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**Achieving Climate and Development Goals:
The Financing Question**

Attached is the document titled “Achieving Climate and Development Goals: The Financing Question,” for the October 14, 2022 Development Committee Meeting.

ACHIEVING CLIMATE AND DEVELOPMENT GOALS: THE FINANCING QUESTION

The World Bank Group

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List of Acronyms and Abbreviations

CAT-DDOs	Catastrophe Deferred Drawdown Options
CCAP	Climate Change Action Plan
CCDR	Country Climate and Development Reports
CERCs	Contingent Emergency Response Components
CPAT	Carbon Pricing Assessment Tool
DFIs	Development Finance Institutions
EAP	East Asia and the Pacific
EMDEs	Emerging Market and Developing Economies
EPC	Engineering, Procurement and Construction
FIF	Financial Intermediary Funds
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
GDP	Gross Domestic Product
GHGs	Greenhouse Gases
GPGs	Global Public Goods
GRID	Green, Resilient and Inclusive Development
IFC	International Finance Corporation
InfraSAP	Infrastructure Sector Assessment Program
IPCC	Intergovernmental Panel on Climate Change
J-CAP	Joint Capital Market Program
KPIs	Key Performance Indicators
LICs	Low-Income Countries
LTSs	Long-Term Strategies
MCPP	Managed Co-lending Portfolio Program
MDB	Multilateral Development Banks
MICs	Middle-Income Countries
MIGA	Multilateral Investment Guarantee Agency
MPA	Multiphase Programmatic Approach
MSMEs	Micro-, Small-, and Medium-Sized Enterprises
NDCs	Nationally Determined Contributions
NGFS	Network for Greening the Financial System
O&M	Operations and Maintenance
PMI	Partnership for Market Implementation
PPP	Public-Private Partnerships
PV	Photovoltaics
RBCF	Results-Based Climate Finance
SCALE	Scaling up Climate Action by Lowering Emissions
SIDS	Small Islands Developing States
SOE	State-Owned Enterprises
SLBs	Sustainability-Linked Bonds
SSLBs	Sovereign Sustainability-Linked Bonds
SLLs	Sustainability-Linked Loans
UNFCCC	United Nations Framework Convention on Climate Change
WBG	World Bank Group

Executive Summary

In the current context of overlapping crises, climate action remains critical. Man-made greenhouse gas emissions are causing climate change, which in turn is having tragic impacts on people and development in multiple ways. Achieving true momentum to address the climate emergency with disproportionate impact on the poor and vulnerable households in developing countries will require the identification of impactful programs and projects, adequate public policies, and significantly increased funding from multiple sources. Mitigation activities that reduce greenhouse gas (GHG) emissions provide a key global public good. Adaptation activities can reduce deaths and negative externalities such as hunger, migration, conflict, and trade protectionism. Making progress on mitigation requires (i) solid diagnostics showing major GHG emitters, (ii) prioritization of interventions in terms of GHG emissions reductions versus costs, (iii) necessary incentives at the global level and policies at the country level, (iv) sector transitions in energy, transport, industry, agriculture, and housing, among others and (v) impactful projects and appropriate financing. A large portion of projects (or parts of those projects) are not bankable and will require concessional and grant financing, and effective and impactful private capital enablement and mobilization. Appropriately targeted and calibrated subsidies, use of carbon taxes and other carbon pricing instruments where appropriate and transparent regulatory frameworks will be needed to create viable incentives. The financing challenges in all these aspects are more difficult for developing economies, especially in the current global context, and will require new financing frameworks and the participation of international financial institutions, donor countries, the private sector, and/or philanthropies.

There is a significant gap in funding for climate action in developing countries. The annual flow of climate finance to developing countries is less than \$425 billion for LICs and MICs. These flows should at least quadruple by 2030. Key obstacles in generating funding from the private sector include aligning incentives for global public goods action, project identification and pipeline challenges, business environment weaknesses, high risk perceptions, and regulatory constraints. The current environment of multiple shocks, elevated risks, and budgetary constraints compounds the challenges for the public sector.

Adequate policies and capable institutions that are aligned with long-term climate and development objectives are key to accelerating climate action and maximizing the impact of limited resources. Distortive fossil fuel and agricultural subsidies can be repurposed into funding for climate action and for the mitigation of the distributional impacts of such reforms. Carbon pricing, achieved through carbon taxes emissions trading systems, regulatory mandates, and climate disclosure rules among others, can guide the allocation of private capital to impactful projects, mobilize additional domestic public resources, and help develop carbon markets. Reforms to state-owned enterprises (SOEs) and climate-smart sector policies can build the resilient sectors that are essential to the climate transition, including in energy and water. Countries can apply sector reforms, financial regulation, institutional capacity building, and improved investment climates to unlock investment opportunities for the private sector to play its part in reducing the financing gap.

Development finance will play an important role but is not sufficient. The global community – public and private sectors, and philanthropic foundations – must step up to partner with and supplement development finance in order to achieve climate goals. Many priority interventions that are efficient and essential to reducing global GHG emissions or improving resilience may not meet private sector investment criteria, even after feasible policy reforms such as deployment of carbon pricing tools to provide climate-friendly incentives; and even with below-market financing and de-risking from multilateral development banks (MDBs) and development finance institutions (DFIs). Such interventions require very large grants and concessional resources for projects based on

their ability to reduce emissions, improve resilience to climate change and provide a just transition to lower carbon activities. These interventions include projects that: (i) require initial funding support for system planning or project preparation; (ii) are not commercially viable if only their domestic benefits are accounted for; and (iii) are compensations that bring no financial returns, even though they bring large global public good benefits and/or social benefits essential for a just transition. Existing instruments for such interventions including from IDA have a track record of efficiently channeling funds to projects that will reduce GHG emissions and build resilience but need significantly more funding from the global community.

The World Bank Group (WBG) is the largest multilateral provider of climate finance for developing countries. It has led the way in mobilizing more international public and private finance to integrate climate and development and continues to identify ways to go further, as committed to in the Climate Change Action Plan.

The new core WBG diagnostics, Country Climate and Development Reports (CCDRs), offer a strategic opportunity to identify, sequence, and prioritize policies and interventions that reduce GHG emissions and boost resilience. The WBG will combine CCDR findings, policy advice and financing, and scalable mechanisms and initiatives to mobilize funding for climate action.

The WBG will enable private sector climate investment through policy work, enhancing market transparency and efficiency, project preparation, and innovative approaches, as well as through its convening role.

Applying the “cascade”¹ approach and through collaborative work of the World Bank, International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA), we will continue to (i) provide support in preparing and structuring projects, (ii) work with governments to set policies and incentives, (iii) apply appropriate de-risking tools, and (iv) provide and mobilize funding. The new Business Enabling Environment (BEE) benchmarking exercise will provide country-specific quantitative assessments of the business environment for private sector development. IFC 3.0 upstream efforts will, in collaboration with the Bank, contribute to market conditions that foster private sector involvement and expand the pipeline of projects that mobilize private capital. MIGA will continue to innovate to make its products useful in green bond markets, raise capital from institutional investors, and create new applications of its products such as in carbon markets and distributed energy. We will also support efforts to green the financial sector, including by helping countries introduce green taxonomies, climate-related disclosures, and reporting standards; and by helping both public and private sector clients to enhance their climate risk management. These efforts can increase market transparency, enhance the understanding of climate-related risks and opportunities, and encourage reallocation of capital to climate investments.

We are also developing models to pool funding from the global community and make it available for the most impactful and scalable projects to reduce GHG emissions, finance adaptation, and mobilize private capital.

In addition to efficiently leveraging capital provided by shareholders through our balance sheet, we expect to launch trust fund initiatives such as the Scaling up Climate Action by Lowering Emissions (SCALE) partnership to assist the scale up of the monetization of carbon credits to partially finance and incentivize the climate transition. The WBG is working on developing co-investment platforms with institutional investors to finance climate action, including by utilizing donor support to accelerate the energy transition. The WBG is also rolling out tools to support clients in building capacity to access international carbon markets and develop domestic carbon markets, drawing on our expertise and lessons learned as a pioneer in this field. In addition to the co-financing platform MCPP One Planet Fund, IFC is exploring a multi-originator platform to warehouse and securitize emerging markets private debt. The WBG will continue to develop and implement replicable, scalable joint WBG solutions, such as the Scaling Solar and Joint Capital markets (J-Cap) program, that crowd in private climate finance through standardized toolkits to improve cleaner power generation, water management, and clean cooking.

Introduction

- 1. The funding needs for climate mitigation and adaptation are in the trillions of dollars, at a time when many countries face significant fiscal and economic challenges, and poverty reduction has stalled.** As set out in the WBG's Global Crisis Response Framework Paper², and further described in this year's Development Committee paper, "*The Food and Energy Crisis: Weathering the Storm*," these challenges include slowing growth, rising food and energy prices, rising inflation, high levels of public and private debt, and growing fiscal constraints, all of which are exacerbated by rising interest rates globally, the persistence of the COVID-19 pandemic and the impacts of the war in Ukraine. Under such circumstances, low- and middle-income countries (LICs and MICs), in particular, are facing difficult trade-offs between competing investment needs and are struggling to mobilize public and private resources required for their climate and development priorities.
- 2. Estimates of the long-term costs of inaction are also in the trillions and will continue to increase the longer that climate action is delayed.**³ Estimates suggest that insufficient action on climate change could cost the global economy \$178 trillion by 2070, or almost double the current global gross domestic product (GDP).^{4,5} For example, diminishing water supplies and water-related losses in agricultural and other output could cause growth rates in some regions to decline by as much as 6 percent of GDP by 2050.⁶ At the same time, man-made climate change is leading to irreversible, non-linear impacts on biodiversity and ecosystem services, which could in turn lead to significant GDP losses. Conservative estimates suggest that the collapse in select services, such as wild pollination, provision of food from marine fisheries and timber from native forests, could lead to more than 10 percent reduction in GDP in low-income and lower-middle income countries in 2030.⁷ On the social front, more than 216 million people could be pushed to migrate within their own countries by 2050 and millions of others to migrate internationally, thereby exacerbating existing vulnerabilities and fragility.⁸ A growing body of evidence also shows that climate change impacts, including more frequent and intense periods of drought, floods, hurricanes, extreme rainfall events, and rising sea levels, disproportionately affect the poorest, women and girls and the most marginalized groups.^{9,10} In addition, climate-related natural disasters further lead to human loss, destroyed property, damaged infrastructure, reduced agricultural yields, and slowed economic growth. Ensuing lost tax revenues and increased public spending for relief and reconstruction will strain governments' budgets and may stymie or even reverse development gains.
- 3. Integrated solutions can, in contrast, address the complexities of climate change alongside broader development goals, including energy access, increased productivity, and human capital,** as highlighted in the 2021 Development Committee paper "*WBG Financing for Green, Resilient and Inclusive Development: Towards A Post Pandemic Approach*" (GRID Paper, Fall 2021). For example, renewable energy provides an opportunity to meet the energy access and energy security needs of developing countries while reducing greenhouse gas (GHG) emissions and costly energy imports. Climate-smart agricultural production can enhance the efficiency of farming practices and landscape approaches can decrease deforestation and conserve environmental services, including water and biodiversity. Actions to adapt to climate change and boost resilience can reduce death tolls and economic losses from disasters. Each \$1 invested in more resilient infrastructure is estimated to yield close to \$4 benefit in avoided disaster losses.¹¹
- 4. Public and private finance as well as international development partners' resources are the key sources for financing the investments needed for climate mitigation and adaptation.** Climate finance refers to domestic or international financing provided by any public or private entity for activities that, in whole or in part, mitigate GHG emissions or support adaptation and resilience to climate change.¹² Domestic, international, public,

or private sources of climate finance can differ significantly in scale, types of climate activities financed, and contractual terms. While certain uses could generate enough revenues to attract private capital, other uses such as financing social costs linked to activities that generate domestic or global public goods (GPGs) (see Box 1) may need domestic or international public funding as they do not produce direct financial revenues.

5. **This paper takes stock of financing flows supporting climate action in the developing world, assesses why the flows are far below needs, outlines priority actions for all stakeholders, and lays out what the WBG will do to support the scale up of climate finance in developing countries.** It builds on the GRID framework and offers a deeper look at the three streams of climate financing (public, private and development finance). It also includes some early takeaways from the first CCDRs, a key pillar of the WBG Climate Change Action Plan (CCAP).

Box 1: Global public goods (GPGs)¹³

Public goods have two key features. First, they are “nonexcludable” (i.e., they benefit everyone within a jurisdiction). Second, they are “nonrival” (i.e., the consumption of the public good by one party does not diminish the amount available to other parties). Public goods can be provided domestically (e.g., clean air and water) or regionally (e.g., elimination of polio in the Americas). GPGs provide cross-border benefits across countries, irrespective of who provided them.

Public goods are undersupplied because their nonexcludable nature creates an incentive to “free ride.” This is especially true for GPGs that are missing institutional and regulatory frameworks to prioritize and coordinate actions across national governments .

A well-known example of a GPG is the reduction of GHG emissions, as one country’s emission reductions benefit all countries by reducing GHG. There is growing evidence that climate impact and adaptation failures in one country can have *spillover* effects on others (i.e., affecting regional or global public goods). This happens through migration and transboundary conflicts and trade (for example, effects on food prices). Similarly, actions in support of adaptation will likely have increased transboundary implications, most notably when linked to water retention, storage, and/or river rerouting. Global and/or regional coordination on such adaptation mechanisms is therefore increasingly important.

Assessing Climate Finance Needs and the Financing Gap

6. **Estimating the financing gap in LICs and MICs is a challenge.** Needs assessments depend not only on the climate scenario chosen and which climate actions may be taken by a country, including policies and investments, but also when those actions occur. Financing needs for adaptation are more difficult to define than for mitigation because mobilizing specific adaptation investments is only part of the challenge since ultimately improving societies' adaptive capacities depends on broader progress on inclusive development.¹⁴ Measuring and tracking climate finance delivery in practice is a challenge due to lack of uniform methodologies to calculate the climate finance portion of a financing package, especially for adaptation, and the absence of standardized and transparent reporting by climate finance providers and recipients. These factors result in major data gaps to set a baseline and measure progress. This is compounded by the fact that climate and development objectives are very closely linked, as the CCDRs show, and financing to meet a development objective can contribute to climate action and vice versa. Despite these challenges, this section attempts to summarize estimated ranges for both the financing needs and gaps in LICs and MICs.

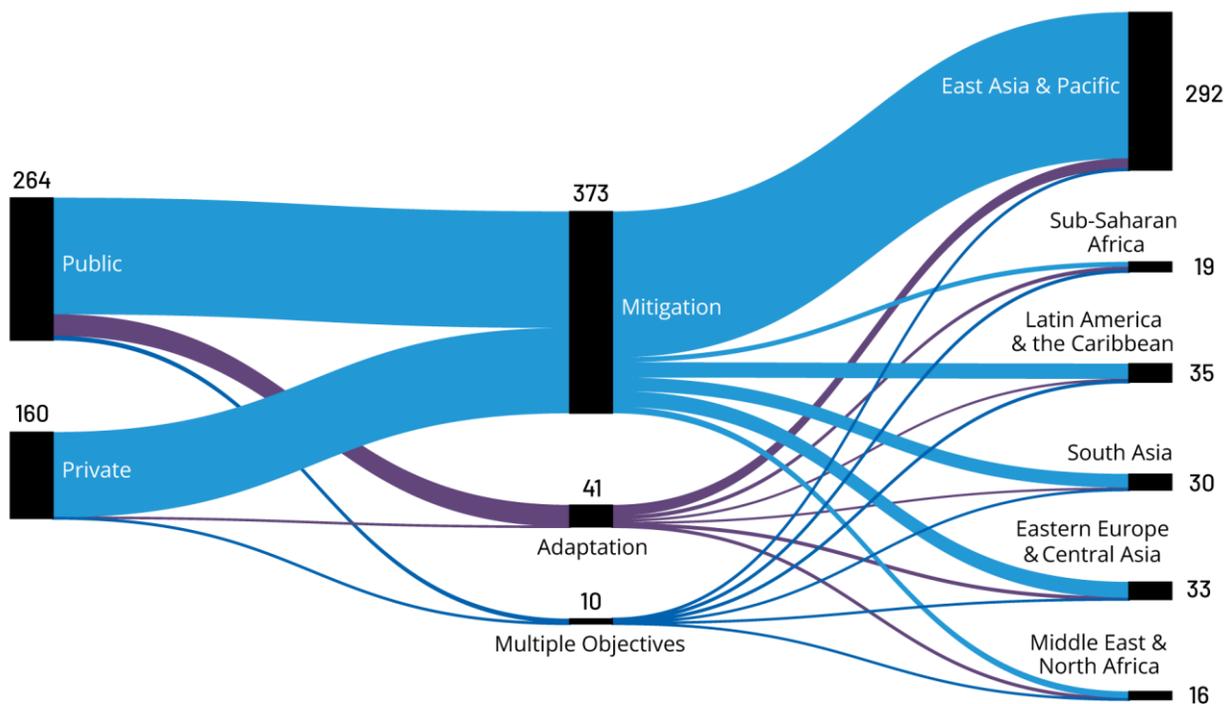
7. **Despite its long-term benefits, the climate transition would require trillions in incremental investment costs in LICs and MICs.** LICs and MICs are estimated to need between \$1.7 and \$3.4 trillion in climate finance per year by 2030 to support their climate action.¹⁵ Investment needs could, however, be even higher if interventions are delayed, spending is inefficient, or policies are inadequate. Infrastructure investment needs can double

without appropriate planning and policies.¹⁶ In LICs and MICs, each year of delaying resilience-enhancing policies in infrastructure sectors could also cost an additional \$100 billion in avoidable disaster impacts.¹⁷

8. **Current climate finance delivery is uneven and pales in comparison to the investment needs.** Annual average climate finance in LICs and MICs reached around \$425 billion in 2019/2020 (Figure 1)¹⁸. Over 85 percent of these flows were directed to mitigation, with photovoltaic (PV) solar and onshore wind power attracting the largest portions. Almost 60 percent of this mitigation finance was provided by public actors led by national development finance institutions (27 percent), state-owned financial institutions (11.5 percent), and multilateral development banks (MDBs) (around 7.5 percent). Recognizing the challenges of defining and measuring adaptation finance¹⁹, the average flows tagged to adaptation in LICs and MICs 2019/2020 were about \$41 billion, i.e., less than 10 percent of climate finance flows. Almost all adaptation finance tracked to LICs and MICs was provided by public actors, such as MDBs (36 percent) and national DFIs (36 percent). Fragile countries, in particular, received far less than others even though they are at the highest risk of climate-related impacts.

9. **Climate finance flows to LICs and MICs should at least quadruple from less than \$425 billion to at least \$1.7 trillion by 2030.** Without a significant increase in climate finance delivery, the annual financing gap in LICs and MICs could reach between \$1.3 and \$3 trillion by 2030. Differences across countries are significant, however. Flows to Eastern Asia would, for instance, have to increase by a factor of 2-4 times (versus 4-8 times for all developing countries and 2-5x for developed countries).²⁰ The need to scale up is particularly acute for adaptation finance, where current annual flows, at \$41 billion, cover less than 18 percent of the mid-range of annual needs for adaptation in developing countries as estimated by UNEP.²¹

Figure 1: Climate finance flows to LICs and MICs, 2019-2020 average (\$ billion)²²



Why is the Climate Financing Gap so Wide in LICs and MICs?

10. **Climate finance faces both supply- and demand-side constraints.** The supply side suffers from a scarcity of public resources in recipient countries given current economic conditions and competing pressures on government budgets to meet short-term needs and long-term development goals, as well as persistence of counterproductive policies such as fossil fuel and other subsidies, which distort markets and incentivize continued reliance on carbon intensive technologies. It also suffers from the scarcity of international financial resources, in particular concessional and grant resources. Private sector risk appetite (including for long-term tenors) in LICs and MICs is also low, reflecting lack of knowledge about opportunities and innovative options to finance them, country risk in emerging markets due to high debt levels, and rising interest rates in advanced countries. Lack of supportive policies and climate regulations in LICs and MICs adds to the challenge. In addition to the limited supply of climate finance, its affordability is a challenge as over 60 percent of climate finance delivered in LICs and MICs was in the form of debt, including 40 percent as project finance debt at market rates including from national DFIs (25 percent). Demand-side challenges result from a significant variance in the type of financing needs (see Box 2) and a limited pipeline of impactful and investable projects exacerbated by limited institutional capacity at the level of recipient countries and lack of upstream funding to help prepare these projects.

Box 2: Not all climate finance needs are created equal

Climate finance needs differ by country circumstances and by type of climate action being financed. Across **countries**, the urgency to reduce GHG emissions and boost adaptation and resilience to mounting climate impacts is intensifying. However, effective action must be differentiated in line with specific country needs and circumstances. For example, **LICs and Small Island Developing States (SIDS)** bear the brunt of climate impacts and need massive support for adaptation; while **MICs**, which account for a growing share of GHG emissions, face complex just transitions with high up-front costs to a more sustainable low-carbon future.

Climate finance needs for **mitigation** differ by type of activity being financed. Private investors could finance commercially viable projects. However, many climate interventions to reduce GHG emissions would not meet private sector investment criteria, even when combined with below-market financing and risk absorption (de-risking) from DFIs. Such interventions generally require concessional and grant financing:²³

1. Some projects reduce emissions but will not be implemented without initial concessional and/or grant support for system planning or project preparation. These kinds of projects are difficult to launch due to high preparation costs and risks, which necessitate early-stage technical assistance and concessional and grant support, including the preparation of infrastructure master plans.
2. Some projects reduce emissions and generate GPGs but are not commercially viable when only accounting for domestic benefits, and thus face funding or affordability challenges (especially if they are funded through tariff surcharges for example). In such cases, a public subsidy, from either domestic or international sources, can monetize the GPG benefits and increase the prospects for commercial co-financing.
3. Finally, some interventions are compensation payments with no financial returns, even though they bring large GPG and/or social benefits essential for a **just transition** (for example when phasing down coal and other carbon-intensive power generation). For context, Bank staff estimates that implementing a just transition by managing the social impacts of closing coal power plants and mines in LICs and MICs would cost over \$50 billion a year between now and 2040.²⁴ These interventions would require public funding, including concessional and grant support to incentivize action.

Although additional complexity arises when one intervention combines several of the above issues, this creates opportunities for creative financial arrangements and blended finance solutions. For instance, a project to close a coal power plant might include: the renegotiation of the Power Purchase Agreement, which is an explicit liability; the compensation of workers and

affected communities, which are implicit liabilities; the construction of a utility-scale solar power plant for the future, which could be bankable if it generates adequate revenues; and investments in transmission and storage.

Adaptation projects do have specific challenges because the benefits (i) tend to be non-monetary, like better health, or they are difficult to monetize because they entail avoided impacts; and (ii) generally involve local public goods. In addition, a large share of adaptation needs is for low-income communities that have fewer resources and low access to capital, and which have comparatively contributed the least to GHG emissions. Such projects generally need funding support through international transfers to make adaptation investments affordable for LICs in line with the principle of common but differentiated responsibilities.

Despite large social and economic co-benefits, some high-return **resilience** investments are not made because of transaction costs (leading to **affordability** challenges), institutional capacity and governance challenges, and lack of funding for early risk analysis. Using donor resources to remove some of these barriers could unlock higher private investment in resilient infrastructure and generate massive value for developing countries.

11. **Public finances in LICs and MICs are increasingly constrained.** Government debt and budget deficits have increased as countries have implemented fiscal response measures to respond to the pandemic and rising food, fertilizer, and fuel prices. Many countries now also face high inflation, weaker currencies, and rising borrowing costs. Climate change, which is affecting an increasing number of sectors, is expected, all things being equal, to have knock-on effects on tax revenues, trade balances, and debt levels, putting further pressure on the domestic public resources available for climate action, especially as governments face pressure to respond to other pressing development challenges.

12. **Governments are, however, still spending billions each year on inefficient subsidies that not only decrease the resources available for priority expenditures but are counterproductive with regards to climate action.** The magnitude of explicit subsidies²⁵ for fossil fuels, agriculture, and fisheries is vast and likely exceeds \$1.3 trillion annually worldwide²⁶ including around \$300 billion for fossil fuels alone in emerging market and developing economies (EMDEs) (representing over 50 percent of fossil fuel subsidies spent globally).²⁷ In addition, annual agricultural subsidies have reached \$635 billion worldwide. This spending is not sustainable.

13. **Developed countries have not met their pre-existing commitment to deploy and mobilize \$100 billion per year in climate finance by 2020.**²⁸ Climate finance provided by developed countries for developing countries only reached \$83.3 billion in 2020.²⁹ While the \$100 billion target is far below the level of international support needed, missing it makes it even more difficult for LICs and MICs to act. In addition to stepping up Official Development Assistance for climate action, **philanthropic capital could be a complement** as philanthropies can deploy flexible and risk-tolerant funding tailored to country or regional contexts at affordable costs, especially in LICs. Despite recent major pledges, philanthropic capital for climate remains limited: only \$6 to \$10 billion (or 2 percent of global philanthropic giving) in philanthropic capital was dedicated to climate mitigation in 2020 and even less was to adaptation.^{30,31}

14. **Despite growing ambitions to invest for climate, private sector actors have shied away from investing in developing countries.**³² Total annual private financial flows for climate and non-climate activities have averaged only \$12 billion for LICs and \$800 billion for MICs over 2017-2020.³³ The private sector is stating a growing climate ambition, with at least one-third of the world's publicly traded companies pledging to reach net-zero emissions by 2050 or sooner; but most still lack clear, actionable and tangible plans to meet their net-zero ambitions.³⁴ Private climate finance for LICs and MICs reached only \$160 billion on average over 2019/2020 and is concentrated in East Asia and Pacific (EAP) (70 percent). In addition to general macroeconomic and political risks, several factors reduce private sector appetite for climate investments in LICs and MICs, including lack of certainty around government commitments, plans, and policies; high upfront capital costs in climate investments requiring long

payback periods; lack of a pipeline of impactful and investable projects; and the lack of investment track record in many LICs and MICs countries especially with newer technologies.

15. **The misalignment of fiscal, economic, and climate policies and the lack of institutional capacity limit countries' abilities to attract private capital.** Policy changes and improvements to quality of institutions are key to provide the right incentives for global private investors to increase their investment flows to LICs and MICs and for domestic investors to reallocate financing to climate-related investments. These include long-term climate strategies and policies that offer certainty to investors and align climate objectives with other economy-wide or sector-specific policies. Many countries still do not have neither a clear long-term strategy, nor sectoral pathways for climate adaptation and mitigation or, if they do, would need to better communicate them to investors. In particular, policies that ensure that externalities are adequately priced, including through, if appropriate, carbon pricing instruments (carbon taxes or emissions trading systems), and elimination of inefficient fossil-fuel subsidies, which distort technology choices and consumption modes in favor of fossil-fuel intensive options. Today, less than four percent of global emissions are covered by a direct carbon price within the range needed by 2030.³⁵ Many developing countries continue to subsidize fossil fuels – disincentivizing investment in climate positive projects.

16. **Finally, the financing gap for LICs and MICs may be greater than reported because the methodologies used to calculate and report climate finance deployed by or needed from different actors lack quality, transparency, and consistency.** The MDB-agreed “Common Principles for Climate Adaptation and Mitigation Finance Tracking” could be used by other public and private actors to track and report their climate finance to LICs and MICs. There are other standards being developed that could also be used once they are finalized and broadly accepted.

The Central Role of Adequate Policies and Impactful Projects

17. **An essential priority to quadruple annual climate finance in LICs and MICs by 2030 is for governments to adopt adequate policies and identify, design, and implement impactful projects and programs.** Designing robust policies and strategies with appropriate prioritization and sequencing can help minimize investment needs and optimize available financing. To help scale up climate finance, governments in developing countries could consider: (i) repurposing subsidies that sustain carbon-intensive activities into resources to support climate action while mitigating potential distributional impacts from such reforms; (ii) aligning fiscal, economic, and climate policies, including carbon pricing, taxes and sectoral regulations, to improve the business case for climate investments and enable private finance; (iii) identify, design and implement impactful projects by mainstreaming climate considerations in public investment planning and public financial management (especially for adaptation); (iv) reforming and prioritizing support to State Owned Enterprises (SOEs) that are key to implementing the country's decarbonization and adaptation strategies; (v) greening the financial sector; and (vi) using, to the extent possible, grants financing, carbon markets, and results-based sustainability-linked borrowing to lower the budgetary cost of implementing high-impact mitigation and adaptation projects. Specific actions should be designed and implemented in the context of each country's overall fiscal, economic, political, and administrative system, also relying on civil society organizations key to enhance the accountability of governments, development partners and private sector on finance deployed for climate and development.

18. **First, governments (in both recipient and donor countries) can reexamine and redirect inefficient subsidies.** Subsidies can be used to encourage desirable outcomes and correct market failures, but they can also be distortionary, with negative long-term impact on economic efficiency, and increase environmental damage. For example, broad-based energy subsidies distort price signals and reduce incentives for efficient energy

consumption and investments in cleaner energy alternatives. Reduction of such subsidies would better align energy prices with true costs and increase the competitiveness of low-carbon energy sources. Likewise, many agricultural subsidies incentivize farming practices that neither minimize emissions nor increase critical land-related carbon sequestration. Untargeted energy and food subsidies are an expensive way to provide support to poor households and well-targeted cash transfers are a more effective mechanism for supporting poor and vulnerable groups affected by high energy prices.³⁶ Inefficient subsidies often persist because of significant political opposition to their removal. As such governments need to consider how the subsidies could be reformed in combination with cash transfer programs that mitigate the distributional impacts of such reforms and reduce potential negative political implications thereof.

19. **Second, governments can align fiscal, economic, and climate policies to reduce the costs of climate transition, improve the business case for climate investments, and enable private investing.** Countries need to quickly identify urgent policy and regulatory reforms to avoid significantly increasing the cost of the transition. A clear climate investment strategy and plan at the country level includes robust long-term strategies (LTSs) and aligned and credible nationally determined contributions (NDCs); that are enshrined in laws and regulations and are consistent with existing legal frameworks. These strategies help to underpin government climate policy and regulations, reduce transition costs, and provide needed clarity and pipeline of impactful projects to enable private sector investments by local and international investors such as multinational firms who can facilitate the rapid transfer of green technologies to domestic firms.³⁷ Equally important are efficient governance, capable institutions and an effective policy environment, to make climate finance needs lower and easier to meet. This includes stable macroeconomic and financial environments; well-informed public decision-making at every level (national to subnational to local); efficient public investment management, budgeting, and procurement; and policy and regulatory predictability.

20. **Appropriate carbon pricing policies will help to incorporate climate change costs into economic decision-making, raise revenues, and decarbonize by leveling the playing field between carbon-intensive and low-carbon activities.** Common explicit carbon pricing instruments include carbon taxes, emissions trading systems, and crediting mechanisms.³⁸ The choice of carbon pricing instrument depends on policy objectives and national circumstances and would need to be developed alongside other key policies and investments (e.g., power transmission infrastructure and vehicle emission standards). It should be noted that experience from developing countries that have reduced or eliminated inefficient fossil fuel subsidies, as well as the smaller number that have implemented carbon pricing, suggest that *how* reforms are implemented is critical to their effectiveness.³⁹ Political support, institutional capacity, and inclusive stakeholder engagement are thus required to ensure successful carbon pricing reforms.⁴⁰ Sector regulations are an important complement to price-based policies, including construction standards to improve energy efficiency and resilience of buildings, as well as urban plans that enable a modal shift toward public transit and non-motorized transportation modes while avoiding new construction in flood zones.⁴¹

21. **Third, governments can identify, design, and implement impactful programs and projects by mainstreaming climate and development analysis in public sector planning, procurement, and investments.** Applying a transition lens to public sector infrastructure projects and embedding climate risk management solutions can lower upfront financing needs and maintenance costs for public sector investments. These actions minimize the risk of having stranded assets (such as new coal power plants) that will need to be retired prematurely, improve the resilience and energy efficiency of new assets, avoid the need for expensive retrofit of long-lived infrastructure in the future, and prevent irreversible environmental damages (e.g., tipping points in forested landscapes that capture carbon). Some practical steps that governments can take are: (i) conducting

climate risk assessments at the earliest stages of systems planning and project and investment designs (e.g., avoiding flood prone areas for a road); (ii) allocating appropriate financial resources, as a domestic public good, to support the collection of relevant data and make it available to all investors to inform project, selection and design; (iii) implementing green procurement policies and ensuring that public sector policies, regulatory frameworks and investment plans are aligned with the Paris Agreement; (iv) mainstreaming climate considerations in government, SOEs and private sector's ESG impact assessment and ESG management systems; (v) applying climate budget tagging to track and monitor climate-related expenditures in the public budget system and monitor alignment between spending and climate and development objectives, assess results, and arbitrage trade-offs; and (vi) planning and implementing a national disaster risk finance strategy to promote proactive disaster risk reduction, climate change adaptation, and a timely and fiscally prudent recovery from climate-related disasters.

22. **The mainstreaming of climate considerations in good policies and good projects is particularly important for adaptation.** Early investment in adaptation is best funded through taxation or spending cuts rather than deficit financing, which increases the debt stock and reduces the scope for external borrowing in response to extreme events.⁴² Preventive spending on adaptation bolsters the resilience of the capital stock, reducing the severity of the damage and the economic losses from disasters: but it cannot fully shield it and the optimal strategy likely combines early investment in adaptation with measures to increase fiscal space.⁴³ Developing public-private partnerships (PPPs) for climate risk insurance can crowd in private sector capital to protect households, small firms, and their lenders, and sovereigns from climate-related shocks where risks cannot be otherwise mitigated or avoided. Disaster risk finance and insurance can also provide risk mitigation for investors and ultimately unlock investments. An optimal strategy to financing resilience usually layers three dimensions: public finances (budget reallocation and reserve funds); international resources (such as deferred draw-down or equivalent instruments for rapid response assistance when countries are heavily affected); and private sector financing (including insurance market and capital market solutions such as catastrophe bonds (CAT Bonds)).

23. **Fourth, governments can consider targeted, transitional support to selected SOEs that are key to the climate and development strategies of the country.** SOEs account for over half of the infrastructure investment in LICs and MICs, including power, water, transport, and waste treatment, and could thus play a critical role in reducing emissions and strengthening the resilience to climate change.⁴⁴ National development banks and other state-owned financial institutions, the source of close to 40 percent of mitigation and adaptation climate finance in LICs and MICs, also have a key role to play in addressing access to finance barriers associated with green investments and catalyzing private climate finance. Depending on SOEs' governance structures and mandates, options for governments to support climate action through SOEs may include: (i) supporting balance sheet optimization and, where appropriate, enhancing budgetary support to those SOEs supporting low carbon and climate-resilient infrastructure (e.g., for transmission lines and grid expansion); (ii) implementing governance, operational, and financial reforms to improve SOE climate impact assessments, climate disclosures, creditworthiness, and long-term financial sustainability to attract private climate finance, including by monetizing existing assets; and (iii) supporting asset recycling programs to assist qualifying SOEs to monetize on-balance sheet value to generate proceeds for capital expenditure on infrastructure that serves decarbonization and climate goals.

24. **Fifth, governments would benefit from transparent regulatory and supervisory reforms to support financial institutions' role in climate investments and in disclosing and managing climate-related financial risks.** Private financial institutions may have limited incentives, resources, or capacity to originate green assets and manage climate-related financial risks for transition and resilience investments. Ongoing work to reform the

international financial regulatory and supervisory architecture will establish common requirements and expectations for all countries, with proportionality and sequencing in implementation by LICs and MICs. Complemented by broader interventions to stimulate green finance markets, this will allow market players to price and manage climate risks, develop new financial solutions, and allocate capital accordingly.

Box 3: Examples of actions taken by policymakers

Greening the financial sector in Colombia: Colombia has made impressive strides to green its financial sector. Colombia established a green bond framework and in 2021 issued its inaugural sovereign green bond. This was the first green emerging market sovereign bond issued through an auction in local currency. The World Bank provided technical assistance to the Ministry of Finance and Public Credit, in coordination with the Inter-American Development Bank, to facilitate the structuring and issuance of the sovereign green bond. In 2022, Colombia, with support from both the World Bank and IFC became one of the first EMDEs to adopt a national green taxonomy, which will play a key role in channelling private sector capital towards the country's climate and environmental priorities. Furthermore, Colombia's financial supervisor (SFC), issued requirements for integrating ESG and climate risks in the investment policy and governance arrangements of pension funds and insurance companies; set ESG and climate risk reporting requirements for listed companies; and published supervisory expectations on climate risk management for banks.

Carbon pricing in Chile: Chile implemented a carbon tax in 2017 and is exploring opportunities to introduce an emissions trading scheme (ETS) as part the Framework Law on Climate Change. In addition, the government has set up a carbon crediting mechanism as part of its broader strategy to meet sectorial compliance with Chile's long-term emission reduction goals. Chile is set to continue its cooperation with the World Bank, focusing on a roadmap for implementing reforms to the carbon tax, as well as on deepening the understanding of the role of carbon pricing in carbon neutrality, including Article 6 and the development of the ETS.

Developing disaster risk finance in Morocco: Since 2008, the World Bank has been supporting the government of Morocco to assess Morocco's exposure to natural catastrophe risks, define an ambitious risk finance strategy, and make use of market-based instruments where relevant. This includes design of the country's disaster risk legal and governance framework by establishing the Solidarity Fund for Catastrophic Events (FSEC), a sustainable, public funding mechanism that aims to provide coverage to the uninsured and most vulnerable households. Furthermore, separate reinsurance transactions for domestic insurance markets and the FSEC were finalized in 2020 to provide liquidity from international markets in case of a catastrophe.

Implementing adaptive social protection in Malawi: The Government of Malawi (GoM) implemented a mechanism to use the Social Cash Transfer Program (SCTP) to scale up response to beneficiaries in the event of drought. SCTP was first applied during the 2021/22 rainfall season in three districts covering 74,000 poor and vulnerable households and is expected to expand to over 100,000 households. SCTP initially used a contingency fund to meet the amount of regular funding needs and is designing a risk transfer instrument to cover the higher costs of expansion.

Designing a climate finance strategy and climate finance tracking systems in Kenya: In 2016, the Parliament adopted the Kenya National Policy on Climate Finance which enhances capacity of national financial systems and institutions to effectively access, disburse, absorb, manage, monitor, and report on climate finance in support of national SDGs. Building on this policy, the government developed a framework to track how adaptation and mitigation funds are used, identify gaps and communicate to donors on climate action funding needs. This was a key step towards a coordinated effort for managing the impacts of climate risks by prioritizing how to identify, attract and use climate finance.

25. **Sixth, governments may want to consider using international carbon markets, results-based financing, and sustainability-linked borrowing to help meet financing demands for public sector investments at a lower cost of borrowing.** Transition costs can be irrecoverable or need public investments to address a market failure, and development finance may not be sufficient to meet all the public sector climate financing needs. Given the GPG nature of some climate action, the world community needs to make available concessional financing and grants at greater scale to fund some of the irrecoverable costs associated with climate projects or to lower financing costs for public investments through results-based concessional financing and grants (see Box 7).

International carbon markets can be a source of results-based funding for sovereigns and SOEs engaging in activities that reduce GHG emissions and generate carbon credits. However, many countries, especially LICs, need to develop the required infrastructure and institutional capacity to access carbon markets. Sustainability-linked bonds and loans can provide borrowers with a reliable source of financing that is paired with a results-based discount (or penalty) for meeting (or not) pre-agreed objectives, such as a measurable reduction in GHG emissions at the country or SOE-level. The sovereign sustainability-linked bonds (SSLB) market is still in its infancy (see Box 4) and more needs to be done to enhance SSLB credibility and effectiveness as a source of affordable climate finance and to enhance debt management offices and investors' capacity to offer and buy such instruments respectively. Finally, when the lack of fiscal space is the main constraint to climate investments, and because standard climate finance instruments for public sector investments are likely to raise governments debt further, climate grants and comprehensive debt restructuring coupled with articulated climate and development investment projects will need to be explored.

Box 4: Chile's sovereign sustainability-linked bonds (SSLBs)

Sovereign bonds are among the largest asset class in many institutional investors' portfolios, representing almost 40 percent of the \$100 trillion global bond market, and could be a key instrument to channel capital towards climate action. SSLBs can help link sovereign financing with national climate objectives. Unlike green, blue, and other sustainability-labelled bonds, SSLBs are not ringfenced for specific projects or spending. Instead, the returns to bond investors depend on whether the issuer can achieve predetermined sustainability performance objectives. A key benefit of SSLBs, if designed well, is that they can enhance the credibility of countries' policy commitments by linking the cost of debt financing to ambitious key performance indicators (KPIs). Chile issued the world's first SSLB in 2022, a \$2 billion SSLB linked to three KPIs for GHG emissions reduction and increased power generation from renewables.

The Role of Private Sector and International Development Partners

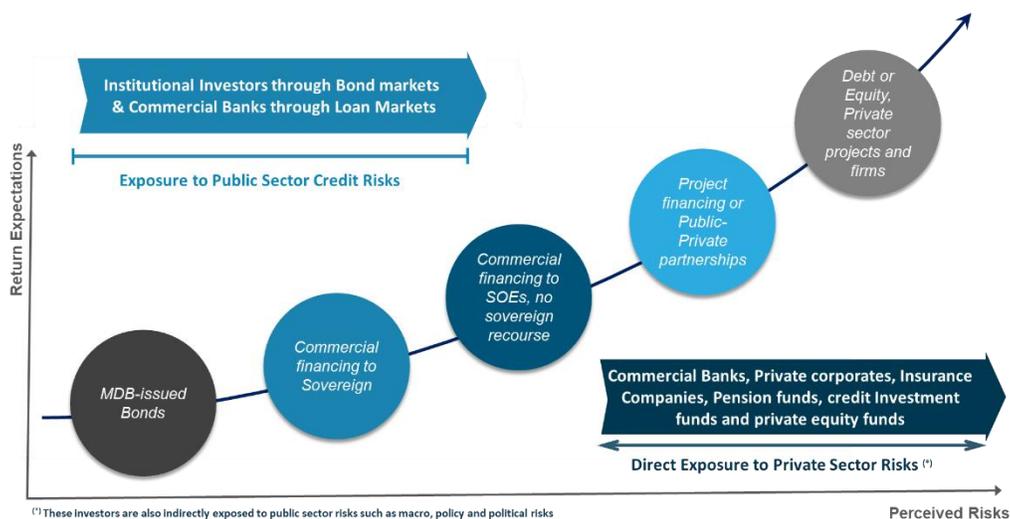
26. **Even with such adequate policies and impactful projects identified, government funding will not be sufficient as no single source can cover the financing gap alone.** Private capital is essential, but it is suited for investments that generate a financial return and requires the appropriate business environment and public policies that reflect the GPG nature of climate action. International development partners and private donors are also essential, to enable private capital or directly to finance interventions that do not generate a financial return, but they need to target their resources given their scarcity.

Private sector: Take well-structured risks

27. **The private sector has significant resources to contribute toward climate and development objectives, but long-standing barriers must be removed for private capital to flow at the requisite scale.** Beyond the role of governments to ensure adequate policies and support the identification and development of impactful projects that can attract private financing (see above), private investors in the real and financial sectors could contribute by (i) ensuring that their investments are aligned with the Paris Agreement, (ii) expanding their risk appetite in LICs and MICs while differentiating between real and perceived risks to take advantage of new investment opportunities brought about by the transition; (iii) innovating to green the supply chains, logistics, and equipment of real sector companies as well as reducing their waste and energy consumption; (iv) greening the investment portfolios of financial firms including commercial banks, institutional investors, and private equity firms; and (v) contributing, to the extent possible, to the development of carbon markets.

28. **First, low-carbon, climate-resilient solutions to development challenges offer important investment opportunities for private sector impactful projects, such as in green and climate resilient infrastructure, and climate smart agribusiness, transport, and manufacturing.** The climate transition is expected to offer over \$10 trillion in new investment opportunities in LICs and MICs.⁴⁵ However, for investors to take advantage of such opportunities, they may need to adjust their investment criteria (including extending tenors given that climate investments usually require a long payback period) while respecting their global investment strategies, fiduciary responsibilities, and overall appetite. Figure 2 is a simplified representation of the spectrum of investment profiles available to financial and real sector private sector firms to support the climate transition. The financial risks taken could vary from low AAA risk for MDBs' issued thematic bonds (such as green and blue bonds) to medium risks (such as financing to well-run and financially sustainable SOEs), to pure private sector equity risks for private equity funds or private firms. Expected returns on investments increase with risks taken. While private firms generally choose the investment strategies that meet their risk appetite and fiduciary responsibilities, it is important for them to differentiate between perceived and actual risks when investing for climate in LICs and MICs. Moreover, under the appropriate policy and regulatory frameworks and with appropriate risk structuring, investing in LICs and MICs could help private firms diversify both the credit and carbon footprint of their investment portfolios and potentially meet their long-term net-zero pledges. As noted above, in some cases, public sector interventions will be needed for the private sector to make use of these opportunities-e.g., alignment of government policies with their climate commitments; expansion of de-risking instruments from governments and development partners to cover political, credit or certain new technology risks; and concessional and grant funding to support upstream project preparation and co-development.

Figure 2: Typology of investors' risk and reward profiles



29. **Second, real sector firms can support climate action through their supply chains, capital expenditure programs, and innovation.** Domestic and international real sector firms need to strengthen their capacities to assess and disclose their scope 1, 2, and 3 emissions⁴⁶ which would help them to devise sound strategies to contribute to their net-zero targets. These firms will also need to support the greening and climate resilience of their supply chains, particularly in MICs including by providing preferred access to long-term purchase contracts to suppliers that are on a climate mitigation or adaptation path. These long-term contracts can significantly help suppliers to access climate financing from banks. In addition, by prioritizing green approaches to their capital expenditures, logistics management, and maintenance programs to reduce waste and energy consumption, firms

would be supporting climate action and helping scale up the supply of climate finance assets through their borrowing and equity capital raising programs.

30. **Third, financial firms will need to innovate to stimulate the demand side of climate assets through their investment allocation strategy and by ensuring that their investments are aligned with the Paris Agreement.** Commercial Banks and non-banks financial institutions manage over \$400 trillion of assets which can be allocated in ways that enable capital to flow towards climate goals. Asset owners and managers can prioritize investing in green, blue, and sustainability-linked sovereign and corporate bonds over regular issuances of similar quality and returns. These firms can also consider expanding their risk appetite in LICs and MICs in a manner consistent with their fiduciary responsibilities, including through political and credit risk insurance products and de-risking tools offered by private and public sector entities. Commercial banks can expand their green and blue loans portfolios and incentivize their clients to take appropriate climate action, including through sustainability-linked loans (SLLs). Financial and non-financial firms can take actions to bolster the credibility of their ESG statements and investments (i.e., avoiding greenwashing risks) by enhancing climate-related disclosures and reporting in line with global best practices; developing robust governance frameworks and climate strategies; building technical capacity; and mainstreaming climate considerations in investment planning and risk management frameworks.

31. **Fourth, private actors can support the development of domestic and international carbon markets to provide additional sources of revenue for climate projects.** Voluntary and compliance markets are expected to increase in value in the coming years. The Article 6 (compliance) market value albeit still small has the potential to grow to \$300 billion by 2030 and up to \$1 trillion per year by 2050 with the right enabling institutions and regulatory arrangements.⁴⁷ Voluntary carbon markets nearly quadrupled to \$1.98 billion in 2021 compared to the previous year and many corporations are planning to use carbon credits to offset emissions as part of their near-term transition to net-zero while using carbon removals thereafter. Other companies will be able to generate carbon credits from their emission reduction or removal activities, thus securing additional revenue to support or expand those activities. Various challenges, however, need to be addressed to help reach the full potential of carbon markets: so far carbon markets remain fragmented and underdeveloped, with low carbon price levels, limited supply of quality credits, and evolving rules and guidance under the Paris Agreement.

International development partners: Make available resources commensurate with the needs

32. **Official development assistance, in the form of both concessional financing and grants, will also need to be stepped up.** The large public good element of much climate finance means that a private-sector solution alone will not always be possible, and public-sector financing alongside well-structured public-private partnerships will be an important element. To that end, the following steps are called for.

33. **First, international development partners need to significantly scale up grant-based funding for mitigation and adaptation to lower the cost of climate action. Concessional funding and credit enhancement will also play an important role.** Only a significant increase in these funds will (i) incentivize countries to undertake costly mitigation and adaptation actions decades sooner than planned; (ii) provide blended finance solutions that crowd in private capital (together with appropriate domestic policies); and (iii) provide much-needed upfront financial support in the form of grants that fund appropriate program and sector planning as well preparation of impactful projects. Such solutions involve technical assistance and results-based financing grants as well as credit enhancement mechanisms (e.g., first loss) that partially de-risk pools of climate finance investments in select circumstances (and with appropriate pricing and risk-sharing). In addition, a significant increase in concessional

and grant funding to LICs and MICs is needed to absorb increased costs in insuring against climate-related disasters, and affordable contingent financing for all LICs and MICs affected by such disasters.⁴⁸

34. **Second, international development partners should avoid further fragmentation in the grant and concessional funds used for climate action, and implementers of these funds should optimize the use of these scarce resources.** International development partners should consolidate some of the existing funds and streamline the criteria for their deployment. Private donors such as philanthropies should consider pooling their resources and partnering with global institutions such as MDBs to achieve scale and impact. Needs are particularly acute for (i) adaptation finance; (ii) urgent climate actions that are needed even before policy environments are reformed; (iii) monetizing the benefits of GPGs (e.g., to support power storage and the grid); and (iv) transfers and social expenditures to manage the transition and make it politically and socially acceptable.

How Will the WBG Support a Scale up in Climate Finance?

35. **The WBG is the largest multilateral provider of climate finance for developing countries and will continue to support stakeholders to scale up climate finance.** The WBG delivered over \$30 billion in climate finance in FY22. It also delivered \$21 billion annually between 2018 and 2020, which is about 50 percent of all MDB climate finance. We offer clients a unique value proposition to achieve their climate and development objectives by combining and sequencing analytics, technical assistance, and large-scale financing, including public sector investment support, climate funds, de-risking tools, and private sector financing. The WBG will continue to use its knowledge and financing tools to help other stakeholders scale up their climate finance contributions. The Climate Change Action Plan (CCAP) (see Box 6) commits to 35 percent of WBG lending, on average over FY21-25, to support climate investments. Importantly, given the needs of LICs and MICs and the gaps in adaptation, at least 50 percent of World Bank climate finance will be allocated for adaptation. Both commitments are on track. This distribution of overall lending also reflects other core priorities that our clients need to address, including health, education, gender, and jobs, which do not always lend themselves to direct climate co-benefits. The WBG also plays a key role supporting governments identify, design, and implement impactful projects and programs (see Box 5 for an illustration).

Box 5: How an impactful IDA climate adaptation project enabled private sector investments in Senegal

The tourism and enterprise development project in Saly, Senegal demonstrates how a climate adaptation project can enable private sector investments in addition to protecting people and property from the effects of climate change. The tourism sector is a key contributor to GDP and employment in Senegal. The Saly tourism destination had lost its competitiveness in recent years for multiple reasons including gradual beach erosion. The lack of infrastructure to protect the beach was a binding constraint for further development and sustainability of the local tourism industry, including hotels, restaurants, shops, and related businesses. To address this challenge, IDA implemented a US\$74 million climate adaptation project between 2017 and 2022 to revitalize the tourism sector by protecting the Saly beach against coastal erosion. The project financed critical public infrastructure such as the construction of breakwaters and groynes along the coast, as well as beach sand recharging, which helped regain close to 375,000m² in beach surface area.

Based on World Bank estimates, the protection and restoration of the coastline has so far enabled existing hotels to remain in business. Three of them invested \$10 million in renovation and upgrade works while other hotels made plans for close to \$130 million in new investments in Saly. In addition, this IDA project protected the livelihood of hundreds of people who make a living from fishing or fish processing along the coast and who need the beach to access their source of income. It also helped mitigate the effects of climate change and storm surges on communities living along the coast.

36. **In line with the CCAP and the GRID approach (Box 6), the WBG will support mitigation, adaptation, and resilience in the key transition systems and prioritize activities that enhance supply and demand of climate finance.** WBG support will be provided along six areas: (i) leveraging analytics to support development of appropriate climate and other policy reforms, climate-informed public and private investment plans and mainstreaming climate in public financial management systems (ii) helping to develop effective carbon pricing and carbon markets; (iii) removing barriers to private capital flows and developing replicable climate investment approaches; (iv) greening the financial sector, including capital markets; (v) supporting the scale up of financing for climate adaptation and resilience; and (vi) optimizing the delivery of concessional resources. The following paragraphs describe the WBG’s key areas of intervention to further support the scaling up of climate finance.

Box 6: The WBG GRID approach and Climate Change Action Plan 2021-2025 (CCAP)

The GRID approach, as outlined in the GRID paper (Fall 2021), aims to repair the structural damage caused by the COVID-19 crisis, build resilience, and accelerate climate action, while restoring momentum on inclusive economic development, poverty reduction, and shared prosperity. The GRID framework has five key objectives: (i) create opportunity for the poor and vulnerable; (ii) tackle poverty, inequality, and climate simultaneously; (iii) scale up interventions to match the urgency of the climate and COVID-19 crisis; (iv) address global challenges through international cooperation; and (v) tailor to country needs and implement through country programs.

The CCAP aims to advance the climate change aspects of the WBG’s GRID approach. It represents a paradigm shift towards a systematic approach that helps countries address climate and development challenges simultaneously – applying a climate lens across all sectors and aspects of development towards transformative results. It focuses on integrating climate and development, identifying and prioritizing action on the largest mitigation and adaptation opportunities, and using those to drive WBG climate finance and leverage private capital in ways that deliver the most results. The CCAP includes WBG’s commitment to aligning its financial flows with the objectives of the Paris Agreement: The World Bank will align all new operations with the Paris Agreement by July 1, 2023, and IFC and MIGA will align 85 percent of new real sector operations by July 1, 2023, and 100 percent by July 1, 2025. The WBG is also supporting the development and implementation of clients’ NDCs and LTSs for low-carbon and climate-resilient development. The CCAP focuses on identifying and prioritizing action on the largest mitigation and adaptation opportunities, including through five key systems transitions that are critical to achieve a resilient, low-carbon future: (i) energy; (ii) agriculture, food, water, and land use; (iii) cities; (iv) transport; and (v) manufacturing. Substantial financing from both the private and public sectors is needed to help countries transform these key systems, address adaptation and resilience needs, and reach their climate and development goals. The WBG works to boost public resources, mobilize, and enable private capital, and raise and deploy concessional climate finance in catalytic and transformative ways in line with CCAP goals. In this context, the WBG has started preparing CCDRs.

37. **Using the findings of the new CCDRs and other relevant country analytics, the WBG will work with countries to shape appropriate policy reforms and investment plans to minimize the costs of mitigation and adaptation and enable public and private investments for climate action.** CCDRs are core diagnostic reports that integrate climate change and development considerations, building on data and rigorous research to identify the main pathways to reduce GHG emissions and climate vulnerabilities. CCDRs aim to explore, in each country covered, one or several low-cost strategies to achieve the country’s development and climate objectives together, thereby reducing total investment needs and making it easier to close the financing gap. CCDRs will feed into other core Bank Group diagnostics and country engagements and operations: ultimately, they are expected to foster dialog for policy reforms that foster development and climate action, and to help attract funding and direct financing for high-impact climate action. Particularly critical in CCDRs is the identification of urgent interventions, which cannot be delayed without significantly increasing the cost of the transition. Equally important in the CCDRs is the need for good governance and an appropriate policy environment: climate finance needs are lower and easier to meet with a stable macroeconomic and financial environment, well-informed public decision-making, and coordination at every level (including municipal and local level), efficient public investment management,

budgeting and procurement, policy and regulatory predictability, and the right policy incentives. As summarized in the forthcoming CCDR synthesis, our first CCDRs (Türkiye, Vietnam, the G5 Sahel Region, Nepal and Rwanda, with others following rapidly) illustrate how, all else being equal, the cost of green transition is lower with the right sequencing of interventions and the appropriate policy environment. These success factors can be supported by the preparation of solid LTSs and NDCs, which are other priorities under the WBG CCAP and can build upon the knowledge and insights generated by CCDRs. These and country long-term development plans will help governments identify country-specific development and climate priority policy reforms and impactful programs and projects. Other country-focused diagnostics⁴⁹ that underpin the Country Partnership Frameworks (CPFs) will also be used to identify climate investment needs and key barriers and opportunities for implementing needed climate investments.

38. **In line with the essential role played by adequate policies, the WBG will increase focus on providing policy advice, capacity building and financing to help client countries develop effective carbon pricing and domestic carbon markets, and access international carbon markets.** Carbon pricing and taxation and monetizing carbon credits through carbon markets can provide governments with new revenue streams to fund some of their climate action implementation costs. We will continue to convene the Partnership for Market Implementation (PMI) that helps countries design, pilot, and implement carbon pricing and taxation instruments aligned with their development priorities. We are developing a new Carbon Pricing Assessment Tool (CPAT) to help countries assess carbon pricing reforms and will be launching the Scaling up Climate Action by Lowering Emissions (SCALE) partnership (see Box 7) to mobilize results-based climate finance (RBCF) for LICs and MICs to provide a crucial, additional funding source during implementation of climate projects. This should help both the supply of carbon credits and develop a robust international carbon market.

Box 7: The Scaling up Climate Action by Lowering Emissions (SCALE) Partnership

Non-debt climate finance can be used to mobilize commercial investment and carbon markets, which are needed for climate action at scale. Results based climate finance (**RBCF**) – payment for achieving pre-agreed climate-related results, usually in terms of verified emission reductions – is crucial as a non-debt source of funding to incentivize climate action and support increased ambition in countries’ NDCs. RBCF is also well-suited to support climate policies essential to meet climate goals. RBCF delivers funds when needed during policy implementation and incentivizes appropriate policy implementation since payments are only made if climate policies are kept in place.

The WBG is launching **SCALE** as the umbrella trust fund for the Bank’s RBCF activities. SCALE seeks to catalyse transformative climate action by deploying RBCF at scale thereby helping bridge the financial gap. The World Bank has identified three areas that are particularly well-suited to RBCF financing: *natural climate solutions* (e.g., agriculture, forestry, land-use, oceans, and other nature-based solutions that support vital services and natural capital assets); *sustainable infrastructure* (energy, water, transport, urban, and other sectors that provide public goods to underpin broad-based, inclusive, and sustainable economic activity); and *fiscal and financial solutions* that directly or indirectly provide or mobilize resources for climate action. SCALE builds on 20 years of pioneering WBG experience in RBCF where WBG-supported client countries grew in their capacity to generate high-quality Emission Reduction projects. SCALE will pool public resources to (i) bring additional financing to LIC and MIC emission reductions; (ii) help bridge the gap between the supply of and demand for high-quality emission reductions by supporting large-scale climate investments; and (iii) help countries develop high-integrity carbon assets and enhance their access to international carbon markets.

As an umbrella fund to deploy RBCF, SCALE offers several advantages. First, it can scale countries’ climate ambition and ensure follow-through toward climate goals as payments are directly linked to the amount of GHG emissions reduced. Second, when paired with upfront investments and activity-based climate finance, RBCF provides certainty that financial support is provided from program or policy preparation through implementation. Third, RBCF is well-suited to support the implementation of climate policies and guards against policy reversal because payments are only made if the policies are kept in place. And

fourth, it can be an effective tool to leverage additional finance by allowing countries to tap into growing international carbon markets. RBCF can build capacity for project design and monitoring, reporting, and verification needed to issue carbon credits.

39. **On the policy front, we will support upstream interventions to enable private capital flows.** A key pillar of our climate finance work is creating robust pipelines of impactful and scaled climate-impact investment opportunities. In particular, we are working with governments and private sector actors to identify specific constraints faced when scaling up public and private climate investments. We are also helping countries (i) address the fiscal and financial affordability implications of incorporating climate considerations in project designs and (ii) improve their budgeting and public financial management practices, including for targeted performance-driven subsidies, where necessary, and government PPP commitments. We are also working with development partners and clients to scale up upstream funding needed to develop and prepare strong pipelines of impactful climate projects.

40. **In addition to our upstream work, the WBG will support the demand side of private climate finance through scalable investment programs.** The WBG will continue to prioritize a “scaling” approach (i.e., focusing on a pipeline of projects, rather than single asset development) to enhance public and private sector investment opportunities in low-carbon, climate-resilient activities, particularly in infrastructure. The essence of the scaling approach is to develop robust PPPs for an initial project and then replicate it to enable cost efficiencies (similar to the Scaling Solar program described in Box 8). Key tenets of scaling approaches include: (i) standardizing project documents to minimize the need for extensive negotiations; (ii) providing a common set of service providers (e.g., technical and insurance advisors) to achieve bulk discounts and lower fees; (iii) benchmarking engineering, procurement, and construction (EPC) and operations and maintenance (O&M) costs to enhance transparency and reduce costs; and (iv) offering commercial co-financing on a programmatic basis to facilitate investment at scale. By standardizing processes at the country and program levels, these approaches enable competitive tendering, faster delivery, and lower prices.⁵⁰ The WBG is working on applying this approach to offshore and onshore wind, mini-grids, water desalination, and mass transit systems.

Box 8: Delivering impactful projects at scale – the Scaling Solar program example

Despite its enormous potential as an energy source in developing countries, the development of utility-scale solar power plants has been challenging in many countries because of (i) limited institutional capacity in some countries; (ii) lack of scale that deters some investors; (iii) lack of competition in tendering some power projects, (iv) high transaction costs when negotiating projects individually; and (v) high perceived risks related to financial conditions of the off-takers.

The WBG Scaling Solar program brings together a suite of WBG services under a single engagement aimed at creating viable markets for solar power in each client country. This “one-stop shop” program aims to make privately funded grid-connected solar projects operational within two years and at competitive tariffs.

The WBG’s offering includes (i) advice to assess the right size and location for solar PV power plants in a country’s grid; (ii) simple and rapid tendering to ensure strong competition from committed industry players; (iii) fully developed templates of impactful bankable project documents that can eliminate negotiation and speed up financing; (iv) competitive financing and insurance attached to the tender and available to all bidders, delivering competitive bidding and ensuring rapid financial close; (v) risk management and credit enhancement tools and products to lower the cost of financing and the resulting power tariff; and (vi) due diligence required to ensure the sustainability of the photovoltaic supply chain in solar projects. The WBG has active engagements under the Scaling Solar program in Côte d'Ivoire, Madagascar, Senegal, Togo, Uzbekistan, and Zambia. To-date, 425 to 465 MW of solar power has been added in these countries through the Scaling Solar program.⁵¹

41. **The WBG will continue to support efforts to green the financial sector.** The WBG, jointly with the IMF, hosts the Secretariat for the Coalition of Finance Ministers for Climate Action and facilitates its work. WBG encourages an expansion of Coalition membership, currently consisting of more than half of our shareholders, as

the role of finance ministers in climate action is central and should be enhanced. There is also ongoing work by the Financial Stability Board (FSB), the G20, standard-setting bodies and the Network for Greening the Financial System (NGFS) to reform the international financial regulatory and supervisory architecture. The WBG is contributing to shape this agenda. The WBG is well placed to support client countries as they adopt new standards and good practices by helping them introduce climate-related disclosure and reporting standards and develop green taxonomies, and by helping public and private sector clients to enhance their climate risk management, including through climate risk analyses and stress testing. These efforts aim to increase market transparency and enhance the understanding of climate-related risks and opportunities in the financial system by improving entities' ability to identify and assess activities with climate-related benefits or costs. Complemented by broader interventions to stimulate green finance markets, this will stimulate the demand side of climate financial assets (i.e., the supply side of climate finance) as it would enable market players to price and manage climate risks, develop new financial solutions, and allocate capital accordingly.

42. **The WBG will, in particular, support the supply and demand of capital markets climate assets through bond structures and co-investment facilities that bring together clients, investors and international development partners in support of GPGs, resilience and climate change adaptation.** On the supply side, in addition to pioneering the issuance of new asset classes through IBRD and IFC thematic bonds (e.g., green, blue, and conservation bonds such as the Rhino Bond) and new credit structures through MIGA, the WBG will assist in creating new markets and support sovereign, quasi-sovereign and corporate issuers to develop new funding structures (loans, bonds, guarantees, funds) that bring together capital market investors and potentially development partners in support of GPGs and climate change adaptation. The WBG's existing work on capital markets development (including through J-CAP program) helps put in place a regulatory environment that is conducive to the development of new and deeper markets and new instruments including through development of standards of issuance in collaboration with other market participants. Sustainability-linked bonds (SLBs) or loans (SLLs) can be structured to make payments to borrowers based on their success in achieving mitigation or adaptation outcomes, backed by performance-based payments – incentivizing ambition and potentially lowering financing costs. The WBG is working on how these instruments could be developed for sovereigns and quasi-sovereigns, including by developing relevant key performance indicators for sovereign SLBs or SLLs issuance, which will be necessary to support the development of the asset class. In parallel, we are exploring the opportunity to aggregate ex-ante the supply of private finance for public sector projects and sovereign SLLs through private co-financing approaches that build on IFC's experience with mobilization platforms such as the MCPP Infra. IFC is exploring a multi-originator (IFC and other DFIs) platform to warehouse and subsequently securitize emerging market private debt. IFC is also exploring how asset recycling through bond issuances, the proceeds of which would be used to bolster adaptive or mitigation investments, could be scaled up to support greening of food and housing sectors as well as cities. IFC is also developing co-investment platforms for both debt and equity that enable commercial investors and other partners to co-finance private sector projects and firms in LICs and MICs (IFC MCPP One Planet, SEED fund and IFC EM sustainability funds). MIGA is looking to further replicate guarantee structures that support green and sustainable funding mechanisms to create attractive opportunities to crowd in institutional investors into EMDEs assets. Through its guarantees operations, MIGA is also working with financial institutions, both in the public and private sectors, to support the scaling of financing for climate activities, the alignment of portfolios with the objectives of the Paris Agreement, and the analysis and mitigation of climate risks across their lending activities.

43. **The WBG will also continue its emphasis on climate adaptation and resilience finance and work with partners to further scale it up for the benefit of the most vulnerable including through community-based**

approaches to strengthen resilience. Disaster risk financing instruments such as contingency funds can enhance responses in the aftermath of disasters and the World Bank will continue to provide clients with contingent financing instruments such as the Contingent Emergency Response Components (CERCs) and loans with Catastrophe Deferred Drawdown Options (CAT DDOs). The WBG will help countries develop social and financial protection schemes to protect the most vulnerable against climate change impacts. These schemes include climate-risk insurance such as weather-based crop insurance which can unlock private sector financing for smallholder farmers and protect their livelihood. The WBG is also exploring the expansion of such instruments, to enhance micro-, small-, and medium-sized enterprises' access to finance using portfolio credit guarantee schemes that cover disaster risks. The World Bank will continue to catalyze private markets for climate risk resilience by using CAT bonds to help countries access international financial markets more efficiently. IFC is developing risk sharing programs to help protect domestic bank portfolios against upticks in credit defaults following a climate related natural disaster. MIGA, in collaboration with the private insurance market, is exploring ways to enhance the resilience of the projects it supports by embedding private sector climate risk insurance mechanisms. At the upstream level, the WBG will support countries' efforts to enhance data and methodologies for climate risk assessments and will support the development of policies and strategies to identify and implement climate adaptation and resilient measures.

44. **The WBG will continue to support donors and development partners to reduce fragmentation and increase appropriate targeting of grants and results-based climate finance.** The World Bank trust fund reform aims to reduce fragmentation in the Bank's trust fund portfolio. At the heart of this initiative is the streamlining of this portfolio into a limited number of larger and strategically aligned Umbrella 2.0 Programs (such as PMI or SCALE) that will channel most donor resources. The WBG will continue to work with international development partners to provide dedicated finance for climate objectives through these umbrella trust funds and financial intermediary funds (FIFs) (such as the Climate Investment Funds), which allocate finance, provide technical assistance, and support flagship analytic and knowledge work that contributes to countries' climate and development plans. The WBG will also draw on the FIF Management Framework and good practices learned in managing FIFs to further reduce the fragmentation of climate finance while enhancing its effectiveness. In addition, the MDBs' principles for using blended finance for private sector projects could be adapted to public sector investments in climate mitigation and adaptation to guide allocation of scarce donor resources.⁵² Similar principles could be adopted for upstream project preparation together with downstream financing of projects that were prepared or developed using donor or MDB funds.

45. **Finally, the WBG will innovate and use its unique offering to support the scale up of climate finance through initiatives that combine all its streams of work on climate finance.** Box 9 is an illustration of how we could further enhance our impact by putting together the different pieces of the climate finance puzzle.

Box 9: Putting it together to innovate – combining CCDR findings, policy work, lending, and results-based finance to enable and mobilize private climate finance

The World Bank is exploring ways to leverage SCALE and GPG-focused funds together with *climate multiphase programmatic approaches (MPAs)* to scale up delivery at the country level (vertical MPAs) or across countries (horizontal MPAs for standardized approaches such as those described in Box 7 above) and incentivize clients to engage in medium-term reforms coupled with investment programs to implement LTS or CCDR recommendations. The WBG is also exploring ways to spark engagement through country platforms among client governments, private sector firms, and financial institutions, and other development partners around the means to put in place public and private sector investment programs that are aligned with CCDR recommendations.

The Bank is also exploring ways to mobilize private climate finance at scale through *aggregated private co-finance facilities* for public sector clients who have large climate investment plans. The facilities aim to complement the Bank's own lending under the MPAs for clients and projects that meet private investors' criteria. Results-based payments under SCALE could be used to help clients cover part of the cost of commercial borrowing thereby incentivizing them to meet the GHG reduction targets set forth in the MPA. If successful, these facilities would demonstrate the unique value proposition the WBG has in supporting, at scale, the implementation of priority climate actions by public sector entities.

Conclusion and Issues for Discussion

46. **Climate action remains critical amidst the overlapping crises facing the world currently, with disproportionate impact on poor and vulnerable households in developing countries.** Climate action in developing countries is however particularly challenged by a significant gap in financing. To reduce this gap, the demand side in climate finance can be enhanced significantly by clear diagnostics, prioritization, and adequate policies and capable institutions that are aligned with the long-term climate and development objectives of each country. On the supply side, development finance will play an important role, especially in the long-term nature of climate policies and projects, but much greater sums will be needed through other public and private resources. The large public good element of most climate finance means that a private-sector solution alone will rarely be possible, and public-sector financing alongside well-structured public-private partnerships and blended finance will need to be considered. This calls for an order-of-magnitude increase in concessional and grant financing as well as significant de-risking instruments from donors and international development partners.

47. **Bridging this enormous funding gap is not a one-dimensional issue capable of a single party solution.** We therefore rely on strong partnerships to bolster this work in order to leverage the combined resources and comparative advantages of all relevant stakeholders – international financial institutions (IFIs), governments, international organizations, donors, and the private sector – each with clearly identified roles, responsibilities, and rewards.

48. **As the largest multilateral provider of climate finance for developing countries, the WBG is well-positioned to bring together key stakeholders to support the design of climate policies and implementation of an integrated strategy for climate and development to help donors scale up climate finance in client countries.** In addition to efficiently leveraging the capital provided by shareholders through our balance sheet, we expect to launch trust fund initiatives such as SCALE to assist the scale up of the monetization of carbon credits to partially finance and incentivize the energy transition and are providing technical assistance to countries so they can access international carbon markets. We are also developing innovative approaches to mobilize and deploy pooled

funding from the global community, including private investors, to finance the most impactful and scalable climate investments that reduce GHG emissions, enable adaptation to climate change or enhance resilience. The WBG's success in implementing these proposals hinges on (i) its ability to identify and enable high-priority climate-related projects as part of a country's overall development plan; and (ii) recipient governments, the private sector, and the global community providing major new climate-focused grant funding and doing their parts as outlined in this paper.

49. **Questions to Governors:**

1. What are Governors' views on the role the WBG can take in international climate finance, including in collaborating with other partners, as part of a broader program of support for Green, Resilient and Inclusive Development?
2. What are Governors' views on how the WBG can best support countries in utilizing the findings of the CCDRs to accelerate their access to climate and development finance? How can the WBG best support other stakeholders in contributing to this objective?
3. How can the WBG sustain its current climate finance up to 2030 while supporting clients and other stakeholders in meeting their climate and development objectives?

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