



IDA18 Mid-Term Review
Climate Change Special Theme Progress Report

October 19, 2018

ACRONYMS AND ABBREVIATIONS

Fiscal year (FY) = July 1 to June 30

ACBP	Africa Climate Business Plan	GCF	Green Climate Fund
AfDB	African Development Bank	GDP	Gross Domestic Product
ADB	Asian Development Bank	GEF	Global Environment Facility
AFR	Africa Region	GHG	Green House Gas
ASA	Advisory Services and Analytics	GSURR	Social, Urban, Rural and Resilience Global Practice
CAPE	Climate Action Peer Exchange	GW	Gigawatt
CCAP	Climate Change Action Plan	GWh	Gigawatt hours
CCG	Climate Change Group	IBRD	International Bank for Reconstruction and Development
CCKP	Climate Change Knowledge Portal	IDA	International Development Association
CIF	Climate Investment Fund	IDA18	Eighteenth IDA Replenishment
CMU	Country Management Unit	IDFC	International Development Finance Club
CPLC	Carbon Pricing Leadership Coalition	IFC	International Finance Corporation
CPF	Country Partnership Framework	(I)NDCs	(Intended) Nationally Determined Contributions
COP	Conference of the Parties	IPCC	Intergovernmental Panel on Climate Change
CSA	Climate Smart Agriculture	LCR	Latin America and Caribbean Region
CSIP	Climate-Smart Agriculture Investment Plans	MDB	Multilateral Development Bank
DMDU	Decision-Making under Deep Uncertainty	MFD	Maximizing Finance for Development
DPC	Development Policy Credit	MNA	Middle East and North Africa Region
DPF	Development Policy Financing	M&E	Monitoring and Evaluation
DPO	Development Policy Operation	MIGA	Multilateral Investment Guarantee Agency
DRC	Democratic Republic of Congo	MGF	MIGA Guarantee Facility
EAP	East Asia and Pacific Region	MRV	Monitoring, Reporting and Verification
ECA	Europe and Central Asia Region	MSIP	Multisectoral Investment Plans
EDGE	Green Building Certification System	MTR	Mid-Term Review
EBRD	Europe Bank for Reconstruction and Development	MoFPED	Ministry of Finance, Planning and Economic Development
EIB	European Investment Bank	MW	Megawatt
ESMAP	Energy Sector Management Assistance Program	NAWEC	National Water and Electricity Company
FAP	Forest Action Plan	NDCs	Nationally Determined Contributions
FCS	Fragile and Conflict-Affected States	NDCP	NDC Partnership
FCV	Fragility, Conflict and Violence	NDC-SF	NDC Support Facility
FIP	Forest Investment Program		
FPN	Forest Policy Notes		
FY	Fiscal Year		

NEWMAP	Nigeria Erosion and Watershed Management Project	SCF	Strategic Climate Fund
		SDGs	Sustainable Development Goals
NRM	Natural Resource Management	SDR	Special Drawing Right
PCN	Project Concept Note	SLM	Sustainable Land Management
PforR	Performance for Results	SPCR	Strategic Programs for Climate Resilience
PP	Partnership Plans	SREP	Scaling Up Renewable Energy Program
PPCR	Pilot Program for Climate Resilience	SUF	Scale-Up Facility
PRI	Political Risk Insurance	TCFD	Task Force on Climate Related Financial Disclosures
PSW	Private Sector Window		
PV system	Photovoltaic system		
RE	Renewable Energy		
REDD	Reducing Emissions from Deforestation and Forest Degradation	UNFCCC	United Nations Framework Convention on Climate Change
ReSIP	Resilient Investment Project		
RMS	Results Measurement System	UNOPS	United Nations Office for Project Services
RSF	Risk Sharing Facility		
SAR	South Asia Region	WACA	West Africa Coastal Areas
SCD	Systematic Country Diagnostics	WAPP	West Africa Power Pool
		WBG	World Bank Group

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EXECUTIVE SUMMARY

i. **The IDA18 replenishment reaffirms IDA Deputies' and Borrower Representatives' recognition that it is imperative to enhance ambitions to foster low carbon and climate resilient development.** The IDA18 Special Theme on Climate Change reflects commitments to support IDA countries in anticipating and responding to the complex and interdependent challenges associated with addressing climate change and development in an integrated manner. Building on IDA17, the IDA18 framework provides a set of diversified commitments to drive the World Bank Group (WBG)'s ambition in scaling-up innovative and transformative activities to advance climate-smart development in IDA countries, in line with the WBG's Climate Change Action Plan (CCAP). The IDA18 framework also acknowledges the need to do things differently, seek innovative and transformative solutions for accelerating progress towards global goals and heighten results across IDA countries.

ii. **IDA18 is delivering strong results – implementation to date is on track to meet all climate change policy commitments.** This paper provides a status update on delivering the IDA18 Climate Change Special Theme. Table 1 summarizes the implementation status of the IDA18 climate change policy commitments. IDA18 is playing an effective and scaled-up role in tackling climate– particularly for the poorest and most vulnerable. IDA18 engagements support client countries in continuing to integrate climate into policy reform, development planning, strategic programming, and investment design. Client demand for mainstreaming is being met by supporting countries in designing and implementing their Nationally Determined Contributions (NDCs) and integrating climate considerations in the Bank's Systematic Country Diagnostics (SCDs) and Country Partnership Frameworks (CPFs) in alignment with national priorities.

iii. **Mainstreaming climate change into IDA operations is making a difference on the ground.** Climate risks are increasingly being reflected in IDA lending operations through innovative design and regional approaches to resilience such as in the West Africa Coastal Areas Resilient Investment Project (see Annex 1). Development Policy Operations (DPOs) are incorporating climate considerations as well, for example the Programmatic Green Growth DPO series in Lao PDR aims to help the country achieve fiscal stability and implement climate smart and low carbon policy frameworks. Climate Smart Agriculture Investment Plans (CSIPs) are leveraging high-level inter-ministerial coordination, as in Bangladesh, while Forest Policy Notes in countries such as Ethiopia, DRC, Liberia, Mozambique and Nepal are helping to identify potential areas for new engagements and improved project design, or to shape dialogue with national governments and development partners.

iv. **IDA18 is enabling the expansion of renewable energy in client countries by supporting energy access and capital mobilization for power generation.** Between July 1, 2017 and September 30, 2018, through approval of direct financing and indirect financing, IDA countries have received support for the addition of 6.0 GW of renewable energy generation exceeding the target of five GW. IDA is also supporting incorporation of renewable energy generation in national government strategies through DPOs, for example in the Rwanda Energy Sector Development Policy Loan series. In addition, the preparation of investment prospectuses has continued in seven additional countries during IDA18. Investment prospectuses have been completed for Cameroon and Côte d'Ivoire. Work is also underway in Benin, Kenya, Madagascar, Malawi, Niger, and Togo.

v. **Innovative IDA18 instruments and special windows are starting to drive transformative climate actions on resilience building and low carbon growth.** Novel funding mechanisms and approaches spearheaded under the IDA18 framework enable task teams to access scaled-up levels of finance (often leveraging IDA regular financing with specific support from IDA windows) and to pioneer new solutions for greater climate action and impact. While some projects are still in planning and design phases, they demonstrate that the groundbreaking IDA18 framework is facilitating greater engagement on WBG climate and energy goals, and the piloting of unique answers to the most pressing challenges in IDA countries by helping to do things differently. Good early stage examples have emerged in FY18, expected to enable transformational results over the remainder of IDA18 and beyond (see Annex 2). For example, the IDA Scale-up Facility (SUF) is providing support for a holistic and integrated erosion and watershed management approach in Nigeria, with promotion of disaster risk management, low-carbon initiatives, and 100 percent contribution to climate co-benefits. IDA Regional Program financing is facilitating private capital mobilization for regional solar parks in West Africa, supporting the preparation of large-scale solar electricity generation and strengthening technical capacity for integration into grids – responding directly to the ambitious 1 GW target of the Africa Climate Business Plan (ACBP) launched by the WBG at COP21.

vi. **Strong progress to date is driven by the historical IDA18 replenishment and its far-reaching policy commitments.** The strong IDA18 replenishment has provided solid financial capacity to enable countries to address climate change and sustainable development together and also allow the institution to build robust and effective support to deepen climate mainstreaming. The historical increase in IDA resources reflects the imperative to address the growing risks and financing needs vis-à-vis climate change and the development agenda – including estimated costs to sustain key strategic efforts, e.g., US\$1 trillion needed by 2030 to implement IDA NDC actions. The set of comprehensive IDA18 policy commitments have lifted the WBG’s ambition and efforts in scaling-up innovative and transformative activities to advance low-carbon and resilient development in a scaled-up manner.

vii. **Given the scale and urgency of the climate challenge, continued leadership on climate change remains critical to support IDA countries in fostering low carbon and climate resilient development.** Effective impacts on the ground are important for ultimately meeting both the Paris Agreement objectives and Sustainable Development Goals (SDGs). To carry on the strong progress of IDA18 and increase the systemic impact, greater emphasis and further efforts can be made in areas, such as (i) elevating NDC support, (ii) deepening the integration of NDCs into country strategic and development planning, (iii) enhancing systematic policy actions to drive climate impact, and (iv) increasing the focus on adaptation and resilience. IDA planning on enhanced climate change support to the poorest countries will go hand in hand with the WBG initiative to set post-2020 climate targets and actions for higher ambition and larger impact.

Table 1. Summary status of IDA18 Climate Policy Commitments
(as of September 30, 2018)

Objective	Policy Commitment	Target	Status
<i>Deepen the mainstreaming of climate change and disaster risk management into SCDs, CPFs, and lending, and support development of planning and investment capacity</i>	1. All IDA SCDs and CPFs to incorporate climate and disaster risk considerations and opportunities and reflect (I)NDCs, based on a review of experience before the start of IDA18, and to be reported at MTR.	All SCDs/ CPFs	<u>On track</u> <u>SCDs</u> : All 17 IDA SCDs completed between July 1, 2017 and September 30, 2018 have incorporated climate and disaster risk considerations and reflected NDCs if applicable. ¹ (100% compliance) <u>CPFs</u> : All 11 IDA CPFs completed between July 1, 2017 and September 30, 2018 have incorporated climate and disaster risk considerations and reflected NDCs if applicable. ² (100% compliance)
	2. All IDA operations continue to be screened for climate change and disaster risks and integrate resilience measures, based on review of experience before the start of IDA18, and to be reported at MTR.	All IDA operations	<u>On track</u> All 341 IDA operations approved by the Board between July 1, 2017 and September 30, 2018 have been screened for climate and disaster risks (100% compliance).
	3. Support at least 10 countries (on demand) to translate their (I)NDCs into specific policies and investment plans and start to integrate these into national budget and planning processes.	Support at least 10 countries	<u>On track</u> Support is being provided to 9 IDA/Blend countries (Bangladesh, Côte d'Ivoire, Kyrgyzstan, Mali, Mozambique, Pakistan, Sao Tome & Principe, Rwanda, and Uganda) through the NDC Support Facility.
	4. Develop at least 10 climate-smart agriculture investment plans (CSIP) and 10 programmatic forest policy notes (FPN).	At least 10 CSIPs and 10 programmatic FPNs	<u>On track</u> <u>CSIPs</u> <ul style="list-style-type: none"> • 4 being finalized (Bangladesh, Zambia, Côte d'Ivoire, Mali) • 2 more are on track for delivery in FY20 (Lesotho, Zimbabwe)

¹ The PCN review for 12 of the 17 IDA SCDs took place in FY17 or earlier and are thus excluded from the analysis for NDC reflection (IDA17 did not require SCDs to reflect NDCs). The remaining 5 SCDs reflected NDCs in compliance with IDA18 policy commitments.

² All CPFs reflected NDC considerations, if applicable. The Somalia CPF has reflected the priorities set out in the country's NDC, although the NDC was not specifically mentioned. Nicaragua has not yet submitted its NDC to the UNFCCC. The PCN review for the Moldova CPF was conducted in FY17 and thus excluded from the analysis (IDA17 did not require CPFs to reflect NDCs).

Objective	Policy Commitment	Target	Status
			<p><u>FPNs</u>³</p> <ul style="list-style-type: none"> • 5 programmatic FPNs delivered (DRC, Ethiopia, Mozambique, Liberia, and Nepal).
	<p>5. Increase the use of DPOs that support climate co-benefits.</p>	<p>% of financing with climate co-benefits over total commitment for IDA DPOs will increase; and % of IDA DPOs with climate co-benefits will increase.</p>	<p><u>On track</u></p> <ul style="list-style-type: none"> • In FY18, the share of climate co-benefits over the total commitment for IDA DPOs increased to 22% as compared to 7% in FY17. • 60% of IDA DPOs had climate co-benefits in FY18, an increase from 47% in FY17.
	<p>6. Apply GHG accounting and shadow carbon price for all operations in significant sectors, and prepare a revised guidance note on discount rates.</p>	<p>GHG accounting and shadow carbon price applied to all investment lending projects for which WB-approved GHG accounting methodologies exist; and the Guidance note on discount rates published.</p>	<p><u>On track</u></p> <ul style="list-style-type: none"> • All applicable projects have applied GHG accounting and Shadow Carbon Price in the period of July 1, 2017 to September 30, 2018. • The revised guidance note on discount rates has been published.
<p><i>Supporting efforts to achieve the Sustainable Energy for All objectives</i></p>	<p>7. Support the addition of five GW in renewable energy generation.</p>	<p>Addition of 5 GW in renewable energy generation</p>	<p><u>Delivered</u></p> <ul style="list-style-type: none"> • Supported the addition of 6.0 GW of renewable energy generation as of end-September 2018

³ Forest Policy Notes (FPNs) are also referred as Country Forest Notes (CFNs) in the WB Forest Action Plan and Climate Change Action Plan.

Objective	Policy Commitment	Target	Status
	8. Develop Investment Prospectuses in seven additional countries with low electricity access.	Investment prospectuses developed in 7 additional countries	<p><u>On track</u></p> <ul style="list-style-type: none"> • 2 completed: Cameroon and Côte d’Ivoire • 6 are underway: Benin, Kenya, Madagascar, Malawi, Niger and Togo
<i>Monitoring and reporting of IDA resources used for climate change</i>	9. Report annually on private finance mobilized for climate ⁴ and continue to report on overall climate finance together with other MDBs.	Annual reporting	<p><u>On track</u></p> <ul style="list-style-type: none"> • The WBG continues reporting annually on private finance mobilized for climate and overall climate finance. • The 2017 MDB’s Joint Report on Climate Finance was launched on June 13, 2018. <p>In 2017, MDB’s total climate finance reached US\$35.2 billion (up 28% from 2016). WBG remains the largest financier of climate-related projects with US\$13.2 billion in total finance and US\$8.7 billion in private mobilization (up from US\$6.8 billion in 2016).</p>

⁴ Climate finance reporting will continue to follow the methodology and procedures agreed upon with other MDBs and will report on the WBG numbers.

I. INTRODUCTION AND CONTEXT

1. **Climate change is a defining challenge of our time and a threat to the WBG's twin goals of ending extreme poverty and boosting shared prosperity.** Despite recent progress, the scale of the challenge continues to grow. The year 2017 was among the top three hottest years on record, trailing only 2016 and 2015.⁵ Emissions of carbon dioxide from fossil fuels and industry also rose in 2017 after a three-year plateau.⁶ Increased urgency and continued leadership on climate action is therefore critical to deliver on the WBG's core mission, as well as to meet the Paris Agreement objectives and SDGs.

2. **The IPCC 1.5 Degree Report (2018) calls for accelerated actions for climate.**⁷ Climate-related risks to health, livelihoods, food security, water supply, human security, and economic growth are projected to increase with global warming of 1.5°C and increase further with 2°C. Some vulnerable regions, including small islands and Least Developed Countries, are projected to experience high multiple interrelated climate risks even at global warming of 1.5°C. Populations at disproportionately higher risk of adverse consequences of global warming of 1.5°C and beyond include disadvantaged and vulnerable populations, some indigenous peoples, and local communities dependent on agricultural or coastal livelihoods. Regions at disproportionately higher risk include arctic ecosystems, dryland regions, small-island developing states, and least developed countries. Adaptation options specific to national contexts, if carefully selected together with enabling conditions, will have benefits for sustainable development and poverty reduction.

3. **Without inclusive and climate-informed development efforts and sustained focus on building resilience, climate-related shocks and stresses could erode development gains especially in more vulnerable IDA countries.** While repercussions from these shocks will be felt across the globe, the poorest regions will be most affected as these tend to have high exposure and sensitivity to climate impacts, while also exhibiting low adaptive capacity to buffer their economies and communities from climate and disaster risks. According to the *Shock Waves* report, climate-related shocks could result in more than 100 million additional people living in poverty by 2030.⁸ Already during the last decade, IDA countries were affected by almost eight times as many natural disasters relative to the 1980s, resulting in a three-fold increase in economic damage (US\$ terms).⁹ Climate change will also act as a threat multiplier, exacerbating natural resource scarcity in certain areas. Water scarcity could cost some regions up to 6 percent of their GDP, spur migration, and spark conflict.¹⁰ Climate migration is increasingly emerging as the human face of

⁵ NOAA National Centers for Environmental Information, 2018. State of the Climate: Global Climate Report for Annual 2017. <https://www.ncdc.noaa.gov/sotc/global/201713>.

⁶ Peters, G.P., Le Quéré, C., Andrew, R.M., Canadell, J.G., Friedlingstein, P., Ilyina, T., Jackson, R.B., Joos, F., Korsbakken, J.I., McKinley, G.A., Sitch, S., and Tans, P. 2017. Towards real-time verification of CO₂ emissions. <https://www.nature.com/articles/s41558-017-0013-9>

⁷ Intergovernmental Panel on Climate Change (IPCC), 2018. Global Warming of 1.5° Celsius. <http://www.ipcc.ch/report/sr15/>

⁸ World Bank. 2016. Shock Waves: Managing the Impacts of Climate Change on Poverty. <https://openknowledge.worldbank.org/handle/10986/22787>

⁹ IDA18 Special Theme: Climate Change. <http://documents.worldbank.org/curated/en/661931467989537070/International-Development-Association-IDA-18-special-theme-climate-change>

¹⁰ World Bank. 2016. High and Dry: Climate Change, Water, and the Economy. <http://documents.worldbank.org/curated/en/862571468196731247/High-and-dry-climate-change-water-and-the-economy>

climate change. According to the *Groundswell* report, worsening climate impacts could drive over 140 million people to migrate within their countries in just three regions – Sub-Saharan Africa, South Asia, and Latin America – unless urgent climate and development action is taken.¹¹

4. **Recognizing these challenges and building on the experience from IDA17, the IDA18 replenishment provides a set of diversified commitments to drive the WBG’s ambition in scaling-up innovative and transformative activities to advance low carbon and resilient development.** It also acknowledges the need to do things differently, accelerating progress towards global goals and heightening results across IDA countries.

5. **IDA18 reinforces the commitment to deepen climate mainstreaming into strategic frameworks, planning and investment capacity, and lending.** In addition to continuing the commitments related to incorporating climate and disaster risk considerations in SCDs, CPFs, and lending, IDA18 opens opportunities for transformative climate action through commitments related to translating (I)NDCs into specific policies and investment plans, developing climate-smart investment plans and programmatic forest notes, increasing the use of DPOs supporting climate co-benefits, and applying Green House Gas (GHG) accounting and the shadow price of carbon to all operations in significant sectors.

6. **IDA18 also provides an opportunity to deepen and expand the energy aspirations of IDA countries in line with their NDCs with a view to achieving the SDG affordable and clean energy objectives.** IDA18 aims to support doubling of renewables in IDA countries as part of IDA’s support to energy access and capital mobilization for generation, which is critical to several development indicators – such as education, drinking water, irrigation, refrigeration systems for live saving medicine, modern fuels for cooking and heating, and related health benefits especially for women and children. IDA18 also bolsters the commitment to support the development of Investment Prospectuses in countries with low electricity access.

7. **Approaching the IDA18 Mid-Term, all climate change commitments are on track to meet or exceed their set targets.** This report provides a comprehensive overview of the progress achieved, emerging challenges, and lessons learned from the first half of implementing the IDA18 policy commitments on climate change to inform the future areas of focus.

II. PROGRESS ON DELIVERING THE IDA18 POLICY COMMITMENTS

8. **This section discusses in detail the progress made to date on each of the IDA18 climate change policy commitments around three themes:** A) Deepen mainstreaming; B) Supporting efforts to achieve the Sustainable Energy for All objectives and C) Climate finance monitoring and reporting. Key results, challenges, and opportunities to achieve larger impacts are also discussed.

¹¹ World Bank. 2018. *Groundswell: Preparing for Internal Climate Migration*.
<https://openknowledge.worldbank.org/handle/10986/29461>

A. DEEPEN MAINSTREAMING

9. **Systematic efforts across the institution to mainstream climate considerations into IDA operations have made promising progress.** The strong IDA18 replenishment has provided solid financial capacity to enable countries to address climate change and sustainable development together and allow the institution to build robust and effective support and incentive systems to deepen climate mainstreaming. Strong leadership from senior management has deepened the ownership of climate action throughout the institution, with a system of dedicated focal points and champions helping task teams and managers across the Regions and Practices. Tailored support and resources have been ramped up and provided to IDA operational teams throughout the project cycle to deliver on the IDA18 climate change commitments.

10. **As an example of mainstreaming results, Climate Co-Benefits in IDA operations are increasing, with a greater diversification across different sectors and regions, and larger contributions from Development Policy Operations (DPOs).** Climate co-benefits in IDA operations have increased in both share and dollar-amount (see Table 2). In FY18, the share of climate co-benefits over total IDA commitments increased to 28 percent as compared to 22 percent in FY17. In dollar-terms, climate co-benefits in IDA operations amounted to US\$6.8 billion in FY18, up from US\$4.3 billion in FY17. Co-Benefits are also now more diversified across the IDA projects: the percentage of projects with some level of climate co-benefits increased to 65 percent in FY18, as compared to 55 percent in FY17.

Table 2. Climate Co-Benefits in IDA Countries (FY17-18)

	FY17	FY18
Share of climate co-benefits over total IDA commitments	22%	28%
Percent of projects with climate co-benefits	55%	65%
Climate co-benefits in IDA operations	US\$4.3billion	US\$6.8billion
of which adaptation	US\$2.1billion	US\$3.8billion
of which mitigation	US\$2.2billion	US\$3.0billion
Share of climate co-benefits in DPOs over total DPO commitments	7%	22.5%
DPOs with climate co-benefits over total number of DPOs	47%	60%

SCDs and CPFs

11. **All 17 IDA SCDs and all 11 IDA CPFs approved between July 1, 2017 and September 30, 2018 have incorporated climate and disaster risk considerations, and all 17 IDA SCDs and 11 IDA CPFs reflected NDCs if applicable.** This IDA18 policy commitment has helped strengthen the linkage between climate change diagnostics at a policy level and climate change strategy at the country planning level. Importantly, it has also improved alignment with countries' NDC commitments and provided a strong basis to further enhance the role of NDCs in Bank SCDs and CPFs. These country engagement documents increasingly reflect NDCs and emphasize countries' priority actions to address climate change.

12. **To achieve this progress, early engagements and deeper dialogues are initiated with SCD/CPF teams to further incorporate climate change considerations and drive climate-related outcomes** (see Annex 3). In the first half of IDA18 implementation, this early engagement

has helped shift the focus from narratives to specific outcomes. The CPF teams have increasingly identified opportunities to incorporate climate change consideration across sectors, including the non-traditional sectors such as social protection and fiscal management (through DPOs). The potential impact of climate change has been incorporated into the project pipeline discussion and in a few cases, reflected in the results indicators. For example, the Niger, Tanzania, Moldova, Guinea, and Nicaragua CPFs have addressed specific climate change related issues, including community action for climate resilience, climate smart agriculture, climate resilience in river basins, climate technology innovation, and disaster risk management.

13. **IDA SCD/CPF teams also have access to improved climate change data, tools, information and knowledge, which have been helpful in the initial stages of SCD/CPF development.** These tools include the Climate Change Knowledge Hub (CCKNOW), Country Climate Briefs, and Climate Co-benefits Dashboard. To ensure consistency in access and usage, efforts are being ramped up across Practices and Regions to enhance development of these resource tools and develop a knowledge management strategy for improving climate change knowledge dissemination. Institution-wide training on the corporate climate commitments now includes raising awareness on the importance of reflecting NDCs in SCDs and CPFs (see Box 1 below, and Annex 3 for some examples).

**Box 1. Stronger integration of NDCs –
the Zambia Strategic Country Diagnostic (SCD)**

Zambia's SCD illustrates that the twin goals cannot be achieved without tackling the impacts of climate change. The narrative on climate change strategically stresses the impacts of climate change on GDP, the main economic growth pillars identified in the diagnostic, the risks to achievement of prosperity and inclusive growth, and the sustainability of growth. It also makes explicit linkages to the NDCs in addressing climate change impacts through key sectoral adaptation and mitigation actions. The SCD also prioritizes climate change as a binding constraint that the Government will need to urgently address in the next 5-7 years at a policy level. The ability to tackle climate change issues are highly correlated with governance/ institutional weaknesses and this link is made quite prominently in the Zambia SCD.

14. **Going forward, to achieve bigger impacts, an increased focus will need to be made to further integrate NDC priorities into how the WBG engages with countries through SCDs/CPF.** Building on the existing successful process, NDCs and climate consideration can be integrated more systematically and upstream in the country engagement strategy development. When appropriate, climate related results indicators can be developed in the results framework to drive outcome-oriented actions in pipeline formation and project design with regular monitoring and reporting. Efforts can also be made, while conducting SCDs, to analyze key economic and policy constraints to implementing NDCs and identify opportunities to further strengthen NDCs.

Climate and Disaster Risk Screening of IDA Operations

15. **All 341 IDA operations approved by the Board between July 1, 2017 and September 30, 2018 have been screened for climate and disaster risks, indicating full compliance with the IDA18 policy commitment.** The climate and disaster risk screening process and supporting tools have helped scale up and support the mainstreaming of climate and disaster resilience in IDA18 operations. Risk screening continues to build task team and client capacity to better

understand the relevance of climate and disaster risks in development planning and the design of investments.

16. To be fit-for-purpose for IDA18, an enhanced climate and disaster risk screening process has been developed and rolled-out. Enhancements include updated screening tools and improved access to best available climate information and global data under both current and future time frames in the Climate Change Knowledge Portal (CCKP).¹² Sector level climate indices and sector dashboards, which provide visual, interactive and facilitated interpretation of climate information at different levels of aggregation as well as expanded availability of Country Climate Adaptation Profiles for all IDA countries have also been made available through the CCKP. In addition, frequent trainings and tailored support have been provided to task teams in the screening process. As a result, task teams have incorporated climate and disaster risk considerations and resilience building measures in project design, such as in the Malawi Shire Valley Transformation Program, which aims to mitigate climate impacts associated with droughts and floods in the watershed through sustainable natural resource management and water productivity investments (see Box 2 below and Annex 1 for more examples on climate-smart operations).

Box 2. Climate Smart Design in IDA Operations – the WACA Resilience Investment Project in West Africa

The WACA Resilience Investment Project (WACA ResIP) is a multi-country regional project that will support the strengthening of resilience of coastal communities and assets in six western African countries – Benin, Côte d’Ivoire, Mauritania, São Tomé and Príncipe, Senegal, and Togo. These six countries, covering approximately 2,186 km of coastline, have particularly vulnerable coastal areas (erosion, flooding, pollution). The World Bank provided financial and technical resources to develop Multisectoral Investment Plans (MSIPs) that provided a prioritized list of physical and social investments, as well as for policy and institutions at the national level and estimated the financing need for coastal protection in six countries at US\$1.5 billion.

Climate change adaptation co-benefits in this project amount to US\$190 million (100 percent), while GHG emission reductions are estimated to be at 4.5 million tons of CO₂e over 20 years.

The project will use WACA platform as a mechanism to replicate the most successful investments, thus generating adaptation benefits beyond the end of the project. The platform is expected to leverage and crowd-in financing so that effective coastal resilience practices and investments can be replicated and up-scaled in all 17 West African countries.

17. Building on the experience with implementing the IDA18 climate and disaster risk screening commitment thus far, opportunities will be pursued to more deeply embed climate risk and resilience in IDA operations and client countries’ own development planning frameworks. These include facilitating access to enhanced knowledge and support for the identification and selection of appropriate adaptation measures to address risks identified through the screening process, enhancing decision-making frameworks, including Decision-Making under Deep Uncertainty (DMDU) approaches that can help task teams and development planners deal with climate-related uncertainty as relevant to a given context. Another opportunity entails strengthening support for bridging data gaps and deepening climate vulnerability assessments for operations and strategies, in particular for at-risk sectors and locales following the screening

¹² <http://climateknowledgeportal.worldbank.org>.

process. Finally, the risk screening process will be tailored for specific types of operations including DPOs and PforRs to further strengthen climate resilience. These steps will better guide climate-informed operations design and the capture of climate co-benefit opportunities.

18. The current level of global progress towards achieving the Paris 1.5° target has elevated the need for developing countries to expand their climate adaptation actions and investments. Towards this end, the WBG will complete its plan to support scaled-up adaptation efforts by the end of 2018. This plan will lay out WBG actions for helping counterparts bring more informed climate risk management into national development and sector planning, including better understanding of the potential growth, fiscal, and poverty benefits associated with pro-active climate risk management. It will support both more systematic upstream climate risk analysis in SCDs and CPFs, and downstream climate-smart design and implementation of policies and projects. More broadly, the WBG strategy will seek to strengthen climate adaptation mainstreaming, financing, and metrics – and by doing so, will help IDA client countries better implement the climate adaptation actions prioritized in their own NDCs.

Support NDC Implementation

19. IDA client countries are supported on NDC implementation in a variety of ways. These include the active engagement of the WBG as an institutional member of the global NDC Partnership (NDCP). Since its launch at COP22 (in 2016), the Partnership has stimulated intra-ministerial and donor dialogue in more than 70 developing countries, developing concrete planning and implementation documents (Partnership Plans) aimed at specifying implementation priorities and identifying which partners are available to provide implementation support on different topics.

20. Complementing this engagement and IDA-specific assistance, the WBG has established the NDC Support Facility (NDC-SF) to support the implementation of country NDCs. It also provides access to NDC-related tools for the development community and WBG staff. The WBG NDC-SF is a multi-donor, Bank-Executed Trust Fund developed to support countries in implementing their NDCs in line with the NDCP process. The NDC-SF is active in a range of sectors including transport, coastal management, water, energy efficiency, climate-smart agriculture, environment and disaster risk management. NDCs vary widely in quality and specificity, depending on government capacity and engagement on climate at the time of NDC drafting. Therefore, NDCs are sometimes not sufficient to be directly transferred into policies and investment plans, but require further refinement of key actions and multi-sectoral engagement processes that can lead to the development of implementation plans. This includes a strong consultation process across line-ministries, and the involvement of multiple donors and implementing partners. The NDCP process, complemented by the NDC-SF, aims to fulfill this function that builds client capacity and helps with the NDC coordination, prioritization and implementation process.

21. Through the NDC-SF, the WBG is working to support capacity building, enhanced coordination and planning, investment plan development, and analytic work aimed at supporting NDC implementation. The NDC-SF is currently supporting nine IDA countries – Bangladesh, Côte d'Ivoire, Kyrgyzstan, Mali, Mozambique, Pakistan, Sao Tome & Principe, Uganda, and Rwanda. In three of these countries, namely Bangladesh, Côte D'Ivoire, and Sao Tome and Principe, IDA resources are being leveraged to enhance and support the implementation

of NDCs targets in the waterway transport and coastal risk management sectors. In addition, an NDC-related roadmap to attract private investments for the government of Côte d'Ivoire has been delivered in partnership with IFC. Four technical workshops were delivered with the support of the Climate Action Peer Exchange (CAPE) initiative, with participation from 16 IDA countries. The workshops focused on challenges and best practices for implementing NDCs in fiscal operations.

22. NDC support is also provided through the Energy Sector Management Assistance Program (ESMAP). In addition to the NDC-SF, sector-specific support to translate NDCs into policies and investments is provided through programs such as the Energy Sector Management Assistance Program (ESMAP). For example, ESMAP is supporting the Government of Vietnam in achieving its target of 12GW of solar PV capacity installed by 2030 by developing a roadmap to guide policy development and planning. This has led to a new engagement to design a pilot solar auction, supported by the Global Infrastructure Facility. Similarly, Pakistan's NDC refers to the role of grid-connected solar in its climate change mitigation priorities, whose scale-up is being supported by the Pakistan Sindh Solar Project that received technical assistance for project development and grid integration studies from ESMAP.

23. On the way forward, looking beyond 2020, countries will seek more systematic support to implement NDC goals and to enhance NDCs to be 'investment ready'. Sustained and elevated efforts are needed to scale up NDC support: strengthening capacity building, identifying and addressing policy bottlenecks to implement NDCs, and developing a suite of services and actions to systematically deliver the support. The five-year cycle of NDC updates under the UNFCCC process provides a mechanism to ratchet up NDC targets. The WBG is well positioned to support IDA countries to strengthen the NDCs in multiple aspects: broadening sectoral coverage, aligning with long-term strategies, and heightening the level of 'investment readiness'.

Climate Smart Investment Plans and Forest Policy Notes

24. We committed to deliver 10 climate-smart agriculture investment plans (CSIPs) under IDA18. The CSIP approach builds on the highly successful CSA Profile Series. Where CSA Profiles provided a stocktaking and overview, CSIPs use this information, apply participatory analytical tools to identify sets of transformative climate smart agriculture (CSA) investment and policy opportunities in support of clients' climate commitments. The analytical tools are tailored to each country context but include visioning exercises, robust decision making under uncertainty, and quantitative modeling – and are all deployed collaboratively with the client team and multiple in-depth stakeholder consultations. As a result, clients are able to identify investment and policy opportunities in the agriculture sector that increase productivity and incomes; strengthen the sector's resilience to climate change impacts; and reduce emissions. The proposed opportunities will be contextualized within existing client policies and targets and come in different formats depending on context.

25. The implementation of this IDA18 commitment on CSIPs is organized under a Programmatic Approach, set up in two phases: piloting and scale-up. The approach was first piloted in Bangladesh and Zambia, and has to date been scaled up in four countries (Côte d'Ivoire, Lesotho, Mali, and Zimbabwe) with a strong upcoming pipeline.

26. **The CSIP Pilots have shown encouraging results, providing a practical avenue toward integration and implementation of NDCs and Agriculture Sector strategies.** The combination of participatory processes with quantitative elements to inform prioritization of investments has proved functional. It has resulted in a shortlist of interventions with specified parameters across the “what and how” of technical content, implementation and financing mechanisms, as well as accompanying policy interventions. Each CSIP identifies financing needs for the prioritized CSA opportunities and discusses potential sources to cover these needs including by following the Maximizing Finance for Development (MFD) approach to leverage private sector finance and exploring opportunities to attract climate finance. Lessons learned and critical success factors have been identified during the pilot phase:

- Client ownership is imperative with CSIPs programmed well in advance to allow sufficient time to engage with clients to build ownership;
- Local knowledge is key to reflect specific context in the interlinkages between climate change and agriculture;
- Reverse-engineering approaches are useful to define the CSIP methodology;
- Selectivity of interventions, while challenging, is necessary as it sharpens the focus and increases stakeholder engagement;
- Building capacity for modeling expertise is necessary to ensure clients are capable of continued use of the tools after CSIP development is complete.

27. **Forest Policy Notes (FPNs) provide the opportunity to take a holistic look at forest landscapes with the ultimate objective of delivering on a programmatic approach.** By providing an integrated upstream analysis on the status of policies and investments relevant to the forest sector, the FPNs are a powerful tool for elevating the importance of forests within the WBG and in dialogues with governments, fostering stronger multi-sectoral collaboration in-country and internally across Global Practices and Cross-Cutting Solutions Areas, and informing important discussions on trade-offs in land use planning with other sectors that are significantly threatening forests.

28. **The FPNs provide the framework for building a more ambitious and programmatic engagement on forests, as committed through the FAP and CCAP.** By taking a strategic and holistic view of the sector, and backing this up through analytics and economic data, the FPNs can:

- Provide the strategic framework to **elevate and advance the political dialogue on forests** with CMUs, governments, donors and other in-country partners;
- Help **enhance coordination and increase commitments** from various actors in support of a WBG programmatic engagement;
- **Programmatically organize and sequence the engagement on forests** in multiple countries by assessing needs and identifying potential interventions and investments of the WBG and other in-country partners;
- **Help leverage greater resources** in support of forests (from IBRD, IDA, private sector) and help pilot innovative financing schemes;

- **Promote greater inter-sectoral collaboration** on forests (both within and outside the WBG);
- Embed the role of forests in **national policies and strategies**;
- **Help address challenges** with respect to sustainable development and economic growth, including institutional capacity, governance and policy issues;
- **Strengthen the inputs to strategic diagnostic exercises**, such as SCDs;
- Support the **implementation of forest-related commitments in countries' NDCs**.

29. Key to the success of the FPN tool is not only the development of the note itself, but the continuous dialogue that should ensue to advance the WBG's programmatic engagement on forests. As such, the delivery of the FPN is only a first step.

30. **Five IDA counties (DRC, Ethiopia, Liberia, Mozambique and Nepal) have prepared FPNs, which were endorsed through Country Management Unit (CMU) level review meetings.** In all countries, the notes helped to either identify potential areas for new engagements, inform project design, or shape the dialogue with the Government and/or donors. For example, key action areas identified in Liberia include institutional reform, more economic data on forests and strengthening the enabling environment for private sector investment. In Mozambique, leveraging additional finance to scale up and replicate the success of the landscape approach in additional districts was identified as an opportunity. Five more notes will be delivered by end of IDA18.

31. **The current FPNs have demonstrated the economic value and poverty relevance of forests and identified the benefits to and solutions promoted by other sectors, mainly agriculture, disaster risk management, energy, and the fiscal and governance framework.** The FPNs aim to connect and coordinate between different sectors and promote integrated solutions, while helping to implement climate commitments by linking up to the national mitigation and adaptation agendas.

Development Policy Operations (DPOs)

32. **IDA18 has increased efforts to mainstream climate change considerations into DPOs.** The share of climate co-benefits over the total commitment for IDA DPOs have increased to 22 percent in FY18 compared to 7 percent in FY17. This translates into an increase in climate co-benefits from US\$130 million in FY17 to US\$481 million in FY18. Also, the proportion of IDA DPOs that have incorporated climate change mitigation and/or adaptation has increased from 47 percent in FY17 to 60 percent in FY18.

33. **These results were achieved in part due to increased support to and engagement with DPO teams.** A series of climate change training sessions were arranged in FY18 to provide guidance and knowledge on how to integrate climate change considerations into policy actions. Guidance documents were developed, including sector specific guidance notes and an inventory of climate-related policy actions. Furthermore, targeted support was provided to select priority DPOs in the project design stage to ensure climate change mitigation and adaptation measures

could be considered early on. Programs such as ESMAP have provided technical assistance for the design of Prior Actions related to energy sector reforms.

34. **This upstream engagement has been instrumental in increasing awareness around climate-related policy actions that can be included in the design of DPOs.** In FY18, DPOs with a primary focus on fiscal reforms have included policy actions on renewable energy and energy efficiency, or on reducing risks from natural disasters linked to climate change, contributing to climate change mitigation and adaptation, respectively. Bhutan's policy package 'Strengthening Fiscal Management & Private Sector Employment' was assigned 11 percent climate co-benefits since it includes a reform on energy efficiency, specifically the approval of the National Energy Efficiency and Conservation Policy. This policy action is expected to encourage general improvements in the energy performance standards of the major economic sectors, thereby reducing energy intensity, generating higher revenues through increased energy exports, and avoiding GHG emissions.

35. **Through DPOs, IDA18 is directly supporting policy reforms in various sectors that would enable countries transition to low carbon and resilience development pathways and meet their NDC commitments on climate change.** For example, the Lao PDR First and Second Programmatic Green Growth DPO aims to help the country achieve fiscal stability and implement climate smart and low carbon policy frameworks. Another example is Nepal's First Programmatic Fiscal and Public Financial Management Development Policy Credit (DPC) which was assigned 11 percent in adaptation co-benefits for the Disaster Risk Reduction and Management Act. The Act is expected to help Nepal make continued progress on its post-disaster reconstruction, early-warning preparedness, and long-term climate resilience, particularly through better coordination among the relevant public-sector entities.

Greenhouse Gas Accounting and Shadow Price of Carbon

36. **All new applicable IDA operations have accounted for GHG emissions and priced these emissions in the economic analysis using a shadow price of carbon, helping client countries move toward low-carbon investment trajectories.** GHG accounting applies to all IDA investment lending projects in the Sustainable Development and Infrastructure Global Practices with Bank approved methodologies. The GHG accounting methodology has been developed and approved for the main project types in the energy, transport, agriculture, forestry, water and waste sectors. Shadow pricing of carbon is incorporated in all IDA operations subject to GHG accounting where design began on or after July 1, 2017. In the period of July 1, 2017 to September 30, 2018, 58 investment lending projects reported GHG accounting results. 47 projects incorporated a shadow price of carbon in the economic analysis including 13 projects that were required to do so and 34 projects that did so on a voluntary basis since their concept notes were approved before the cut-off date of July 1, 2017 for this commitment.¹³ This represents 100 percent compliance with the commitments on GHG accounting and shadow pricing of carbon.

37. **Task teams are being supported to conduct GHG accounting and use a Shadow Price of Carbon in their economic analysis but further efforts are needed to increase teams'**

¹³ Projects that are subject to the policy commitment of applying a Shadow Price of Carbon refer to those that are subject to GHG accounting and have a PCN date on or after July 1, 2017.

capacity in performing the calculations and using these tools to identify lower carbon opportunities. Many task teams find it challenging to calculate GHG emissions, to incorporate a shadow price of carbon in the economic analysis, and to use this information to identify low carbon opportunities in project design since these require technical knowledge and expertise. The Shadow Price of Carbon guidance note¹⁴ has been revised in FY18 to provide more detailed guidance to task teams on how to value carbon emissions in the economic analysis and to reflect latest science. The guidance note recommends task teams to use a low and a high shadow price of carbon that is consistent with achieving the core objective of the Paris Agreement of keeping temperature rise below 2 degrees, provided that a supportive policy environment is in place. Training has been provided to climate focal points in the Global Practices and task teams to help build their capacity, together with tailored support to task teams. In addition, the task teams' assessments were validated to ensure robustness of the data. These activities have helped to increase task teams' awareness of the projects' external carbon cost or benefits and to integrate into project design the consideration of lower-carbon opportunities. In FY19, efforts will be scaled up to build the technical knowledge and expertise among task teams on these aspects. Planned activities include development of best practice examples and clinics on GHG accounting and shadow price of carbon.

B. SUPPORTING EFFORTS TO ACHIEVE THE SUSTAINABLE ENERGY FOR ALL OBJECTIVES

Support the Addition of Five GW in Renewable Energy Generation

38. **Through direct financing and indirect financing, IDA countries have received support for the addition of 6.0 GW of renewable energy generation through operations approved by the Board of Executive Directors in FY18 and the first quarter of FY19** – with the financing being provided by IDA, as well as IBRD and Trust Funded resources. Operations financing support is provided in several key ways, categorized for ease of aggregation and reporting into direct financing and indirect financing:

- **Direct Financing.** This category includes financing for the construction of new renewable generation facilities, the addition of generation capacity through rehabilitation or expansion of existing facilities, the conversion from non-renewable to renewable sources of generation, and the provision of risk mitigation financing to provide incentives for private sector participation. This includes on-grid, mini-grid, and off-grid solutions;
- **Indirect Financing.** This category can be further disaggregated into three sub-categories, and includes:
 - **Renewable Energy Generation Facilities:** financing for the construction of enabling facilities for investments in renewable energy generation;
 - **Renewable Energy Integration:** financing for the construction of infrastructure to integrate renewable generation facilities into the grid and evacuate power from renewable generation facilities (thus avoiding stranded assets);
 - **Technical Assistance:** financing for the preparation of least cost and master plans, the development of laws and regulations, resource mapping and data collection; and the

¹⁴ Guidance Note on Shadow Price of Carbon <http://pubdocs.worldbank.org/en/911381516303509498/2017-Shadow-Price-of-Carbon-Guidance-Note-FINAL-CLEARED.pdf>.

analyses required for construction such as feasibility studies, and environmental and social analyses and plans.

39. **In addition, IDA countries have received support through enabling advisory services and analytics (ASA)** for least cost and master plans; the development of laws and regulations; resource mapping and data collection; and the analyses required for construction such as feasibility studies, and environmental and social analyses and plans.

40. **By type of support, of the total 6.0 GW, 0.8 GW has been supported through direct financing, with the rest through indirect financing for 0.4 GW of renewable energy generation facilities, 4.3 GW of renewable energy integration, and 0.5 GW of technical assistance for renewable energy generation in IDA countries.** Box 3 explains how the Bank balances direct support with the objective of Maximizing Finance for Development (MFD).

Box 3. Balancing Direct Support with Maximizing Finance for Development

The Bank has been given the mandate to integrate the Maximizing Finance for Development (MFD) approach, where relevant, into project design to leverage the private sector and optimize the use of scarce public resources in a way that is fiscally, environmentally, and socially sustainable. Working with its counterparts, the Bank team evaluates private sector solutions which could achieve the project's development objectives, and potential synergies with the private sector and other multilateral/bilateral development agencies. Depending on country circumstances, the Bank makes the case for the choice of public, public-private or entirely private sector delivery methods. In this MFD context, the Bank selects the most appropriate role given the actual or potential involvement of the private sector, and reduces the project financing accordingly. For example, the US\$100 million Pakistan Sindh Solar Energy Project is financing the construction of solar parks, while US\$273.5 million is being mobilized in private sector capital to finance 400 MW of solar energy generation within these parks.

41. **By type of technology, the composition of the 6.0 GW is as follows: 0.14 GW for 1 geothermal operation; 1.0 GW for 10 solar operations; 3.9 GW for 3 hydropower operations; and 1.0 GW for 7 operations with a mix of technologies.** In terms of number of operations, solar is dominant, while in terms of volume, hydropower is dominant in terms of volume. For solar operations, the Bank is able to support a variety of technologies to provide electricity access to underserved populations, including off-grid stand-alone solar home systems, solar mini-grids, and utility scale grid-connected greenfield solar photo-voltaic systems.

42. **The Bank supports a number of policy actions related to renewable energy generation through DPFs.** The results from these operations are not currently captured in the data for the policy commitment on GW of renewable energy generated, but contribute significantly to the incorporation of renewable energy generation as part of government strategies. For example, the Rwanda Energy Sector Development Policy Loan series supports: the transition to low carbon energy by reforming the legal framework for renewable energy generation and developing grid-connected hydropower and solar power, and by removing barriers for off-grid solar energy; and reforming its electrification program to make electricity access more affordable, including by leveraging the private sector for mini-grids and off-grid solar.

43. **In addition to operations financing, the Bank also supports countries through ASA.** For example, the Afghanistan Renewable Energy Development: Issues and Options study was

recently completed on the vast renewable energy resources in the country. It identified and ranked areas suitable for the development of utility scale solar photovoltaic plants and wind farms, and calculated the levelized cost of electricity for each potential site. A geospatial toolkit was developed to allow for the examination of the resources together with other key information including population, load centers, transmission corridors, generation facilities, terrain and land use. These tools were used to determine the best mix of renewable energy technologies to meet forecast residential electricity demands throughout the country under various sets of assumptions. Strategic, policy, and institutional arrangements were also addressed, as were risks and vulnerabilities.

Box 4. Doing things differently: IDA Uses Flexible Approaches to Support Renewable Energy Generation in Fragile and Conflict-Affected States (FCS)

The Gambia's electricity grid has a limited installed capacity of 99 MW, of which almost 90 percent is in the capital. The National Water and Electricity Company (NAWEC) is not financially viable and therefore has been unable to perform basic maintenance activities and to make the investments required to upgrade and expand the electricity system. The resulting deterioration of available capacity has led to widespread blackouts which in turn have led to demonstrations. The Bank took advantage of the flexibility provided under the Investment Project Financing Policy to use condensed procedures to prepare the Gambia Electricity Restoration and Modernization Project (SDR 28.4 million, US\$41 million equivalent). This project supports: the implementation of immediate priority investments to restore the delivery of electricity services in targeted municipal and regional areas; the preparation, financing, and construction of a utility scale greenfield 10–20 MWp solar PV plant with battery storage; and the turnaround of the NAWEC. The EIB and the EU are partners in this project.

The ongoing conflict in the Republic of Yemen has resulted in the collapse in the provision of public electricity services. The Bank took advantage of the agreements with UN agencies to design the Yemen Emergency Electricity Access Project (SDR 34.6 million, US\$50 million equivalent) using UNOPS as the implementing agency to work in collaboration with local entities, including microfinance institutions, solar equipment suppliers and technical service providers. The project will provide basic electricity supply to 1.3 million people, restore electricity supply to 1,200 critical infrastructure (hospitals, schools, water corporations, and electricity corporations); and build a more inclusive and sustainable solar market in the country. The design of the project is flexible to account for future improvements in the delivery capacity of the implementation agencies and security risks due to conflict.

44. **ESMAP has been a primary funder of ASA in IDA countries. For example, ESMAP provided** significant technical support to preparation of large-scale solar installations, either in the form of solar parks to be auctioned out to the private sector, or public-sector installations, most of them incorporating batteries, in the Central African Republic, Bangladesh, Guinea Bissau, Haiti and Niger. This includes grid integration studies and power system planning to optimize renewable energy deployment. ESMAP has also provided support to enabling frameworks for renewable energy and large-scale solar, in particular, including support in preparation of auctions in Bangladesh and Ethiopia. These auctions are expected to catalyze investments by IFC and other private sector players in these countries. ESMAP is supporting two innovative projects assessing the feasibility of hydro-connected solar developments in Myanmar and four West African countries (Côte d'Ivoire, Ghana, Mali, and Liberia) related to existing hydropower dams. These grants could over time catalyze multiple World Bank operations in these countries. ESMAP is also supporting renewable energy resource mapping in a number of IDA countries, many of which are leading to client engagement in solar development (Pakistan, Vietnam and Ethiopia) and the open access data is informing the private sector's strategies (such as in Zambia's solar auctions).

Box 5. Support to Battery Storage for Increased Use of Wind and Solar Power

The World Bank Group (WBG) proposes to commit US\$1 billion for a program to accelerate investments in battery storage for electric power systems in developing and middle-income countries. This investment is intended to increase developing countries' use of wind and solar power, and improve grid reliability, stability and power quality, while reducing carbon emissions. The US\$1 billion in WBG financing is expected to be matched by another US\$1 billion in concessional climate financing, and leverage around US\$3 billion of additional private and public investments. The program would enable a significant expansion of the battery storage market and ultimately aims to finance 17.5 gigawatt hours (GWh) of battery storage by 2025 – more than triple the 4-5 GWh currently installed in all developing countries. Key applications in developing countries that will be supported in the near term are: (1) hybrid solar photo voltaic (PV) + storage plants for reliable electricity supply and diesel/heavy fuel oil displacement shifting part of the energy produced during daylight to evening peak use; (2) grid services (ancillary services including frequency control, voltage control or black start capability) through stand-alone batteries that can act as power grid assets; and (3) mini-grids in low access areas, including small island states.

45. **There are a number of challenges in continuing to provide support to IDA countries for renewable energy generation.** In relation to the type of the technology, hydropower projects have long preparation periods, and some of the projects that are under preparation now may not be ready for Board approval during the IDA18 cycle. Some IDA countries have small and weak power systems, and evacuation constrains the addition of large quantities of power from variable renewable energy sources such as solar or wind. Some IDA countries have limited experience with renewable technologies, and need to strengthen their policy, regulatory, and institutional framework in order to be able to support the introduction of renewables. In relation to private sector engagement, in order to support the objectives of the MFD approach, we will need to further reduce our direct financing of operations while crowding in the private sector, and concentrate more on the financing of facilities and on legal and regulatory frameworks that facilitate the penetration of renewable energy generation.

Develop Investment Prospectuses in Seven Additional IDA Countries

46. **Under IDA17, the Bank supported a number of countries – including Ethiopia, Guinea, Myanmar, Nigeria, and Senegal – in the preparation of national energy plans and investment prospectuses to support energy access, and help mobilize additional funding.** In Guinea, a Donor Roundtable to present the investment prospectus was held in November 2017. The prospectus enabled the country to mobilize about US\$380 million out of US\$645 million from multilateral donors including the World Bank, Agence Française de Développement, African Development Bank, Islamic Development Bank, and the European Union.

47. **The success of these efforts led to the goal of continuing with the preparation of investment prospectuses in seven additional countries during IDA18.** In the first year of IDA18, investment prospectuses have been completed for Cameroon and Côte d'Ivoire. Work is also underway in Benin, Kenya, Madagascar, Malawi, Niger, and Togo, and discussions are being held in several other countries. However, not all countries are ready to prepare investment prospectuses, since they are at different levels of planning and have different levels of engagement with donor partners and the private sector.

C. CLIMATE FINANCE MONITORING AND REPORTING

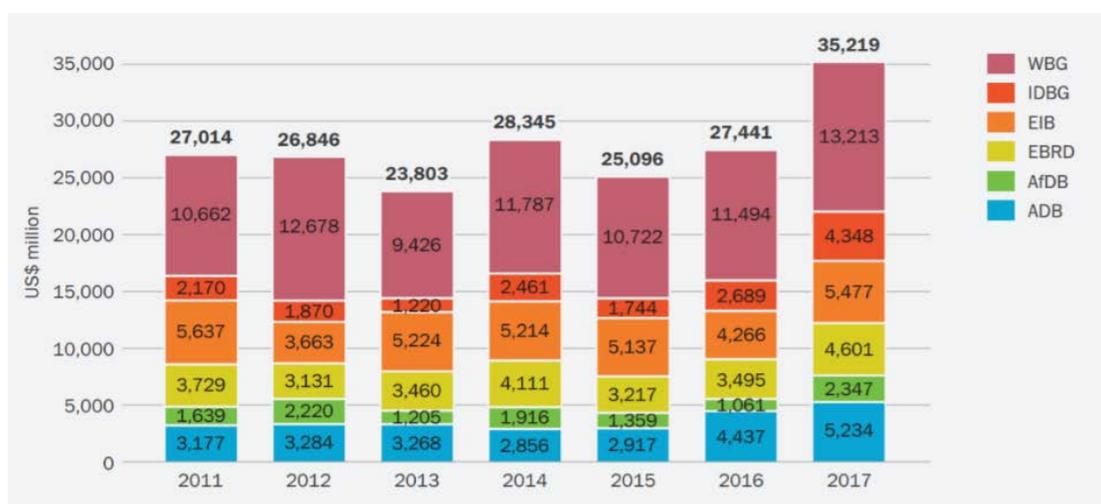
Monitoring and Reporting IDA Resources Used and Private Finance Mobilized

48. **The Bank uses various mechanisms to meet the IDA18 commitment on monitoring and reporting of the use of IDA resources.** The WBG uses the Joint MDB Methodology for Tracking Climate Finance to quantify IDA resources that are used for climate change. The data are reported and tracked regularly across the institution through mechanisms such as the Monthly Climate Co-Benefits Report, the quarterly Operations Council meeting, and the Global Business Review meeting. In addition, the IDA resources used for climate change are reported in the IDA Results Measurement System (RMS) as well as the Joint Report on MDB's Climate Finance.

49. **The WBG continues to collaborate with other members of Multilateral Development Banks (MDBs) and the International Development Finance Club (IDFC) on tracking and reporting of climate finance annually, as well as on the methodological discussions that inform reporting on climate finance.**

- The 2017 Joint Report on MDBs' Climate Finance, released in June 2018, shows that MDB climate finance hit a record high of US\$35.2 billion (See Figure 1). The WBG remained the largest contributor of climate related finance among MDBs with US\$13.2 billion, of which US\$4.3 billion was from IDA. The WBG climate co-financing reached US\$16.2 billion in total, with US\$8.7 billion as the share of WBG private mobilization. With continuous effort to mainstream climate actions across the institution, this upward trend is expected to continue throughout IDA18.

Figure 1. Total Reported MDB Climate Finance Commitments, 2011-2017*
(in US\$ million)



*Source: 2017 Joint Report on MDBs' Climate Finance (June 2018).

- For IDA18, in addition to the 2018 Joint Report on MDB's Climate Finance, which is expected to be published in June 2019, the WBG, in collaboration with other MDBs has supported UNFCCC's preparation of the 2018 Biennial Assessment and Overview of

Climate Finance Flows. Furthermore, the MDBs plan to present a joint paper on lessons learned from three years of implementing the MDB-IDFC Common Principles for Climate Change Adaptation Finance Tracking and thus, using the Joint MDB Methodology for Tracking Adaptation Finance at COP 24 in Poland in December 2018.

50. Mobilization of private sector finance is an increasingly important element for leveraging and scaling up WBG climate change engagements:

- **In FY18, IFC committed US\$581 million in own account funds for climate business in IDA projects.** In addition, there has been US\$1.5 billion in core mobilization for these projects. For comparison: In FY17, IFC committed US\$615 million in own account funds for climate business in IDA, with another US\$400 million in core mobilization.
 - *The Scaling Solar program continues to produce results.* Scaling Solar combines several WBG offerings to streamline and accelerate the approval and deployment of PV systems in client countries. As part of its continued engagement with Zambia, IFC invested US\$28 million for own account in two solar projects. These investments were supported with US\$25 million in blended finance loans from the IFC-Canada Climate Change Program. In FY18, IFC's blended climate finance program supported a total of US\$175.5 million in utility-scale and distributed generated solar power in IDA countries, including Burkina Faso, Myanmar, and Zambia.
 - *Green buildings are a growing sector for IFC climate investments.* EDGE ("Excellence in Design for Greater Efficiencies"), IFC's green building certification system with free software for resource-efficient design, continues to expand and is now available in 144 countries. One focus area this past year has been on green hospitals, including an EDGE-certified Mother and Baby Unit in a Ghana hospital. FY18 investments include US\$9 million for own account in a green hospital in Lagos, Nigeria, that is sponsored by the Nigerian subsidiary of the AXA group. AXA is a key IFC partner, and one month after this project closed, AXA announced that it would join IFC's syndicated infrastructure program, much of which will be used for green projects.
 - *IFC is also partnering with the private sector and other stakeholders on achieving the goals of the 2015 Paris Agreement.* In early July 2018, IFC and Côte d'Ivoire's Ministry of Petroleum, Energy, and Renewable Energy Development released a roadmap study that outlines pathways for achieving the country's NDC target under the Paris Agreement of producing 42 percent of Côte d'Ivoire's power by renewable energy resources in 2030. This was developed from substantive dialogue among more than 100 energy sector stakeholders. Implementing the appropriate policies can create a US\$9 billion investment opportunity by 2030.
- **In FY18, MIGA mobilized (directly and indirectly) US\$301.4 million of private finance for climate business in IDA countries.**
 - *FY18 was a record year for MIGA in its support to renewable energy investments.* IDA countries represented 55 percent of MIGA's total issuance in renewables. For example, through its political risk insurance (PRI) product MIGA was able to provide long-term coverage against the risks of currency convertibility and transfer restriction, expropriation, war and civil disturbance, and breach of contract to key renewable

energy projects in Senegal and Uganda. In Senegal, MIGA supported the Parc Eolien Taiba N' Diaye wind farm, a 158.7 MW installation which, once operational, will be the largest in West Africa. By issuing 20-year guarantees covering Lekela Power Holdings' equity investments of US\$150 million, MIGA contributed to addressing the challenge Senegal faces in meeting its power demand, with clean and reliable electricity at competitive rates. In FY18, MIGA also supported the Government of Uganda's goal of expanding energy access by supporting the US\$430 million refinancing package for the Bujagali Hydroelectric power project. MIGA provided guarantees of US\$231.3 million for 20 years for equity investors in Bujagali Energy Limited, helping to secure long-term financial support for the project. The project refinancing will make it possible for the company to reduce the cost of electricity produced by the hydropower plant and help develop the power market in Africa.

- ***MIGA supported its first green building in an IDA country.*** Early in the fiscal year, MIGA finalized its support to the Mezz Tower and Djibouti International Business Centre in Djibouti City. The project consisted of the design, building, and operation of a finance center. MIGA provided political risk insurance cover through a US\$23 million guarantee for 15 years. MIGA was instrumental in introducing and guiding the client to pursue IFC's EDGE green building certification. Once obtained, the project would be the first EDGE-certified project in Djibouti.
- ***An impactful WBG collaboration in Afghanistan in FY18 supporting climate smart agriculture was the Rikweda Fruit Process Company.*** With the benefit of MIGA political risk insurance, IDA upstream work on the regulatory framework, and an IFC working capital loan, the project aims to develop a greenfield raisin processing facility in Afghanistan with a production capacity of 15,000 tons per year, to improve the livelihoods of approximately 3,000 smallholder farmers. MIGA's guarantee of US\$5.15 million supports climate smart agriculture by using modern equipment designed to increase water efficiency and reduce post-harvest food losses thereby helping to trim greenhouse gas emissions. MIGA also made use of the MIGA Guarantee Facility under the IDA18 IFC-MIGA Private Sector Window, which provided MIGA with first loss cover for the project – MIGA's first climate smart agriculture project in an FCV country.

III. SYNERGIES WITH OTHER SPECIAL THEMES AND PARTNERSHIPS

51. **Integration with key global themes and other IDA18 priorities including Gender and Fragility, Conflict and Violence (FCV) is fostered across country strategies, knowledge products, learning, and operations, providing critical leadership in these interlinked areas.** The Bank developed a comprehensive Bank-wide gender and climate program that is now under implementation for FY18-FY23 covering key themes spanning disaster risk reduction and adaptive social protection, renewable energy, forests and landscapes, urban services, and green jobs and private sector development. This type of support helps better understand and reduce gender gaps related to climate change in client countries such as Benin, Côte d'Ivoire and Liberia. The Bank-wide effort seeks not only to reduce gendered vulnerability to climate impacts, but also to offer enhanced inclusion opportunities for economic and voice benefits from mitigation and adaptation investments, including efforts to enhance women's skill-based employment opportunities from

green growth activities, such as renewable energy transition and sustainable forest value chain development.

52. In FCV countries, 58 percent of projects in FY18 have climate co-benefits, as compared to 24 percent in FY16. The percentage of IDA climate co-benefits over total commitments in FCV countries has significantly increased, from 5 percent in FY16 to 20 percent in FY18. As a further example, the Bank is launching an ASA on Multi-Dimensional Risks Scenarios in FY19, covering long-term scenarios for climatic patterns, migrations and conflict dynamics in Lake Chad and West Africa coastal areas.

53. Knowledge products continue to provide analytical leadership at the climate-development nexus and feed into necessary policy discussions across sectors. For example, the *Groundswell* Report highlights how embedding climate migration into policy and planning along with concerted action on climate change mitigation and adaptation could help address internal climate migration by 2050. At the regional level, analyses such as the *South Asia's Hotspots* study place the spotlight on the impacts of long-term climate change on living standards in one of the world's poorest regions. Other tailored analyses inform climate mainstreaming at the country level, for example in evaluating climate risks to fiscal systems, such as was recently undertaken in the St. Lucia Climate Change Policy Assessment.

54. The WBG and other MDBs are collaborating on a broad range of issues related to climate, including climate finance tracking, resilience measuring, mitigation and shadow pricing of carbon. As noted before, MDBs work closely at the technical level to harmonize the methodology to track climate related finance. MBDs and IDFC announced at the One Planet Summit to develop a common framework for tracking progress towards achieving resilience to be shared by COP24, they also reaffirmed their commitment to shift investment to sustainable asset classes through the implementation of a shadow price of carbon.

55. Partnerships between the WBG and Global Environment Facility (GEF), Climate Investment Funds (CIF), and Green Climate Fund (GCF) target transformational climate action at scale by crowding in other sources of concessional finance.

- GEF has been an important source of grant financing for IDA countries to pilot new technologies and approaches, de-risk investment, and enhance enabling environments. In FY18, eight WB projects with a total amount of US\$66.5 million have been approved by GEF to support IDA countries.
- In FY18, CIF has provided over US\$106 million to eight WB projects in IDA countries under the Strategic Climate Fund (SCF). Under CIF/SCF, the Scaling Up Renewable Energy Program (SREP) in Low Income Countries provided US\$43 million in concessional funds for WB projects in three IDA countries, which has been instrumental for IDA clients to adopt renewable energy. Also under SCF, the Forest Investment Program (FIP) has committed US\$38.8 million in FY18 to support developing countries' Reducing Emissions from Deforestation and Forest Degradation (REDD) efforts in three IDA countries. In addition, the CIF's the Pilot Program for Climate Resilience (PPCR) has been supporting strategic planning processes, namely Strategic Programs for Climate Resilience

(SPCR), to mainstream climate resilience, and subsequently leveraging IDA18 financing. (See Box 6).

- Three funding proposals developed by the WB in IDA countries (Marshall Island, Burkina Faso, and Bangladesh) are approved by the GCF Board, bringing the total GCF funding commitments of US\$67.5 million. Two additional projects for IDA countries are under preparation to request GCF funding. Looking forward, the partnership between the GCF and the WBG is targeted at transformational climate actions at scale, partly via exploration of programmatic approaches to increase scale and leverage.

Box 6. Climate Investment Fund (CIF) Targets Transformational Climate Action

SREP Enables the Adoption of Renewable Technologies in Haiti: US\$24 million IDA funds and an additional US\$20 million co-financed by SREP are invested to help the country leap-frog into the adoption of renewable technologies for household consumption, productive uses and provision of community services. In this WB project the demonstration effect of the solar PV plus battery storage facilities will increase the attractiveness of similar investments to private sector investors and donors interested in on- and off-grid RE electrification.

Leveraging climate resilience finance for transformational change in Zambia: While PPCR provided US\$14.6 million in concessional funds (US\$13.5 million loan, US\$1.1 million grant) for the Zambia Strengthening Climate Resilience project, IDA18 provided US\$75 million to the Transforming Landscapes for Resilience and Development in Zambia project. Both interventions are part of a national program to scale up climate resilience, building directly on lessons learnt and best practices from PPCR funded projects in the Central Lusaka, Southern and Western Provinces of Zambia, which are improving the adaptive capacity of vulnerable communities. The decision to scale up follows the urgent need to minimize the impacts of climate change on additional communities in Luapula, Northern and Muchinga provinces. The IDA18 project aims to support resilient local livelihoods, sustainable forest management and land-use, sustainable agriculture practices and institutional capacity building in responding to climate change.

56. **New partnerships extend collaboration on a range of climate-related issues, helping to amplify climate results, and mobilize private investments.** The WBG is working with the New Climate Economy to invite Finance Ministers and other government leaders to reshape national policies to stimulate economic growth while addressing climate risks and opportunities. Partnership with Bloomberg enables the WBG to reach private business leaders to ramp up investment for large scale transformative climate actions. The WBG also collaborates closely with the global NDC Partnership to help countries strengthen capacities towards effectively implementing their NDCs.

57. **Bilateral partnerships prove to be instrumental in building global momentum for climate actions.** Together with Canada, the WBG is targeting developing countries and small island developing states in energy transition. Supporting the leadership of UK and Germany, the WBG contributes to the InsuResilience Global Partnership to deepen climate risk insurance markets and use innovative insurance related schemes in developing countries. At the city level, the Global Covenant of Mayors and the Bank established a partnership to secure funding in technical and financial assistance for Cities Executing Aggressive Climate Action Programs.

IV. CHALLENGES, OPPORTUNITIES AND ISSUES FOR DISCUSSION

58. **Increased urgency and continued leadership on climate change remain critical to supporting IDA countries in addressing long-term sustainable development and climate change.** Given the scale and urgency of the climate challenge, a strong and continued focus on climate change will be of great importance to supporting IDA countries in ultimately meeting the Paris Agreement objectives and Sustainable Development Goals (SDGs). Sustained financial capacity and focus remain key.

59. **Building on the strong progress in IDA18, greater focus and strengthened efforts can be made to increase systemic impact. Below are a few examples.**

- ***Elevating NDC support:*** A lot of progress has been made in supporting countries in NDC implementation. However, it is recognized that the breadth of sectoral coverage, the level of ‘investment readiness’ and the degree of alignment with long-term strategy vary greatly among countries’ NDCs. The direct support work has been of fairly fundamental nature in many cases (e.g., emission inventory analysis, Monitoring, Reporting and Verification (MRV) systems, vulnerability assessments, cross-sectoral and inter-ministerial coordination mechanisms). Only in a few cases, the requested support is reaching the stage where NDCs can be translated into specific policies and investment plans, and to be integrated into national budget and planning processes. Sustained and elevated efforts are much needed to scale up NDC support: strengthening capacity building, identifying and addressing policy bottlenecks to implement NDCs, supporting NDC updates to make them more ‘investment ready’, and developing a suite of services and actions to systematically deliver the needed support.
- ***Deepening integration of NDCs into SCDs/CPFs:*** Efforts have been made to raise awareness and provide technical support in reflecting or referencing the NDCs in SCDs and CPFs, which has led to 100 percent compliance. To achieve bigger impacts and further integrate NDC priorities into how the WBG engages with countries, where appropriate, efforts will be made to further deepen integration of NDCs into SCDs/CPFs. For example, when appropriate, steps can be taken to consider setting specific NDC-based objectives and results indicators in the results framework of the CPFs to drive outcome-oriented actions in pipeline formation and project design with systematic monitoring and reporting. Efforts can also be made, while conducting SCDs, to analyze key economic and policy constraints to implementing NDCs and identify opportunities to further strengthen NDCs.
- ***Enhancing systematic policy actions to drive climate impact:*** IDA18 has so far made considerable progress in increasing use of DPOs for climate co-benefits. To further integrate climate considerations into national policy actions to make profound impacts, support could be scaled up in promoting fiscal and sectoral policy reforms that systematically address climate change challenges and support implementation of countries’ mitigation and adaptation targets set out in the NDCs.
- ***Increasing focus on adaptation and resilience:*** Due to the rising magnitude of climate impacts on the developing countries, the need for increased climate adaptation actions is apparent. Building on the existing climate and disaster risk screening commitment, systematic support for addressing climate risks both within and across sectors can be

further strengthened. This includes improved climate data, access to just in time information, next generation tools and instruments, and tailored advisory support to integrate climate adaptation and resilience measures in project design.

- To address increasing demand for climate adaptation and resilience actions, a new WBG plan will be developed to address these fundamental needs: (a) the need for improved analytics that link climate impacts to fundamental growth, poverty and sustainability objectives; (b) more systematic climate risk management approaches that look across institutional, policy, and behavioral gaps as well as financial ones; (c) strategies for scaling up private sector investments and blended finance following the MFD approach; and (d) building partnerships ranging from improving data to introducing innovative climate financing instruments; and (e) approaches to measuring the extent to which WBG projects build adaptive capacity and strengthen resilience within countries, beyond the adaptation co-benefits.
- IDA18 has seen strong progress in supporting adaptation and resilience by increasing climate adaptation co-benefits from US\$2.1 billion in FY17 to US\$3.8 billion in FY18. Innovative programmatic approaches to address climate risks and opportunities have been put to practice, including through successful landscape approaches in Ethiopia and Mozambique that demonstrate good practice in cross-sectoral programmatic approaches to addressing the water-food-energy security nexus of climate impacts. Regional approaches, from the WACA ResIP project highlighted above to the Lake Chad Recovery Project, have been effective to address complex climate-related issues at scale. Together, these national and regional uses of IDA financing to strategically scale up climate adaptation in IDA countries highlight a pathway forward for accelerating adaptation action in the world's poorest countries. In scaling up adaptation actions, there will be a need for increased finance dedicated to adaptation and resilience.

60. **IDA's continued focus on climate change will go hand in hand with the overall WBG initiative to set post-2020 climate targets and actions to achieve higher ambition and bigger impact.** Strategic shifts towards more focus on outcome-oriented targets rather than input-based targets, systemic country level impacts in addition to project level impacts, a stronger emphasis on longer term development paths, an increased focus on adaptation and resilience, and a further scaling up of private sector finance and leverage will be key goals. The WBG will announce updated climate actions and targets at COP24 in December, including a focus on supporting IDA countries and enhancing climate adaptation and resilience. Setting the updated climate targets and actions will help inform IDA planning for enhanced climate change support that aims to deliver even greater ambition to address climate change and drive the required far-reaching transformation to achieve a better adapted and mitigated world.

Annex 1: Climate Smart Design Examples in Recent IDA Operations

1. Climate considerations are increasingly being reflected in lending operations through innovative design approaches to resilience. A few examples are presented below.

West Africa Coastal Areas Resilient Investment Project (WACA ResIP)

2. In West Africa, one third of the population resides along the coast and is increasingly vulnerable to the effects of climate change such as Sea Level Rise, persistent inundations and increased storm surges and intense rainstorms. These climate change effects are expected to further exacerbate erosion and coastal flooding that already threaten the coastal population and the assets. Every year, an average of 500,000 people in the region are affected by floods and aggravated coastal erosion, and suffer significant economic losses. Highest rates of erosion (in the order of 10 m per year or more) occur near river mouth and harbor jetties, that is, in the most urbanized areas.

3. The Nationally Determined Contributions (NDCs) of the countries in western Africa identify climate change risks in the coastal areas and highlight the need for coastal zone management including conservation of coastal natural resources, and actions to address sedimentary imbalance to reduce erosion.

4. The WACA Resilience Investment Project (WACA ResIP) is a multi-country regional project that will support the strengthening of resilience of coastal communities and assets in six western African countries – Benin, Côte d’Ivoire, Mauritania, São Tomé and Príncipe, Senegal, and Togo. These six countries, covering approximately 2,186 km of coastline, have particularly vulnerable coastal areas (erosion, flooding, pollution). The World Bank provided financial and technical resources to develop Multisectoral Investment Plans (MSIPs) that provided a prioritized list of physical and social investments, as well as for policy and institutions at the national level and estimated the financing need for coastal protection in six countries at US\$1.5 billion.

5. The WACA project design responds to the need for harmonized and mutually supportive coastal zone management at a regional level to avoid negative ‘spill-over’ effects between countries, interventions at policy and institutional levels, demand for physical and social investments at local level, and assistance for establishment of integrated support systems, such as coastal observation and early warning for informed decision-making.

6. To address the imminent risks of floods and erosion the project will finance nature-based and hard-infrastructures, which may include dune fixation, construction of breakwaters, seawalls, management of natural habitats, rehabilitation and management of natural flood areas and sustainable land management practices in transboundary sub-watersheds.

7. The project puts direct focus on the vulnerable communities and will support community-driven climate resilience planning. The project will support participatory risk assessments and dialogue on respective adaptation options, as a basis for expected future risks and long-term adaptive measures. For high-risk communities, dialogues on the possible need for planned relocation will be undertaken and in certain cases, the project may provide financing to assist with such planned relocation of persons at high risk.

8. Climate change adaptation co-benefits in this project amount to US\$190 million (100 percent), while GHG emission reductions are estimated to be at 4.5 million tons of CO₂e over 20 years.

9. The project will use WACA platform as a mechanism to replicate the most successful investments, thus generating adaptation benefits beyond the end of the project. The platform is expected to leverage and crowd-in financing so that effective coastal resilience practices and investments can be replicated and up-scaled in all 17 West African countries.

Nepal Modernization of Rani Jamara Kulariya Irrigation Scheme - Phase 2

10. Climate projections for the region suggest that rainfall is likely to intensify in flood-prone areas, while water-scarce regions become even more drought prone and unproductive. The project area is prone to flooding during the monsoon period, with a dry winter. Floods are caused either by overflow of surrounding rivers or by an inadequate discharging capacity of drainage canals.

11. To protect from flood due to overtopping of the Karnali River, the project will continue to build protection works along the banks of the Mohana and Pathariya Rivers, to reduce damage to farm land and crops. The project will also finance water control works at the community level, thus reducing water conveyance and distribution inefficiencies, which helps adapt to climate change, especially during drought periods. Through training activities, farmers will be able to plan to control water distribution both in the monsoon and winter periods. As the project will finance irrigation system improvements, farmers will no longer need to use expensive pumped water during winter time.

12. The project will also support a value chain approach to sustain agricultural production through the promotion of climate-smart agriculture and livestock practices, postharvest support, farmer training, production and block demonstrations, Farmer Field Schools, and other adaptive processes. The agricultural activities will be aligned with the Agriculture Development Strategy by focusing on high-value crops, taking advantage of the irrigation improvements. Climate-smart agricultural practices will include the use of short-duration/drought-tolerant cultivars, mulching, mixed cropping, crop diversification, and drip irrigation, particularly for banana and vegetable cultivation.

13. Project support will also include the provision of subgrants in two subcategories: (a) competitive learning and adaptive research grant and (b) performance-based technology adoption support. The competitive research grants will finance simple action/adaptive research that will lead to the identification of new innovations that are climate smart and efficient within the lifetime of the project.

14. From an IDA committed amount of US\$66 million, US\$29 million have been counted toward adaptation co-benefits, while US\$21 million have been counted toward mitigation co-benefits, resulting in US\$50 million in climate co-benefits overall (76 percent of IDA committed amount).

Malawi Shire Valley Transformation Program

15. The project is located in a high poverty incidence area (above 80 percent), with increasingly frequent droughts and floods, which pose a persistent threat of famine. Natural resources, such as forests, biodiversity and fisheries are under severe threat and the loss and degradation of these resources threaten to exacerbate vulnerability, reduce resilience to climate shocks and diminish the provision of environmental services in the watershed.

16. To consider and address these risks, technical studies, notably the hydrology analysis, has taken into account the long-term trends and projections for run-off and water demand; as well as the modelling of flood risk for cropped areas. Flood prone areas, with an estimated flood return period of more than 1 in 10 years, have been largely excluded from infrastructure development for the irrigation scheme. Sustainable NRM investments are included to mitigate climate risks (such as actions to address land degradation and protect upslope watersheds in conservation areas) and to assist local communities to adapt to risks associated with weather shocks and longer-term climate risks (such as the investments proposed for the Elephant Marshes).

17. Water productivity is a key consideration in the design of a climate-smart system; and improvements in water use efficiency are foreseen in the development pathways as the cooperative farms evolve and engage in higher value cropping, particularly fruticulture. The maximum abstraction from the river is fixed by the capacity of the feeder canal. The project will introduce volumetric metering and charges at block level; and will facilitate optimum in-field irrigation design. With incremental improvements in irrigation efficiency, the security of supply can be increased and costs for a Phase 2 area can potentially be reduced.

18. From an IDA committed amount of US\$160 million, US\$94 million have been counted toward adaptation co-benefits, while US\$6 million have been counted toward mitigation co-benefits, resulting in US\$100 million in climate co-benefits overall (63 percent of IDA committed amount).

Burundi Landscape Restoration and Resilience Project

19. With climate change, the frequency and intensity of severe meteorological and hydrological events are likely to continue escalating, amplifying the risks of further soil erosion and crop yield reduction. The project aims at promoting proactive investment in building a resilient landscape with sustainable land management (SLM) practices. The project will use a community-led landscape approach, that is, an integrated approach to sustainably manage land and water resources for multiple purposes and functions. Managing natural resources in an integrated way across different land uses and connecting them at the landscape level (colline, watershed) provides the basis for addressing trade-offs and enhancing people's livelihoods, security, and resilience to climate variability and change.

20. The project will construct over 7,800 ha of terraces on degraded hillsides and strategically augment vegetation cover at critical points in the landscape to prevent soil erosion, increase soil moisture, and reduce surface runoff. The outcome is expected to strengthen resilience to climate change risks, reduce river sedimentation and flood risks, and enable recovery of agricultural lands.

The project will also support farmer groups to protect topsoil, recover their soil fertility, and intensify crop production through SLM practices, including year-round production of micronutrient-rich foods. In building the capacity of the farmers to improve soil fertility and intensify their crop production, the project will make use of the FFS approach and through better access to improved seeds and seedlings of a large range of food crops, tree crops, soil stabilizing grasses, and fodder crops. Improved seeds include drought-resistant varieties to help farmers adapt to climate change-induced drought.

21. From an IDA committed amount of US\$30 million, US\$15 million have been counted toward adaptation co-benefits, while US\$12 million have been counted toward mitigation co-benefits, resulting in US\$27 million in climate co-benefits overall (91 percent of IDA committed amount).

Annex 2: Use of Innovative IDA18 Instruments and Special Windows

1. Across operations, increasing use of innovative IDA18 instruments and special windows is starting to drive transformative climate actions on resilience building and low carbon growth.

2. Novel funding mechanisms and approaches spearheaded under the IDA18 framework enable task teams to access scaled-up levels of finance and pioneer new solutions for greater climate action and impact. While some projects are still in planning and design phases, they demonstrate that the groundbreaking IDA18 framework – with new financing windows and significant scale up – is facilitating greater engagement on WBG Climate and Energy goals, and the piloting of unique answers to the most pressing challenges in IDA countries by helping to do things differently.

3. Good early stage examples have emerged in FY18, expected to enable transformational results over the remainder of IDA18 and beyond – including:

- **Private Sector Window (PSW) to facilitate renewable energy across Pacific Islands**
 - *US\$50 million Risk Sharing Facility (RSF)* with plans for PSW to provide a US\$5 million first loss layer in support of scaling up efficient & renewable energy investments up to 17.5MW across the Pacific islands region – helping reduce service costs, improve reliability of infrastructure, increase renewable energy capacity, and avoid GHG emissions: providing 110,000 people with access to new or improved infrastructure.
- **Scale-up Facility (SUF) support for resilience building and low carbon growth**
 - *US\$100 million Nigeria Erosion and Watershed Management Project (NEWMAP)*, integrated with US\$300 million from IDA18, to reduce vulnerability and support resilience building in degraded sub-watershed, by adopting innovative, integrated and holistic approaches based on community participation, including disaster risk management and encouraging private sector financing. The project promotes low-carbon initiatives and contributes 100 percent to climate co-benefits.
- **Regional support to expand solar energy development in West Africa**
 - *US\$21 million to West African Power Pool (WAPP) for Solar Development in Sub-Saharan Africa Project – Phase 1 (Sahel)*, to promote a regional approach and capacity to the deployment and integration of competitively-procured, cost-competitive large-scale solar generation – to lower cost of electricity, improve renewable energy capacities, and increase solar contribution to the energy mix. This responds directly to the ambitious 1 GW target of the Africa Climate Business Plan (ACBP) launched by the WBG at COP21.
- **Crisis Response Window (CRW) helping address acute climate disasters¹⁵**
 - US\$50 million provided for Dominica – to support efforts assisting the country rebuild in the hurricane aftermath, and helping strengthen climate change adaptation and mitigation as well as disaster risk management capacity:

¹⁵ All past recipients of CRW have Disaster Risk Management (DRM) operations in place in the post-CRW period.

- *Emergency Agricultural Livelihoods and Climate Resilience Project* benefitting close to 5,000 farmers and fisherfolk, with particular focus on rural women; and
- *Housing Recovery Project* to increase capacity and manage risks from natural hazards and climate change, including recovery of housing and application of resilient building practices – expected to benefit 12,000 households.

Annex 3: Stronger Integration of NDCs in SCDs and CPFs

1. IDA18 commitments enabled the integration of climate change considerations into SCDs and the inclusion of NDCs in both SCDs and CPFs. While 100 percent of FY18 SCDs and CPFs have achieved compliance on climate change considerations and NDC references, there are good examples of going beyond compliance:

- **Tanzania's SCD** established a growth strategy that is resilient to climate variability as a means of achieving sustainable and inclusive growth. The Tanzania's CPF emphasizes a more sustainable growth strategy, and offers a solid foundation on which the World Bank can mainstream climate considerations in its lending operations and maximize co-benefits. The CPF recognizes Tanzania's high vulnerability to the effects of global climate change and makes explicit links to the role of adaptation as a key focus area in the country's national development strategies and its NDCs. Tanzania's CPF also successfully incorporates climate change related indicators and intervention logic in its results framework, covering sectors vulnerable to climate change.
- **Guinea's CPF** seeks to increase the resilience of Guinea's population to climate-related threats and vulnerabilities, which includes specific support to helping Guinea implement and monitor the implementation of its NDCs. The CPF places a strong emphasis on the country's NDC commitments, with explicit references in the Results Monitoring Matrix under the Intervention Logic and Results Indicators. This CPF indicates that the Bank will follow a systematic approach to maximize climate co-benefits in its investments and policy reforms under the DPO series, as well as design operations and provide IDA resources to promote climate-smart practices, particularly in agriculture.
- **Zambia's SCD** illustrates that the twin goals cannot be achieved without tackling the impacts of climate change. The narrative on climate change strategically stresses the impacts of climate change on GDP, the main economic growth pillars identified in the diagnostic, the risks to achievement of prosperity and inclusive growth, and the sustainability of growth. It also makes explicit linkages to the NDCs in addressing climate change impacts through key sectoral adaptation and mitigation actions. The SCD also prioritizes climate change as a binding constraint that the Government will need to urgently address in the next 5-7 years at a policy level. The ability to tackle climate change issues are highly correlated with governance/ institutional weaknesses and this link is made quite prominently in the Zambia SCD.

Annex 4: Results Measurement System (RMS) Climate Change Indicators (FY17-18)

RMS Indicators	FY17	FY18
<i>Tier 1</i>		
• Population exposed to harmful air pollution (PM2.5) (%)	99.9 (2015)	99.9 (2016)
• Average annual deforestation change (%)	0.49 (2015)	0.49 (2015)
• CO2 emissions (metric tons per capita)	0.53 (2013)	0.53 (2014)
• Annual freshwater withdrawals, total (% of internal resources)	7.1 (2014)	7.1 (2014)
<i>Tier 2</i>		
• Countries supported towards institutionalizing disaster risk reduction as a national priority with IDA support	N/A	39
• Generation capacity of renewable energy (GW)	N/A	6.0 GW ¹⁶
• Net GHG emissions	-7.4 million tCO2eq	-5.2 million tCO2eq
<i>Tier 3</i>		
• IDA-supported operations with climate change co-benefits (#, US\$ billions)	134 operations, US\$3.4 billion	134 operations, US\$6.8 billion
• Completed ASA products that address climate change issues	101	85/29 (FCS)
• IDA US\$ commitments with disaster risk management co-benefits.	US\$2.9 billion (FY15-FY17 average)	US\$ 2.8 billion/US\$ 0.4 b in FCS (FY16-FY18 average)

¹⁶ This indicator has been aligned – in terms of definition and target – with the IDA18 policy commitment to “support the addition of five GW in renewable energy generation”, and RMS value is therefore reported for operations delivery as of end-September 2018. Of the 6.0 GW reported, 0.8 GW were provided through direct financing; the additional 5.2 GW were supported through indirect financing.