bank is also supporting joint global and country analyses of the relative growth and welfare impacts of environmental and conventional taxes, fuel subsidy reforms, and efforts to include carbon pricing within existing commodity taxation systems. IFC is helping to mobilize the private sector to apply an internal carbon price and is advocating for business-appropriate carbon pricing policies in countries.

The WBG is hosting initiatives to support the development of mutually beneficial policies and implementation of carbon pricing, including the Partnership for Market Implementation, the Energy Subsidy Reform Facility, the Coalition of Finance Ministers for Climate Action, the Platform for Collaboration on Tax, and the Carbon Pricing Leadership Coalition. IFC leads private sector engagement for the CPLC and has been instrumental in bringing many prominent companies to the Coalition. The World Bank is also helping countries prepare to participate in international voluntary and compliance markets under the Paris Agreement through its Climate Warehouse initiative and to deploy results-based climate finance through its Climate Emissions Reduction Facility.

Sources: High-Level Commission on Carbon Prices. 2017. "Report of the High-Level Commission on Carbon Prices." Washington, DC: World Bank. <https://www.carbonpricingleadership.org/report-of-the-highlevel-commission-on-carbon-prices>.

World Bank. 2021. "State and Trends of Carbon Pricing 2021." Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/35620>.

The WBG will take a “whole of economy” approach that focuses on policies and plans to create the right enabling environment for climate action. Beyond greening projects, the WBG will support the greening of entire economies. This includes (i) embedding climate priorities in country macroeconomic frameworks that guide fiscal policy and major national investments and account for their climate benefits and risks;¹⁴ (ii) integrating climate planning into national budgets and expenditure frameworks, to provide adequate budgetary support for climate action, optimize the overall allocation of public resources, and unlock private financial flows; (iii) embedding climate objectives in financial sector regulations and incentives, so the sector is resilient both to climate change impacts and to low-carbon transition risks, and to mobilize finance for climate action; (iv) incorporating climate objectives in systems planning, to integrate climate with economic, social-inclusion, and other objectives, assess cross-sectoral links and regional impacts, and identify trade-offs and synergies; and (v) embedding climate objectives in enabling environment policies and reforms to attract private sector investment. To supplement the country-based approach, the WBG will also support regional programs that contribute to climate, nature, and development objectives and it will leverage its leadership and convening power in support of global initiatives and partnerships.¹⁵

In addition to supporting “whole of economy” policy reforms and institutional strengthening, the WBG will support policy reforms to deliver transformational change. The climate agenda presents an opportunity for economic transformation and the modernization of economies for our client countries and the private sector. This highlights the critical importance of economy-wide aspects of the transition, such as carbon taxation and fiscal reforms to promote innovation and accelerate the transition. Recent evidence suggests that spending on key carbon-neutral or carbon-sink activities can generate net gains in economic activity.¹⁶

Country Climate and Development Reports

The WBG will develop a new Country Climate and Development Report (CCDR) to enhance climate analysis and policy in its programs, to identify and prioritize opportunities for climate action—including biodiversity and natural capital considerations—and to capture synergies between a country’s national climate commitments and development objectives.¹⁷ This new diagnostic will be introduced in fiscal year 2022. The CCDR will provide a strong analytic base to inform country engagement products, such as Systematic Country Diagnostics (SCDs) and Country Partnership Frameworks (CPFs)—CPFs will be critical for operationalizing this Action Plan.¹⁸ Through CCDRs, country engagement products will incorporate climate, biodiversity and natural capital, and disaster risk issues, including as reflected in country climate strategies and NDCs. The goal is to deliver up to 25 CCDRs in the first year and keep them as a core diagnostic thereafter. CCDRs will be made public to inform partner and donor coordination and to engage companies and investors to support climate investments.

IFC and MIGA will work closely with the World Bank to use CCDRs to identify new private sector opportunities for climate business, with a focus on sectors that are seen to have the highest achievable positive impact in a given country. IFC and MIGA will also continue to integrate climate in all new Country Private Sector Diagnostic (CPSDs), building on recent piloting of climate integration in selected countries, and will expand this to more countries.

BOX 4

Climate Change, Ecosystems, and Biodiversity

Climate change threatens the integrity of ecosystems, which play key roles in capturing and storing carbon and in mitigating the impacts of climate change. Climate change and ecosystems degradation combined, in turn, push the planet ever closer to irrevocable tipping points. Terrestrial and marine ecosystems sequester 60 percent of gross annual anthropogenic carbon emissions, so their loss or degradation result in more carbon in the atmosphere. Without wetlands, coastal areas lack crucial protection from storm surges; when forests are lost, water supplies suffer, and torrential rains are likelier to cause landslides.

Climate change is accelerating global biodiversity loss. In oceans, for example, fish stocks and migration patterns are already changing due to warmer waters, acidification, and other factors. Climate change and ecosystems loss combined threaten development gains, and low- and lower-middle-income economies have the most to lose. Comprehensive wealth estimates indicate that renewable natural capital, including forests, mangroves, agricultural land, and fisheries, accounts for 23 percent of wealth in low-income countries. This underscores the need for integrated approaches to climate and ecosystem risks.

Nature-based solutions (NBS)—designed to protect, sustainably manage, and restore ecosystems—could deliver 37 percent of the cost-effective climate mitigation needed through 2030. Investments in green infrastructure, such as mangroves, wetlands, and watersheds, have proven to be cost-effective for water resource and disaster risk management, as they enhance the performance of traditional gray infrastructure and can sometimes even replace it. NBS are thus important for adaptation, protecting livelihoods and built assets from floods, storm surges, and droughts. The restoration of forests, landscapes and coastal ecosystems is also essential for both mitigation and adaptation, and a growing portfolio of World Bank investments reflects this.

Transformative action is needed to address climate and nature together, equitably and inclusively. Separate approaches risk being less impactful and fiscally inefficient. This points to the need for coordinated implementation of the Paris Agreement and the post-2020 global biodiversity framework, expected to be adopted at COP15 of the Convention on Biological Diversity in October 2021. Any response to these two intertwined crises must start by tackling the drivers of climate change and nature loss, then create an enabling environment to attract public and private investments that support climate action while preventing further nature loss.

To move the needle, the WBG will produce metrics and decision-support tools that are based on the best scientific data available and on economic analysis. Comprehensive wealth accounting and integrated ecosystem-economy modeling together can maximize synergies and manage tradeoffs between low-carbon and nature investments. Finally, support to the upcoming Taskforce on Nature-related Financial Disclosures will shed light on nature risks in the financial sector and align broader financial flows with nature objectives.

Sources: IPBES, 2019. "Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services." E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (eds). Bonn: Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services Secretariat. <https://ipbes.net/global-assessment>. Griscom, Bronson W., Justin Adams, Peter W. Ellis, Richard A. Houghton, Guy Lomax, Daniela A. Miteva, William H. Schlesinger, et al. 2017. "Natural Climate Solutions." *Proceedings of the National Academy of Sciences* 114 (44): 11645–50. <https://doi.org/10.1073/pnas.1710465114>. World Bank. Forthcoming 2021. "The Changing Wealth of Nations 2021: Managing Assets for the Future." Washington, DC: World Bank.

Support for National Policies and Strategies

The WBG will support countries in implementing their NDCs and in developing new or updated plans by 2025. NDCs are often the clearest articulation of how a country plans to reduce emissions and adapt to the impacts of climate change within its own development context and offer an opportunity to integrate NBS as part of both mitigation and adaptation action. A February 2021 review of updated NDCs found that although they have improved in quality and ambition, they

collectively still fall far short of the mitigation and adaptation needed to meet the goals of the Paris Agreement.¹⁹

Countries have also been invited under the Paris Agreement to communicate long-term low-emissions development strategies to mid-century. Long-Term Strategies (LTSs) can inform near-term decisions by outlining a country's future development trajectory and the policy direction and institutional strengthening needed. Where they exist, LTSs, together with NDCs, will inform WBG country diagnostics, including SCDs and CCDRs.

As NDCs and LTSs will play an increasingly important role in the context of Paris alignment, the quality and consistency of these documents is of heightened importance. The WBG will provide funding, technical support, and frameworks to ensure these plans are ambitious, comprehensive, and appropriate—considering development priorities for poverty reduction and physical risks from climate change—and will support countries to align NDCs and LTSs so they are mutually coherent and consistent. Translating specific national climate targets into investment plans can help unlock public and private investment for climate action. To support the private sector, IFC is currently piloting the assessment of high climate impact projects to determine whether they are aligned with NDCs. Based on the pilot, IFC will seek to apply the lessons from these assessments to other similar projects. MIGA is also assessing alignment with countries' NDCs and LTSs for high-climate-impact projects.

Fossil fuel-dependent economies are highly exposed to transition risks from global decarbonization. Fossil fuel-dependent countries face financial, fiscal, social and macro-structural risks from the transition of the global economy away from carbon-intensive fuels. The policy and investment choices to be made in the next decade will determine these countries' degree of exposure and overall resilience.²⁰ Through its support for NDCs and LTSs, the WBG recognizes national circumstances and development priorities, while making sure that clients have the opportunity to benefit from a wide range of viable and sustainable solutions that support both climate and development. These solutions include carbon capture and storage and circular economy approaches that spur growth and lower exposure to lock-in and other transition risks.

The WBG will also support countries in implementing and/or updating National Biodiversity Strategies and Action Plans (NBSAPs) or similar national plans covering terrestrial and marine biodiversity. NBSAPs focus on a wide range of measures, including integrating actions or policies related to biodiversity into broader development processes or policies and establishing mechanisms to address main drivers of biodiversity loss; ecosystem-level conservation; and crucially, conservation and restoration to improve resilience to climate change and mitigation potential.

NBS, including green infrastructure, will play a critical role in meeting the climate challenge, and the WBG is working to scale up the adoption and integration of these next-generation solutions into sustainable investments. NBS that use ecosystem-based approaches and hybrid “green-gray” interventions are critical tools for addressing climate adaptation and mitigation challenges while driving biodiversity and ecosystem services.²¹ The World Bank is working to scale up its work on NBS through the development of a dedicated global program that will strengthen support to governments and Bank teams. This will translate down the line into greater IDA and IBRD investments dedicated to NBS addressing climate challenges.

IFC and MIGA will scale up private sector investment that integrates climate risk management measures and supports adaptation and resilience.²² Given the critical role of biologically diverse ecosystems in adaptation and resilience, protecting biodiversity, including through NBS, is key. It is important that the private sector develop sustainable business models that accurately reflect this and protect and enhance these systems. IFC will develop new approaches and business models to expand its biodiversity finance and help catalyze private financing in its client markets, including through the development of a taxonomy of biodiversity-related investment activities. MIGA is integrating ecosystem services valuation into its climate risk screening framework. The approach will allow MIGA to demonstrate to its clients the costs and benefits (avoided losses) yielded from the protection of natural capital.

ALIGNMENT WITH THE PARIS AGREEMENT

The WBG will align its financing flows with the objectives of the Paris Agreement. The WBG defines alignment as the provision of support to clients in a way that is consistent with low-carbon and climate-resilient development pathways, aligned with the objectives of the Paris Agreement, and consistent with client countries' NDCs, LTSs, or other national climate commitments. Where these commitments are absent, the WBG is committed to supporting their robust development. Because the Paris Agreement recognizes that countries have different circumstances and gives countries latitude in the pathways they choose, our support to countries and to private clients respects individual needs and circumstances in integrating climate and development. The WBG is committed to leading on the development of methods and metrics needed to close the gap and make Paris alignment a reality.

The WBG will align all new operations starting July 1, 2023 (FY24).²³ For IFC and MIGA, 85 percent of Board approved *real sector* operations will be aligned starting July 1, 2023, and 100 percent of these starting July 1, 2025, two fiscal years later. To achieve this, both institutions will begin aligning 100 percent of their projects at the concept stage well ahead of July 1, 2023. Once a methodology for financial institutions and funds is finalized among MDBs, a similar approach will be taken for this business as well. The WBG is developing rigorous methodologies to assess alignment. The WBG is testing methodologies for investment lending projects, jointly developed with other MDBs, and developing new methodologies for other financing instruments, including policy-based lending and investments in financial institutions and funds. We will roll out alignment across the WBG, including guidance and training at the sector level, and ensure convergence with the new CCDRs and with our existing climate commitments. As a whole, the WBG will present an approach for implementation of our commitment to Paris alignment at COP26 in November 2021.

Paris alignment assessments determine whether an activity advances, hinders, or is neutral to, the attainment of the goals of the Paris Agreement. Financing that is aligned from a mitigation perspective must support or not hinder efforts to limit global warming, recognizing that peaking of GHG emissions will take longer for developing countries. An operation is considered aligned when (i) on climate mitigation, it actively contributes to decarbonization pathways (e.g., renewable energy) or supports activities that do no harm (e.g., education system reform); and (ii) on climate adaptation and resilience, it fully addresses climate risks. Operations that neither harm nor contribute to climate outcomes are considered aligned so long as they fully address any exposure to climate risks and are not inconsistent

with country policies on low-carbon, resilient development. Operations that are considered universally non-aligned include the mining of thermal coal, electricity from coal, extraction of peat, and electricity from peat. The WBG also announced in 2017 that it will no longer finance upstream oil and gas projects starting in 2019; it has not financed any oil pipelines since 2014. This approach will continue during the period of the Action Plan and into the future. Natural gas investments may be considered aligned in countries where there are urgent energy demands and no short-term renewable alternatives to reliably serve such demand. Accounting for unique national circumstances, all WBG investments in new gas infrastructure will be assessed for consistency with NDCs, LTSs, or other national development strategies, and will aim to ensure they do not lead to long-term carbon lock-in, among other considerations.

FIGURE 7: The WBG will be Aligned with the Paris Agreement

- The World Bank will align all new operations starting July 1, 2023 (FY24).
- For IFC and MIGA, 85 percent of Board-approved real sector operations will be aligned starting July 1, 2023, and 100 percent of these starting July 1, 2025, two fiscal years later. Once a methodology for financial institutions and funds is finalized among MDBs, a similar approach will be taken for this business as well.



FIGURE 8: Ambitious New Climate Finance Targets and Commitments

- WBG climate finance target of 35% on average in FY21-25 for clients in support of green, resilient, and inclusive development. WBG will develop new products and platforms to mobilize climate finance at scale.

WBG Climate Finance (%):

26% → 35%
FY16–20 average delivered FY21–25 target

Targets are ambitious given:

- composition of our financing portfolio;
- low per capita income levels of client countries and other development priorities for which they must borrow;
- private capital investment constraints in emerging markets;
- increased focus on IDA and FCV countries.

WBG Climate Finance (\$ billion):

\$16.7 FY16–20 annual average
\$21.4 FY20

CLIMATE FINANCE AND IMPACT

With this Climate Change Action Plan, the WBG commits to achieve an average of 35 percent of climate finance for the entire WBG over the five years of 2021–2025,²⁴ up from a target of 28 percent by 2020. We will also accelerate the mobilization of public and private sector finance for climate and help increase access to concessional multilateral climate finance for our client countries. At least 50 percent of IDA and IBRD climate finance will be for adaptation, while IFC and MIGA will endeavor to scale up private sector climate finance for adaptation. These targets are ambitious given: (i) the composition of our financing portfolio, which includes significant support for human development, which involves lower levels of climate finance than other sectors such as infrastructure; (ii) the low per capita income levels of our client countries and the development priorities for which they borrow; (iii) the difficult years of recovery anticipated following the COVID-19 pandemic; and (iv) private capital investment constraints in emerging markets as a result of COVID-19.

For almost a decade, the climate finance metric has helped mainstream climate action across the WBG. Climate finance measures the share of financing (an input) that can be attributed to activities or policies that reduce or sequester GHG emissions (mitigation) or to reduce vulnerabilities and enable project beneficiaries to adapt to impacts of climate change (adaptation). This standardized system, which the WBG developed jointly with other MDBs, also facilitates comparison with similar institutions. An expanded definition of climate finance, to include a wider definition of green or sustainable finance, would make our achievements much higher than reported climate finance.

The increase in adaptation financing—to at least 50 percent of IBRD and IDA commitments over the five years of this Plan—will support a range of activities that reduce vulnerability. In line with the strategic directions set in the WBG Action Plan on Climate Change Adaptation and Resilience, these activities include delivering high-quality forecasts, early warning systems, and climate information services to better prepare people for climate risks; planning for management of floods and droughts; supporting river basins with climate-informed management plans and improved river basin management governance;

building more climate-responsive social protection systems; and supporting efforts to respond early to, and recover faster from, climate and disaster shocks through additional financial protection instruments.²⁵

Beyond climate finance, the WBG reiterates its commitment to:

- » Include climate and disaster risk screening in all World Bank financing to identify short- and long-term risks to development projects, policies, and programs. All IFC and MIGA investments and guarantees will be screened for physical climate risk by the end of FY23.
- » Incorporate at least one climate indicator, to monitor and track climate results, in all IDA and IBRD operations with over 20 percent climate finance.²⁶
- » Conduct GHG accounting in all WBG investment financing operations where methodologies are available and use a shadow price of carbon in the economic analysis.²⁷

The WBG is committed to collaborating with public and private sector partners to ramp up climate finance in ways that deliver the most results. Recognizing the limitations of climate finance as a metric that focuses only on inputs, and in addition to measuring our alignment with the goals of the Paris Agreement and expanding our focus on indicators to track results, the WBG will also use new metrics to better capture impact. To date, this includes measuring: (i) the resilience of our operations to physical climate shocks—for example, through resilience ratings being piloted under IDA19 that measure the resilience of a project’s design, expected performance given identified climate risks, and contribution of the project to building wider resilience for beneficiaries; and (ii) our clients’ actual results, including GHG emissions reductions. Where relevant, the WBG will be investing additional resources in data analytics and measurement in order to enhance the results orientation of the Action Plan.

03

Villagers plant trees for a nursery as part of a reforestation project in Mombeya, Guinea.

—PHOTO: VINCENT TREMONT/ WORLD BANK



PRIORITIZING KEY SYSTEMS TRANSITIONS



Five key systems—energy; agriculture, food, water, and land; cities; transport; and manufacturing—together generate over 90 percent of global GHG gas emissions. They must be transformed to address climate change, achieve a resilient and low-carbon future, and support natural capital and biodiversity. These systems face significant climate change impacts as well, making adaptation action critical across all five. They are also critical to achieving development goals. Transforming them is key for countries at all stages of development and requires action from the public and private sector: both to unlock major economic opportunities and create new markets and jobs, and to reduce the trajectory of emissions and limit climate vulnerabilities. Interventions that support these five key transitions will need to take into account macroeconomic and fiscal impacts in addition to managing social and labor impacts.

Climate action focused on both mitigation and adaptation across these key systems can lead to higher productivity, more jobs, more resilient economies, and greater social inclusion. Significant investment in education, training, and retraining to develop skills in these key sectors is essential for people in our client countries to benefit from the jobs created in the green economy. While we invest in a low-carbon future, we must simultaneously invest in adaptation so that countries are better prepared to deal with current and future climate impacts. The WBG will thus prioritize climate action across these systems to advance development objectives through impactful country operations and programs—including support for policy reforms, public and private sector investments, guarantees, and advisory services—and to support a just transition for our clients, including through additional financing. In addition to these five key systems, the WBG will also support adaptation action in other priority areas such as disaster risk management, coastal resilience, and water security.

ENERGY

The energy sector produces three-quarters of global GHG emissions, and coal combustion alone is responsible for nearly a third.²⁸ Yet today, about 800 million people live without electricity, and hundreds of millions have unreliable access.²⁹ Almost 3 billion people still cook with biomass, such as wood, and with other fuels that cause severe air pollution, with widespread health impacts. Modern energy services are critical to economic growth and human capital development, which is why achieving SDG 7—access to affordable, reliable, sustainable, and modern energy for all by 2030—is seen as crucial to achieving many other SDGs.³⁰ The WBG is committed to supporting countries and private clients to expand energy access consistent with the vision of SDG 7.

As we expand energy access, we urgently need a global transition to low-carbon energy. Technological improvements, including energy efficiency, battery storage, green hydrogen, nuclear developments, carbon storage, and decarbonization techniques will be important determinants of new energy directions in client countries.³¹ It is also critical to develop solutions that make energy systems more resilient to climate change and extreme events. The WBG's priorities in the sector include helping countries with power sector planning, energy subsidy reforms, and improvements to the operational and financial performance of utilities; investing in projects to increase energy access, including through renewable energy and improved energy efficiency; and regional power cooperation and trade.

Priorities for climate-focused action in this sector will depend on the country context. In high-emitting middle-income countries, for example, key steps may include retiring coal-fired power plants, replacing fossil fuels across the economy, and removing market barriers for green technologies, while working to ensure a just transition. For lower-income countries still working to provide energy access to all, it is crucial to invest in low-carbon and climate-resilient baseload capacity, including renewable energy.

Scale Up Clean Energy Systems

The WBG will substantially scale up financing for clean energy transitions around the world. Clean energy has a key role to play through both utility-scale projects and small-scale projects alike.³² The fast-declining costs of renewable energy and energy storage technologies, combined with innovative business models, offer significant opportunities to expand energy access and accelerate the energy transition. Renewable energy technologies create jobs throughout the supply chain and can spur broad and sustainable social and economic development. The WBG will continue to invest in renewable energy generation, integration, and enabling infrastructure. The WBG is the largest multilateral financier of mini-grids and off-grid solar, and this scaled-up support will also cover on-grid, off-grid and distributed renewables. A key element in the range of solutions is the Energy Storage Partnership convened by the World Bank, with 35 industry, research, and multilateral partners working to advance research, development, and deployment of energy storage and accelerate access.

The energy transition depends critically on key minerals, several of which are mainly mined in developing countries. The WBG, through its Climate Smart Mining initiative and by supporting private sector mining projects in those key minerals, will support the sustainable extraction, processing, and recycling of minerals and metals needed for low-carbon technologies while minimizing the climate and material footprints throughout their value chain.³³

As offshore wind technology matures and costs decline, there is significant potential to expand its use in developing and emerging economies. World Bank analyses show excellent potential in several countries and a promising path for medium-term low-carbon electricity generation. Offshore wind projects are large-scale, capital-intensive, and complex, with significant infrastructure needs, requiring a coordinated WBG approach. IFC will evaluate, finance, and mobilize capital for such projects, working closely with the World Bank and MIGA for policy and project development and risk mitigation. In December 2018, the World Bank and IFC jointly launched the Offshore Wind program to assist emerging markets in accelerating their offshore wind uptake. IFC is leveraging its experience in renewable energy project development and financing to help create markets for new clean technologies and business models.

Green hydrogen—defined as hydrogen produced with 100 percent renewable energy—is gaining recognition as an important sustainable fuel. Although further cost reductions in renewable energy to power clean electrolysis are needed for scaling it up, green hydrogen is steadily gaining attention as an alternative to fossil fuel-derived hydrogen. The WBG will facilitate the transformative penetration of innovative renewable energy in client countries, including green hydrogen.³⁴

The WBG also sees hydropower as a key clean energy source—and an important option to support

the integration of wind and solar in power systems. The WBG will support countries in developing sustainable and resilient hydropower, while not damaging the ecosystems, and the associated water storage needed, including through regional cooperation to advance complementary investments across countries.

MIGA will seek to further engage investors and scale its renewables portfolio. Utility-scale solar, wind, hydropower, and geothermal will be significant components of its efforts. It will develop innovative ways for its guarantees to support micro- and off-grid solutions that can accelerate electrification to underserved communities, specifically in IDA countries and in those experiencing fragility, conflict, and violence. MIGA will work in coordination with the IFC and the World Bank to provide comprehensive and effective solutions that maximize private sector participation in renewable energy. IFC is taking the lead with private sector clients and is developing a net-zero transition roadmap as part of the initiative. IFC and MIGA may also invest in transmission and distribution, which is key to integrating renewables, balancing the grid, and ensuring private capital flow into generation. IFC and MIGA will also develop business models to mobilize private capital for the significant capital expenditures and efficiency improvements needed in that sector.

Power System Planning

As more people and economic sectors rely on the power grid, it needs to be reliable and resilient. Power infrastructure is vulnerable to many climate change impacts: from reduced water supplies, to more frequent extreme weather events, including severe heat, storms, and floods. System-level and operational planning—such as modifying existing equipment or making choices in selecting new facility sites and equipment purchases—can help build resilience. Actions that reduce demand (e.g., through improved energy efficiency, demand management tools such as smart metering, and reduced transmission losses) can help reduce stress on the overall power system.

Climate resilience is an emerging priority that relates to the stability and performance of energy systems against extreme climate events. This is particularly important as renewable generation and hydropower, as well as energy demand, are highly affected by climate conditions. Distributed energy resources—small-scale power generation from rooftop solar panels or battery storage, for example—can increase resilience, particularly as climate change brings more extreme weather events and greater potential for loss of power. The WBG aims to accelerate investments and mobilize concessional finance for battery storage to help countries integrate more renewable energy. In expanding clean energy systems, such as hydropower, it is crucial that infrastructure is built with attention to climate resilience, water-related shocks, and the multiple uses of reservoirs. This must be supported by sound river basin management and integrate biodiversity considerations to minimize potential adverse impacts. Especially in a changing climate, hydropower development poses risks that need to be assessed and managed carefully; the WBG is committed to supporting countries to develop and finance hydropower projects that are well suited to local conditions and are resilient to climate change. The WBG will be stepping up its efforts to support long-term energy planning and capacity building, focusing on carrying out long-term energy and climate adaptation planning; enhance the collection of meteorological and hydrological data and their use in energy models; and designing and implementing emergency preparedness, response, and recovery planning.

The World Bank will accelerate its support to countries for power system planning to identify and implement cost-effective low-carbon and resilient options. Moving forward, the Bank will work with countries to prepare electrification plans and power sector development plans that incorporate low-carbon and resilient energy scenarios, expand modern energy access, and provide reliable electricity for economic growth. In addition, carbon capture, utilization, and storage (CCUS) may be an important lever for decarbonization.³⁵

Attracting finance for clean energy requires proper planning, adequate operational performance, and financial sustainability of the power sector. In many regions, chronic underinvestment and lack of maintenance have led to frequent blackouts and limited energy access for the poor. The World Bank will continue to support policies, reforms, and investments to strengthen the operational, commercial, and financial performance of utilities. For countries that commit to improving the performance of their utilities, the WBG will provide support, including risk mitigation instruments, when relevant, to enable private renewable energy investments at scale, facilitating investment opportunities for IFC and MIGA.

Fossil Fuel Subsidy Reform

The World Bank will continue to support its client countries in advancing fossil fuel reforms.³⁶ In response to strong demand from client countries for just and inclusive reforms to eliminate or reduce energy subsidies, the Bank will provide technical assistance through its Energy Subsidy Reform Facility and support policy reforms through lending operations. The Bank will focus on protecting the poor in these reforms by strengthening social safety nets and facilitating communication campaigns to address political economy challenges.

Energy Efficiency

Energy efficiency is one of the largest untapped sources of energy, and scaling it up is a critical element of the energy transition. It is often the cleanest and lowest-cost way to expand energy services. Investing in efficiency reduces investment needs for new energy supply, fiscal outlays for subsidies, and costs to consumers—all of which enhances competitiveness and energy security. There is potential all across the economy—from the energy sector itself, to cities, manufacturing, health, education, transport, and water; many engagements will be multisectoral. The WBG will support projects both on the supply side (in power generation and by reducing transmission and distribution losses) and the demand side (industry, municipalities and other public sector users, residential buildings, and agriculture).

IFC and MIGA anticipate increasing support for energy efficiency projects as well. The COVID-19 crisis has reduced financial capacity across sectors to invest in clean technologies, threatening to stall progress. Looking ahead, the energy industry can respond quickly to new incentives, scale up readily available technologies, and create substantial savings and earnings for households and businesses in a post-pandemic recovery. IFC and MIGA aim to scale their energy efficiency finance through credit lines, green bonds, green loans, and guarantees and will work with real sector clients on large-scale energy efficiency investments, helping them to identify opportunities within larger projects. This work will support financial institutions' financing of energy efficiency projects, including industrial and building retrofits.

A Just Transition Away from Coal

Moving away from coal is crucial to achieving the goals of the Paris Agreement. This is a major undertaking that requires dedicated support at the macroeconomic and fiscal levels and across multiple sectors. The World Bank will significantly step up financing and advisory support for a just transition from coal to client countries that request it.³⁷ The World Bank will support national, regional, and local authorities to develop clear roadmaps for the transition, focusing on governance structures, the welfare of people and communities, and the remediation and repurposing of former mining lands and coal-fired power plants. IFC and MIGA will collaborate with the World Bank in these efforts and will work with their clients to support the coal transition in the private sector, including through innovative financing or de-risking instruments and incentives.

On the supply side, priorities in the transition from coal include accelerating the closure and repurposing of coal mines and coal-fired power plants, with due attention to distributional effects and the promotion of new sources of employment and economic growth for affected people and communities/regions. On the demand side, priorities include reducing, displacing, or avoiding coal use by increasing energy efficiency, switching to low-carbon energy sources, and substantially scaling up renewable energy investments.

In specific cases, natural gas may be useful in accelerating the transition away from coal—depending on country circumstances. For example, natural gas can have a role in providing household and business heating solutions in some countries over the medium term, and may be compatible with a country's goal of long-term decarbonization through the reuse of gas pipelines and other infrastructure for transportation and storage of cleaner hydrogen. Alternatively, a gas power plant may be essential to enhance power supply reliability and grid stability, thus facilitating higher rates of renewables integration. However, the long-lived nature of new gas infrastructure means that it is not always consistent with the need to decarbonize economies within this timescale. All investment in new gas infrastructure will be assessed for consistency with NDCs and LTSs.

The transition away from coal must be done justly, with due attention to people and the distributional effects. A just transition must integrate sustainability, including environmental remediation, as well as decent work, social inclusion, and poverty reduction. In the absence of good policy, there is a significant risk that as countries transition away from coal, workers and entire communities could be stranded. This requires the financing to build new skills, create jobs, and develop a more equitable and resilient economy. Programs to manage the social and labor impacts of the energy transition are a central element of the World Bank's toolkit to facilitate closures and to support a just transition for all. IFC and MIGA will work with their clients and collaborate with the World Bank to explore innovative solutions to accelerate the phase-out of coal and champion a just transition.

The WBG stopped direct financing of new utility-scale coal-fired power projects in 2010, and will significantly increase its programmatic support for the transition away from coal in client countries that request such assistance. The economics, construction and operation times, and emissions of coal power plants cannot be reconciled with the objectives of the Paris Agreement, nor with our efforts to support green, resilient, and inclusive development.

AGRICULTURE, FOOD, WATER, AND LAND

Agriculture and food production are key sources of employment and livelihoods for large numbers of people around the world, including the vast majority of the extremely poor.³⁸ In order to feed a projected global population of nearly 10 billion by 2050, these systems need to be scaled up even more.³⁹ At the same time, agriculture, forestry, and land use change produce almost a quarter of global GHG emissions.⁴⁰ The largest sources of GHG emissions linked to agriculture are land conversion (e.g., clearing forests for cropland); methane emissions from livestock and rice production; and nitrous oxide from the use of synthetic fertilizers. Agriculture is also the largest user of land and water, with impacts on forests, grasslands, wetlands, and biodiversity. Food and land use systems currently generate “hidden” environmental, health, and poverty costs estimated at almost \$12 trillion per year.⁴¹ Major changes are needed, but they must be undertaken with a people-centered approach.

At the same time, agriculture is one of the sectors most vulnerable to climate change, particularly for the most vulnerable populations: small-scale producers in low- and middle-income countries. Key risks to food production include water scarcity due to changes in precipitation and rising temperatures, sea-level rise, extreme weather events, declining biodiversity and ecosystem services, and new pests and crop diseases. Agriculture, food, water and land use are therefore priority sectors for both mitigation and adaptation efforts.

Climate-Smart Agriculture

The World Bank will step up support for climate-smart agriculture (CSA) across the entire agriculture and food value chains through robust policy and technological interventions. Doing this can achieve robust triple-win benefits: enhancing productivity, reducing GHG emissions, and improving resilience. Some subsectors warrant special attention. For example, livestock production is particularly GHG-intensive, but also plays a major role in providing livelihoods and food security—and there are well-known and cost-effective mitigation options.⁴² Rice cultivation is a large source of GHG emissions, especially methane, but new varieties, techniques that reduce water use, improved management of inputs, and other strategies can enhance production, reduce emissions, and increase resilience. The World Bank will establish an Early Warning for Early Action Food Security Hub to support early detection and diagnosis of emerging food insecurity crises.

IFC and MIGA promote CSA through their work with private sector clients. IFC will focus on three strategic themes: (i) helping to improve productivity while reducing input use and GHG emissions per ton of output, especially through precision farming and regenerative or conservation agriculture; (ii) making livestock production more sustainable while increasing productivity; and (iii) reducing post-harvest losses in supply chains globally (e.g., through improved logistics and distribution, appropriate packaging solutions, modern storage facilities, and cold chains). IFC is exploring areas that may lead to paradigm shifts, including soil carbon, health, and fertility management, fertigation, commercially viable innovative animal protein alternatives, and new models to promote drip irrigation and build climate resilience. Increasing the volume of IFC’s direct investments in agriculture firms and indirect investments in financial intermediaries and MIGA guarantees that contribute to CSA will entail transferring both disruptive technologies and proven interventions as well as business models that

overcome the well-known barriers to investments in this sector. There is a need for aggregation and risk-sharing solutions to align interests and achieve scale. IFC typically works with an “anchor client,” such as an integrated food company, processor, trader, or food retailer, to help it implement climate-smart practices across its supply chains. IFC will leverage climate financing products to help build a pipeline with suitable profile clients. Many CSA engagements, especially those that involve financing for supply chain traders, processors, and smallholders, will require leveraging IFC’s partner network of financial intermediaries and blended concessional finance to reduce or align risks or partially compensate for the public benefits associated with these investments.

Food Loss and Waste

A third of all food produced globally goes to waste, amounting to significant costs to society. The World Bank is already addressing policy options and trade-offs involved in tackling food loss and waste, and will implement farm-to-fork food system diagnostics to identify cost-effective climate mitigation and adaptation priorities across the value chain.⁴³ IFC is developing a food losses calculator that will help IFC and its clients to quantify the GHG benefits and cost savings of projects that reduce food losses. MIGA is working with its clients to lower the water and emissions footprints of food manufacturing, and to enhance the climate resilience of agricultural value chains by demonstrating the materiality of climate risks and interventions in the feasibility assessments of projects.

Nature-Based Solutions

The WBG sees NBS as critical elements of the food, water, and land systems transition. In agriculture and food production, NBS can enhance ecosystem functions in landscapes affected by agricultural practices and land degradation, improving water availability and quality, productivity of crop systems, and livestock health. NBS can achieve benefits for soil health, carbon sequestration, biodiversity, and climate resilience, among others. At the sectoral level, the Bank, through the Forest Carbon Partnership Facility, is building capacity for clients in their emission reduction programs and Reducing Emissions from Deforestation and Forest Degradation (REDD+) strategies. NBS can also be applied in coastal areas to stabilize shorelines and reduce flooding and erosion impacts, which helps to maintain fisheries as food sources and sustains livelihoods relating to fisheries, tourism, and recreation. Wetland restoration can also increase the storage capacity of freshwater supply and improve water quality alongside the enhancement of habitat and biodiversity. IFC is in the preliminary stages of developing sector-wide approaches to integrate biodiversity considerations at the earliest stages of landscape planning, particularly for the agriculture and infrastructure sectors. IFC will work to develop new approaches and business models to support biodiversity finance and explore catalyzing private financing in its client markets.

BOX 5

Water, Development, and Climate Change

Water is central to multiple SDGs. It is vital for producing food, and thus for achieving SDG 2, to end hunger; safe drinking water is necessary for achieving SDG 3, good health and well-being; and SDG 6 calls for clean water and sanitation for all. Climate change threatens water supplies through rising temperatures, shorter rainy seasons, more frequent droughts, and extreme precipitation. This has implications for water security and for the viability of agriculture, livestock, and aquaculture, with disproportionate impacts on the poor and most vulnerable.

At the same time, drinking water, sanitation, and irrigation services all demand energy, and demand is projected to grow significantly in the coming years. Water supply systems often use energy inefficiently and also waste water.

Without enhancing water security, regions and countries will not be able to adapt, decarbonize, and be resilient to climate change and other stresses and shocks. Strengthening water security is required for achieving emission reduction goals in the sector, but water also plays a key role in achieving emission reductions in other sectors, such as energy, agriculture, forestry, and transportation (including inland waterways). The WBG aims to support countries to enhance water security, manage water to adapt to and mitigate climate change, and close the gap in the water-energy-GHG emissions cycle through:

- » Ensuring that water infrastructure is planned for and designed to address increasing uncertainty under a changing climate;
- » Improving energy efficiency in the water sector, both directly and by addressing water leaks and reducing water losses in irrigation, and incorporating renewable energy sources in the delivery of services;
- » Promoting circular economy approaches by reducing water losses; managing water demand; recovering and capturing valuable resources such as biogas, nutrients, and heavy metals from wastewater treatment; and adapting reuse of treated effluent and resource recovery;
- » Promoting the sustainable diversification of water supplies;
- » Promoting good watershed management practices that protect water sources from increased drought and water quality risk, while also protecting or rehabilitating landscapes that act as carbon sinks in the natural environment;
- » Designing resilient sanitation service chain to reduce leaks of polluted water into the surrounding environment;
- » Increasing and optimizing water storage by conventional surface water storage infrastructure to boost hydropower generation needed to drive the green energy transition, installing floating solar panels on storage reservoirs, scaling-up nature-based solutions, and promoting adaptive and flexible water allocation mechanisms. Combined, these help to build resilience of water services delivery by managing variable water supplies over time and providing protection during floods and droughts;
- » Designing water-related infrastructure and pursuing policies to limit and/or reduce the emissions of non-CO₂ GHG emissions, particularly methane and nitrous oxide;
- » Harnessing water-energy innovations and digital technologies; and
- » Working to ensure that the decarbonization pathways selected by countries do not compromise their water security objectives, and that water is not a limiting factor for achieving them.

Source: World Bank.

Water

Global food security depends on water of sufficient quantity and quality to support the transition. This includes irrigation to expand arable land area, support needed crop production, and provide a buffer from increasingly hot and dry growing seasons. With climate change, the water cycle is expected to undergo significant change, with potentially large negative impacts on food production. In order to meet these challenges head on, countries must invest in better planning and institutional strengthening, increased water storage capacity, improved water reuse systems, and flood and drought infrastructure, including climate-resilient green infrastructure and hybrid green-gray solutions. The WBG will help countries manage flood and drought risks together, reducing the water-related shocks and protecting livelihoods and productive resources. The World Bank will expand access to high-quality hydro-meteorological data and flood forecasting and early warning systems to better manage water risks.⁴⁴ It will also expand support to climate-informed river basin management to manage transition risks, including for shared water resources such as lakes, rivers, and other international watersheds that collectively draw on one water resource.

IFC and MIGA will support countries, cities, and industrial players to expand and improve their water operations in order to reach key climate impact mitigation goals and increase adaptation capability and resilience of their infrastructure. As such, IFC and MIGA will work closely with their clients and partners to (i) promote climate friendly and resilient technologies; (ii) reinforce energy and water efficiency initiatives (e.g., non-revenue water reduction, water source management, operations optimization through digitalization); (iii) support economic activities by identifying sustainable sources of water for industrial use and scaling up treated wastewater reuse projects to limit the impact of water supply in water stressed regions; and (iv) invest in wastewater collection and wastewater treatment infrastructures.

Carbon Sinks

Terrestrial carbon conservation in which large volumes of carbon stored in natural forests, grasslands, and wetlands remain stored as carbon stocks is important for climate change adaptation and mitigation and is essential to increasing the resilience of ecosystems. Soils are among the planet's largest reservoirs of carbon. Soil carbon storage can be increased by using plant varieties that have deeper roots, agroforestry, adding organic materials, and changing crop rotations, and avoiding deforestation.⁴⁵ Along with its mitigation benefits, enhancing soil carbon can improve soil health and increase yields, and could potentially be monetized by farmers through carbon markets. The World Bank will support countries in providing incentives to farmers to invest in NBS to improve soil carbon storage and build resilience. The WBG will pilot in operations a low-cost, near real-time Monitoring, Reporting and Verification (MRV) Protocol that can leverage private capital for enhanced soil carbon sequestration.

Blue Economy

Fisheries and aquaculture have a significant role in food security and economy of many countries and have the potential to further support the nutritional needs of growing populations. The WBG will focus on helping countries and the private sector to protect marine areas, diversify the blue economy, reduce

marine pollution, and repopulate coral reefs. Healthy oceans provide jobs and food, sustain economic growth, regulate the climate, and support the well-being of coastal and urban communities. The WBG will contribute to blue growth through analytical services, policy dialogue, financing, and supporting activities related to more efficient use of resources, while strengthening waste diversion systems and infrastructure to collect and process plastic materials and recapture the value of plastics in the economy.

De-Risking Private Investment

MIGA will increase its support for sustainable agribusiness transactions. MIGA sees an opportunity to support investors in de-risking private financial flows and climate finance to agribusiness operations and their value chains. MIGA will also increase emphasis on the adoption of climate-smart techniques that lead to increased resilience to climate-related shocks. MIGA will initiate technical guidance on CSA solutions, raising awareness of climate risk identification and management practices, and introducing GHG emissions accounting methods tailored to clients' operations.

CITIES

Cities consume over two-thirds of the world's energy and produce over 70 percent of global CO₂ emissions.⁴⁶ Transforming urban systems will be critical for achieving climate goals, and also for achieving SDG 11, to make cities inclusive, safe, resilient, and sustainable.⁴⁷ The WBG will support both national and local governments to develop, finance, and implement solutions for cities that reduce emissions, build resilience, and promote shared prosperity. Through its work with governments, the World Bank will also identify opportunities for IFC to support sectors that require more private sector investment—for instance, to retrofit existing infrastructure and improve water operations—and for MIGA to design solutions and provide financing to cities to achieve these goals.⁴⁸

Planning for Low-Carbon and Resilient Cities

The WBG will step up support to cities, including technical assistance and financing, to help them decarbonize and build resilience. This means ensuring policies, regulations, and investments are in place to improve urban air quality; decarbonize urban energy systems; promote green and resource-efficient buildings and infrastructure, through new construction and retrofitting; promote integrated solid-waste management and circular-economy approaches; improve urban transportation, including public transit and non-motorized options; and improve the coverage, efficiency, and resilience of urban water supply, sanitation, and wastewater treatment. Improving urban land use planning and regulations is particularly important. A key enabler of all this work will be the City Climate Finance Gap Fund.⁴⁹

To enhance climate resilience, the WBG will support cities with (i) enhanced access to tools and technical support to integrate climate and disaster risks in spatial planning; (ii) strengthened capacity to effectively prepare for and manage those risks; (iii) assistance to make key infrastructure more resilient, including buildings, schools, and hospitals; (iv) access to more financing for investments in resilience

and in service delivery; and (v) access to more global and regional partnerships to achieve resilience objectives. NBS are also crucial for increasing resilience, including water security, and reducing disaster risks such as floods. Without enhancing water security, many regions and countries will not be able to adapt, decarbonize, and be resilient to climate change and other stresses and shocks. NBS can be used as “green infrastructure,” which gains value over time given the range of benefits that are produced as ecosystems mature. Key enablers for this work include partnerships such as the Global Facility for Disaster Reduction and Recovery (GFDRR) and its flagship programs.

IFC will scale up strategic partnerships through a fully integrated investment and advisory approach to help cities address current market failures, such as limited funds for project preparation, low creditworthiness, and lack of technical expertise. This early upstream engagement is designed to pave the way for new and complementary IFC investments, thereby assisting cities in prioritizing projects and increasing the delivery of sustainable municipal infrastructure projects that meet their development goals.⁵⁰ IFC’s new green cities tool, Advance Practices for Environmental Excellence in Cities Green Program (APEX), supports emerging market cities to accelerate policy actions and investments that contribute to the low-carbon transition and resource-efficient growth pathways.⁵¹ This will be complemented by efforts to further deploy green finance solutions such as green loans, green bonds, and Breathe Better Bonds.⁵² MIGA will expand its sustainable cities portfolio through innovative applications of its products to facilitate the modernization of economic and social infrastructure that is aligned with climate-resilient development pathways. MIGA will work with the private sector to adopt a more holistic view so that projects do not contribute to maladaptation or any other adverse impacts within and beyond the project boundary.

Green Buildings

IFC and MIGA will scale up their green building business, both through direct financing and de-risking of asset owners and by increasing the use of green mortgages and green construction finance through financial intermediaries. IFC will continue to promote Excellence in Design for Greater Efficiencies (EDGE) across a range of asset classes, including green homes, offices, hotels, hospitals, higher education institutions, retail stores, warehouses and industrial parks, light industrial buildings and factories, data centers, airports, and green property funds.⁵³ IFC will develop green retrofit programs and expand its EDGE certification program to help establish standards in this area. It will also support building owners and clients to achieve their climate strategies and targets and align IFC investments with the objectives of the Paris Agreement. To contribute to adaptation and resilience, IFC will pilot its newly developed Building Resilience Index.⁵⁴ MIGA will back investments in green buildings and work with clients to obtain green building certifications, such as the EDGE certification.

Integrated Waste Management and Circular Economy

The WBG is helping countries and cities adopt integrated waste management and circular economy approaches to advance climate, development, and broader sustainability goals. The World Bank will support cities in promoting these approaches across the value chain. IFC will focus on three strategic priorities for the waste sector: (i) strengthening the municipal solid waste value chain from collection to

disposal, particularly in areas where this infrastructure is limited and/or heavily reliant on the informal sector; (ii) promoting sustainable resource recovery solutions, including recycling, refuse-derived fuel, landfill gas capture and use, and waste-to-energy; and (iii) developing capacity to manage specialty waste streams, such as electronics and hazardous waste. These priorities will enable emerging markets to tackle their current and growing waste management concerns and lay the groundwork for a transition to circular economy principles.

BOX 6

Building Coastal Resilience to Protect Lives and Livelihoods

While some climate-change-related impacts on agriculture, such as temperature and rainfall, are similar for coastal and non-coastal settings, there are other factors that impact coastal agriculture, such as soil salinity, coastal erosion, seawater intrusion, and increased exposure to cyclones. Climate-smart agriculture has been adopted in many parts of the world as a way to cope with climate shocks and minimize GHG emissions while sustaining crop yields, and this approach remains relevant for coastal farming, together with integrated coastal resource management and strengthened land use planning.

Beyond agriculture, coastal areas in several countries are highly populated and generate an outsize share of economic growth. This means that large numbers of people and significant assets are vulnerable to coastal climate change impacts. Despite significant progress in recent years—which has saved lives, reduced economic losses, and protected crucial development gains—many countries still need to do far more to address vulnerabilities. The WBG aims to support countries to strengthen coastal resilience in both rural and urban settings, in a number of key areas:

- » Strengthening data and decision-making tools by establishing openly accessible natural disaster databases, as well as asset management systems for critical infrastructure;
- » Factoring risks in zoning and spatial planning based on the best available information;
- » Strengthening the resilience of infrastructure systems and public services by upgrading such assets in the most exposed and under-protected areas and updating existing safety standards;
- » Using NBS by tapping into the protective function and economic contribution of ecosystems in a systematic manner; and
- » Improving disaster preparedness and response capacity by upgrading early warning systems, strengthening local response capacity, improving social safety nets, and implementing comprehensive risk financing.

Source: World Bank.

TRANSPORT

Sustainable transport is critical for fostering inclusive growth, expanding access to essential services, and combating climate change. The WBG works with clients to provide safe, clean, resilient, efficient, and inclusive mobility. Transport produces almost a quarter of global CO₂ emissions from fossil fuel combustion, and the sector's emissions are rising rapidly.⁵⁵ Demand for transport is projected to grow rapidly in the coming decades, as low- and middle-income countries continue their economic development and urbanization. Without aggressive measures, CO₂ emissions from transport are expected to grow by 60 percent between 2015 and 2050.⁵⁶ To support a low-carbon and resilient

transport sector, the WBG will support three main pillars of the transport sector: mobility and access, logistics and freight, and resilient transport systems.⁵⁷

Mobility and Access

The World Bank will support cities and urban areas in planning, developing, and managing integrated transport systems, including high-quality public transit to replace private vehicles and fragmented informal urban transport services, as well as supporting active mobility through non-motorized modes. Digital technologies offer significant opportunities to improve efficiency; reduce congestion, air pollution, and GHG emissions; and transform how people and goods move around the world. The Bank will also support governments in efforts to improve urban accessibility by formalizing public transit in areas with large reliance on informal services. This requires careful planning, so that formal services are affordable and meet local mobility needs, and to transition informal operators, so they do not lose their livelihoods. The World Bank's work in this realm will facilitate IFC and MIGA's mobilization of private capital.

Electric vehicles (EVs) hold significant potential, especially as the power sector is decarbonized. A shift to EVs, including private vehicles as well as buses and trucks, would reduce GHG emissions as well as air pollution and associated health impacts. The WBG will support countries or cities in planning and implementing e-mobility solutions, to electrify public transit, green government fleets, adopt micro-mobility solutions, incentivize individual EV adoption, and build the necessary support infrastructure, such as charging stations.⁵⁸ A key IFC focus area is electric buses for public transit in cities. IFC is executing a three-pronged approach to scale up its investments in this sector.⁵⁹

Pricing and regulatory reforms for fuels and vehicles can be effective tools for reducing GHG emissions, by raising the price of private vehicle relative to public transit in cities, and by encouraging the purchase of cleaner and more fuel-efficient vehicles. At the same time, most cars, trucks, and buses imported to low-income countries are secondhand, often many years or even decades old, contributing significantly to air pollution and GHG emissions. The World Bank will support fleet modernization, including by supporting policies to regulate the secondhand vehicle market by banning imports older than a certain age or imposing additional excise duties on them.

Logistics and Freight

Interventions to decarbonize the freight sector and deliver competitive logistics include interventions to re-engineer supply chains, change inventory practices, reduce the fragmentation of production, bring production closer to customers, shift to lower-carbon transport modes, switch to energy-efficient and low-carbon vehicles across modes, including in maritime transport, and optimize networks. Green logistics and green infrastructure not only provide improved connectivity, but can also be a cost-efficient way of reducing emissions and climate-related natural hazards, supporting nature and climate objectives. The WBG will support countries in preparing and implementing measures to help decarbonize the freight sector by enabling and incentivizing modal shift, a long-term transition to green logistics, and modernization of the trucking, rail, and maritime sectors. To sustain this transition, IFC and MIGA will support investments in energy-efficient equipment and green buildings in subsectors

such as ports, airports, and shipping, and will expand their climate-related investments in third-party and temperature-controlled logistics.

Resilient Transport Systems

The long-term performance and reliability of transportation systems will increasingly need to consider and plan for climate change and extreme weather events. The WBG will apply a range of tools and approaches to its engagement in building resilient transport systems. These include: (i) upstream sectoral and strategic spatial planning informed by assessments of risk and vulnerability; (ii) resilient infrastructure solutions, which comprise investments in physical infrastructure, new technologies, and community-based adaptation; (iii) enhancing the enabling environment through institutional and capacity support, awareness-raising, and finance to enhance the capabilities of the relevant stakeholders at the policy and regulatory level; and (iv) post-disaster risk and recovery support so that climate change risk and resilience are integrated into rebuilding efforts. These solutions will be underpinned by country-based assessments of a transport system's ability to withstand climate change, based on an inventory of transport facilities, an analysis of climate-related risk factors, potential adaptation responses, and an economic assessment of response packages.

MANUFACTURING

Manufacturing is a significant source of GHG emissions, especially from heavy industries producing base materials such as chemicals, steel, cement, and glass; for which direct industrial processes account for 5.2 percent of global GHG emissions and energy use in industry for an additional 24.2 percent.⁶⁰ Base materials are inherently GHG-intensive, but they currently have no technically and economically viable substitutes that can offer similar functions at scale. This is a major challenge, because they underpin a range of economic activities, create jobs along all value chains, and drive the economic growth of countries. These are essential products, from agricultural fertilizers, to fibers, to construction materials, and they enable solutions for housing, waste treatment, food safety, health care, and consumer goods that are central to the quality, affordability, and comfort of modern life. As countries industrialize their economies, it is important to adopt the best available practices and new business models that support sustainability and low carbon development pathways, while working to ensure that manufacturing becomes more resilient to natural disasters.

The World Bank will support countries and their industries in developing sectoral policies that promote low-carbon and resilient growth, while helping to improve their green competitiveness and the role of the private sector. The Bank is looking to maximize its climate impact through the Circular Economy for Private Sector Development Program (CEPSD) by focusing on reducing emissions at base in industries and up the value chain. The WBG is helping all manufacturing sectors to get on a path toward decarbonization and achieving SDG 12— sustainable consumption and production patterns—via resource efficiency, low-carbon solutions, and circularity. Digitalization of industries will greatly affect production efficiency and enable the viability of circular economy solutions. As a large player in the manufacturing space, the Bank will also work with industrial parks to help them offer low-carbon industrial infrastructure and services through its eco-industrial parks program.⁶¹

The World Bank has launched a Resilient Industries program to improve competitiveness through business continuity planning, improved management of supply chains and industrial parks in the face of natural disasters.⁶² The Bank will help developing country governments increase the resilience of their key industries to climate-related and other natural disasters through a focus on business continuity planning. This will be done by analyzing the main risks posed to industries, supply chains, and their employees, and providing instruments related to financing, industrial infrastructure development, and improved preparedness planning. In the event of a disaster, the Bank will coordinate with humanitarian efforts to support rapid damage assessment, address critical infrastructure damage, and develop financing mechanisms to help employees and businesses to shelter and recover. Resilience planning also needs to account for events not linked to disasters, such as rising sea levels. The WBG will support industry resilience solutions, including those related to planning, location of future facilities, and identifying backup supply and distribution chains.

Globally, the largest mitigation potential in manufacturing is in energy-intensive and material conversion industries. IFC and MIGA will apply three principles to investments across heavy manufacturing industries: First, they will not support new coal-fired power projects or wet process in cement. Second, they will differentiate the sustainability and climate “bar” for investments based on the development stage of client countries and promote progressive transitional sustainability improvements where absolute sustainability is not yet achievable. Third, they will assess the sustainability and climate-related drivers in projects, such as (i) energy source and alternatives; (ii) materials used and alternatives; (iii) products produced and alternatives; and (iv) process technology, striving for best-in-class production processes.

IFC and MIGA will work with committed sponsors and private companies that are dedicated to achieving strategic climate and broader sustainability objectives. IFC leverages and promotes climate finance products and advisory services, and MIGA provides de-risking products, to support proven abatement measures and pilot innovative technologies. Core mitigation areas common to all industries include circular economy-type interventions (redesign, reduce, reuse, and recycle products), energy and resource efficiency, use of renewable energy, including distributed generation and both product and manufacturing process related innovations. IFC and MIGA will work with corporate clients in manufacturing to help them meet their climate strategies and targets, aligned with WBG objectives and SDGs.

BOX 7

Financing Adaptation for Impact

In 2020, the WBG delivered more than two thirds of total MDB adaptation finance for developing countries, reflecting its central role in financing adaptation and resilience action worldwide. Increased support on adaptation is critical, especially for IDA countries, fragile states, and SIDS. Investment in adaptation infrastructure is likely to have positive effects on employment, in particular because of the increased demand for construction work in projects to reduce climate-related risks. Climate change is recognized as a driver of fragility and a threat multiplier, making adaptation an important element of the WBG's Strategy for Fragility, Conflict and Violence. It is urgent to scale up action on adaptation and resilience, given the increasingly severe impacts of climate change.

In addition to the IBRD/IDA target of at least 50 percent climate finance for adaptation, the WBG has committed, under its existing Climate Adaptation and Resilience Action Plan, to support a mainstreamed, whole-of-government approach to help countries shift from addressing adaptation as an isolated investment, to systematically managing and incorporating climate risks. This complements the whole-of-country approach outlined above. Successful adaptation requires planning for and doing development differently, systematically taking account of both present-day and future climate risks from the start. A key entry point for mainstreaming adaptation is to provide tools and analytics to line ministries, to help them integrate resilience measures into sectoral investment planning, design, and implementation. The objective is to help client countries benefit not only from individual climate-smart projects, but also from systemic sectoral resilience and disaster preparedness.

Adaptation and resilience are critical elements in the Action Plan, necessary across all areas that the WBG supports clients, and critical for the success of the five key systems transitions outlined in Section 3. In addition to the five key transitions, the WBG will support investments in the following priority areas:

- » **Disaster risk management:** Expanding access to high-quality hydrometeorological data and early warning systems and supporting agencies with improved meteorological, hydrological, and/or flood forecasting systems;
- » **Water security:** Supporting river basins with climate-informed management plans and/or improved river basin management governance, and providing people with improved flood and drought risk management infrastructure;
- » **Coastal resilience:** Helping countries adopt measures to increase their resilience to climate-related shocks and stressors in coastal areas;
- » **Human development:** Supporting climate hot-spot countries with human development engagements (education; health, nutrition, and population; social protection and jobs) to effectively implement resilience strategies;
- » **Financial protection:** Supporting countries in their efforts to respond early to and recover faster from climate and disaster shocks with additional financial protection instruments, and reduce climate-related risks through financial sector regulatory reforms; and
- » **Forests and integrated landscape management:** Supporting interventions through an integrated landscape management approach for avoiding deforestation and promoting landscape restoration or sustainable forest management.

Source: World Bank. 2019. "The World Bank Group Action Plan on Climate Change Adaptation and Resilience."

Electric scooters in the World Heritage Site of Luang Prabang in Lao PDR. The World Bank is conducting a study of ways in which the city can enhance green mobility and make its tourism industry more sustainable. —PHOTO: AIDEN GLENDINNING / WORLD BANK



FINANCING TO SUPPORT THE TRANSITIONS



Meaningful climate action will require scaling up finance. This is especially important to help poorer countries make large investments in global public goods, such as reducing coal use, and to finance adaptation efforts, which require upfront costs but yield growing benefits over time. Developing countries will need an estimated \$4 trillion per year in investments up to 2030 to build infrastructure to meet their development needs.⁶³ These investments would enable developing countries to build sustainable and resilient infrastructure, create new jobs, and sometimes leapfrog to low-carbon solutions. Current finance flows fall far short of that figure, however. To successfully achieve climate and development objectives, the world must mobilize trillions of dollars in the coming decade. Existing public, private, and concessional climate finance needs to be deployed in more transformative and catalytic ways, leveraging additional capital to bridge the gap between available resources and needs.

The WBG will continue to play a critical role in mobilizing finance at scale for climate action. IBRD, IDA, and IFC have a financial model of issuing AAA-rated bonds in capital markets, which leverages scarce shareholder capital with substantial private capital mobilization (PCM). For example, since inception, IBRD has directly mobilized capital market resources to provide development financing volumes that are 40 times the amount of capital provided by shareholders.

Along with the WBG committing, on average, 35 percent in climate finance and at least 50 percent of IDA and IBRD climate finance for adaptation, we will use our tools, platforms, and convening power to mobilize international, domestic, concessional, and private finance for mitigation and adaptation. The WBG will structure financial packages that include guarantees, insurance, risk mitigating structures, and capital markets instruments to address incremental costs and other barriers to carrying out the five key transitions outlined in Section III.

To increase the financing available and maximize the use of finance for climate action, the WBG will focus on: (i) helping client countries boost their public domestic resources; (ii) increasing mobilization of international and domestic capital, including catalyzing domestic private capital; and (iii) supporting global efforts to raise and strategically deploy concessional climate finance to de-risk climate investment.

Well beyond WBG financing alone, the broader financial sector, encompassing both the public and private sectors, can and must play a key role in mobilizing capital for green and low-carbon investments and managing climate risks. In emerging markets, the ability to scale green finance provides a pathway to greening the real economy, including by helping high-emitting sectors transition to low-carbon alternatives. The WBG will support greening the financial sector across emerging markets through its work with central banks, national development banks, and private sector financial institutions, including through targeted advisory engagements to equip clients with the necessary frameworks to create enabling environments and risk mitigation practices to embrace climate action, while also enabling innovative and scalable funding mechanisms in support of sustainable investments.

BOX 8

Building Country Financial Stability and Integrity

Regulatory and policy reforms are crucial to greening the financial sector, incentivizing low-carbon, sustainable investments in the real economy, and requiring the sector to address financial risks from a changing climate. The creation of global standards is critical to develop a credible class of climate assets that is recognized by global investors. The WBG is supporting this work through the Coalition of Finance Ministers for Climate Action, the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), the Sustainable Banking Network (SBN), and the WBG's close relationships with financial sector standard-setters.

Through both the public and private sectors, the WBG will work toward ensuring that valuation, trade, product, and disclosure standards and requirements are truly global and can be applied in proportionate and appropriate ways in the context of developing countries' markets without unintended consequences that could undermine sustainable investment and capital mobilization in developing countries. The WBG will support market discipline by contributing to transparent rules for disclosure to generate positive externalities that will move markets in a climate-oriented direction. The World Bank will work to build capacity of financial authorities and support regulatory and supervisory reforms that are a prerequisite to scaling green finance through the financial sector. For example, the Bank will work with clients to introduce climate risk in the regulatory framework, and IFC will work with banks to adapt their reporting to the new requirements and help them design financial instruments to green their balance sheets.

The WBG is working to stimulate uptake of such reforms in investments and risk management by the private sector. The "30 by 30 Zero Program", led by IFC and supported by World Bank work on regulatory and supervisory issues, aims to increase the share of climate business in participating banks' portfolios to 30 percent while reducing coal exposure to zero or near-zero by 2030. To achieve this, the program will work to align financial sector policies and strategies with the implementation of NDCs. MIGA is also working with its banking clients to reduce their coal exposures and scale up their climate finance activities. IFC and MIGA also plan to develop an advisory program on climate risk assessment and management for select client financial institutions, and it will share best practices under the Task Force on Climate-related Financial Disclosures (TCFD).

The WBG will also step up support to countries and companies to address financial risks that arise from both slow-onset and sudden-onset climate change impacts. The World Bank is helping countries protect their populations through the Disaster Risk Financing and Insurance Program (DRFIP). The program provides technical advice and grant finance to implement comprehensive financial protection strategies, bringing together sovereign disaster-risk financing, agricultural insurance, property catastrophe risk insurance, and scalable social protection programs.

With respect to financial stability risks, the World Bank embeds climate and environmental risk and opportunity assessments into the Financial Sector Assessment Program (FSAP), jointly with the IMF, and conducts climate risk assessments and stress testing as part of broader climate-related technical assistance programs. This work builds on, and will be increasingly integrated with, foundational macroeconomic climate risk modeling work, including disaster risk scenarios. This includes a focus on transition risks—meaning exposure to abrupt policy, legal, technology, and market changes driven by the need to reduce GHG emissions and physical risks. The World Bank and IFC are also supporting the establishment of the Taskforce on Nature-related Financial Disclosure (TNFD), which is modeled on the TCFD and seeks to create a framework for FIs and companies to assess and report on material financial risks associated with biodiversity loss and their impact on biodiversity. MIGA is also leading on the development of the first political risk insurance country assessment methodology to incorporate climate risk in its ratings typology.

Source: World Bank.

BOOSTING CLIENT COUNTRIES' PUBLIC DOMESTIC RESOURCES

Public finance and domestic resources, including state-owned banks, will be critical to financing global public goods, such as adaptation, mitigation, and a just transition. The WBG will help client countries increase resources for climate action and build fiscal buffers to prepare for climate-related shocks through domestic public finance (including financing released through asset recycling) and realigning incentives through fiscal policy, such as carbon tax and subsidy policies. Specifically, the World Bank will support fiscal reforms, including fossil fuel subsidy reforms, to increase domestic resources for mitigation and adaptation, as well as efforts to improve tax administration. The Bank will help countries to adopt a budgeting approach that prioritizes climate-responsive investments to move from greening projects to greening economies. In that context, the Bank will provide technical assistance to countries to assess the fiscal impact of public-private partnerships (PPPs) for sustainable infrastructure.⁶⁴ In addition, the World Bank will provide technical assistance to countries to prepare for and implement carbon pricing. The WBG will support countries in building systems and approaches for domestic carbon markets and for participation in international voluntary and compliance markets, including technical assistance to prepare projects that generate eligible emission reductions that meet these markets' requirements.

MOBILIZING AND CATALYZING PRIVATE CAPITAL

The WBG will work to catalyze and mobilize investment for climate action by (i) supporting upstream efforts to create new, sustainable, and green markets across developing countries that encourage private investment; (ii) expanding access to private capital and green finance; (iii) building climate capital markets; (iv) working with development partners and through capital markets to support finance for adaptation and resilience and finance for biodiversity; and (v) enabling the catalyzation of domestic private capital for climate investment.

Upstream Support

The WBG has played a key role in opening sectors by working with governments on the reform agenda, advising them on PPP structures, and then investing or de-risking directly, with these sectors subsequently able to attract capital based on foundations laid by the WBG. An example is the green bond space in the Philippines: IFC invested in the first few green bond issuances for a total of \$450 million; today, this market issues green bonds for about \$3 billion per year. This scaling up would not have been possible without the initial work by the WBG in working with the regulators on the regulatory framework, setting standards, and supporting issuers on the structuring of Green Bonds for the international capital markets. The WBG will scale up using similar approach, leading to catalyzing significant capital into the climate space.

IFC and MIGA will work upstream to help build a pipeline of investable projects for the private sector and will provide advisory support to build market awareness of existing products and solutions, improve monitoring and reporting capabilities, and build pathways to align with climate-related commitments. For example, IFC will work with international programs to green the financial sector

through the IFC-led Sustainable Banking Network (SBN). The SBN will continue to coordinate the measuring and reporting of green finance through its 40 member countries, which represent \$43 trillion (85 percent) of the total banking assets in emerging markets. Based on the SBN model, IFC has established a new alliance of green commercial banks, focusing initially on Asia. IFC will further scale up the rollout of the Climate Assessment for Financial Institutions (CAFI) tool, a first-of-its-kind impact monitoring and reporting tool for climate impact data that allows users to assess and quantify the climate impact of each project. In addition, IFC's Green Banking Academy, in partnership with Felaban, RENAC (Germany) and other partners, builds knowledge and capacity for banks in Latin America. Building on its success in Latin America, the Green Banking Academy is exploring how to adapt and replicate this model in Europe and Central Asia and in Africa.

Expanding Access to Private Capital and Green Finance

The WBG will work to increase access to private capital for climate investments via guarantees to attract and de-risk private sector investments (equity and debt) and commercial financing to support climate action in developing countries by mitigating real and perceived risks associated with climate investments. As the lack of a bankable project pipeline has been a barrier to private sector mobilization to date, the WBG will support the Global Infrastructure Facility (GIF).⁶⁵ In addition, the World Bank is planning a thematic climate guarantee window, which will support risk sharing facilities and innovative financing structures to strengthen the creation of new local currency markets.

The WBG will support client countries' access to ESG investors and build local currency finance ecosystems for key climate transitions in nascent markets through technical assistance and targeted risk mitigation. As leaders in impact investing, IFC and MIGA will help to increase access to private capital by expanding their product offerings, increasing the uptake of and private investment in sustainability-linked loans, ESG-linked loans, and other instruments to connect global investors with climate-friendly investment opportunities in emerging markets. For example, IFC is supporting early-stage ventures for climate technologies through its Cleantech Venture Capital initiative. In addition, IFC's Managed Co-Lending Portfolio Program (MCPPI), a syndicated loan platform that has raised \$10 billion to date, creates diversified portfolios of emerging market private sector loans, allowing investors to increase exposure or get first-time entry to this asset class. IFC is seeking potential opportunities to expand this innovative program with a targeted impact/climate-focused platform, to give sustainability-driven borrowers access to crucial pools of capital and help increase the amount of impact-focused private investments. MIGA, as one of the only institutions that provide long-maturity guarantees, will be instrumental in establishing continuous climate action, including through the scale-up of its capital optimization product, which is being deployed to support a range of climate loans and other green activities in partnering commercial banks.

IFC will also expand access to green finance through its approach to financial institutions, which represent nearly half of its investments. IFC has a client base of more than 750 financial institutions with \$5 trillion of assets under management in emerging markets. This business provides a strong foundation for IFC to continue to lead in the greening of the financial system in emerging markets through new asset classes and redefining sustainable energy finance. To accomplish a green transformation in emerging markets, the financial system needs further capital market development,

new types of climate funds, and new investable products that target climate, sustainability, transition, and other environmental benefits which IFC can provide.⁶⁶ IFC will step up support for greening equity investments in financial intermediaries (FIs), aiming to increase climate lending and transparency, and to reduce coal exposure in clients in which it has equity or an equity-like exposure. Under this approach, IFC will no longer invest in the equity of FIs that do not have a plan to phase out their investments in coal-related projects to zero or near-zero coal exposure by 2030. It will also require its equity FI clients to disclose publicly their aggregated exposure to coal-related projects on an annual basis.

MIGA will use its guarantee products to support the greening of FIs, with a focus on promoting the implementation of climate-friendly sustainable financing practices. MIGA's engagement with FI clients is serving to direct the use of proceeds of MIGA-supported finance, or the capital relief facilitated by MIGA's capital optimization product, toward adaptation and mitigation investments, while helping to strengthen those clients' climate risk strategies whenever possible. In particular, MIGA's capital optimization product is proving a successful instrument for engaging with financial institution clients on greening strategies. In step with IFC's approach, MIGA will no longer support FI clients that do not have a plan to phase out their investments in coal and coal-related projects over an agreed period of time, but no later than 2030, and will develop disclosure frameworks for its FI clients.

MIGA will also provide advisory support to FI clients to help them green their portfolios, grow their climate finance business, and mainstream climate risk assessments, including by (i) evaluating the clients' existing capacity and providing guidance on organizational constraints and knowledge gaps related to climate change management; (ii) evaluating their existing portfolio of investments and providing insights on climate finance opportunities in specific markets and regions; (iii) educating clients on relevant climate-related policies, regulations, and low-carbon and climate-resilient development trajectories; (iv) conducting capacity building centered on tools and methodologies to facilitate better carbon and climate risk management; and (v) providing guidance on enhanced climate-related financial disclosures.

Building Climate Capital Markets

The WBG will step up its efforts to develop countries' green bond and loan markets and other innovative financing instruments, including sustainability-linked loans and green mortgages. The WBG will develop tools such as green taxonomies, green bond standards, and supportive risk and reporting regulations to help address these issues. The WBG will also support public institutional investors in integrating climate and broader environmental, social, and governance (ESG) considerations in their investment strategies. IFC will support the growth of green, blue, and other climate-relevant bond markets in emerging markets by developing bond market guidelines and policies in line with international standards. IFC is starting to define criteria for its investments in transition bonds, an increasingly popular asset class for the energy sector, which aim to decrease activities' carbon intensity and set institutions on a path toward further GHG reduction.

IFC will also support the establishment of local markets by issuing local currency bonds and will help banks issue their own green bonds by providing guarantees, acting as an anchor investor, and providing advisory services and tools to help clients develop, issue, and track green bonds. This work

will provide emerging market clients with access to a wider investor base and pave the way for future issuances without enhancement. IFC will also support the green bond issuances of manufacturing, agriculture, and consumer services sector clients, targeting those who have made public climate-related commitments. IFC's green bond funds—the Amundi Planet Emerging Green One (EGO) Fund and the HSBC Real Economy Green Investment Opportunity (REGIO) Fund—aim to stimulate both demand and supply of green bonds in emerging economies and are anticipated to spur investment in adaptation and mitigation projects. The long time frame and large size of these funds is expected to increase the scale and pace of climate finance in emerging markets significantly by crowding in capital from investors and creating new markets. IFC will seek to replicate this model to further develop the green bond market and capitalize on this vast opportunity. Through its Green Bond Technical Assistance Program, IFC is exploring ways to encourage bond issuers in emerging markets to disclose material ESG performance indicators to increase investments in emerging markets as well.

Finance for Adaptation and Resilience and Biodiversity

The World Bank will work with its development partners and through capital markets to crowd in private capital for client countries' adaptation and resilience priorities. The Bank will engage with trust funds such as the Public Private Infrastructure Advisory Facility (PPIAF), which has launched dedicated support through the Climate Resilience and Environmental Technical Advisory (CREST), to deepen climate risk analysis in private participation projects upstream. The Bank will also work with the Quality Infrastructure Investment Partnership (QIIP) to help countries draft or update adaptation strategies and develop policy measures and analyses of investable initiatives.⁶⁷ The Bank will also provide support through financial instruments, such as its guarantee program, which will explore launching thematic climate windows to support clients to adopt climate adaptation and resilience technologies in nascent markets. Further, the Bank will employ capital markets to support client countries that suffer losses arising from climate-related disasters. The World Bank Treasury's Capital at Risk Note program issues catastrophe-linked bonds (CAT bonds) that offer payouts when an earthquake or tropical cyclone meets the predefined criteria under the bond terms. These bonds facilitate risk-transfer solutions to Bank's clients using capital markets, where the investors' principal bears the potential risk of disaster losses.

For biodiversity financing specifically, the WBG is committed to helping bridge the financing gap by bringing governments and the private sector together to fund investments to reverse global biodiversity loss. A recent WBG report highlights two approaches to mobilizing private finance for biodiversity.⁶⁸ First, it assesses opportunities for “financing green”—that is, financing projects that contribute to the conservation, restoration, and sustainable use of biodiversity and ecosystem services. Second, it looks at “greening finance” by directing financial flows away from projects with a negative impact on biodiversity and ecosystems.

Enabling Domestic Catalyzation

The WBG will leverage both its upstream work as well as its direct investments to enable more private capital mobilization and support the creation of new markets. Leading by example will allow the

WBG to support the significant scale up of investment flows toward climate friendly purposes across developing countries.

The WBG will provide advisory work to client countries to develop scalable platforms, including in solar, wind, and other key infrastructure sectors to build momentum and crowd in private sector investment. The World Bank will employ diagnostic tools, such as Infrastructure Assessment Programs (InfraSAPs), to help prepare the foundations for PCM in client countries and scope lending and non-lending operations that are aligned with both PCM and climate priorities. IFC will support climate capital market development through standard setting and active demonstration. MIGA will complement the World Bank and IFC's upstream policy and market creation work by incorporating insurance or de-risking solutions which have proved instrumental in the creation of new markets.⁶⁹ For example, MIGA is collaborating with the World Bank to explore de-risking the exchange of mitigation outcomes in international voluntary and compliance markets.

CONCESSIONAL FINANCE

The scale of resources required to fund climate action on adaptation and mitigation is immense. New sources of concessional finance at scale will be essential. The WBG commits to mobilizing significant resources and building global partnerships and alliances to support its clients and achieve our climate goals.

Concessional finance is critical to de-risk, leverage, and mobilize additional financing for climate action and achieve our climate goals. Concessional finance helps leverage private capital to develop and scale new climate-smart technologies and business models in emerging markets and plays an additional foundational role in catalyzation of private capital into developing countries. Concessional finance also serves as a de-risking tool to bridge gaps in commercial markets. It can enable opening new markets, investing in projects in IDA and FCS countries, and scaling up climate finance for decarbonization in middle-income countries.

IDA, with its significant balance sheet leverage and its country-based relationships and know-how, is a unique and highly impactful vehicle for climate concessional financing. The World Bank will, first and foremost, use IDA19 and IDA20 funds to support countries with concessional climate finance. The WBG will strategically deploy other sources of concessional finance.

The Bank will raise and utilize concessional finance through several umbrella trust funds and financial intermediary funds, which will allocate finance, provide technical assistance, and support flagship analytical and knowledge work that contributes to countries' climate and development policies and plans. In addition, the World Bank support global efforts to mobilize and deploy concessional climate finance through the Climate Investment Funds (CIFs), the Green Climate Fund (GCF), and others to catalyze country-level and private sector transitions.

IFC and MIGA will continue to use blended concessional finance, particularly in countries where the private sector faces higher risks or uncertainties associated with new, unproven technologies or first-

of-their kind projects. Replicating the success of Scaling Solar and other similar initiatives will support private capital without concessionality once early efforts are successful or as risks are reduced.

IFC and MIGA will also leverage concessional finance to help offset the high cost of bringing innovation and technology into emerging markets and incentivize a faster decarbonization. To maximize climate impact, this funding will need to be flexible in terms of geography (including IDA and MICs), technologies, and financing instruments selected. To date, in many of the countries where IFC and MIGA operate, funding sources that are optimal across those dimensions have been very limited. When used and designed effectively, these funding tools will work to drive climate action to benefit vulnerable populations, and others, by using blended finance to de-risk climate projects, push innovative solutions that will achieve the climate impacts intended across client countries and markets, and target commercially viable investments to crowd in private sector funding. This work will complement IFC's upstream approach, which helps to establish the conditions in a country that lead to private sector investment.

Estelle Chapron is one of 3,000 trained volunteers who evacuate people and save lives when natural disasters strike Haiti.

—PHOTO: VINCENT THEODORE/ WORLD BANK



CONCLUSION



The WBG Climate Action Plan 2021–2025 reflects our recognition that tackling the climate crisis while meeting urgent development needs is the core challenge of our time. Now more than ever, we must focus on economy-wide green transitions and move from inputs to impacts.

Building on the achievements of the WBG Climate Change Action Plan 2016–2020, this second Action Plan has been developed in the exceptional context of a global pandemic, with a global economic reversal of a speed and scale not seen in decades, and deep uncertainty about the future. As COVID-19 continues to wreak havoc across the world, the WBG is stepping up its support to help client countries in the relief and recovery stages and to regain momentum on the longer-term development agenda. There is now a window—and an imperative—to transition to low-carbon and resilient development pathways, and to do so while supporting economic growth and job creation. The WBG, through its global advocacy, convening power, and support to client countries and the private sector, can and will participate in this effort, with expanded support for the development of Long-Term Strategies, stepped-up support for a just transition, and ambitious actions in sectors that account for over 90 percent of global GHG emissions, while emphasizing the need to boost support for adaptation and nature, and measure the impact of our interventions.

This Action Plan sets out the WBG’s contribution to building the critical global coalition needed to step up climate action in our client countries and with the private sector, and to do this while also supporting countries in their pandemic response to support a green, inclusive, and resilient future. While the WBG continues to operate in a highly uncertain environment defined by the pandemic, the risks of inaction on climate are high. Speed, agility, adaptive learning, flexibility, and mid-course adjustments will be critical. Getting it right will mean a safer, more prosperous, and more inclusive future for all.



NOTES

1. World Bank. 2019. "The World Bank Group Action Plan on Climate Change Adaptation and Resilience." Washington, DC: World Bank. <http://documents1.worldbank.org/curated/en/519821547481031999/The-World-Bank-Groups-Action-Plan-on-Climate-Change-Adaptation-and-Resilience-Managing-Risks-for-a-More-Resilient-Future.pdf>.
2. Tall, Arame, Sarah Lynagh, Candela Blanco Vecchi, Pepukaye Bardouille, Felipe Montoya Pino, Elham Shabahat, Vladimir Stenek, et al. 2021. "Enabling Private Investment in Climate Adaptation and Resilience: Current Status, Barriers to Investment and Blueprint for Action." Washington, DC: World Bank. <http://hdl.handle.net/10986/35203>.
3. World Bank analysis has found that COVID-19 and its resulting economic crisis, compounded by the effects of armed conflict and climate change, are reversing hard-won development gains and pushing millions of people back into poverty. See World Bank. 2020. *Poverty and Shared Prosperity 2020: Reversals of Fortune*. Washington, DC: World Bank. <http://hdl.handle.net/10986/34496>.
4. Rigaud, Kanta Kumari, Alex de Sherbinin, Bryan Jones, Jonas Bergmann, Viviane Clement, Kayly Ober, Jacob Schewe, et al. 2018. "Groundswell: Preparing for Internal Climate Migration." Washington, DC: The World Bank. <https://doi.org/10.1596/29461>.
5. The remaining 3.5 percent of global CO2 emissions are from international aviation and maritime transport. The estimates of share of global CO2 emissions are based on combined data from The Global Carbon Project and World Bank Country Lending Classifications (2019). See the Global Carbon Project Supplemental data of Global Carbon Budget 2020 (Version 1.0) [Data set]. Global Carbon Project. <https://doi.org/10.18160/gcp-2020>; The World Bank Country and Lending Groups (2019). <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>.
6. See the International Disaster Database (EM-DAT): <https://www.emdat.be>.
7. A just transition recognizes that people's livelihoods and communities need to be protected and prepared and that requires a carefully managed approach, implementing safety nets and working to ensure that people have the training and skills they need to avail themselves of new job opportunities in the green economy.
8. For example, the WBG's important role as a primary investor in renewable energy and in opening markets for other private investors has been demonstrated through the successful Scaling Solar initiative, which brings together advisory, financing, and risk mitigation in a one-stop solution, with 1,000 MW of solar power projects under development in Sub-Saharan Africa and beyond.
9. The Group's Lighting Global program has built an international off-grid market that now supports a \$1 billion-per-year industry providing energy access to over 150 million people.
10. Through the WBG's interventions, 120 million people in over 50 countries have gained access to hydro-meteorological data and early warning systems that are crucial to saving lives in disasters.
11. Starting in 2006, the WBG became carbon-neutral for its headquarters, including day-to-day operations and business travel, and since 2009, it has been globally carbon-neutral for all of its facility and business travel GHG emissions, including country offices.
12. For a more detailed discussion of the GRID approach, see World Bank Group, 2021. From COVID-19 Crisis Response to Resilient Recovery Saving Lives and Livelihoods while Supporting Green, Resilient and Inclusive Development (GRID). Development Committee Meeting Paper, April 9, 2021. <https://www.devcommittee.org/sites/dc/files/download/Documents/2021-03/DC2021-0004%20Green%20Resilient%20final.pdf>.
13. World Bank. 2018. "Sustainable Financing for Sustainable Development: World Bank Group Capital Package Proposal", April 17, 2018, DC2018-0002/2. The World Bank will report on the implementation of the IDA climate change special theme through the IDA Results Measurement System (IDA RMS), which tracks results in countries supported by IDA.
14. The World Bank has two macro-modelling systems that address climate considerations and risks: the MFMod system, which is used for short-term and long-term forecasting and policy analysis and the ENVISAGE/MANAGE computable general equilibrium (CGE) models, which are most frequently used in analyzing longer-term questions, notably climate change.
15. For example, the Great Green Wall for the Sahara and Sahel Initiative.
16. Batini, Nicoletta, Mario di Serio, Matteo Fragetta, Giovanni Melina, and Anthony Waldron. 2021. "Building Back Better: How Big Are Green Spending Multipliers?" IMF Working Paper No. 2021/087. Washington, DC: International Monetary Fund. <https://www.imf.org/en/Publications/WP/Issues/2021/03/19/Building-Back-Better-How-Big-Are-Green-Spending-Multipliers-50264>.
17. The CCDD will assess opportunities and risks that climate change (physical risks) and policies (transition risks) create for the country's development path; existing climate commitments, policies and institutional arrangements in the country to improve resilience and promote decarbonization; the macroeconomic implications of climate change and policies in terms of growth, poverty reduction, fiscal sustainability, and stability of the financial system; and the prioritization of sectoral, cross-sectoral, and macro-fiscal policies to address climate change in the context of development objectives, and identification of operational recommendations. Benchmarking of countries across a range of climate metrics will also support the analysis.
18. Other core diagnostics, such as poverty assessments, public expenditure reviews, and country economic memoranda, are being updated to ensure that they cover relevant climate aspects. WBG CCDDs will be undertaken once every five years for IDA and IBRD countries and are expected to be completed before the preparation of SCDs and CPFs.
19. UNFCCC. 2021. "Synthesis Report by Secretariat on NDCs under the Paris Agreement." Bonn: United Nations Framework Convention on Climate Change. https://unfccc.int/sites/default/files/resource/cma2021_02E.pdf.
20. Peszko, Grzegorz; Dominique van der Mensbrugghe; Alexander Golub; John Ward; Dimitri Zenghelis, Cor Marijs; Anne Schopp; John A. Rogers; Amelia Midgley. 2020. "Diversification and Cooperation in a Decarbonizing World: Climate Strategies for Fossil Fuel-Dependent Countries." Climate Change and Development. Washington, DC: World Bank. <http://hdl.handle.net/10986/34011>.
21. Browder, Greg; Suzanne Ozment; Irene Rehberger Bescos; Todd Gartner; Glenn-Marie Lange. 2019. "Integrating Green and Gray: Creating Next Generation Infrastructure." Washington, DC: World Bank and World Resources Institute. <https://openknowledge.worldbank.org/handle/10986/31430>.
22. In March 2021, the World Bank and IFC released a joint report that offers a blueprint for action for governments to catalyze private investment in climate adaptation and resilience. See Tall et al. 2021. "Enabling Private Investment in Climate Adaptation and Resilience: Current Status, Barriers to Investment and Blueprint for Action."

23. As of July 2023, all relevant project documentation will specify the project's alignment with the goals of the Paris Agreement, including the relation of the project to the energy transition, as part of the World Bank's commitment to become Paris-aligned.
24. See WBG press release, "World Bank Group Announces Ambitious 35% Finance Target to Support Countries' Climate Action" (December 9, 2020), available at: <https://www.worldbank.org/en/news/press-release/2020/12/09/world-bank-group-announces-ambitious-35-finance-target-to-support-countries-climate-action>.
25. World Bank. 2019. "The World Bank Group Action Plan on Climate Change Adaptation and Resilience."
26. Climate indicators monitor and track the progress of climate results; measuring outputs or outcomes of mitigation and/or adaptation intervention of financing and are included in the results frameworks of project documentation.
27. The WBG commits to disclose aggregate gross and associated net emissions. In addition to the current commitment to report aggregate net emissions and aggregate emission reductions: (1) the World Bank will report aggregate gross emissions for its investment operations for which Bank methodologies exist; and (2) IFC and MIGA will disclose aggregate gross and net GHG emissions across direct investment projects that emit over 25,000 tons of CO₂e annually and are committed during the fiscal year. IFC and MIGA already disclose aggregate GHG emission reductions from their commitments in mitigation investments, PPP activities, and advisory services.
28. See ClimateWatch data: https://www.climatewatchdata.org/ghgemissions?breakBy=sector&end_year=2018&start_year=1990. For coal-specific data, see IEA statistics: <https://www.iea.org/data-and-statistics/data-product/co2-emissions-from-fuel-combustion-highlights>.
29. World Bank, IEA, IRENA, UNSD, and WHO. 2018. "Tracking SDG7: The Energy Progress Report (2018)." Washington, DC: The World Bank, International Energy Agency, International Renewable Energy Agency, United Nations Statistics Division, and World Health Organization. <http://documents.worldbank.org/curated/en/495461525783464109/Tracking-SDG7-the-energy-progress-report-2018>. For an update, including indications of the impact of the COVID-19 pandemic on SDG 7 progress, see the IEA's progress tracker: <https://www.iea.org/reports/sdg7-data-and-projections/access-to-electricity>.
30. See the SDG 7 web page: <https://www.un.org/sustainabledevelopment/energy/>.
31. Although all options will be considered for energy sector assessment and longer-term planning purposes, the WBG will not finance nuclear power generation or provide specific technical assistance for its assessment and development, because nuclear energy is not in the WBG's areas of expertise.
32. See, for example: World Bank. 2020. "The Next Generation Africa Climate Business Plan: Ramping Up Development-Centered Climate Action." Washington, DC: World Bank. <http://hdl.handle.net/10986/34098>.
33. Hund, Kirsten, Daniele La Porta, Thao P. Fabregas, Tim Laing, and John Drexhage. 2020. "Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition." Climate-Smart Mining Facility report. Washington, DC: World Bank Group. <https://pubdocs.worldbank.org/en/961711588875536384/Minerals-for-Climate-Action-The-Mineral-Intensity-of-the-Clean-Energy-Transition>.
34. See Energy Sector Management Assistance Program. 2020. "Green Hydrogen in Developing Countries." Washington, DC: World Bank. <http://hdl.handle.net/10986/34398>.
35. The World Bank has a number of ongoing initiatives, which are supported by the Carbon Capture and Storage Capacity Building Trust Fund (CSS Trust Fund) established in 2009, with the objective of strengthening capacity and knowledge building, creating opportunities for developing countries to explore CCS potential, and to facilitate inclusion of CCS operations in low-carbon growth strategies and policies.
36. In 2013, the World Bank set up a \$20 million Energy Subsidy Reform Facility through ESMAP to help countries reform, reduce, or eliminate fossil fuel subsidies while protecting the poor and vulnerable. The facility has worked in more than 50 countries and activities under the facility have informed more than \$16 billion of World Bank financing that included subsidy reform objectives.
37. The Extractives Global Programmatic Support Multi-Donor Trust Fund (EGPS) is already supporting advisory activities and technical assistance in and country engagements for coal mine closure and coal plant decommissioning and repurposing.
38. Globally, about 80 percent of the extremely poor live in rural areas, and most rely on agriculture for their livelihoods. See World Bank. 2020. *Poverty and Shared Prosperity 2020: Reversals of Fortune*. The world's roughly 500 million smallholder farmers are among the poorest groups. See World Bank. 2016. "A Year in the Lives of Smallholder Farmers." World Bank News. February 25, 2016. <https://www.worldbank.org/en/news/feature/2016/02/25/a-year-in-the-lives-of-smallholder-farming-families>.
39. UN DESA. 2019. "World Population Prospects 2019." New York: United Nations Department of Economic and Social Affairs, Population Division. <http://esa.un.org/unpd/wpp/>.
40. Data for 2007–2016. See IPCC. 2019. "Summary for Policymakers." In *Climate Change and Land: An IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems*, edited by Priyadarshi R. Shukla, Jim Skea, Eduardo Calvo Buendía, Valérie Masson-Delmotte, Hans-Otto Pörtner, Debra C. Roberts, Panmao Zhai, et al. Intergovernmental Panel on Climate Change. <https://www.ipcc.ch/srccl/>.
41. Food and Land Use Coalition. 2019. "Growing Better: Ten Critical Transitions to Transform Food and Land Use." Global Consultation Report. <https://www.foodandlandusecoalition.org/global-report/>.
42. For example, manure management and breeding strategies and transformations of production systems themselves, such as shifting feed resources and land use. See IPCC. 2019. "Summary for Policymakers."
43. World Bank. 2020. "Addressing Food Loss and Waste: A Global Problem with Local Solutions." Washington, DC: World Bank. <http://hdl.handle.net/10986/34521>.
44. For example, the WBG's Agriculture Observatory partners with the private sector and utilizes disruptive approaches to complement traditional hydrometeorological ground stations with remote sensing, machine learning, and artificial intelligence to generate a high spatial- and temporal-resolution weather grid across the terrestrial surface of the planet.
45. The IPCC found that the potential for soil carbon sequestration in croplands and grasslands is 0.4–8.6 Gt CO₂-eq per year, equivalent to almost 1.5 times the annual emissions of the United States. See Jia, Gensuo, Elena Shevliakova, Paulo Artaxo, Nathalie De Noblet-Ducoudré, Richard Houghton, Joanna House, Kaoru Kitajima, et al. 2019. "Land–Climate Interactions." In *Climate Change and Land: An IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems*, edited by Priyadarshi R. Shukla, Jim Skea, Eduardo Calvo Buendía, Valérie Masson-Delmotte, Hans-Otto Pörtner, Debra C. Roberts, Panmao Zhai, et al. Intergovernmental Panel on Climate Change. <https://www.ipcc.ch/srccl/>.

46. See Seto, Karen C., Shobhakar Dhakal, A. Bigio, H. Blanco, G.C. Delgado, David Dewar, Luxin Huang, et al. 2014. "Human Settlements, Infrastructure, and Spatial Planning." In *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, edited by O. Edenhofer, R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, et al. Cambridge, UK, and New York: Cambridge University Press. <https://www.ipcc.ch/report/ar5/wg3/>.
47. See <https://www.un.org/sustainabledevelopment/cities/>.
48. IFC recently launched the Utilities for Climate (U4C) initiative, which combines Advisory and Investment Services to deliver solutions for water utilities to reach key climate impact mitigation goals and increase adaptation capability and infrastructure resilience.
49. See <https://www.citiesclimatefinance.org/green-city-finance-directory/city-climate-finance-gap-fund>.
50. According to IFC's 2018 Climate Investment Opportunities in Cities analysis, cities in emerging markets have the potential to attract more than \$29.4 trillion in cumulative investments in six key climate sectors (green buildings, renewables, waste, public transport, climate-smart water, and electric vehicle operations) by 2030, as those countries continue to urbanize rapidly.
51. See <https://www.apexcities.com>.
52. See <https://www.climatefinancelab.org/project/breathe-better-bond>.
53. See <https://edgebuildings.com>.
54. See <https://www.resilienceindex.org>.
55. See International Energy Agency overview of the sector: <https://www.iea.org/topics/transport> (accessed May 6, 2021).
56. ITF. 2019. "ITF Transport Outlook 2019." Paris: International Transport Forum, Organisation for Economic Co-operation and Development. <https://doi.org/10.1787/transport-outlook-en-2019-en>.
57. The WBG has established a multi-donor umbrella Trust Fund, the Global Facility for Decarbonization of Transport (GFDT) to help the industry and countries transition to a low/zero-carbon transport system consistent with the pursuit of carbon neutrality by 2050.
58. Sustainable Mobility for All, Sustainable Electric Mobility: Building Blocks and Policy Recommendations. April 2021.
59. IFC's three-pronged approach includes investing in e-bus programs in cities globally to accelerate the deployment of the technology while enhancing IFC's experience of the sector; undertaking upstream programs to develop a pipeline of new programs and investment opportunities, and developing a systematic methodology and support tools to rapidly execute e-bus projects in the pipeline of programs.
60. See Our World in Data based on ClimateWatch, the World Resources Institute (2020) <https://ourworldindata.org/emissions-by-sector>.
61. The concept of eco-industrial parks and low-carbon zones was led by the World Bank, UNIDO, and GIZ. The number of EIPs globally has seen a steady increase and includes 420 zones. See UNDP, World Bank Group, and GIZ. 2021. "An International Framework for Eco-Industrial Parks, Version 2.0." Washington, DC: United Nations Industrial Development Organization, World Bank Group, and Deutsche Gesellschaft für Internationale Zusammenarbeit. <http://hdl.handle.net/10986/35110>.
62. World Bank. 2020. "Resilient Industries: Competitiveness in the Face of Disasters." Washington, DC: World Bank. <http://hdl.handle.net/10986/34764>.
63. Global Commission on the Economy and Climate. 2016. "The Sustainable Infrastructure Imperative: Financing for Better Growth and Development." The 2016 New Climate Economy Report. Washington, DC, and London. <http://newclimateeconomyreport>.
64. The WBG will help countries create enabling PPP ecosystems aligned with national climate priorities and public investment and fiscal risk management processes to ensure that PPP projects are green, sustainable, and fiscally sound over their lifetimes, while also leveraging the private sector to enable these projects through IFC and MIGA engagement. Embedding climate considerations in the design of investment strategies and policy frameworks for PPP projects will help create project pipelines that are climate-responsive and able to access green financing downstream.
65. The GIF is a WBG and G20 initiative that addresses market failure and government challenges in infrastructure project supports the preparation and structuring of high-quality and sustainable infrastructure programs and projects in emerging markets that are aligned with the G20 Principles of Quality Infrastructure. To date, the GIF has approved more than 100 projects in 52 countries, which are expected to mobilize more than \$50 billion private investment or financing. More than 75 percent of GIF supported programs or projects are classified as "climate smart." The GIF ensures that infrastructure programs and projects are evaluated for opportunities to reduce carbon emissions, build resilience, and promote adaptation.
66. For example, IFC developed the Market Accelerator for Green Construction (MAGC), which focuses on accelerating access to finance through FIs for green construction in 23 emerging market countries, leveraging both investment and advisory support for FIs, developers, green building certifiers, and end users.
67. The QIIP will help find innovative solutions to integrate environmental considerations in infrastructure investments. It looks at the entire process of infrastructure investment and supports countries to use green finance instruments to, transition to long-term low carbon strategies, and leverage disaster risk finance and insurance mechanisms to build resilience.
68. World Bank Group. 2020. "Mobilizing Private Finance for Nature." Washington, DC: World Bank. See infographic (with download link) at <https://www.worldbank.org/en/news/infographic/2020/09/25/mobilizing-private-finance-for-nature>.
69. One example is the Scaling Solar initiative—spearheaded by IFC with support from the WB and MIGA—which has created viable markets for solar power in Sub-Saharan Africa and provides rapid delivery of low-cost, sustainable electricity, helping countries meet urgent needs.



Soil erosion caused by flooding and cyclones puts coastal communities in Bangladesh at risk.

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