



THE WORLD BANK GROUP'S

Action Plan on Climate Change Adaptation and Resilience

MANAGING RISKS FOR A MORE RESILIENT FUTURE



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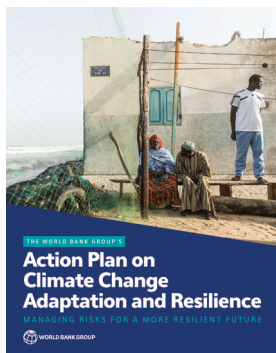
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Abbreviations

SDGs	Sustainable Development Goals
CPF	Country Partnership Framework
FCV	Fragility, conflict, and violence
FY	Fiscal Year (which at the World Bank runs from July 1 through June 30)
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IFC	International Finance Corporation
MFD	Maximizing Finance for Development
MIGA	Multilateral Investment Guarantee Agency
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution
SCD	Systematic Country Diagnostic
WBG	World Bank Group
CDF	Country Development Framework

Cover



Community members in the Guet Ndar neighborhood of Saint Louis, Senegal rest in an area where extreme coastal erosion is destroying homes. Neighbors have used a makeshift set up of fishing nets, cement, and other materials to try to bolster the shore. The United Nations considers Saint Louis to be the city in Africa most at-risk from the negative effects of climate change.

Cover photography by Greta Rybus

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Foreword



Kristalina Georgieva
Chief Executive Officer
World Bank

When I read the latest special report of the Intergovernmental Panel on Climate Change all I could think of was the person I most dearly love, my eight-year old granddaughter. By the time she is 20, climate change will push more than 100 million people into poverty. By the time she is 40 as many as 143 million people could become climate migrants in just three regions. And if she lives to be 90, the planet could be barely liveable.

Our climate is already changing, and the impact will be felt hardest by millions of poor and vulnerable people in the world. So, while we invest in a low carbon future, we must invest in resilient societies at the same time. Simply put, adaptation and resilience are two sides of the same coin.

At the World Bank, we are supporting countries to invest in and build a low-carbon, climate-resilient future so that they are better prepared to deal with current and future climate impacts. These impacts – deadly heat waves, destroyed vital infrastructure, disrupted food and water supplies, flooded homes, schools and hospitals - disproportionately affect the poorest and most vulnerable.

The World Bank Group's new *Action Plan on Adaptation and Resilience* is important and timely. It lays out a strategy to boost our efforts on adaptation and resilience, with three areas of focus:

- » First, through our two funds for low-income and middle-income countries (IDA and IBRD), we will boost direct adaptation financing to \$50 billion over FY21-25, more than double what was achieved during FY15-18. This puts adaptation finance on par with our investments in climate change mitigation.
- » Second, we will support countries to take a mainstreamed approach to adaptation so that climate risks are managed at every phase of policy planning, investment design, and implementation.
- » Third, we will develop a new rating system to incentivize investments in adaptation and resilience, and improve tracking.

To successfully tackle the adaptation and resilience challenge, we will work with governments, the private sector, civil society, and the wider family of development and climate finance institutions. It is vital that we make adaptation and resilience a global priority.

I am personally committed to building global awareness of the critical urgency for action, including through my work as co-Chair of the Global Commission on Adaptation.

Adaptation matters. It is up to each one of us to do everything possible to address climate change and its devastating impacts. If we do not, our children and grandchildren will not forgive us.

Overview

The accelerating impacts of climate change, and the need to avoid much larger impacts in the future, bring urgency to scaling up action on adaptation and resilience. The World Bank Group (WBG) is making adaptation and resilience a key priority of its 2025 Climate Change Targets that will elevate adaptation to an equal footing with climate mitigation actions.

Climate change threatens the achievement of all key development objectives, including the Sustainable Development Goals (SDGs), the Sendai Framework for Action objectives and, especially, the sustainable eradication of poverty (World Bank 2015; IPCC 2014b). The world will not be able to achieve its development goals without stronger action on climate change adaptation.

The Action Plan will increase the World Bank’s level of ambition and commitments on climate change adaptation and resilience. It has three core objectives:

- 1 Boost adaptation financing**

The WBG will ramp up its direct adaptation climate finance to reach \$50 billion over FY21–25. This financing level—an average of \$10 billion a year—is more than double what was achieved during FY15-18. The WBG will also pilot new approaches to scale up private finance for adaptation and resilience.
- 2 Drive a mainstreamed, whole-of-government programmatic approach**

The WBG intends to help countries shift from addressing adaptation as an incremental cost and isolated investment to systematically managing and incorporating climate risks and opportunities at every phase of policy planning, investment design, implementation and evaluation.
- 3 Develop a new rating system to create incentives for, and improve the tracking of, global progress on adaptation and resilience**

A new rating system will be developed to promote public and private sector investments in adaptation. It will be designed to create incentives for donors and countries to engage in more and better adaptation; more effectively report on what the WBG and clients are doing; and aim to establish a global standard for financial markets and public procurement. The new system will be piloted over FY19-20 with an anticipated roll-out to projects in relevant sectors by FY21.

Why Adaptation Matters

Climate change poses an acute and increasing threat to global development. Many of its impacts will fall most heavily on vulnerable populations, including people living in poverty; people dependent on rain-fed agricultural, pastoral, forest, and coastal resources for their livelihoods; and people in small-island developing states.

Climate change will affect human and natural systems in many ways, disrupting food and water supply, exposing them to deadly heat, destroying infrastructure, flooding homes, changing infectious disease vectors, eroding livelihoods, and decreasing economic opportunities, especially in agriculture. Figure 1 shows some of the likely impacts and tipping points associated with different warming scenarios.

Evidence of the need for action is compelling:

-
- » The consequences of a 2°C warmer world will be far greater than that of a 1.5°C warmer world (IPCC 2018)—and the world is not on track to meet either target.
 - » As many as 4 billion people already live in regions that experience severe water stress for at least part of the year (Mekonnen and Hoekstra 2016).
 - » Disasters triggered by weather- and climate-related hazards cost the global economy \$320 billion in losses in 2017 alone (Low 2018). Repeated disasters slow down the development of infrastructure systems and reduce the productivity of local economies.
 - » By 2030, without climate action, more than 100 million people will be pushed into poverty by climate change impacts, primarily in Sub-Saharan Africa and South Asia (Hallegatte et al. 2017).
 - » By 2050 as many as 143 million people could become climate migrants in just three regions (Sub-Saharan Africa, South Asia and Latin America), with individuals, families and even whole communities forced to seek more viable and less vulnerable places to live (Rigaud et al. 2018).

Climate Change Adaptation Requires a Different Approach to Development

Successful adaptation is not about making incremental or piecemeal investments; rather, it is about planning for and doing development differently, systematically taking account of both present day and future climate risks from the start.

Adaptation and development are inextricably linked and reciprocal: good adaptation can deliver good development outcomes, and securing good development requires effective adaptation action.

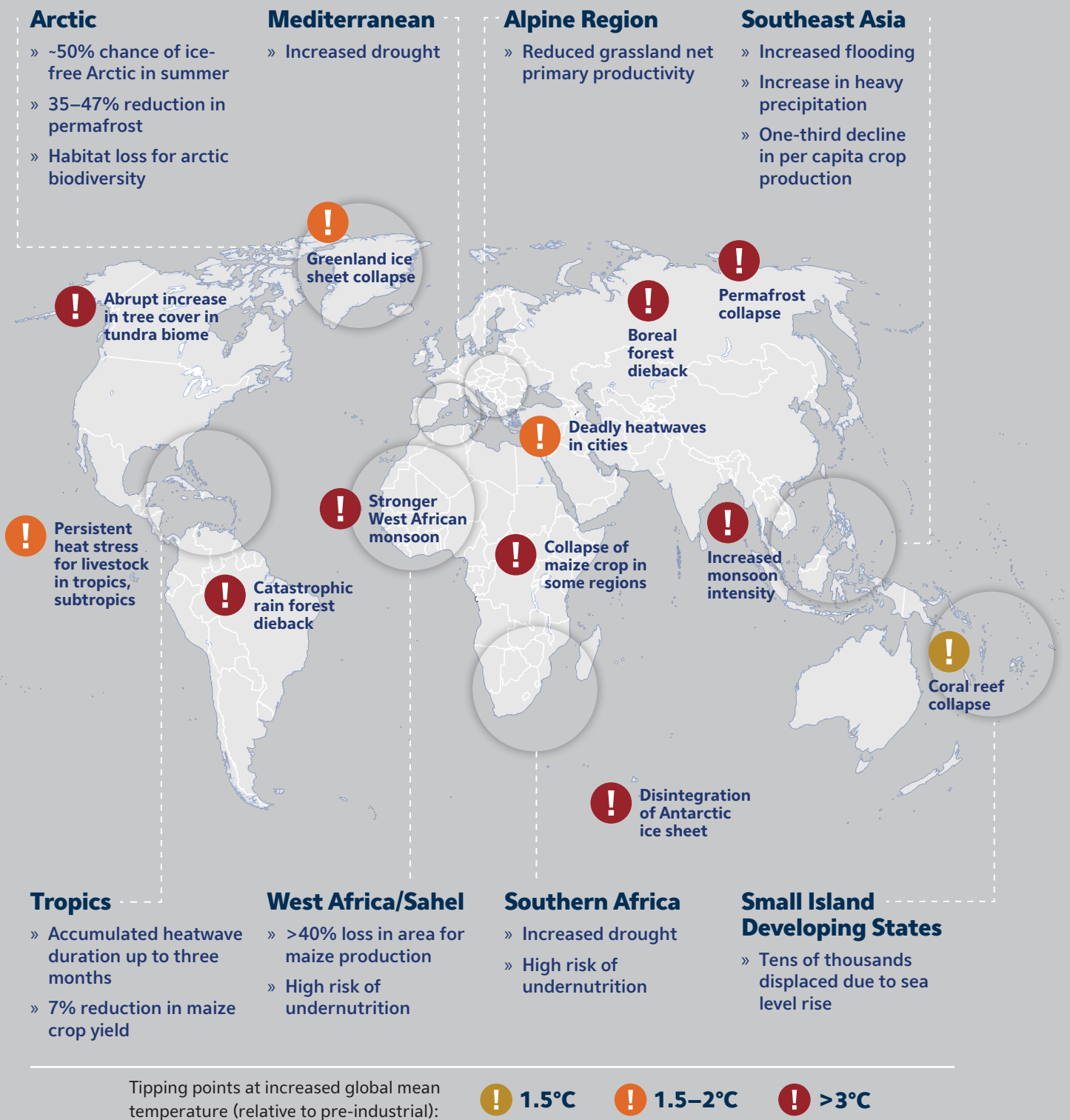
- » Climate-adapted development can enable countries to diversify and become less reliant on sectors that are more vulnerable to climate change effects, and increase capacity for people to withstand shocks. This approach also makes more resources available to countries, communities and people to minimize risk (World Bank 2010).
- » At the same time, early adaptation actions could promote development by reducing risks and costs associated with asset losses from climate-related disasters or reducing infrastructure repair costs, and by creating new opportunities. For example, investing in mangrove replanting may protect a local community against sea level rise and storm surges, while also creating new opportunities for eco-tourism and fisheries. Early and proactive resilience-building actions are cost-effective, compared to waiting to address worse impacts when they occur.

Systematic planning for improved climate resilience begins with upstream macroeconomic analysis and extends through sectoral planning, project design, and implementation. This approach also analyzes policies, data, institutions, behaviors, and finance to identify potential barriers to increased adaptation and resilience action and to design the most cost-effective approaches to overcoming those barriers. Finance is only one of several potential barriers, and in many cases, it may not be the most binding constraint.

Figure 2 illustrates different barriers that exist for implementing climate adaptation, and the types of interventions that can overcome them. For instance, pricing instruments (such as requiring insurance with risk-based premiums) or norms and regulations (such as flood zoning) can shift investments in the private sector towards lower climate risk. Capacity building, better accountability, and compensation schemes to help

FIGURE 1

Risk of tipping points with increased global warming and global warming hotspots for 1.5–2°C



Source: Authors, adapted from data in IPCC 2018.

Note: A climate tipping point is a critical threshold when global or regional climate changes from one stable state to another stable state. The tipping point event may or may not be reversible (Lenton et al. 2008). Whether these tipping points are reached, and if so, by what year, is uncertain mainly because future emissions pathways are uncertain. If greenhouse gas emissions continue at their current rate, tipping points associated with a 1.5°C temperature increase will be reached by 2050, and tipping points associated with 3°C by 2100.

FIGURE 2

A typology of interventions to overcome barriers to climate change adaptation

Barriers	Interventions
▼ PLANNING FOR IMPROVED ADAPTATION AND RESILIENCE	
<p>Needs-driven Adaptation Planning</p> <p>Are country-level climate adaptation needs well assessed?</p>	<ul style="list-style-type: none"> » Ensure national adaptation planning is evidence-driven and country-owned, whether through the NDCs, NAPs, or Adaptation Communications* » Adopt multi-stakeholder participatory approaches » Ensure needs of the most vulnerable are defined and met
<p>Climate Data and Information</p> <p>Are decisions guided by relevant climate data and services?</p> <p>Do policy-makers and households have access and sufficient knowledge to use?</p>	<ul style="list-style-type: none"> » Invest in climate monitoring and forecasting systems, and make climate services available to key stakeholders and the general public » Regularly monitor and synthesize shorter- and longer-term, national and sub-national climate risks and impacts » Raise public awareness on climate risks and launch education or communication campaigns
<p>Policies and Institutions</p> <p>Are government institutions prepared to address climate change risks?</p>	<ul style="list-style-type: none"> » Build institutional capacity for climate risk analysis, planning, and project implementation » Improve cross-ministerial and cross-country coordination » Improve policy effectiveness through transparent monitoring and compliance
<p>Incentives & behaviors</p> <p>Are incentives in place for appropriate climate adaptation actions?</p>	<ul style="list-style-type: none"> » Reduce economic inefficiencies caused by poor policies » Internalize externalities (e.g., carbon pricing, risk-based insurance) » Introduce norms and regulations (e.g., land use plans, zoning regulations) » Align taxation system to climate adaptation objectives
<p>Finance</p> <p>Are resources and access to finance sufficient?</p>	<ul style="list-style-type: none"> » Create an adaptation investment plan » Build enabling environments for private sector investment in resilience-building » Provide public support for low income and vulnerable households that are at risk from natural disasters
▼ IMPLEMENTATION	
<p>Decision-making and actions</p> <p>What actions should be implemented?</p> <p>Is there national / local capacity to implement suggested actions?</p>	<ul style="list-style-type: none"> » Adopt multi-stakeholder iterative decision-making » Choose robust and flexible solutions » Build necessary capacity, particularly at the local level, to implement projects and absorb funds for adaptation » Regularly revise policies through adaptive learning » Ensure ability to continue identifying evolving adaptation priorities with changing risks » Manage negative side-effects through creation of compensation schemes

*Nationally Determined Contributions (NDCs), National Adaption Plans (NAPs) and Adaptation Communications serve as the UNFCC instruments for adaptation planning and reporting.

mitigate political economy obstacles can correct governance gaps (flood zoning may be politically viable only if a landowner buy-out program is implemented, for example). Policy actions can facilitate better information, awareness-raising, and access to desirable technologies; government can provide subsidies to support technological innovation (such as research and development on drought-resistant crops). Multi-stakeholder decision making can encourage the development of robust solutions.

This Action Plan is designed to help countries “plan differently.” By looking across the full range of barriers to climate adaptation, it will help countries go beyond climate-smart projects to designing and building systemic resilience to climate-related risks. It aims to change incentives and ensure better information and decision making to reduce the scale of investments needed for adaptation, and to reduce the risk of maladaptation (poorly designed projects or policies becoming uneconomic in the face of worsening climate change). Urgent action is needed due to the long lead time to achieve systematic climate risk management in many countries and agencies.

Objectives of the Action Plan

This Action Plan is part of the WBG 2025 Climate Change Targets that expand the commitments made under the WBG 2016 Climate Change Action Plan and increase the emphasis on adaptation and resilience.

The WBG will help countries identify key areas of action to achieve more systemic climate resilience. Special attention will be given to vulnerable populations, including the poor, those affected by fragility, conflict, and violence, and small island states. At the same time, to reduce the negative impacts of climate change worldwide, the WBG will also encourage countries to deliver on their commitments to reduce emissions.

The Action Plan is structured around three objectives:

Boost adaptation financing:	expanding access to and the effectiveness of additional climate adaptation finance;
Drive a mainstreamed, whole-of-government programmatic approach:	mainstreaming systematic climate risk management at the country and sector levels;
Develop a new rating system:	better tracking and incentivizing global progress on adaptation and resilience.

Objective 1: Boost adaptation financing

Estimates in the literature of additional needs for adaptation range widely from \$30 billion to \$100 billion a year by 2030. Regardless of the estimated range, current financing flows for climate adaptation are well below requirements. Currently less than five percent of all climate change investments worldwide goes to adaptation; more than 95 percent goes to mitigation (Padraig, Clark, and Meattle 2018).

Many factors constrain adaptation finance:

- » The timing, magnitude, and frequency of negative impacts is unknown.
- » Even when significant, benefits of adaptation may be invisible, because they consist mostly of avoided losses and are realized in the distant future.

- » There is a misalignment between government electoral and budget cycle time frames and much longer-term climate impacts.
- » Tools to estimate risks are not readily available at the level required by policy makers and project designers.
- » There are horizontal and vertical coordination challenges among government agencies responding to climate change. Some adaptation efforts require regional and transboundary approaches.
- » The private sector has shorter term investment horizons than projected climate impacts.

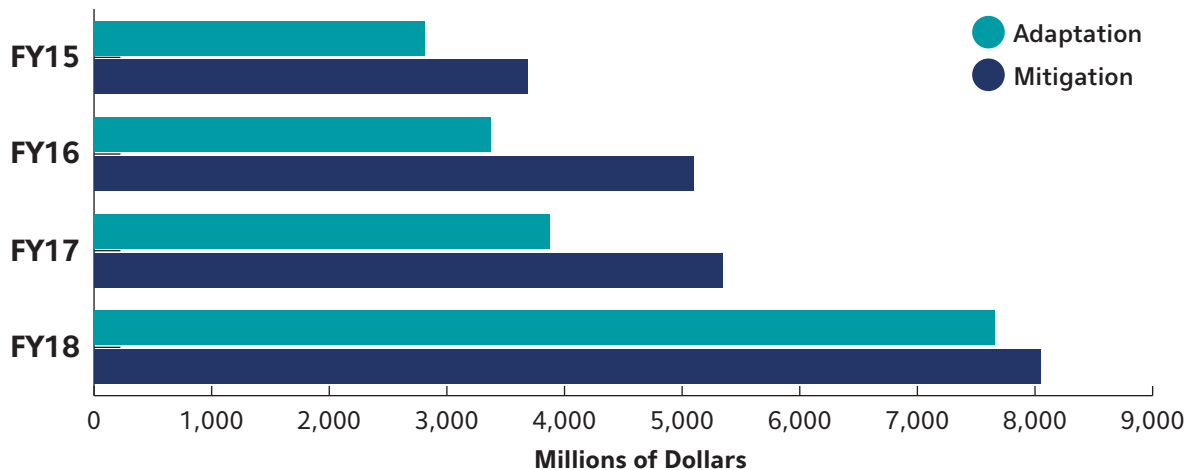
Addressing these obstacles will be critical to increasing finance for adaptation and resilience.

RAMPING UP WORLD BANK GROUP FINANCING COMMITMENTS

Various elements of this plan will also support WBG efforts to overcome these challenges and unlock the full potential of its increased financial support towards adaptation and resilience. This increased support will include country access to more diversified adaptation-related financial instruments; crowding-in private sector finance; and, where feasible, facilitating the use of concessional finance. The WBG will ramp up its direct adaptation financing over FY21–25 to \$50 billion. This projected investment level of about \$10 billion a year is double the level achieved during FY15–18 (Figure 3).

FIGURE 3

World Bank Group financing of adaptation and mitigation co-benefits



In addition, the World Bank will continue to put International Development Association (IDA) and International Bank for Reconstruction and Development (IBRD) adaptation finance on par with mitigation finance, with adaptation finance constituting the bulk of its climate support to poorer, vulnerable, and fragile countries. IBRD and IDA adaptation co-benefits were 49 percent of their total climate co-benefits in FY18, a share that was more than twice the average for multilateral development banks achieved that year. The International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA) will also increase support for adaptation.¹

By 2025, WBG funding will aim to deliver, among other things:

- » **Disaster risk management:** Expand access to high-quality hydrometeorological data and early warning systems for an additional 250 million people in at least 30 developing countries, and support 100 agencies with improved meteorological, hydrological, and/or flood forecasting systems.

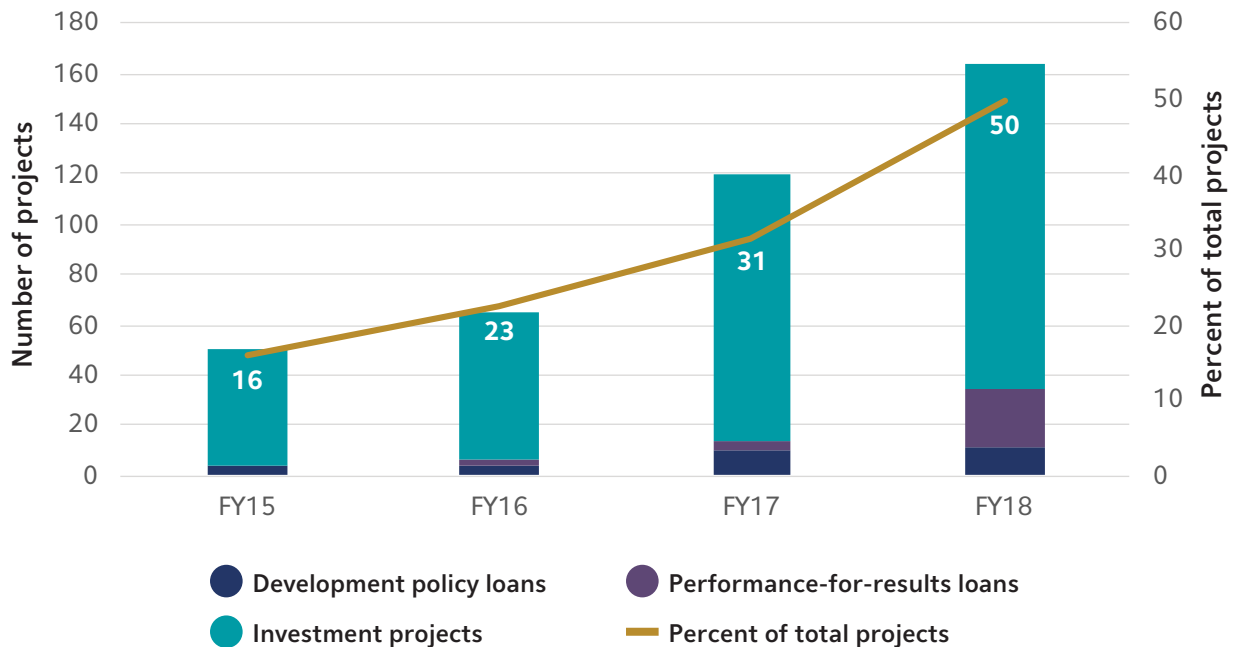
- » **Water security:** Support at least 100 river basins with climate-informed management plans and/or improved river basin management governance and provide at least 15 million people with improved flood and drought risk management infrastructure.
- » **Coastal resilience:** Support at least 20 countries to adopt measures to increase their resilience to climate-related shocks and stressors in coastal areas.
- » **Human development:** Support at least 20 climate hot-spot countries with human development engagements (education; health, nutrition, and population; social protection and jobs) to effectively implement climate-resilience strategies.
- » **Financial protection:** Support at least 20 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.
- » **Forests and integrated landscape management:** Support interventions through an integrated landscape management approach for avoiding deforestation and promoting landscape restoration or sustainable forest management for 120 million hectares of forests in 50 countries.

DIVERSIFYING ADAPTATION FINANCING INSTRUMENTS

As shown in Figure 4, the share of WBG projects that have some level of climate adaptation co-benefits has steadily risen over the past few years and in FY18 reached 50 percent of the total portfolio. However, the share of WBG adaptation projects financed with instruments other than standard investment project finance remained quite low, only reaching 20 percent in FY18.

FIGURE 4

Number and share of World Bank Group projects that include adaptation financing, by instrument



The WBG will increase its support to countries to access a wider, more diverse set of financing instruments from the WBG and elsewhere to reduce their exposure to climate risks and improve the effectiveness of

adaptation and resilience finance. It will help guide countries toward the most appropriate sources and uses of concessional support and help them in navigating the requirements of different sources, while working with partners to encourage a global increase and simplification of concessional finance supporting transformative adaptation and resilience.

These diversified financing instruments include:

-
- » development policy finance (policy-based lending to support climate adaptation policy reforms);
 - » performance-for-results loans (loans that provide incentives for cross-sectoral solutions by emphasizing results);
 - » multi-phased programmatic approaches that support longer-term planning horizons;
 - » regional adaptation projects that address transboundary issues;
 - » resilience bonds (to directly raise capital for resilience investments);
 - » market-based insurance products; and
 - » contingent and other "insurance-type" financing options (such as Catastrophe Deferred Drawdown Options and products to be delivered and scaled up by the new Global Risk Financing Facility).

These efforts to help countries access wider instruments will not be restricted to those provided by the WBG. Indeed, the WBG will be looking to work with partners in this regard.

MOBILIZING PRIVATE SECTOR FINANCE

The third WBG finance-related commitment is to launch a coordinated approach to mobilizing private sector climate adaptation finance by the World Bank, IFC, and MIGA. The Maximizing Finance for Development (MFD) approach focuses on crowding in private finance by creating a conducive regulatory framework and promoting financial solutions to mitigating risk, such as through loan guarantees and strengthening domestic capital markets. This MFD approach will focus on two areas: (i) applying MFD upstream methodologies to promote changes in the enabling environment for climate resilient growth and (ii) mobilizing project-level finance for investments that integrate climate risk management measures.²

The renewable energy sector has been successful in leveraging private financing through smart energy reforms, power purchasing agreements, feed-in tariffs, and unbundled renewable energy certificates, which have turned renewable energy projects into bankable investment opportunities (NREL 2017). As a result, 92 percent of renewable energy financing is coming from the private sector (IRENA 2018).

In the case of adaptation, however, the bulk of financing still comes from the public sector (of which more than 75 percent is from national budgets and less than 23 percent is from international sources) (CPI 2017). While adaptation is likely to remain a largely public finance activity, there are opportunities to increase private sector climate adaptation finance.

The WBG will target two focus areas:

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- » Working with countries to create an improved enabling environment for private sector engagement in adaptation;
 - » Selecting countries in which investment-ready adaptation projects already exist and private co-financing may be feasible given appropriate project design changes.

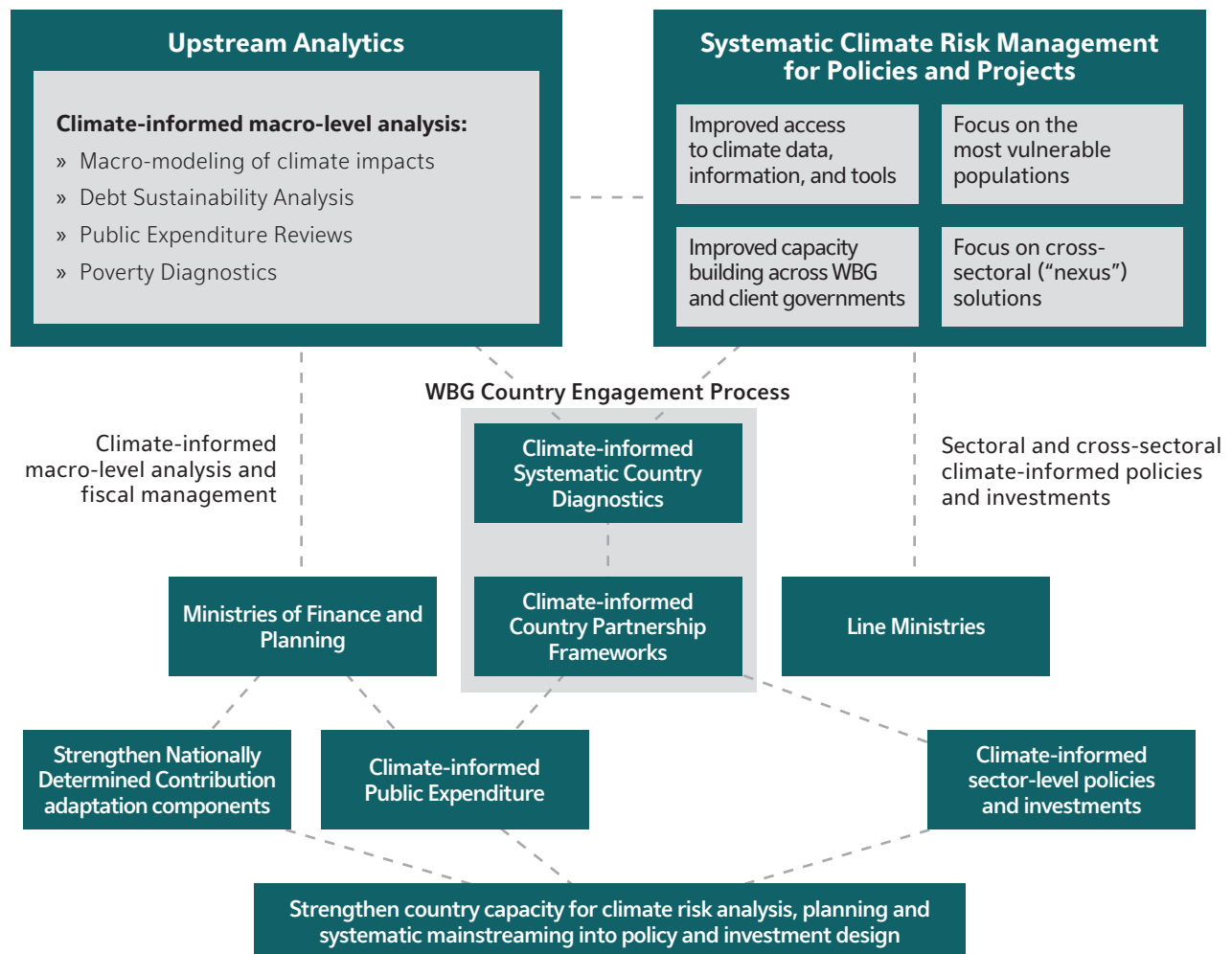
Objective 2: Drive a mainstreamed, whole-of-government programmatic approach

Full integration of development planning and climate change adaptation requires integrating climate risks and opportunities at every level of policy planning, investment design, implementation, and evaluation. Such integration is rarely done, often because of the lack of a well-targeted national plan, weak cross-ministerial coordination, inadequate climate information services to guide adaptation planning (Tall 2013), misaligned behavioral incentives, or weak capacity. Improved technical knowledge that promotes collaboration across ministries is needed. Success in mainstreaming climate adaptation should be measured by the extent to which all government expenditures are climate-informed.

This Action Plan commits the WBG to supporting systematic climate risk management in client countries through its analytics, financing, and convening power. Entry points range from upstream analysis (often with ministries of finance and planning) to downstream project design, implementation and evaluation (often at the local level). These entry points are shown on the left and right sides of Figure 5, respectively. The WBG systematic country diagnostics (SCD) and country partnership frameworks (CPF) provide the basis for integrating this support.

FIGURE 5

Framework for mainstreaming systematic climate risk management into development



Four key aspects of this mainstreaming approach are detailed below.

PROVIDING UPSTREAM SUPPORT TO MINISTRIES OF FINANCE AND PLANNING

The WBG will scale up upstream support to Ministries of Finance and Planning to better analyze and manage climate risks and opportunities, and their growth, poverty and fiscal implications. It will do so by adapting standard analytic processes, such as macroeconomic modeling, debt sustainability analysis, poverty diagnostics, public expenditure reviews, and public procurement guidelines, to encompass climate concerns. This will include demonstrating the economy-wide benefits of early climate change adaptation actions.

This will be a long-term effort, since the tools needed for such analysis are still under development. WBG staff will develop and roll out new models and tools, working increasingly with officials at central government agencies. Capacity-building efforts will be scaled-up commensurately. The climate change risks and opportunities identified by these models and analyses will be better reflected in Nationally Determined Contributions (NDCs), SCDs, and CPFs.

ENSURING SYSTEMATIC CLIMATE RISK MANAGEMENT ACROSS ALL SECTORS

The second entry point for mainstreaming climate change adaptation is to increase support to sectoral line-ministries with tools and analytics, including improved screening tools and sector guidance notes, to systematically integrate resilience measures into sectoral investment planning, design and implementation. The objective is to help client countries benefit from climate-smart projects as well as systemic sectoral resilience.

The Action Plan will contribute to improving sectoral knowledge and risk management by:

- » Developing the next generation of climate change risk assessment methodologies for high-risk sectors, including World Bank climate and disaster risk screening tools, to be applied in all investment operations. Tailored sectoral notes will guide countries on how to address identified risks, at the project level and systemically.³
- » Helping practitioners identify project-level climate and disaster risks, access the best available climate knowledge to quantify climate risk vulnerability of investment/target populations, devise climate-related risk management options, and maximize climate adaptation co-benefits.
- » Helping to increase systematic risk monitoring and impact evaluation throughout project implementation. On the WBG side, climate risks will be explicitly identified where applicable in results frameworks, in order to deliver better project outcomes and support greater flexibility to redesign project components as needed in the face of changing climate conditions.
- » Delivering other high-quality, high-impact analytics on emerging climate policy and research topics, to better inform sector policies, investment design, and implementation.

The WBG will collaborate with other partners to develop and deploy these tools, building on global experience.

SCALING UP SUPPORT TO SOCIAL RESILIENCE, FOCUSING ON THE MOST VULNERABLE POPULATIONS

Risks associated with climate change combine with and exacerbate other risks, such as food insecurity,

economic shocks, and migration. The WBG is committed to supporting the poorest who are most vulnerable to climate change. It will do so by focusing on interventions that target vulnerable populations, such as social protection or slum upgrading, and by ensuring that their interests are considered in decision-making processes. One priority area will be to better understand and act on the potential impact of climate change in fragile, conflict and violence (FCV) situations. The work will be integrated in the World Bank's newly mandated Risk and Resilience Assessments and crisis response platform, which represent the WBG's broader commitment to support FCV states. The WBG is also committed to expanding the integration of social resilience, gender, and citizen engagement at all phases of climate adaptation planning and investment, including upstream analytics, policy reform, project design and implementation, and training.

PRIORITIZING CROSS-CUTTING SOLUTIONS TO CATALYZE IMPACTS ON A LARGE SCALE

Cross-cutting (or “nexus”) approaches have high potential for addressing climate resilience at scale. Most countries and donors underutilize them. Nexus approaches are difficult to implement because they cut across traditional sectoral boundaries and require new ways of collaborating across agencies. The WBG is committed to scaling up their use, including by conducting more applied research on the economic benefits of cross-cutting approaches, building capacity, and increasing efforts to break down institutional silos. This is a particularly challenging area and the WBG will be looking to partner with others to advance this agenda.

As part of this Action Plan, the WBG will prioritize nexus solutions in six high-potential areas:

- » The integrated landscape management nexus brings together agriculture, forestry, environment, water, and transport to improve overall productivity and sustainability measured in economic and ecological terms. One particular relevant example of this approach is integrated coastal zone management, which brings together municipalities; zoning authorities; and ministries of the environment, tourism, transport, and public works to build coastal resilience to extreme events and sea-level rise.
- » The food-health-energy-water nexus builds resilience of these interrelated systems. Health is an increasingly important component of this nexus, playing a critical cross-cutting role, for instance, in understanding how water and air pollution affect health or how dietary choices affect agricultural and water practices.
- » The “resilient cities” urban-water-energy nexus brings together municipalities, water utility companies, energy companies, and various line ministries to achieve greater urban climate resilience by enhancing urban service delivery, water supply quality, drainage and reuse, and emissions reduction. The World Bank Cities Resilience Program helps cities develop their financial and technical capacity to prepare for, mitigate, or prevent climate change-related disasters.
- » “Triple-win” approaches seek to capture benefits from development, emissions reduction, and enhanced resilience. One example is the growing need for cooling. As extreme heatwaves become more frequent, widespread installation of fossil-fueled air conditioning will exacerbate global warming. Alternative solutions, such as installation of green roofs and street trees, reduce energy demand for air conditioning, provide green space for recreation, and help meet mitigation targets. Other examples are afforestation and climate-smart agriculture.
- » Nature-based solutions (also called ecosystem-based adaptation) can deliver multiple resilience, economic, and ecological co-benefits and are often more flexible and cost-effective than traditional “hard” engineering options. WBG investments demonstrate that nature-based solutions—such as wetlands, mangroves, and coral reefs—can effectively and economically reduce risk while creating income-generating co-benefits in tourism, fishing, and housing. Although mostly local in scale, nature-based solutions often face the complexity of working across multiple levels of governance and even across borders.
- » Hydromet and climate services bring together national meteorological and hydrological agencies, disaster

managers, and end-users across all sectors to deliver actionable, timely, and usable climate and weather information to inform decision making.

Many of the financing targets in the “WBG 2025 Climate Change Targets and Actions” noted above include nexus solutions (such as water security, forests and integrated landscape management, and coastal resilience). These priorities will be supported by strengthening communities of practices (both within and outside the WBG) that help break down silos between traditional urban, water, agriculture, health and environment sector specialists.

Objective 3: Develop a new rating system

In July 2015, the multilateral development banks agreed on a methodology to capture the volume and distribution of the incremental costs for addressing climate change vulnerabilities through projects financed by them. The resulting “Common Principles for Climate Change Adaptation Finance Tracking” has been used since then to “track finance for activities that address current and expected effects of climate change.”⁴ As financing by multilateral development banks is fundamentally in support of development objectives, climate change benefits are considered complementary to development benefits and are therefore called climate change co-benefits.

Although this methodology has helped provide comparable numbers across institutions, it has limitations:

- » It underestimates adaptation co-benefits, because 100 percent of the cost of mitigation components are counted as mitigation co-benefits, whereas only the incremental costs of adaptation measures are counted as adaptation co-benefits.
- » It fails to capture high-quality activities that may have low, zero, or even negative costs (for example, regulatory reform with large positive financial or economic benefits, or climate resilient designs that cost less than the alternatives).
- » It fails to capture the bidirectional nature of adaptation and development co-benefits because it emphasizes the benefits of development actions for adaptive capacity at the expense of capturing adaptation benefits to development.

Private investors are also showing an increasing interest in measuring climate resilience, but problems stand in their way. Markets lack uniform guidance on what constitutes a climate-resilient investment. In addition to the risks of underperformance, the lack of guidance or standards prevents definition of an investment class, such as resilience bonds, in which investors have (verbally) indicated interest. Establishment of definitions for resilient assets would help build a pipeline of climate-resilient projects and accelerate the structuring of an asset class similar to green bonds, channeling external financial flows for climate resilience. In the public sector, the definitions of large projects used in public procurement often do not integrate specific and detailed climate resilience considerations.

In response to these concerns, the WBG will develop and introduce new resilience metrics or an adaptation rating system. This system will be designed to create incentives for countries, donors, and the private sector to engage in more and better adaptation; to more effectively report on what the WBG and clients are doing; and to establish a global standard for financial markets and public procurement. The new metrics will be developed by building on past methodological work and case studies and will complement the co-benefits methodology currently used (see World Bank 2017a, 2017b).

A key objective of the new system is to encourage countries and donors to go beyond climate-resilient projects to building systemic resilience. Projects will be rated along two dimensions of resilience: the resilience of the specific project to climate risks and the extent to which the project builds adaptive capacity and strengthens in-country climate resilience. The second dimension is important because it promotes

development projects that improve resilience more broadly than simply ensuring that the individual investment is resilient. This rating methodology could be used to help countries identify priority climate resilience building actions and promote external financial flows for priority investments. Private sector investors are likely to be more interested in investments with strong ratings, particularly if they generate private benefits.

The World Bank will work closely with other multilateral development banks and external partners to maximize ownership and potential impact of the new system beyond its portfolio. It plans to pilot the new system internally in target sectors in FY19–20 and roll it out to all World Bank projects by FY21.

Implementing the WBG Adaptation and Resilience Action Plan

This Action Plan calls for scaled-up macroeconomic and sector-specific actions that will facilitate both national and community-based actions. It will also facilitate both soft (behavioral and policy incentives) and hard (infrastructure) actions. The plan was developed with active participation from across the World Bank, IFC, and MIGA, building on lessons from the WBG's past and ongoing work.

As noted in the sections on finance, mainstreaming and metrics, partnerships with both public and private sector stakeholders will be essential. The WBG will promote partnerships with other multilateral development banks and UN agencies, private sector firms, and civil society. Partnerships will be implemented differently depending on the operational objective of each, but all require openness in sharing progress on shared goals. The Global Commission on Adaptation, launched in October 2018, offers an opportunity to collectively raise awareness of the urgent need for increased effort on climate change adaptation.

The Action Plan embodies a process of adaptive learning, experimentation, monitoring, and evaluation through 2025. Throughout that time, the WBG will periodically take stock and update its targets as needed to take into account successes and failures.

Climate change poses a profound threat to hard-earned development gains. The WBG is stepping up on adaptation and resilience because these are key to securing a safer, more prosperous future for us all.

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1. Given the low level of and difficulties in increasing private sector investment in climate adaptation actions, IFC and MIGA will seek to increase their share of climate finance going to adaptation and resilience, but they will not be able to achieve parity with their mitigation investments.
 2. The MFD is a new WBG framework for fostering improvements in the investment enabling environment and private sector financing (or co-financing) of investments. See <http://www.worldbank.org/en/about/partners/maximizing-finance-for-development>.
 3. IFC will complete its risk screening pilot in seven sectors in FY19 and will subsequently commence systematic screening of climate risk in relevant sectors, prioritizing the most vulnerable ones.
 4. For details about the methodology for tracking climate adaptation and mitigation finance, see ADB 2015 (the Joint Report on Multilateral Development Banks' Climate Finance).

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THE WORLD BANK GROUP'S

Action Plan on Climate Change Adaptation and Resilience

MANAGING RISKS FOR A MORE RESILIENT FUTURE



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