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LESSONS IN MULTILATERAL EFFECTIVENESS

Pulling Together: The Multilateral Response to Climate Change

VOLUME II | Multilateral Organisation Profiles

MOPAN

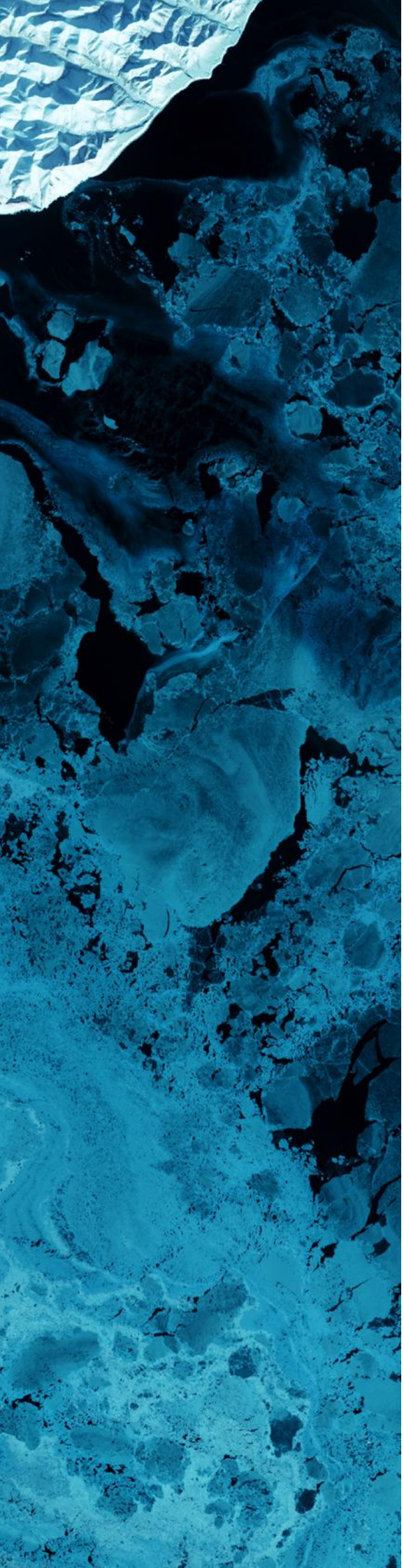

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TABLE OF CONTENTS

BOXES, TABLES, & FIGURE

BOXES, TABLES, & FIGURES

BOXES, TABLES, & FIGURES

ACRONYMS AND ABBREVIATIONS

AAAI	African Agriculture Adaptation Initiative
ADB	Asian Development Bank
AE	Accredited Entities
AF	Adaptation Fund
AfDB	African Development Bank
AFOLU	Agriculture, Forestry and Other Land Use
AICCRA	Accelerating the Impact of CGIAR Climate Research for Africa
ASAP	Adaptation for Smallholder Agriculture Programme
ASEAN	Association of Southeast Asian Nations
AU	African Union
CBIT	Capacity-building Initiative for Transparency
CCA	Climate Change Adaptation
CCAFS	Climate Change, Agriculture and Food Security Research Programme
CAP	Climate Action Plan
CCAP	Climate Change Action Plan
CCF	Climate Change Fund
CCMA	Climate Change Mitigation and Adaptation
CCRIF	Caribbean Catastrophe Risk Insurance Facility
CCS	Climate Change Strategy
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CGIAR	Consultative Group on International Agricultural Research
CIF	Climate Investment Funds
C-NET	Climate Impact Assessment Network
CO_2e	Carbon Dioxide Equivalent
COP	UN Climate Change Conference of the Parties

COSOP	Country Strategic Opportunities Programme
CPF	Country Partnership Framework
CPS	Country Partnership Strategy
CRA	Climate Risk Assessment
CRGE	Climate Resilient Green Economy
CRP	Climate Risk Profile
CsA	Climate-smart Agriculture
CTCN	Climate Technology Centre and Network
CTF	Clean Technology Fund
DAG	Development Assistance Group
DEO	Development Effectiveness Overview
DFID	Department of International Development of the United Kingdom
DMC	Developing Member Country
DPL	Development Policy Loan
DRM	Disaster Risk Management
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
ESAP	Environmental and Social Assessment Procedures
FAO	Food and Agriculture Organisation of the United Nations
FIP	Forest Investment Program
FSAP	Financial System Assessment Programme
G20	Group of 20
GCF	Green Climate Fund
GCIP	Global Cleantech Innovation Programme
GEF	Global Environmental Facility
GEO	Global Environmental Outlook Report
GGWI	Great Green Wall Initiative
GHG	Greenhouse Gas
IA	Implementing Agency
ICARDA	International Centre for Agricultural Research in the Dry Areas
IDB	Inter-American Development Bank
IDBG	Inter-American Development Bank Group
IDDRI	Institute for Sustainable Development and International Relations

IDFC	International Development Finance Club
IED	Independent Evaluation Department (ADB)
IEMP	International Ecosystem Monitoring Partnership
IEU	Independent Evaluation Unit
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IFI	International Financial Institution
IMF	International Monetary Fund
INDC	Intended Nationally Determined Contributions
IP	Impact Programme
IPCC	Intergovernmental Panel on Climate Change
IRENA	International Renewable Energy Agency
IRM	Initial Resource Mobilisation
LAC	Latin America and the Caribbean
LDC	Least Developed Country
LDCF	Least Developed Country Fund
LED	Low-emissions Development
LNG	Liquefied Natural Gas
LTS	Long-Term Strategies
LULUCF	Land Use, Land Use Change and Forestry
MDB	Multilateral Development Banks
MENA	Middle East and North Africa
MFF	Multi-Tranche Financing Facility
MIE	Multilateral Implementing Agency
MIGA	Multilateral Investment Guarantee Agency
MLF	The Multilateral Fund
MO	Multilateral Organisation
MOPAN	Multilateral Organisation Performance Assessment Network
MPA	Multiphase Programmatic Approach
MRV	Measuring, Reporting, and Verification
MS	Multilateral System
MTS	Medium-Term Strategy
NAMA	Nationally Appropriate Mitigation Actions

NAPA	Nationally Appropriate Plans of Action
NAZCA	UNFCCC Non-state Actor Zone for Climate Action
NDB	New Development Bank
NbS	Nature-based Solutions
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organisation
NRM	Natural Resource Management
OECD	Organisation for Economic Co-operation and Development
PSF	Private Sector Facility
PMR	Partnership for Market Readiness
PPCR	Pilot Programme for Climate Resilience
PPP	Public-Private Partnership
PSAG	Private Sector Advisory Group
PV	Photovoltaic
REDD+	Reducing Emissions from Deforestation and Forest Degradation in
SAB	Sustainability Awareness Bond
SCCF	Special Climate Change Fund
SDGs	Sustainable Development Goals
SDPF	United Nations Sustainable Development Partnership Framework
SECAP	Social, Environment and Climate Assessment Procedures
SEFA	Sustainable Energy Fund for Africa
SIDS	Small Island Developing State
SLM	Sustainable Land Management
TA	Technical Assistance
UNCCC	United Nations Convention on Combatting Climate Change
UNDP	United Nations Development Programme
UNDS	United Nations Development Systems
UNEA	United Nations Environment Assembly
UNECA	United Nations Economic Commission for Africa
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organisation
UNSDCF	United Nations Sustainable Development Country Framework

UNSG	United Nations Secretary General
VF	Vertical Funds
WB	World Bank
WBCSD	World Business Council for Sustainable Development
WBG	World Bank Group
WHO	World Health Organisation
WMO	World Meteorological Organisation
WRI	World Resources Institute
WRM	Water Resource Management
WWF	World Wildlife Fund
WWUS	Water and Urban Infrastructure Services

1. ASIAN DEVELOPMENT BANK

1.A How is the ADB responding to climate change?

1.A.1 How does ADB adhere to the normative frameworks of the 2030 Agenda and Paris Agreement?

ADB's forty-nine developing member countries (DMC) include many small Pacific islands. It subscribes to the principles of the 2030 Agenda, which launched the sustainable development goals (SDGs), and the Paris Climate Agreement, both approved in 2015. Its most recent corporate strategy, Strategy 2030, published in July 2018, states, "given the size of Asia and the Pacific, achieving major global commitments – such as the SDGs, the related Financing for Development agenda, the Paris Agreement on climate change and the Sendai Framework for Disaster Reduction – will depend critically on the region." Strategy 2030 sets the course for the ADB to respond effectively to the region's changing needs and reaffirms the alignment of its aspirations with major global commitments.[1]

Climate change specialists confirm that the SDGs and Paris Agreement have spurred external support to ADB's DMCs and improve internal processes and systems to better track and report climate finance. They have also enabled the implementation of ADB's Climate Change Operational Framework 2017-30, which provides guidance for all cross-departmental sector and thematic groups on strengthening climate actions and operationalising ADB's commitment to provide at least USD 6 billion a year in climate change finance from its own resources by 2020. The framework also provided a critical input for developing ADB's operational priorities for 2030, framed in its Strategy 2030, which included tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability, one of its seven operational priorities for which an operational plan for 2019-24 was issued in September 2019.

1.A.2 How do ADB responses to the climate change crisis cohere with the MS?

Collaboration with other MOs, organisations and initiatives

ADB collaborates on climate change with other MOs, including the WBG, EIB, UNEP, GEF, and GCF in several ways. ADB and the WB, for instance, are co-users of the Climate Investment Funds (CIFs) for selected countries in Asia and the Pacific, undertake joint programming missions to eligible countries, and provide guidance for preparing their respective investment programmes for using these concessional resources. The two institutions then divide up responsibilities for overseeing the use of these funds to co-finance specific investment projects, which are often co-financed with regular resources. In India, for example, the Clean Technology Fund (CTF) provided financial resources for 13 projects between July 2013 and January 2019. The ADB manages five of these projects, which are of varying sizes.[2] ADB and the WBG (i.e. including IFC) have also jointly used the CTF resources for seven projects in Indonesia and for two managed by ADB: three projects were financed with grants from the Forest Investment Programme (FIP) and one was managed by ADB.

ADB and the WBG recently prepared jointly *Climate Risk Country Profiles* for all Asian and Pacific DMCs. The foreword defines its aim to, "facilitate upstream country diagnostics, policy dialogue, and strategic planning by providing comprehensive overviews of trends and projected changes in key climate parameters, sector-specific implications, relevant policies and programmes, adaptation priorities, and opportu-

1 ADB, Strategy 2030: *Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*, Manila, July 2018.

2 See also, *ADB and the Climate Investment Funds: Climate Change Innovation and Action in Asia and the Pacific*, Manila, January 2014.

nities for further actions."[3] Another example of MO co-operation is the recently-announced collaboration between ADB and EIB for a clean and sustainable oceans partnership that, "provides a framework for ADB and EIB to expand inter-institutional co-operation and investments in ocean health and sustainable blue economy."[4]

ADB is also an IA for the GEF and the GCF. In June 2013, ADB already listed 19 GEF-financed operations in the climate change focal area (FA) – some jointly with the biodiversity FA – in its active or completed project portfolio, with three others for sustainable forest management. Some of these were for mitigation and others were for adaptation/resilience-building. Three were broadly regional in nature; another seven were sub-regional, including three operations for the Greater Mekong Sub-region and two for the Coral Triangle Initiative.[5],[6] The rest were for individual countries: China (four projects) and Bangladesh, India, Indonesia, Mongolia, Nepal, the Philippines, and Vietnam (one project each). Among these initiatives, the Pilot Centre to Facilitate Climate Technology Investments is one of the most interesting in terms of partnership. The project was financed in part with a GEF grant implemented jointly by ADB, UNEP, and several other agencies. ADB is also an accredited IA for twelve GCF projects, half of which are for parts of the Pacific Region and the other half are for Cambodia, China, Lao, Malaysia, Mongolia, Pakistan, Philippines, and Tajikistan. The first of these was approved in November 2015, and the most recent was approved in March 2021. Both the number and GCF commitment amounts for these projects have increased over time, and the focus has been on investments at scale compared to predominantly technical assistance (TA) funded through the GEF.

ADB actively participates in the working groups of several joint multilateral development banks (MDB) on climate-related matters and presently chairs the principle climate change working group. Along with other MDBs, it also has a strong working relationship with the International Development Finance Club (IDFC), founded in 2011 to generate more efficient development support, including to mainstream climate-related actions, and now involves roughly fifty-two national and international finance institutions. According to ADB climate change specialists, the Global Centre on Adaptation and the Asia Pacific Adaptation Network are also important partnerships, as are continuing partnerships with international environmental organisations such as the World Resource Institute (WRI) and the World Wildlife Fund (WWF), among others, because of their shared vision of promoting low-carbon climate-resilient development. ADB likewise works with regional organisations on climate change issues, including the Central Asia Regional Economic Co-operation Programme, the Association of Southeast Asian Nations (ASEAN) on green finance and the South Asia Cooperative Environment Programme to promote dialogue on green and resilient COVID-19 recovery, which also advances the achievement of the NDCs. It is also collaborating with the Japanese Ministry of Environment on its Asia-Pacific Adaptation Information Platform, a one-stop-shop for adaptation-related information. Finally, several new partnerships are expected to further enhance the exchange of technical knowledge in the region, including InsuResilience, the Alliance for Hydromet Development, the Initiative on Fluorocarbons Life Cycle Management, the Coalition for Climate Resilient Investments, and the Coalition for Disaster Resilient Infrastructure.

3 As of February 2021, joint profiles have been published for Afghanistan, Maldives, Nepal, Sri Lanka, and Viet Nam. Finalised drafts are available for China, India, Indonesia, and others.

4 "ADB, EIB Join Forces to Protect Oceans, Support the Blue Economy," Manila, 15 January, 2021.

5 The Greater Mekong Sub-region is composed of Cambodia, Laos, Myanmar (since 2015), Thailand, Vietnam, and Yunnan Province and Guangxi Zhuang Autonomous Region in China.

6 The CTI, established in 2009, is a multilateral partnership of six countries (Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, and Timor Leste) to sustain threatened marine and coastal resources by addressing issues such as food security, climate change, and marine biodiversity, for which ADB, as IA, and GEF, have provided substantial support.

Co-ordination mechanism effectiveness

The effectiveness of these joint activities is difficult to assess because some are quite recent. However, an independent evaluation of the CIFs recognises their role in strengthening MDB partnership.[7] According to ADB, these exist because each participating MO, and other institution, brings its own comparative advantage to strengthen the activities involved. For the CTF, FIP, GEF, and GCF, for instance, these are sources of concessional finance for climate change-related investments; the ADB, the WBG, and other implementing agencies have vast experience designing and supervising investment and TA operations, technical capacity, country knowledge, and in-country presence, all of which contribute to the relevance and the delivery of the outputs, and to achieving the desired outcomes associated with these operations. The joint CIF programming and climate risk profiles also draw on both ADB's and the WBG's technical capacity regarding climate change and their country presence and knowledge, and associated technical and institutional contacts, while collaborations like the one recently announced between ADB and EIB also draw on their respective comparative advantages. These partnerships have a positive influence on ADB's work by adding concessional resources (as "sweeteners") to its regular investment operations and enhancing its own technical and operational capacity to help DMCs with their climate change mitigation and adaptation (CCMA)/resilience-building activities. The MDB working groups on climate change and climate finance are considered highly effective by ADB climate change specialists, who confirm that their participation in them has increased their leverage within ADB.

The Asia-Pacific climate technology finance centre is similar. In this instance, however, it is possible to have a better sense of the partnership's effectiveness. ADB's support was provided through a cluster TA project with five sub-projects for which a project completion report was subsequently issued. The project was evaluated as "highly relevant" to ADB's *Strategy 2020* and UNFCCC's strategic actions on climate change and "effective." Its outcome was also assessed as being "likely sustainable" because "strong interest from governments, relevant institutions, the private sector, and ADB operations departments to pursue climate technology investments had been established."[8] An earlier ADB evaluation observed, on the other hand, that the centre's mandate had "been difficult to implement."[9]

1.A.3 How has greater global attention to climate change affected ADB's work?

Targets

ADB has adopted specific targets for the volume and composition of its climate change-related interventions. According to *Strategy 2030*, ADB will scale up its support for this priority and, "ensure that 75% of the number of its committed operations (on a three-year rolling average) will be supporting climate change mitigation and adaptation by 2030." It projected that "climate finance from ADB's own resources would reach USD 80 billion cumulatively from 2019 to 2030." Previously, ADB had also set short-term lending targets for CCMA. In the run-up to the Paris Agreement, it pledged to double its annual lending for climate change from USD 3 billion in 2014 to USD 6 billion by 2020, including USD 4 billion for mitigation and USD 2 billion for adaptation. It exceeded the overall target and that for mitigation in 2019 but not for adaptation. It also fell short of its targets in 2020 due mainly to the impact of COVID-19 (see Financial Commitments).

7 ICF International, *Independent Evaluation of the Climate Investment Funds*, World Bank, Washington D.C., 2014.

8 ADB, *Establishing a Pilot Center to Facilitate Climate Technology Investments in Asia and the Pacific – Project Completion Report*, Manila, September 2019.

9 Independent Evaluation Department, *Real-time Evaluation of ADB's Initiatives to Support Access to Climate Finance*, Thematic Evaluation Study, ADB, Manila, May 2014.

Staffing and skills profile

ADB has increased significantly its full-time staff dedicated to climate change activities over the past decade. In 2012, there was a single small unit comprised of three full-time international staff and four local staff whereas today, a full central division integrates climate change mitigation, adaptation, and disaster risk management (DRM). In addition, each of ADB's five regional operations departments has climate "focal persons" and private sector operations also has one. Despite this growth in staffing, this contingent is considered insufficient to meet the growing scope and complexity of issues to be addressed in the DMCs in Asia and the Pacific.

Financial commitments

ADB's total climate finance rose from USD 2.9 billion in 2015, of which roughly USD 2.6 billion was for mitigation (87.8%) and USD 356 million for adaptation (12.2%), to close to USD 7.1 billion in 2019, of which USD 5.5 billion (67.9%) was for mitigation and USD 1.5 billion (32.1%) for adaptation, according to the *Joint MDB Climate Finance Reports* for those two years.[10] This indicates both a significant overall increase in ADB's climate finance and a shift to a greater focus on adaptation over the past half-decade. Overall, ADB's climate finance as a share of its total financial commitments rose from 15% in 2015 to almost 30% in 2019. The significant decrease in climate finance in 2020 is attributed largely to the need to divert ADB financing to help respond to the COVID-19 pandemic. However, other substantial year-to-year variations occurred during the period (see Table 1).

Table 1: ADB climate finance and total finance, 2015-20

Year/Item	2015	2016	2017	2018	2019	2020
ADB climate finance (USD billion)	2.917	4.437	5.234	4.011	7.073	5.326
Mitigation finance/total climate finance (%)	87.8	73.2	80.9	67.9	78.3	85.9
Adaptation finance/total climate finance (%)	12.2	26.8	19.1	32.1	21.7	14.1
Total ADB finance (USD billion)	19.091	20.503	22.710	22.611	23.689	31.477
Climate finance/total finance (%)	15.3	21.6	23.0	17.7	29.9	16.9
Own resources/total climate finance (%)	91.1	84.2	86.7	89.4	90.0	85.8
ADB climate finance/total MDB climate finance (%)	11.6	16.2	214.9	9.3	15.2*	6.8**

Source: Joint MDB Climate Finance Reports, 2015-19 and 2020 Joint MDB Climate Finance Report (forthcoming).

* Based on Figure A.F.1 in 2019 report annex

** Preliminary estimate only

10 The ADB climate finance sector breakdown in 2019 was roughly: (i) transport, USD 3.7 billion; energy, USD 1.4 billion; (iii) water and other urban infrastructure and services, USD 179 million; (iv) finance, USD 121 million; (v) agriculture, natural resources, and rural development, USD 76 million, and (vi) other sectors, USD 89 million. On adaptation, the sectoral distribution was: (i) transport, USD 531 million; (ii) ANRRD, USD 469 million; (iii) water and other urban infrastructure and services, USD 234 million; (iv) energy, USD 175 million; (v) public sector management, USD 75 million; (vi) finance, USD 41 million, and (vi) others, USD 11 million.

Annual variations are important. The climate finance share jumped to 23% of the total in 2017, fell to below 18% in 2018, rose to the new high in 2019, and then declined substantially in 2020. There were also substantial differences in the mitigation versus adaptation shares of ADB's climate finance between 2015 and 2020 and its shares of total MDB climate finance. The share of ADB's own resources compared with managed external (i.e., trust fund) resources in its total climate change finance likewise varied on an annual basis, but on average accounted for around 88% of the total for the period. Altogether, ADB reported administering over USD 1.5 billion in CIF funding for 47 projects in Asia and the Pacific.[11]

How agile and effective is the reaction to greater demand?

Agility and effectiveness are difficult to assess. The effectiveness of ADB's response is particularly difficult to assess as many climate change-related operations are still being implemented. In general, however, ADB is quite responsive to country client demand, as can be seen with respect to the allocation of its Climate Change Fund (CCF) grant resources, which, however, represents only a small share of ADB's total climate change finance. Established in May 2008, the CCF received USD 74 million in ADB resources as of mid-2018, of which USD 65.2 million were allocated to ninety-nine projects, forty for clean energy development, forty-eight for adaptation, ten for REDD+ and land use, and one for climate finance readiness. A recent independent evaluation department's (IED) evaluation found that single country resources from the CCF had gone primarily to the People's Republic of China (China), often for quite innovative pilot activities such as establishing local emissions trading systems in Shanghai and elsewhere. For the most part, ADB staff assessed these initiatives positively on their completion, even though they had often involved significant implementation delays.[12] Demand for climate change-related support varies substantially from one DMC and one ADB regional department to the next; PRC is a positive outlier in this regard.[13]

1.B How have ADB organisational strategies, activities, and resource plans incorporated climate change?

1.B.1 Organisational strategies

ADB's principal commitments to climate change are described in its corporate strategies. *Strategy 2020*, issued in mid-2008 for the following decade, and *Strategy 2030*, released in July 2018, made before and after the 2030 Agenda/Paris Agreement possible.[14] Strategy 2030 is operationalized for 2019-24 through operational plans for its seven thematic priorities. The third of these priorities – tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability – was published in September 2019. In July 2017, ADB had issued a climate change operational framework 2017-2030 on which operational plan 3 is largely based.[15] In 2013, ADB had issued environmental operational directions in which addressing climate change was a crosscutting element.[16]

11 ADB, *The Asian Development Fund and the Climate Investment Funds: Country Fact Sheets*, Manila. 2016.

12 IED, *Climate Change Fund*, 2008-2019, Performance Evaluation Report, ADB, Manila, 2020.

13 IED is now undertaking a broader evaluation of ADB's climate change support, including ten country case studies, including for India and Indonesia, and an examination of both its sovereign and non-sovereign climate change portfolios, but the results of this assessment will not be available until later this year. See IED, T*hematic Evaluation: ADB Support for Action on Climate Change*, 2011-2019, Draft Evaluation Approach Paper, Manila, August 2020.

14 ADB, *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank*, 2020-2030, Manila, 2008.

15 ADB, *Climate Change Operational Framework 2017-2030: Enhanced Actions for Low Greenhouse Gas Emissions and Climate-Resilient Development*, Manila, July 2017

16 ADB, *Environmental Operational Directions 2013-2020: Promoting Transitions to Green Growth in Asia and the Pacific*, Manila, 2013.

Strategy 2030, operational plan 3, and the climate change operational framework represent considerable steps forward at corporate level regarding ADB's intentions for addressing climate change, particularly in its greater focus on adaptation and vulnerability reduction. It links its assistance here with DRM and recognises the need to move beyond "climate-proofing" infrastructure in its efforts to help DMCs strengthen their resilience to climate change. Strategy 2020, by contrast, was primarily focused on climate change mitigation with a strong emphasis on the energy sector.[17] Even before the Paris Agreement, however, the concentration on mitigation had begun to shift to a greater focus on adaptation, as reflected in the 2013 *Environment Operational Directions* and the 2014 mid-term review of Strategy 2020.[18]

Regarding mitigation, Strategy 2030 states that ADB would scale up its support and prioritise investments for low GHG emission energy, sustainable transport, and urban transportation strategies and also encourage DMCs to shift to a low GHG emission development path in line with their NDCs. ADB would pursue this through the selective use of concessional financing, increased engagement with the private sector, and support for innovative public-private partnerships (PPPs) and by facilitating access to carbon finance through both domestic and international carbon markets. To ensure a comprehensive approach to climate and disaster resilience, ADB would help DMCs develop and implement integrated adaptation and DRM approaches including risk-sensitive land use management, integrated flood risk management, climate- and disaster-resilient infrastructure design, diversification of livelihoods, and strengthening early warning systems. It would also support integration of climate adaptation and DRM into DMC development plans and budgets, capacity development, and access to knowledge, as well as efforts to build back better. Climate change concerns are also increasingly reflected in ADB's Country Partnership Strategies (CPS) and in its regional approach for eleven smaller Pacific Islands.[19]

Organisational changes

In response to recommendations emerging from the mid-term review of Strategy 2020 and the USD 6 billion climate-related lending target, ADB converted its former regional and sustainable development department to the sustainable development and climate change department effective 1 June 2015. This department provides leadership, innovation, and knowledge sharing for ADB's sector and thematic work and technical support to the five regional and private sector operations departments. It also transferred focal responsibility for climate change adaptation (CCA) from the environment and safeguards division to the new department, resulting in greater ADB staff capacity to help address climate change concerns. A cross-departmental thematic group, chaired by the department director, was also established to co-ordinaate climate change-related activities.[20]

17 After Strategy 2020, ADB released an *Energy Policy* in 2009 that also gave significant attention to climate change mitigation by promoting renewable energy and energy efficiency. This policy is presently being revised and updated.

18 ADB, *Environment Operational Directions*, Manila, 2013, ADB, *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and the Pacific*, Manila, 2014 and ADB, *Midterm Review of Strategy 2020 Action Plan*, Manila, 2014.

19 See, for example, ADB, *Country Partnership Strategy for India 2018-2022*, Manila, October 2017; ADB, *Country Partnership Strategy for Indonesia 2020-2024*, Manila, September 2020, and ADB, *Pacific Approach 2016-2020*, Manila, 2017.

20 The CCDRM thematic group was expected to carry out a "systematic and rigorous multi-sectoral review process to provide cohesive and consolidated feedback to the operational departments about climate change risks and opportunities" and, the available resources permitting, to provide "multi-sector expert advice" on climate risks, resilience-building, and low GHG emissions development opportunities "at the country programming, pre-concept, and project preparatory TA stages of project and programme development."

1.B.2 Operational activities

Country level

Over time, ADB has focused its country strategies increasingly on climate change. Concern has risen with adaptation, DRM, and resilience-building. However, details are not included in the four-year CPS *per se* of the specific sovereign and non-sovereign investment and TA projects it plans to support during their implementation periods. IED's ongoing climate change assessment that reviews recent CPS for ten countries and the Pacific region finds the associated results frameworks to be generally weak on climate change and that few contain climate-related indicators, baselines, and targets.[21] The occasional exceptions tend to concern only renewable energy. ADB, however, does present rolling three-year pipelines of new operations in its annually updated, publicly available country operations business plans, but these include no performance indicators.

ADB CPS are based on diagnostic work summarised in linked documents. Until recently, these were largely sector-specific and included an environmental assessment with some climate change-related information and recommendations for ADB support. However, about five years ago, inclusive and sustainable growth assessments replaced these while still including climate change and environmental sustainability-related analysis and suggestions. Although these documents normally provide comprehensive overviews of challenges, issues, and possible ADB responses, there is an apparent disconnect with what appears in the associated CPS, which also respond to DMC demands. Country strategies tend to shy away from politically sensitive policy issues (e.g., cutting fossil fuel or irrigation water subsidies), which may be important from a climate change standpoint, to focus mainly on infrastructure investments (i.e., engineering solutions) and their climate proofing.[22]

Projects and programmes

The evolution of ADB's climate finance over the past half decade indicates a significant increase in absolute and relative terms as well as growing attention to adaptation and resilience-building in lending operations. However, mitigation remains the predominant financial focus. Adaptation, however, is now being increasingly integrated in ADB's agriculture, natural resources, and rural development operations, including those for irrigation, river basin/watershed, flood risk management, and coastal protection; those in the People's Republic of China (China) represent the principal positive example, as IED's evaluations of the CCF and ANRRD revealed.[23] India and China, followed by Bangladesh, Indonesia, the Philippines, and Pakistan, were the top recipients of ADB climate finance between 2011 and 2019. Of this financing, 48 % was allocated to the energy sector, followed by transport (27%), water and other urban infrastructure and services, and agriculture, natural resources, and rural development (9% each), which collectively accounted for 93% of the total.

21 Bangladesh, Fiji, India, Indonesia, Maldives, Mongolia, Pakistan, China, Uzbekistan, and Viet Nam. The Pacific Region consists of eleven SIDS.

22 See, for example, ADB, *Guidelines for Climate Proofing Investment in the Transport Sector: Road Infrastructure Projects*, Manila, August 2011 and ADB, *Guidelines for Climate Proofing Investment in Agriculture, Rural Development and Food Security*, Manila, November 2012 as two examples of the former, and ADB, *Climate Proofing ADB Investment in the Transport Sector: Initial Experience*, Manila, 2014 for the latter.

23 For the CCF evaluation, see IED, *ADB Support for Agriculture, Natural Resources, and Rural Development, Sector-wide Evaluation*, ADB, Manila, October 2018.

Recent ADB regional TA projects are beginning to make relevant contributions, such as Delivering Climate Solutions under operational plan 3 of Strategy 2030, Improved Decision-Making for Climate Resilient Development in Asia and the Pacific, Support to Climate Resilient Pathways in the Pacific, and Enhancing the Readiness of ADB DMCs for Scaled-Up Climate Finance. ADB is also promoting alternative sources of climate finance, as shown in its recent publications on catalysing green finance for the Asia and Pacific region generally and for Southeast Asia specifically (see Box 1).[24]

Box 1. Mobilising green finance in Asia and the Pacific

Numerous "green" products have emerged in financial markets in the past few years — green bonds, green credit, green insurance, green stocks, green standards — propelled by, among others, the Paris Agreement from COP 21, the Agenda 2030 with the SDGs, and the UN's Addis Ababa Financing for Development Action Agenda, all adopted in 2015 and leading to a major focus on green finance. Perhaps the most visible has been the green bonds issuance, with the People's Republic of China as the largest issuer constituting some 33% of the world's total. Green finance is therefore not a single product or activity financing, but rather an entire financial system that must use different instruments to finance a range of activities whether non-revenue water reduction, forestry expansion, or transportation, but all with the single goal of promoting a green economic transformation toward low-carbon, sustainable, and inclusive pathways. Green finance is therefore a "climate change plus" financing approach, linking financing to natural capital, societal, and financial sustainability.

Greening all investments, especially the most crucial infrastructure ones, is particularly challenging given the estimated USD 26.2 trillion of infrastructure financing needs in developing Asia from 2016 to 2030, including CMA costs. On the other hand, the global demand for implementing the SDGs is already at a high USD 5 trillion to USD 7 trillion per annum with a USD 2.5 trillion annual financing gap in developing countries for key infrastructure sectors and related areas: there will be competing demand for global finance flows. Given these finance requirements and an already growing financing deficit per year, the government/public spending approaches must change — not just from the perspective of quantity of funds available, but also in terms of technology innovation, implementation improvements, and management efficiencies — the T.I.M. paradigm — the cost impact of which should be measured over a project's entire lifecycle, not just its capital expenditure period. Green finance therefore must be sought from a larger number of sources and also used more efficiently.

The private sector, critical to meeting the financing deficit, is estimated to contribute anything from 50% on average of the investment gap to almost 90% of green investment, as in the case of the PRC. While a number of countries and development agencies have concentrated on PPPs as the main "private" sector focus, these staggering requirements can only be met through a larger and more proactive effort to catalyse all private sources of finance, especially institutional and retail investors including pension and insurance funds, private debt and equity funds, corporate social responsibility funds, and commercial banks. Pension and insurance funds in Asia already hold about USD 10 trillion in assets, which will grow as sector penetration deepens from a low base. A liquid capital market for green financing is particularly required, as it multiplies access to many institutional funds and investors through both debt and equity instruments, as the UNEP recommendations for building a green finance system in India also noted.

Source: ADB, Catalysing Green Finance, 2017

24 ADB, *Catalysing Green Finance: A Concept for Leveraging Blended Finance for Green Development*, Manila, 2017; ADB, *ASEAN Catalytic Green Finance Facility: An ASEAN Infrastructure Fund Initiative*, Manila, 2019 and ADB, *ASEAN Catalytic Green Finance Facility, 2019–2020 Accelerating Green Finance in Southeast Asia*, Manila, January 2021.

Another proposed new approach involves nature-based solutions (NbS) to building climate adaptation and resilience in rural and urban areas that can also generate co-benefits for biodiversity conservation. ADB is applying this for selected towns and cities in the Greater Mekong Sub-region for example.[25] Some of ADB's biodiversity conservation projects have also included climate change components, as in the Greater Mekong Sub-region.[26] NbS can, moreover, be combined with infrastructure such as in the innovative coastal protection and management programme in India (see Box 2).

Box 2. India's sustainable coastal protection and investment management programme

ADB approved a multi-tranche financing facility (MFF) of up to USD 250 million in September 2010 for the coastal states of Goa, Karnataka, and Maharashtra. Tranche 1 was approved in October 2010 for USD 51.5 million and the second tranche was approved in July 2017 for a USD 65.5 million loan. Tranche 2 was designed to protect 54 km of coastline in three selected coastal districts in Karnataka. The facility may eventually involve four tranches. It targets three outputs: (i) sustainable plans and management for shorelines developed; (ii) coastal erosion and instability managed and reduced, and (iii) enhanced capacity for integrated shoreline planning and development; the latter two are also identified as outputs for tranche 2 were justified by the coastal erosion in Karnataka, which poses a high risk to human wellbeing, economic development, and ecological integrity through the loss of land, infrastructure, and business opportunities. The impact will be much more extensive and widespread in the coming years, with increased sea level rise projections of 0.1 metres over the 25 years from 2015 to 2040. As the economy in Karnataka's coastline grows, conflicts and pressures are likely to develop in the already disturbed natural coastal environments. Similarly, disturbances to beaches and coastal wetlands from climate change impacts can be very significant. Changes in predominant wave directions can also cause instabilities in beaches.

In response, …the investment programme addresses immediate coastal protection needs and coastal instability using environmentally and socially appropriate structural solutions, with a focus on softer options such as artificial reefs, beach nourishment, and dune management. It finances the development of shoreline management plans and information systems and institutional capacities to meet the long-term needs of sustainable coastal protection and management and economically viable coastal erosion protection works. Through the introduction of new technologies for coastal protection, the investment programme aims to protect the coastline from erosion and in so doing enhances income-generating opportunities for coastal communities.

The ADB project officer confirmed that tranches 1 and 2 have been implemented largely as designed, including with substantial local community participation, which was verified in a focus group discussion with project beneficiaries. He also observed that the initial impetus for the second tranche of this facility in part was an earlier ADB-administered GEF project, co-financed by DFID, which among other things produced guidelines for coastal zone management in India, including the use of natural climate adaptation measures. There had also been co-ordination with the World Bank that was supporting a similar project elsewhere in India, and the initial ADB project document confirmed, "The World Bank and ADB worked closely to harmonise interventions for coastal protection in India. The focus of the World Bank's project is on coastal zone management, mapping, and planning, and piloting integrated coastal zone management in the states of Gujarat, Orissa, and West Bengal."

Source: ADB project documents and interview with project officer and focal group discussion, February 2021

25 See ADB, *Nature-Based Solutions for Building Resilience in Towns and Cities: Case Studies from the Greater Mekong Subregion*, Manila, 2016. It includes case studies for Cambodia, Lao PDR, and Viet Nam.

26 See IED, *Core Environment Program and Biodiversity Conservation Corridors Initiative in the Greater Mekong Sub-region*, Performance Evaluation Report, ADB, Manila, December 2018.

Country CRPs reflect ADB's shift in focus

Box 3 provides key messages from the China CRP.

Box 3. China's principal climate risks

Key messages from the China country CRP include:

- The projected temperature increase is expected to be above the global average by the 2090s, especially in some northern and western regions.
- The impacts of hazards and sustained changes will not be evenly distributed and will likely be experienced most strongly by marginalised and asset-poor communities.
- Increased heat stress, compounded by the urban heat island effect, represents a major threat to human health, productivity levels, and energy demand in many of China's megacities.
- The probability of hazards such as droughts, floods, and heat waves is expected to increase and increased loss and damage will be difficult to avoid without significant adaptation efforts.
- There is a significant threat to biodiversity and natural resources without careful planning; adaptation efforts may exacerbate this threat and challenges faced by communities most dependent on natural resources.
- Support for adaptation will be needed from many groups, particularly smallholder farmers who face potential yield losses and species range shifts.
- China's large population of vulnerable and undernourished people will experience increased pressure from climate drivers, particularly in coastal urban conurbations, in regions facing the expansion of drylands and where livelihoods depend on outdoor manual labour.

Source: ADB and WB, CRP for China, 2021

Selected country operations: India and Indonesia

ADB's interventions in many DMCs have a focus consistent with broader trends. For India and Indonesia, the focus in CPS and sovereign lending portfolios has clearly evolved over the past decade from concentrating predominantly on mitigation and infrastructure climate-proofing to a growing concern with adaptation and resilience-building, particularly in the agriculture sector and with respect to water resource management (WRM). Coastal protection has also emerged as a priority (Box 2). While adaptation challenges have also received substantial attention in the most recent CPS for Indonesia, however, this shift is less evident in ADB's recent lending operations despite its significant vulnerability to adverse climate change impacts.

The principal mitigation challenges facing India are to reduce its traditional dependence on fossil fuels, particularly coal, and increase its energy generation from renewable sources, especially solar and wind. India is presently the world's third-largest emitter of GHGs, following China and the United States. Emissions from the energy sector accounted for 68.7% of the total in 2014, of which 49% were from electricity and heat generation and 24% from manufacturing and construction, with much of the rest coming from

transport fuel consumption.[27] Agriculture, with 19.6% of the total, was the second-largest sectoral source with enteric fermentation by ruminants and rice paddies being primarily responsible, while industrial processes, land use, land-use change, and forestry (LULUCF), and waste were responsible for 6%, 3.8%, and 1.9%, respectively in that year. Overall, emissions increased by 180% between 1990 and 2014.[28]

India also has many adaptation challenges, of which ADB is quite aware.[29] Three of ADB's five sovereign climate change projects for India approved between 2016 and 2019 were for adaptation; and a fourth one of the others was the fourth tranche of a Multitranche Financing Facility (MFF), initially approved in March 2006; and the other fifth was for a solar energy transmission project. TOn the other hand, the five most recent non-sovereign projects approved over this period all involved renewable energy generation, particularly solar and wind. Prior to 2016, most ADB climate-related projects, – again including all the non-sovereign ones projects, – in India were for mitigation rather than for adaption or resilience-building except for those involving the "climate-proofing" of infrastructure investments. ADB's increasing focus on adaptation is likewise reflected in its Climate Risk CRP Profile for Indonesia. This report, which included the following key messages: (i) Indonesia is ranked in the top one-third of countries in terms of climate risk, with exposure to all types of flooding and extreme heat,; the whose intensity of these hazards is expected to grow as the climate changes; (ii) Indonesia is also particularly vulnerable to sea-level rise, being ranked fifth highest in the world in terms of the population inhabiting lower elevation coastal zones, and (ii) rice production is likewise particularly vulnerable to climate change as global changes in El Niño patterns are likely to affect the onset and length of the wet season, while higher temperatures are also projected to reduce rice yields.[30]

Indonesia, the tenth-largest contributor to global GHG emissions currently, also faces significant mitigation challenges. As in India, emissions in Indonesia are partly due to the predominance of fossil fuels, particularly coal, for electricity generation. However, they also result from rising deforestation and associated fires to clear land for palm oil plantations. Oil, gas, coal, and palm oil, moreover, are among Indonesia's main exports and thus are of considerable macroeconomic importance. As Indonesia is also seeking to move away from fossil fuels and toward greater reliance on renewable, especially geothermal, energy, this is one of its main challenges going forward. The other is the need to exert greater control over the rising deforestation and fires that are releasing vast amounts of carbon into the atmosphere and generating significant seasonal air pollution affecting Singapore and parts of Malaysia as well. In addition, deforestation and fires drive biodiversity loss and decrease the natural resilience of tropical forest ecosystems, including their ability to rebound and recover their structure and function. ADB's non-sovereign operations have concentrated on developing geothermal energy while its sovereign projects have focused on both mitigation and adaptation concerns, particularly in the energy and agricultural sectors respectively, but greater support for adaptation and resilience-building is still clearly required.

27 In 2014, 75% of India's electricity was generated by coal, 11% by hydropower, 5% by natural gas, 3% each by nuclear and wind, and 2% by fuel oil and biofuels each, although the share of renewables increased subsequently. India is currently the world's second largest coal producer, importer, and consumer after China. However, as coal consumption in China has now plateaued, analysts expected that its use in India would continue and grow rapidly and thus drive increases in global demand for the coming years, according to the March 2019 *Carbon Brief Profile* for India.

28 These figures were largely drawn from USAID, *Greenhouse Gas Emissions in India*, September 2018. More recent figures are not yet publicly available, pending India's submission of its Third National Communication to UNFCCC, which has been under preparation with UNDP-administered GEF support since early 2013.

29 See WBG and ADB, *Climate Risk Country Profile – India*, Washington D.C., 2020.

30 WBG and ADB, *Climate Risk Country Profile – Indonesia*, Washington D.C., 2020. In response, a 2013 ADB regional TA project involving a grant of USD 750 000 CCF and USD 620 000 from the government of Finland has supported the development of climate-resilient rice varieties for water-short areas of South and Southeast Asia including India.

Formulating and implementing NDCs

ADB has pledged in the climate change operational framework (2017) and Strategy 2030 (2018) and associated operational plans for priority area 3 to assist DMCs in formulating and implementing their NDCs. This has included some of the support financed by the CCF, for example the USD 3.0 million TA sub-project for Supporting Ambitious Climate Action through Implementation of DMC's NDCs, approved in March 2019. The project document affirms that ADB's participation in the NDC Partnership, which it joined in November 2017, would help to "co-ordinate and build synergies with similar efforts of other development partners…such as the World Bank and the EBRD….to better define areas where ADB can add value and effectively provide support."[31] ADB is also supporting its DMCs to build their capacity to translate adaptation priorities into investments through NDC Advance.[32]

It should be kept in mind, however, that ADB's financial commitments – and those of the MOs more generally – to countries like India and Indonesia are quite small in relative terms. ADB's most recent CPS for India observes, for example, that in FY15, total external assistance was about USD 9.61 billion, or just 0.46% of GDP, compared with aggregate government investment of 3.9% of GDP. ADB had average lending of USD 2.65 billion per year to India between 2012 and 2016 and proposes a new annual level of between USD 3-4 billion for 2018-22, "subject to resource availability and project readiness." Similarly, for Indonesia, available ADB resources are expected to total USD 10.7 billion for 2020-23, or roughly USD 2.7 billion per year subject to the same constraints.[33]

1.B.3 Measuring the impacts of GHG emissions reduction and adaptation

ADB has presented *ex-ante* estimates of GHG emissions reduced or avoided by investment projects approved over the past decade. Initiated in 2009 when ADB's Safeguard Policy Statement required monitoring GHG emissions from projects emitting 100 000 or more tCO_2e. This information is presented in the respective report and recommendation of the president along with the project's climate risk rating. To cite one example, the report and recommendation for the proposed MFF for the Punjab National Bank for the solar rooftop investment programme in India, issued in September 2016, states that this USD 330 million lending operation would generate an annual reduction of 291 522 tCO_2.[34]

Since March 2014, ADB has also applied climate risk vulnerability assessments requiring all operational departments to screen proposed new investment projects for these risks. More detailed assessments were also mandated for all projects where initial screening identified such risks as significant. ADB staff received guidance on how to undertake such assessments during project preparation. For more in-depth assessments, there is also a requirement to engage consultants with expertise in climate science, climate modelling and research, and in the economic analysis of CCA to support ADB's internal CCA team.[35] ADB's

31 ADB, *Supporting the Implementation of ADB's Climate Change Operational Framework 2017–30 Subproject 1: Supporting Ambitious Climate Action through Implementation of Developing Member Countries' Nationally Determined Contributions*, Technical Assistance Subproject Report, Manila, March 2019.

32 As per its website, NDC Advance is a dedicated technical assistance platform established by ADB to help DMCs mobilise finance, build capacity, and provide knowledge and other support needed to implement their NDCs. It assists countries in developing climate investment plans, tapping financing from various sources, and developing monitoring and reporting mechanisms to implement priority projects effectively.

33 ADB, *India, 2018-2022 – Accelerating Inclusive Economic Transformation*, Country Partnership Strategy, Manila, September 2017 and ADB, *Indonesia, 2020-24 – Emerging Stronger, Country Partnership Strategy*, Manila, September 2020.

34 ADB, *Proposed Multi-tranche Financing Facility and Administration of Technical Assistance Grant Punjab National Bank Solar Rooftop Investment Programme (guaranteed by India)*, Manila, September 2016.

35 See *Climate Action in Financial Institutions – Principles for Mainstreaming Climate Action, ADB Integrates Climate Risk Management Framework throughout Operations* and ADB, *Climate Risk Management in ADB Projects*, Manila, November 2014.

CCF has financed some of the required assessments for more complex cases, while others have been funded by traditional project preparation TA grants. Where applicable, the estimated share of total project cost due to adaptation measures is also now indicated in the respective report and recommendations.

In 2016 and 2017, ADB issued guidelines for estimating GHG emissions, especially for transport and clean energy operations.[36] In 2019, it provided guidance for the economic analysis of energy sector operations more generally, noting also that ADB had introduced shadow pricing of GHG emissions in its 2017 guidelines for the economic analysis of projects requiring that energy and transport projects and any others having GHG mitigation as an objective quantify and value the pertinent emissions in calculating the project's economic internal rate of return.[37]

1.B.4 Incorporating COVID-19

In August 2020, ADB issued *COVID-19 Recovery: A Pathway to a Low-carbon and Resilient Future.* It stated that countries have an unprecedented opportunity to use interventions and accompanying stimulus in response to the pandemic to support, "a sustainable, inclusive, and resilient future, tackle the climate crisis, and lay the foundation for long-term prosperity." It recommends that governments, "recalibrate their priorities in the context of changing perceptions of risks, including climate and disaster risks, and improve systems, raise standards, and pursue innovative solutions. And it argues that adopting a low-carbon, resilient recovery could "generate economic benefits, increase food and energy security, and have strong health co-benefits." This and a more detailed technical note in October 2020 also observed that ADB had developed an assessment framework to assist DMCs in evaluating potential low-carbon and climate- and disaster-resilient recovery interventions. The framework reportedly provides a systematic process for evaluating and comparing the potential of climate and resilience recovery interventions by assessing them against key requirements for COVID-19 recovery. Finally, it was expected to be able to assist decision makers to, "select and prioritise interventions that collectively promote climate resilience through their medium- and longer-term transformation efforts, while also helping them understand the potential negative implications of certain interventions."[38]

1.C What ADB lessons can inform the MS response to the climate crisis?

Adopting, replicating, and scaling-up lessons learnt and good practices

ADB has identified lessons and good practices

- **Identify relevant opportunities for project design and fund implementation.** With many climate-financing initiatives presently operating or under development, there may be considerable confusion about available opportunities and accessing them. ADB needs to proactively use existing networks to disseminate pertinent information and communicate relevant opportunities to its DMCs.

36 ADB, *Guidelines for Estimating Greenhouse Gas Emissions for Asian Development Bank Projects: Additional Guidance for Transport Projects*, Manila, 2016 and *Guidelines for Estimating Greenhouse Gas Emissions for Asian Development Bank Projects: Additional Guidance for Clean Energy Projects,* Manila, 2017.

37 ADB, *Greenhouse Gas Emissions Accounting for ADB Energy Project Economic Analysis*, Manila, December 2019.

38 ADB, *COVID-19 Recovery: A Pathway to a Low-Carbon and Resilient Future*, Manila, August 2020 and ADB, *Accelerating Climate and Disaster Resilience and Low-Carbon Development Through the COVID-19 Recovery*, Technical Note, Manila, October 2020.

- **Build country pipelines of CCAM projects.** A more proactive stance in seeking out project opportunities is also needed. ADB's private sector operational department should work more closely with the public sector teams to design projects to strengthen the enabling environment for private sector climate finance.
- **Promote greater access to external climate finance.** There is a need to increase efforts to facilitate DMC access to external public and private climate finance, including support for innovative financing mechanisms. DMCs often lack direct access to these resources and must work through accredited entities (AE) like the ADB. To the extent feasible, ADB needs to maximise the use of these sources to co-finance investments and help DMCs obtain greater access to them.
- **Build a critical mass for new approaches.** Pilot projects demonstrate the potential of a project type in a specific country context, but single projects are insufficient to lower risk perceptions or make investors comfortable with scaling up pilots. ADB could help drive transformational change by supporting appropriate enabling policies and projects to establish a sufficient track record to entrench the technology involved and alter investor risk perceptions.
- **Strengthen monitoring and evaluation (M&E).** MDBs need to be as open as possible in sharing results regarding effective interventions. To date, M&E have occurred predominantly at the individual project level. Comparisons of results are limited at the portfolio level as are performance results against project appraisal estimates. Operational success for adaptation projects is more difficult to monitor and evaluate. Assessing such projects thus requires longer time horizons and is uncertain in terms of future climate conditions and the socio-economic circumstances under which the associated measures will operate.

Other lessons learnt and ADB's proposed responses

ADB has adopted a holistic framework to strengthen resilience to shocks. As it moves toward COP 26 it is focusing on the following key priorities.

- **Increasing support for adaptation investments,** including strengthening support to DMCs with concessional grant resources to undertake projects whose primary objective is to build resilience. This will be done in part through ADB's Asian Development Fund, which provides concessional resources to the region's poorest countries.
- **Strengthening adaptation regional, national, and local levels.** ADB is working to enhance adaptation efforts with regional and national organisations, such as the South Asia Cooperative Environment Programme with the Japanese Environment Ministry on its Asia-Pacific Adaptation Information Platform as mentioned above. Because context-specific and low-income people are the most vulnerable, ADB has also recently launched the large Community Resilience Partnership Programme, in partnership with the government of the United Kingdom and the Nordic Development Fund to support the implementation of local adaptation solutions targeting the poorest populations.
- **Improving systems to align operations with the Paris Agreement objectives.** ADB and other MDBs are working to align their operations with the Paris Agreement. For adaptation goals, this requires carrying out systematic climate risk screening and assessment of all financed investments and proactively promoting adaptation in client countries, in line with their climate priorities, plans, NDCs, and longer-term national climate change strategies.
- **Mobilising additional finance and private sector support for climate action.** ADB's climate change programmes will continue to mobilise climate finance in three strategic ways: (i) deploying concessional funds – both internal and external – to co-finance transformational programmes and projects; (ii) accessing carbon market mechanisms and carbon funds, and (iii) mobilising the private sector for

climate action. This latter approach is particularly important, as the private sector needs to play a much greater role in this regard in the years ahead and governments need to provide an appropriate enabling environment. ADB intends to continue to scale up climate finance by using trust funds, including for the private sector, and through those that support carbon markets, including the Asia-Pacific Climate Fund, among others.[39]

- **Adopting a process-based approach.** The context-specific nature of CCA and climate resilience means that a process-based approach is appropriate for preparing adaptation-related interventions and for tracking and reporting associated adaptation finance. This approach has three steps at its core: (i) setting out the project-specific context of climate vulnerability; (ii) making an explicit statement of intent to address that vulnerability, and (iii) articulating a clear and direct link between the climate vulnerability challenges and constraints and the specific project activities proposed to address them.[40]
- **Boosting internal and external co-ordination.** Given the all-encompassing nature of climate change and its growing adverse impacts, effective co-ordination of climate-related interventions, both within ADB and in its DMC (i.e., both within government and across the broader set of affected stakeholders, including other participating MOs) is critical for minimising gaps and duplication and for maximising scarce funding and other resources.

39 Other ADB-managed funds and facilities include the Canadian Climate Fund for the private sector in Asia I and II, Leading Asia's Private Infrastructure Fund, ADB Ventures Facility, Future Carbon Fund, Japan Fund for Joint Crediting Mechanism, and Establishing a Support Facility for Article 6 of the Paris Agreement. See also ADB, *ADB and the Climate Investment Funds: Developing a Private Sector Portfolio*, Manila, January 2016.

40 See ADB, *Mainstreaming Climate Risk Management in Development: Progress and Lessons Learnt from ADB Experience in the Pilot Program for Climate Resilience*, Manila, 2017.

2. AFRICAN DEVELOPMENT BANK

2.A How is AfDB responding to climate change?

2.A.1 How does AfDB adhere to the normative frameworks of the 2030 Agenda and Paris Agreement?

The AfDB seeks to mainstream climate change and broader, inclusive green growth into its development agenda. It adopted its first climate risk management and adaptation strategy in 2009, to reduce the vulnerability of African countries to climate variability, to promote climate resilience in its investments, and to build country capacity to address climate change and build sustainability through policy reforms.[41] Its 2014 green growth framework was developed as part of its broader 2013-22 strategy seeking to make it the centre of Africa's transformation and to support inclusive growth and the transition to green growth.[42],[43] The AfDB 2016 High5 agenda supports the implementation of these strategies and outlines five priorities intended to support African countries to achieve the SDGs (the 2030 Agenda) and Africa Agenda 2063: Feed Africa; Light up Africa; Industrialise Africa; Integrate Africa, and Improve the Quality of Life for the people of Africa. In 2016, the Power, Energy, Climate and Green Growth Vice-Presidency was created, integrating climate change, energy, power and green growth-related activities under the guidance of a single department working on climate change and green growth.

AfDB's CCS guided the development of its first and second climate change action plans (CCAP1 2011-15 and CCAP2 2016-20) to support the fulfilment of the Paris Agreement. CCAP2 aims to support the implementation of Africa's NDCs under the agreement by helping African countries define and achieve their commitments while also fulfilling their development objectives. It seeks to scale up climate finance from public and private sources. CCAP2 committed to allocating 40% of approvals to climate finance annually by 2020 and in 2019 it provided USD 3.6 billion of climate finance, for 35% of its total commitments.[44] The same year, AfDB set a new target, committing to provide USD 25 billion of climate finance by 2025. Currently it is developing a new climate change and green growth policy and CCS (2020-30) and action plan (2021-25).[45]

2.A.2 How do AfDB responses to the climate change crisis cohere with the MS?

Collaboration with other MOs, organisations, and initiatives

AfDB collaboration with other MDBs in the climate space dates back more than a decade. The establishment of the CIFs in 2008 provided an opportunity for inter-MDB collaboration to address climate challenges at a country level.[46] The Joint MDB Climate Finance Tracking and Reporting Platform, implemented with five other MDBs, has been producing the *Joint Report on Multilateral Development Banks' Climate Finance* since 2011 using common methodologies.[47] AfDB has also leveraged good practices in climate change mainstreaming and in the design and implementation of its GHG accounting tool for project operations through the IFI Harmonisation of GHG Approaches Platform initiated in 2013.

41 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-documents/Climate%20Risk%20Management%20and%20Adaptation%20Strategy%20_CRMA_%20%282%29.pdf

42 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Green_Growth_Framework_-_approved_by_co-chairs_SMCC_-_08_2014.pdf

43 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/AfDB_Strategy_for_2013%E2%80%932022_-_At_the_Center_of_Africa%E2%80%99s_Transformation.pdf

44 https://www.ebrd.com/2019-joint-report-on-mdbs-climate-finance

45 https://www.afdb.org/sites/default/files/2020/01/24/tors-strategic_framework.pdf

46 https://www.climateinvestmentfunds.org/

47 https://publications.IDB.org/en/2019-joint-report-on-multilateral-development-banks-climate-finance

AfDB collaborates with other MDBs through the 2018 Joint Declaration on Paris Alignment.[48] This commits MDBs to operationalize the six building blocks of alignment under the Paris Agreement: (i) MDB operations are consistent with national low-emissions development (LED) pathways; (ii) Operations are systematically screened for climate resilience and increased support for adaptation (iii) Accelerated contribution to the transition through climate finance; (iv) strategy, engagement and policy development; (v) reporting, and (vi) alignment of internal activities. Joint working groups were established under each of these building blocks. AfDB is responsible for the sixth building block, on internal alignment.

AfDB engages in a wide range of partnerships with MOs, other UN organisations, and with African and bilateral organisations. It regularly participates in the UN Environment Assembly (UNEA) and One Planet Summit. It is the founding institution of the Nairobi Framework Partnership created to mobilise the participation of African countries in the carbon markets, especially in the context of the Clean Development Mechanism (CDM). The Nairobi Framework Partnership hosts the Annual Africa Climate Week to enhance Africa's participation in climate action. It has established the Africa NDC hub to co-ordinate development partners' actions on NDC implementation in Africa, engage with UNEP on training African decision makers on the policy and financing implications of NDC implementation, and support some African countries to develop their national green growth strategies. AfDB shares its work on climate at the G20 meeting and also shares its circular economy initiatives, including at the 2019 World Circular Economy Forum in Helsinki with the participation of African leaders and young African entrepreneurs.

AfDB hosts the Africa regional office of the Global Commission on Adaptation. Partnerships with African stakeholders such as the Committee of African Heads of State on Climate Change, the African Ministerial Council on the Environment and the African Group of Negotiators were instrumental in shaping and advocating for African common positions on climate change. The Bank contributed to the *Africa Sustainable Development Report*, with the climate change and green growth department taking a lead role in the chapter on SDG 13 and on climate/environment issues. **AfDB also works with the global mechanism of the UN Convention to Combat Desertification and the Convention on Biological Diversity on various issues,** including the synergy among the three Rio Conventions, the linkages between NDCs and land degradation neutrality targets, and the post-2020 global biodiversity framework. It participates with the WBG and IFAD on the Global Agricultural and Food Security Programme Fund.[49] Other initiatives related to climate change include the Africa Water Facility (AWF), the Africa Climate Technology Centre, the African Financial Alliance on Climate Change, and the African Circular Economy Alliance, among others.

The AfDB is engaged in a wide range of climate finance programmes. Together with the other MDBs, it has reported annually since 2011 on its commitments to climate finance.[50] Commitments have increased from USD 1.4 billion in 2015 to USD 3.6 billion in 2019, when they accounted for 35% of its total financial commitments. Of this USD 3.6 billion, USD 2.99 billion was committed through AfDB's own account and USD 0.668 billion from dedicated climate finance funds. The AfDB participates in a broad range of initiatives and partnerships intended to raise capacity to access climate funds and co-ordinate African country efforts on NDC implementation. These are described in the annual reports on climate change and green growth, of which 2019 is the most recent.[51] Figures were lower in 2020 for several reasons, including the need to respond to the COVID-19 crisis. AfDB approvals for climate finance totalled USD 2.1 billion in 2020,

48 http://pubdocs.worldbank.org/en/784141543806348331/Joint-Declaration-MDBs-Alignment-Approach-to-Paris-Agreement-COP24-Final.pdf. The Declaration was signed by The AfDB, the ADB, the Asian Infrastructure Investment Bank, the EBRD, the EIB, the IDBG, the IDB, the NDB, and the WBG (IFC, MIGA, WB), jointly, the MDBs.

49 https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/global-agriculture-food-security-program-gafsp, As of mid-2020 the AfDB managed about one-quarter (USD 321 million) of the GAFSP portfolio through projects in 10 African countries.

50 https://www.afdb.org/en/documents/2019-joint-report-multilateral-development-banks-climate-finance

51 https://www.afdb.org/en/documents/climate-change-and-green-growth-2019-annual-report

34% of total approvals and less than the target of 40%. However, the proportion of adaptation finance increased to 67%. AfDB also mobilised USD 109 million from external climate funds, including the GCF (USD 10 million), the GEF (USD 20.8 million), the CIFs (USD 68.7 million) and the African Climate Change Fund (USD 9.3 million). The following paragraphs provide more details on activities supported by dedicated funds over recent years.

Dedicated climate funds in which the AfDB participates

The CIFs were developed in 2008, and AfDB implements programmes in Africa based on investment programmes undertaken jointly with member countries and the WBG.[52] Twenty-six operations were approved by April 2020 across the four CIF programmes, totalling USD 1.9 billion from AfDB and USD 0.866 billion from CIF funding (see Table 2).

Table 2: Funding approved under the CIFs (April 2020) in USD million

CIF Programme	CIF	AfDB	Total
Clean Technology Fund	578	1 661	2 239
Strategic Renewable Energy Programme	112	187	229
Forest Investment Programme	68	28	96
Pilot Programme for Climate Resilience	107	28	136
Total	866	1 900	2 766

Source: https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/climate-investment-funds-cif

The Africa Climate Change Fund was established in 2014 to strengthen the capacity of African countries to scale-up access to international climate finance and to pilot innovative small-scale climate adaptation projects. [53] To date, it has raised about USD 24.64 million, and is currently supporting 16 African countries in their climate finance readiness activities and small-scale adaptation projects.

The Climdev Special Fund was established in 2009 and invests in building the continent's capacity to generate, share and use high quality, reliable climate and weather information, focusing on five regional meteorological centres, and on upgrading national weather and climate information with a focus on early warning systems critical to agriculture and food security and to natural disaster risk mitigation. [54] Thus far it has invested USD 34 million.

The Congo Basin Forest Fund was established in 2008 to alleviate poverty and address climate change by reducing the rate of deforestation consistent with the regional strategy of the Commission des Forêts d'Afrique Centrale. The fund also supported building capacity in monitoring, assessing, and verifying in REDD and payments for ecosystem services to help Congo Basin countries benefit from an international REDD regime. EUR 73.6 million was committed, of which EUR 62.4 million had been disbursed to 38 projects by the end of 2017. Implementing partners included NGOs as well as government bodies.[55] The fund is now closed.

52 https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/climate-investment-funds-cif
53 https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/africa-climate-change-fund
54 https://www.climdev-africa.org/The-ClimDev-Special-Fund
55 https://idev.afdb.org/sites/default/files/documents/files/CBFF%20Evaluation.pdf

Green Climate Fund. AfDB was accredited in 2016 and as of mid-2020, six operations had been approved for a total cost of USD 542 million, with GCF funding of USD 189 million, AfDB funding of USD 175 million, and other co-financing of USD 187 million. Total GCF financing also includes some readiness grants.[56]

- Ghana Affirmative Finance Action for Women in Africa: Financing Climate Resilient Agricultural Practices (GCF USD 18 million, total costs USD 25 million)
- Liberia Climate information systems (GCF USD 10 million, total costs USD 11 million)
- Burkina Faso Yeleen Rural Electrification (solar energy) (GCF USD 26 million, total costs USD 64 million)
- DRC: mini grid project (solar) to three towns in Eastern Congo (GCF USD 21 million, total costs USD 89 million)
- Zambia Renewable Energy Financing Framework (GCF USD 50 million, total costs USD 154 million)
- Niger Basin Integrated Development and Adaptation to Climate Change (GCF USD 58 million, total costs USD 204 million)

GEF: AfDB has been a GEF IA since 2007, with the aim of supporting multi-stakeholder alliances that preserve ecosystems on land and in water, build greener cities, boost food security, and promote clean energy for more prosperous, climate-resilient development in Africa. [57] Of its total portfolio of GEF-supported operations, 36% goes for adaptation and 41% for mitigation. (The remainder is for other GEF FAs). Since the start of their co-operation, GEF has supported a total of 45 projects, with USD 347 million in GEF finances and USD 2.636 billion in AfDB co-financing.

The Sustainable Energy Fund for Africa (SEFA) was established in 2011 with Danish support to provide catalytic finance to unlock private sector investments in renewable energy and energy efficiency.[58] It supports TA and concessional finance to remove market barriers, build a more robust pipeline of projects, and improve the risk-return profile of individual investments. Its goal is to contribute to universal access to sustainable, modern energy services for all in Africa, in line with SDG 7. It has also received support from the UK, US, Italy, Norway, Spain, and Sweden. It played a catalytic role in the preparation and financial close of the Africa Renewable Energy Fund, one of the first pan-African equity funds for renewable energy — reaching a USD 200 million capitalisation in 2014 — and in the Facility for Energy Inclusion, a pan-African debt financing platform for small-scale renewables that mobilised USD 250 million by the end of 2019. In December 2020, new donor commitments of USD 90 million were announced.

2.A.3 How has greater global attention to climate change affected AfDB's work?

Climate change has been a key element in the AfDB strategy and work programme since 2009. Its CCAP1 for 2011-15 aimed to help African countries adapt to climate change and mitigate its effects while supporting its focus on poverty reduction and economic growth, infrastructure development and regional operations.[59] It was organised around three pillars: low-carbon development, CCA, and establishing a climate change funding platform to be implemented through a mix of several financing options. It succeeded in channelling USD 12 billion in financing for renewable energy, energy efficiency, sustainable transport,

56 https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/green-climate-fund

57 https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/global-environment-facility-gef

58 https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/sustainable-energy-fund-for-africa

59 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/Climate%20Change%20Action%20Plan%20%28CCAP%29%202011-2015.pdf

sustainable natural resources management including agriculture and water management, climate proofing critical infrastructure and capacity building. This exceeded the target of USD 9 billion. It also issued four green bonds, two for USD 500 million each, and two for SEK 1 billion each.[60]

AfDB's CCAP2 for 2016-20 considers lessons from its first CCAP and refers explicitly to the Paris Climate Change Agreement and to the SDGs. CCAP2 aims to scale up adaptation financing to achieve parity between adaptation and mitigation with four pillars: (i) adaptation and climate-resilient development; (ii) mitigation and low carbon development; (iii) financial resource mobilisation, and (iv) enabling environments addressing crosscutting issues, including policies and institutional reforms, capacity development, technology development and transfer, and creating partnerships and networks.

CCAP2 provides a clear conceptual framework linking the CCAM agenda to the H5s. It demonstrates how inter-woven climate change management is with Africa's mainstream development goals. The aim was that, by 2020, 40% of AfDB's finance would be identified as climate finance using the MDB Climate Finance Tracking methodologies, divided broadly under the H5 frameworks as follows: (i) Light up and Power Africa investments: 22%; (ii) Feed Africa: 6%; (iii) Industrialise Africa: 3%; (iv) Integrate Africa: 1%, and (v) Improve the Quality of Life for People of Africa 8%. CCAP 2 also noted that for most African countries, LULUFC is the principal source of GHG emissions, linked to low productivity agriculture and livestock practices and the fact that wood energy remains the principal source of fuel for most Africans. Improving access to clean energy and more productive climate-smart agriculture (CsA), and agro-industries are all key to adaptation and mitigation, and also to food security and increased incomes.

CCAP2 highlights some key factors for success moving forward, based on the lessons from CCAP1. These include the need for leadership to remain engaged at AfDB's highest level; dedicated resources for climate change in addition to enhanced capacity to mobilise climate finance at scale; adequate staffing, including in areas such as carbon finance, climate mitigation, adaptation finance and asset management; greater innovation and risk; measurement frameworks with realistic parameters given the short timeframe of the action plan; clear internal communication, and further progress on integrating climate into AfDB investments, including by strengthening the climate change co-ordination committee. The review noted also that the creation of the climate change and green growth department should facilitate the achievement of CCAP2 objectives.

The climate change and green growth department has been partially decentralised and staff has been placed in all five regional hubs. However, staffing capacity remains inadequate given the growth in demand for climate support within AfDB and from clients. AfDB is implementing a new budgeting process within the framework of the One Bank approach, collaborating with regions to ensure that adequate capacity is recruited to deliver on the climate change and green growth mandate. More broadly, the 2016 restructuring, with the creation of the climate change and green growth department, enabled AfDB to increase the effectiveness of its climate change-green growth interventions while scaling up climate finance resources and expanding the scope of work globally and in Africa.

AfDB has risen to the challenge of working with African countries to address climate change. CCAP2 and the annual reports acknowledge, however, the ongoing broader structural and development issues in Africa as well as its vulnerability to extreme weather events. Seventeen African countries are categorised as fragile states, vulnerable to or experiencing ongoing conflicts and 33 are least developed countries (LDCs), many with basic human development needs and deeply entrenched political and governance challenges. Recent weather-related disasters include the 2019 drought in East Africa that affected more than 45 million people, and Cyclones Ida and Kenneth in 2019 that affected 2.8 million people in Mozam-

60 One Swedish kroner is currently equivalent to USD 0.12

bique, Malawi, and Zimbabwe. Desertification in the Sahel has been an ongoing challenge; programmes to support integrated natural resource management (NRM) have existed for four decades and have had some notable successes.

Most recently, the great green wall concept for the Sahel, initiated in 2007, got a boost in January 2021.[61] During the 2021 One Planet Summit hosted by French President Emmanuel Macron and His Royal Highness the Prince of Wales, the AfDB pledged to assist in mobilising up to USD 6.5 billion over five years. The Great Green Wall Initiative (GGWI) aims to create a mosaic of trees, grasslands and vegetation across the Sahara and the Sahel that can restore degraded lands and help the region's inhabitants produce adequate food, create jobs, and promote peace in the region. Lack of finance has been the project's major constraint to realising its goals of creating 10 million jobs, sequestering 250 million tonnes of carbon and restoring 100 million hectares of degraded land in the 11 countries of the Sahel-Sahara.

2.B How have AfDB organisational strategies, operational activities, and resource plans incorporated climate change?

2.B.1 Organisational strategies

AfDB's Climate Change and Green Growth Department is leading the efforts in this direction. The department's broad objectives are to mainstream climate change and green growth into AfDB's High 5 priorities, CSPs, and regional integration strategy papers, mobilising climate finance and lead AfDB-wide efforts to minimise and reverse the effects of climate change on the continent. The department includes the climate and green growth division and the climate and environment finance division, and also hosts the ClimDev-Africa Special Fund. AfDB also highlights the role of private sector finance in climate resilience and low carbon development and helped create the African Financial Alliance on Climate Change.[62]

Energy

AfDB works in the energy as well as the water and agriculture sectors, thus contributing to both the African H5 agenda and to CCAM objectives. **At the 2019 UN Climate Action Summit, AfDB formally announced that it would no longer finance coal projects.**[63] In effect, it has provided little support for coal in recent years. Its last coal investment was in 2015 for a supplementary loan of about USD 4 million for a small, 125 MW coal-fired power plant in Senegal that it had originally financed in 2009. Since the launch of the Bank's Strategy for the New Deal on Energy in 2016, renewable energy projects have constituted about 85% on average of AfDB's power generation investments. It announced the Green Base-Load Facility with USD 500 million to support countries to move past coal and other fossil fuels into renewable energy so as to mobilise USD 5 billion to support the transition. Examples of renewable energy projects supported by the clean technology fund (CTF) include finance to South Africa to construct the Sere Wind Farm (CTF, USD 50 million; AfDB, USD 45 million) with a total cost of USD 375 million, and the Xina Solar One Project (CTF, USD 41.5 million; AfDB, USD 100 million) with a total estimated cost of USD 880 million. AfDB has supported the Morocco Noor Solar Power project (CTF USD 219 million, AfDB USD 379 million) with a

61 https://www.afdb.org/en/news-and-events/press-releases/sahel-region-african-development-bank-pledges-mobilise-65-billion-support-great-green-wall-initiative-40203

62 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/AFAC_Brochure_2018.pdf

63 https://ieefa.org/african-development-bank-makes-no-coal-financing-pledge/

total estimated cost of USD 2.5 billion, a wind energy project, and the Midelt Solar Power project.[64] Other initiatives include a line of credit for renewable energy and energy efficiency in Nigeria (CTF USD 1.35 million, AfDB USD 49 million) support for geothermal energy generation in Kenya through dedicated private sector programme II, with CTF support of USD 20 million and AfDB support of US 30 million.

AfDB supports some strategic oil and gas-related investments. One example is a USD 400 million senior loan in 2019 for an integrated Liquefied Natural Gas (LNG) plant with a related port, including a liquefaction facility in Mozambique. LNG exports would provide Mozambique very substantial foreign exchange earnings. In July 2020, a loan of over USD 14 billion came from TOTAL, which, together with support from other agencies, is one of the largest foreign investments in Sub-Saharan Africa to date.[65] It includes direct and covered loans from eight export credit agencies, 19 commercial bank facilities, as well as the loan from the AfDB.[66] In January 2021 TOTAL scaled back its staff because of dangers linked to recent incursions by Islamic extremists killing the local population and forcing many people to flee their homes.

In 2018, AfDB announced its Desert to Power Initiative to support investment in 10 GW of solar energy across the 11 Sahel countries by 2025.[67] The project was launched with the support of the GCF and a partnership was developed with the International Renewable Energy Agency (IRENA).[68] One example of its roll-out is the December 2020 approval of a USD 5 million grant through SEFA to support: (i) technical studies for integrating variable renewable energy (primarily solar) into national grids; (ii) feasibility studies for solar hybridisation of existing isolated grids, and (iii) capacity building to support Chad to integrate the first solar power in its national grid.[69] The AfDB also hosts African Energy Marketplace events on a regular basis.

Transmission is a core element of the AfDB's electricity and energy efficiency portfolio, including for electricity produced by gas. A recent example is a USD 210 million financing package to Nigeria for the Nigeria Transmission Expansion Project that seeks to rehabilitate and upgrade the nation's power lines and improve distribution and supply in 7 northern and southern states.[70] It will improve the capacity and reliability of the Nigerian transmission grid where it is most constrained, and is part of the USD 1.6 billion Transmission Rehabilitation and Expansion Programme that will contribute to the replacement of petrol- and diesel-powered generators, which cost Nigerians USD 14 billion annually, thereby contributing to GHG reductions of approximately 11 460 $ktCO_2$ per year. The project would increase evacuation capacity from the country's south towards the north where power supply is limited, increase transmission stability and capacity, and reduce the amount of stranded power, while improving power export and regional power system integration to the West African power pool, especially through Niger and Benin interconnections.

64 https://www.afdb.org/en/documents/cif-annual-report-2019

65 https://www.reuters.com/article/us-total-mozambique/total-signs-14-9-billion-debt-financing-for-huge-mozambique-lng-project-idUSKCN24I2FZ

66 These include the UK Export Finance, the Export Import Bank of the United States, Italy's SACE, the Netherlands' Atradius, and the Export Credit Insurance Corporation of South Africa, Japan Bank for International Co-operation, Nippon Export and Investment Insurance, and the Export-Import Bank of Thailand.

67 https://www.afdb.org/fr/news-and-events/desert-to-power-initiative-for-africa-18887#:~:text=Seol%20in%20the%20AfDB's%20Desert,of%20the%20world's%20poorest%20countries.

68 https://www.irena.org/newsroom/pressreleases/2020/Dec/IRENA-and-African-Development-Bank-Partner-to-Scale-up-Renewables-Investments-in-Africa

69 https://www.afdb.org/en/news-and-events/press-releases/sahel-group-five-african-development-bank-approves-program-expand-solar-energy-generation-under-desert-power-scheme-39949

70 https://www.afdb.org/en/news-and-events/press-releases/nigeria-african-development-bank-approves-210-million-financing-transmission-expansion-project-32978

Water

AfDB emphasised equity, sustainability, security, environmental protection and climate resilience in its 2020 water resources policy and investments.[71],[72] It follows the principles of integrated WRM and supports water and sanitation, hydropower, and agricultural water management including irrigation. Key determinants of water security include the hydrological environment, the socio-economic environment, and the growing impact of climate change. Key constraints include limited availability of water resources databases and climate change models, reliance on traditional agriculture and pastoral practices, rigid design parameters for public infrastructure, and inadequate legal frameworks. In line with the AfDB group climate change and green growth strategic framework, AfDB assists countries and regional organisations to address climate change impact on the water-related sectors and contributes to the development of water resources knowledge and related capacity building. Improved river basin management often involves working in several countries. AfDB is currently supporting a programme to improve the resilience of populations and ecosystems in the nine riparian countries of the Niger Basin. With an estimated cost of USD 210 million, the programme benefits from GCF financing of USD 58 million.

Transport

Transport-related investments are concentrated in roads, and seek to address Africa's infrastructure deficit. Key indicators include improvements in accessibility, reduction in travel, cross-border or port waiting times, reductions in vehicle operating costs, improvements in traffic safety, and reduced losses in transport, including of agricultural products. Of the active portfolio of USD 15.4 billion in 2019, 73% (USD billion 11.1) was for road transport, with air, rail and urban transport accounting for USD 1 to USD 1.5 billion each and ports and sea transport for USD 600 million.[73] Most of the operations approved in 2018 had not yet incorporated GHG accounting into project analysis. However, AfDB is beginning to consider climate change factors more explicitly in urban development, including urban transport, in several areas. At COP 24 in Katowice, it presented recent work on transport emissions monitoring and mapping in 5 African cities, highlighting the need for capacity building to help limit emissions, and discussed with UN Habitat priorities for increasing urban resilience, including integrated urban planning, improved drainage, air pollution and CCM. An operation recently approved for Abidjan includes estimates of GHG mitigation.

Agriculture

AfDB's Feed Africa Strategy seeks to (i) contribute to eliminating extreme poverty in Africa by 2025; (ii) end hunger and malnutrition by 2025; (iii) make Africa a net food exporter, and (iv) move Africa to the top of export-orientated global value chains where it has a comparative advantage.[74] Specific targets include: (i) achieve self-sufficiency in key commodities; (ii) move up the value chain in key export-oriented commodities; (iii) create a food-secure Sahel, and (iv) realise the potential of the Guinea Savannah. The strategy names seven enablers: (i) Increased productivity and reduced post-harvest losses; (ii) value addition; (iii) infrastructure, including roads, energy and water and soft infrastructure (especially ICT); (iv) an enabling agribusiness environment with appropriate policies and regulation; (v) flows of capital to scale up agribusinesses; (vi) delivery reflects the broad-based needs of Africans, and (vii) co-ordinated activities to kick-start transformation and crowd in private investors.

71 https://www.afdb.org/sites/default/files/2020/08/19/african_development_bank_groups_draft_new_policy_on_water.pdf

72 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/AWF_Strategy_Factsheet_En.pdf

73 https://www.afdb.org/en/topics-and-sectors/sectors/transport

74 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Feed_Africa-_Strategy_for_Agricultural_Transformation_in_Africa_2016-2025.pdf

The strategy emphasises CsA as a core necessity that is no longer optional. It notes that the agricultural sector is one of the most affected by climate change. The strategy will promote and finance the use of CsA practices and better prepare farmers and other vulnerable populations for climate risks. It will aim to align with decisions of the 2015 COP 21 and will support governments in developing the country-level data systems required to track the use and impact of CsA practices. Agriculture, forestry, and land use change (AFOLU) and LULCF are the major contributors to GHG emissions in Africa.

2.B.2 Operational activities

Mitigation

The AfDB no longer supports investments in coal but does continue to support strategic investments in the oil and gas sectors. The efficiency gains brought about by improved connectivity help reduce the carbon intensity of economic activities in the transport sector. Regarding carbon sequestration, several of AfDB's road-related and water related investments include support for tree planting. Its support for improving access to modern energy, including the focus on renewables, addresses one of the main contributors to GHG emissions in Africa; lack of access to clean electricity sources has led to the unsustainable use of biomass energy for cooking, and diesel and kerosene for lighting and industry. As mentioned, CsA contributes to both mitigation and adaptation.

AfDB also supports REDD+ activities. CBFF was established in 2008 to protect the Congo Basin forests with support for transformative projects.[75] These were intended to complement existing activities and develop the capacity of the people and institutions of the Congo Basin to preserve and manage their forests. The CBFF relied on smaller initiatives supported by NGOs and communities, for which implementation procedures were not necessarily well adapted to AfDB administrative and procurement procedures better suited to larger scale infrastructure operations. CBFF closed in 2018 without having released all of its funding. However, the experience provided valuable lessons for REDD readiness and implementation, including the importance of political will and of inter-departmental co-ordination. In 2016, with CIF FIP support of USD 22.3 million, AfDB approved a REDD+ Project in the Mbuji-Mayi/Kananga and Kisangani Basins of DRC to reduce forest GHG emissions and poverty in a degraded savannah and closed forest area and support improved land tenure security, agriculture, and forestry and energy management. Other FIP projects supported by AfDB include the Gazetted Forests Participatory Management in Burkina Faso (FIP USD12 million), and the Engaging Local Communities in REDD+/Enhancement of Carbon Stocks in Ghana (FIP USD 10 million, AfDB USD 5 million).[76]

Adaptation

Support focus varies by country and complements the efforts of other development partners. In Ethiopia, for example, AfDB support continues to focus on infrastructure, including transmission; the WBG has a large programme on sustainable land management (SLM). The 2018-22 CSP for Niger includes support for WRM including irrigation and river ecosystem restoration (adaptation) as well as for the Kandaji Dam, together with agro-pastoral value chains (CsA). The programme benefits from the CIFs Pilot Programme for Climate Resilience (PPCR) support of USD 22 million for water resource development as well as GCF support for water management at the basin level, and USD 13 million for improved climate information and forecasting, and through CLIMDEV. The 2018-22 strategy for Mozambique highlights the climate challenges, including floods, droughts and coastal flooding and demonstrates linkages between the H5

75 https://climatefundsupdate.org/the-funds/congo-basin-forest-fund/

76 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/REDD_in_Africa_-_Context__challenges_and_next_steps_of_REDD__mechanisms_in_the_continent.pdf

agenda and the country NDP. Mozambique was one of the countries targeted under the PPCR, with projects for sustainable land and water management (PPCR USD 16 million) and irrigation and climate resilience in the Baijo-Limpopo Basin (PPCR USD 16 million). GCF funding to Mozambique has been limited so far. The CSP also supports improvements to the public sector management, infrastructure and storage/port facilities for LNG.

Ethiopia was the only African country selected for more detailed study. The 2016-20 planned lending programmes totals USD 2.51 billion and seeks to mainstream climate resilient, low carbon growth in Ethiopia's growth agenda. It focuses on infrastructure, with an emphasis on energy, water supply, and connectivity, and on governance, with an emphasis on delivering basic services at local level, and on an enabling environment for private sector development. The CPS highlights climate-related achievements under the previous CPS, including three million trees planted along transport corridors, 400 MW of green power traded with neighbouring countries, wind and solar power and support to the Climate Resilient Green Economy (CRGE) Facility to facilitate access to the GCF and to carbon markets.[77]

Transport, focusing on linking agricultural producers with suppliers and trade logistics, accounts for about 20% of the proposed programme. The aim is to integrate transport infrastructure and services with nodes of agricultural production and trading, bringing markets closer to producers and enhancing economic and transport corridors. These "efficiency" gains have the potential to be climate friendly, and the roads are designed to be climate resilient.

Energy, focusing on access, transmission, and regional integration, accounts for just over 20%. The strategy continues support for no-carbon electricity generation, specifically wind power, access to people and transmission to industrial centres and neighbouring countries. The CPS notes also that ongoing investments in hydropower and wind power will contribute to Ethiopia's green growth targets while also earning foreign exchange.

Water and sanitation accounts for 9% and includes support for off-grid renewables to replace diesel engine generators for pumping water in rural areas. In addition, trees will be planted around water source areas to enhance rainwater infiltration.

District-level basic services improvement account for a further 20%, PPPs for agro-industrial parks, related infrastructure and ICT roll-out to villages 16%, and a private sector line of credit to SMEs 4%. In agriculture AfDB has an ongoing operation to support drought resistance and improve land and water management, crop productivity and livestock-carrying capacity. As noted, it is also supporting value chain development and agro-industrial growth poles. AfDB is supporting an Ethiopian government-led research programme to provide heat tolerant wheat seed so as to expand wheat production into 400 000 lowland irrigated areas.[78]

Non-lending activities total USD 6.6 million, of which the largest activity is a trust fund-supported study of the regional carbon trade, a groundwater assessment, and a study on PPP potential in the water and sanitation sector. This is a substantial scale-up from the previous CPS, but the focus is broadly similar.

AfDB quality-of-entry standards resemble those of the other MDBs. These include criteria such as clarity of concept, approach and objectives, coherence with country and corporate strategies, adequate technical design, implementation arrangements and implementation readiness, and economic, financial, social and environmental assessment. AfDB's Independent Development Evaluation group reviews projects and

77 The CRGE facility is the government's primary financial vehicle to mobilise, access and combine domestic and international, public and private sources of finance to support the institutional building and implementation of Ethiopia's CRGE Strategy. http://mptf.undp.org/factsheet/fund/3ET00

78 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/Feed_Africa-Strategy-En.pdf

strategies and produces a range of knowledge products on quality assurance through the project and programme cycle. A recurrent problem is slow implementation, linked in part to implementation capacity constraints of client country IAs. For GCF and GEF climate projects, there are also standard requirements regarding assessment of adaptation, mitigation or co-benefits potential. AfDB does not yet routinely employ carbon shadow price accounting in project economic analysis.

The H5 agenda contributes to climate resilient, low carbon growth but member countries have many development challenges. These are not necessarily part of NDCs, but must also be addressed in country strategies, which are guided by country development priorities. In its 2019 report, the AfDB climate change and green growth depart highlighted that Paris alignment/low-carbon and climate-resilient development is a major component of AfDB's recent ADF 15 and GCI 7. The AfDB works with other MDBs to strengthen the alignment of activities to the Paris Agreement. The 2019 report mentioned that the first and second building blocks – adaptation and mitigation – of the MDB Paris Agreement need to be integrated more fully into country strategies and programme design nonetheless.

New initiatives are further strengthening commitments to the Paris Agreement. In February 2021, AfDB announced further financial support for the efforts of West African countries to meet their NDCs, for which it will underwrite the preparation of concept notes exploring the use of internationally transferable mitigation outcomes in selected countries. In January 2021, the president of the AfDB announced the launch of the Africa Adaptation Acceleration Programme to mobilise USD 25 billion to scale up and accelerate CCA actions across Africa. The announcement came during the 2021 Climate Adaptation Summit hosted by the government of the Netherlands and the Global Centre on Adaptation.

The AfDB first published its *Climate Finance Tracking Methodology Manual* in 2013 with sector-specific guidance manuals on agriculture, energy, transport and water.[79] Regarding adaptation, it screens its operations with regard to climate risk, and its methodology includes: (i) setting out the climate change vulnerability context of the project; (ii) making an explicit statement of intent to reduce climate change vulnerability, and (iii) articulating a clear link between project activities and the objective of reducing vulnerability. Activities that are likely to have an adaptation impact and/or adaptation co-benefits are identified; they are quite wide-ranging and include public policies with co-benefits. A similar approach is adapted for mitigation and activities with mitigation co-benefits. The AfDB also continues to develop its GHG accounting and reporting tools, based on MDB agreed upon common principles for mitigation finance fracking.[80] In 2019, it conducted an energy sector portfolio GHG emissions analysis of 104 energy sector projects that it had implemented or approved in 2012-19.[81]

New thematic work streams

A broad range of targeted climate finance instruments and knowledge products. Adaptation is addressed through regional and country strategies that vary widely. Climate proofing infrastructure development, which is a substantial component of most AfDB CSPs, is also an element of adaptation; agriculture and WRM are also key.

79 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Methodolgy%20for%20Tracking%20Climate%20Adaptation%20and%20Mitigation%20Finance.pdf

80 http://www.worldbank.org/content/dam/Worldbank/document/Climate/common-principles-for-climate-mitigation-finance-tracking.pdf

81 https://www.afdb.org/en/documents/climate-change-and-green-growth-2019-annual-report

AfDB's 2018 gap analysis report on African NDCs concluded that NDC implementation represents a USD 3 trillion investment opportunity of which 75% is expected to come from the private sector. AfDB has undertaken several initiatives to strengthen private sector involvement in NDC implementation.

- **AfDB has supported the creation of the African Financial Alliance on Climate Change,** to encourage private sector investors to shift portfolios towards climate resilient and low-carbon investments. The alliance is providing TA to Africa's financial sector to address climate risks and access concessional climate finance. It is engaging with partners with strong track records such as the Toronto Centre to deliver world-class climate finance training in the financial sector. It is also engaging with development finance institutions (DFIs), including the African Association of DFIs to build capacity to green their portfolios and expand the scope of their Paris Agreement alignment efforts.
- **The new adaptation benefits mechanism is designed to promote private sector investment in adaptation by paying projects to deliver certified adaptation benefits using funds from donors and, ultimately from consumers.**[82]
- **AfDB is examining the potential of internationally transferable mitigation outcomes instruments in West Africa.**[83]
- **A new partnership between AfDB and the Global Centre on Adaptation, and the African Acceleration Adaptation Programme will include the mobilisation of private finance to implement adaptation action in Africa.**
- **AfDB is supporting the project for private sector participation in NDCs in Africa, particularly in South Africa, Nigeria, Morocco, Mozambique, Angola, and Egypt.**
- **AfDB will shortly release a study to promote green banks and national climate change funds in Africa.** Together with GCF, it could combine to capitalise these institutions and help them raise additional funds to invest in low-carbon climate-resilient assets.
- **A knowledge product is being prepared on the potential of green hydrogen to help Africa leapfrog the fossil fuel industrialisation model.** Linked to CIF's work on a "Just Transition", it will be funded with a grant from the CIF for the costs of the assignment.

2.B.3 Incorporating COVID-19 recovery

In April 2020, the AfDB Board responded rapidly to the COVID-19 crisis by approving a USD 10 billion COVID-19 Rapid Response Facility.[84] The document highlighted the additional challenges of COVID-19 for countries already affected by falling oil and gas prices: commodities account for 70% of exports in nearly half of African countries. Ten other countries for which the tourism sector is a major source of GDP and jobs, have been hard hit and will take time to recover. Remittances are a significant source of financial flows for other countries. Businesses and schools have closed; public sector borrowing limits may need to be exceeded so that countries get the assistance they need. The level of support, however, had to be scaled down because of a drop in overall lending from USD 9.8 billion in 2020 to USD 5.84 billion in 2021 because AfDB ratings came under pressure. Approvals for both the COVID-19 response and climate finance were, therefore, lower than anticipated.

82 https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/adaptation-benefit-mechanism-abm

83 https://www.afdb.org/fr/news-and-events/press-releases/climat-la-banque-africaine-de-developpement-apporte-une-aide-aux-pays-dafrique-de-louest-pour-la-reduction-des-emissions-de-carbone-et-le-respect-des-engagements-de-lac-cord-de-paris-42105

84 https://www.afdb.org/en/documents/african-development-bank-groups-covid-19-rapid-response-facility-crf

Many African countries nonetheless received substantial COVID-19 recovery packages during 2020. Support has generally focused on strengthening health systems to deal with the pandemic, and social protection and budget support measures. Some sector-specific programmes, however, were also developed. Recognising that Africa imports USD 35 billion of food products annually, and that food is a key element in the expenditure budget of African households, AfDB established the Feed Africa Response to COVID-19 facility in July 2020.[85] Its document makes no specific mention of climate resilience, although it refers to experience gained from previous crises, including drought and Ebola. In early 2020 the Nordic Development Fund approved an addition to the AWF to bolster investments in COVID-19 recovery and to prepare for the investment in water supply, sanitation, and integrated WRM projects in the Sahel and the Horn of Africa. It received an additional USD 90 million in donor commitments in December 2020.

The focus has shifted in recent months from addressing the short-term crisis to "building back better." In August 2020, the African Development Institute outlined an approach for building resilient economies in post-COVID-19 Africa.[86] At the January 2021 One Planet Summit, AfDB President Akinwumi Adesina stated, "As we rebuild from the coronavirus and its impacts on our world, we must recalibrate growth. We must prioritise growth that protects the environment and biodiversity, and we must de-prioritise growth that compromises our common goals."[87]

As countries have formulated their longer-term COVID-19 recovery strategies, some have been more climate-friendly than others. Nigeria's USD 5.9 billion economic sustainability plan is intended to stimulate the economy, retain and create jobs and extend protection to the poor.[88] It includes investments in clean energy, agriculture and infrastructure. There is a commitment of USD 619 million to the Solar Homes Systems Project that will help install solar home systems for up to 5 million households not currently connected to the national grid. It provides monetary incentives for private solar installers and aims to create jobs in the solar industry. This is one of the largest renewable energy COVID-19 stimulus interventions from a middle- or low-income country and is intended to increase energy access and equity. Nigeria is also one of only a few countries to have eliminated fossil fuel subsidies during the pandemic. In Kenya, the (USD 1.19 billion) recovery plan prioritises agriculture, water and sanitisation, urban development and housing, transport, tourism, health, education, social protection, and gender and youth as anchor sectors.[89] South Africa's recovery strategy has focused on the mining industry to protect jobs, while Egypt has subsidised fuel for the aviation industry. [90]

2.C What AfDB lessons can inform the MS response to the climate crisis?

- **Sub-Saharan Africa (excluding South Africa) is responsible for only 6.5% of global GHG emissions, and most countries put a priority on vulnerability and adaptation.**[91] The AfDB is responding to climate change in an Africa-appropriate way, with a focus on sustainable food production, resilient water supply systems, and CRM. Mitigation opportunities are pursued when they provide climate friendly means to

85 https://www.afdb.org/en/documents/feed-africa-response-covid-19-brief

86 https://www.afdb.org/sites/default/files/building_back_better_in_post_covid-19_africa-kcu-_31-08-20-final-1sept.pdf

87 https://www.afdb.org/en/news-and-events/speeches/speech-dr-akinwumi-adesina-president-african-development-bank-group-one-planet-summit-great-green-wall-investment-summit-january-11-2021-40202

88 https://www.wri.org/blog/2021/01/nigeria-moves-toward-sustainable-covid-19-recovery

89 http://www.xinhuanet.com/english/2020-12/04/c_139564195.htm

90 https://newclimate.org/2020/09/29/overview-of-recently-adopted-policies-and-climate-relevant-policy-responses-to-covid-19-2020-update/

91 https://www.wri.org/resources/data-sets/climate-watch-cait-country-greenhouse-gas-emissions-data

achieve other African priority SDG goals (e.g., modern rural energy access through renewable energy). It has been committed to addressing climate change since 2009 and has articulated its commitment in its CCAP, has also taken a "learning by doing" approach, and has used both its own-account finance and a range of dedicated funds to address adaptation and mitigation.

- **AfDB lending programmes are designed around country strategies that reflect broad country development priorities.** AfDB remains committed to addressing the infrastructure deficit but has effectively linked its H5 strategy and climate resilient and green growth agenda. It emphasises climate-smart approaches to infrastructure, energy, urban development, regional integration, water resources and agriculture, and its emphasis on access to clean modern energy effectively addresses mitigation, since LULCF is the principal source of GHG emissions in Africa.
- **The ongoing challenge is that many African countries face fundamental development issues.** Thirty-three African countries are LDCs and seventeen are fragile states. In many, basic human development goals are far from being achieved, and deep-rooted governance, public sector management, and institutional weaknesses exist. Addressing these issues falls outside the remit of the Paris Agreement, but is necessary to improve not only the well-being of Africa's people, but also to create the conditions for the NDCs underlying the Paris Agreement to succeed. In African countries, climate-resilient development and broader "good development" are inter-linked. In this context, it is not always helpful to distinguish programmes that address adaptation/vulnerability reduction from those addressing sustainable development.
- **NDCs have different levels of ownership in different countries.** Not all NDCs are fully quantified and not all form parts of longer-term development plans. AfDB has established the Africa NDC hub to help synergise development partner support for NDC implementation and for improved measurement and monitoring.
- **AfDB highlights the finance deficit for Africa to adapt to climate change and achieve low carbon growth.** It emphasises the Paris agreement principle of common but differentiated responsibilities. It also highlights the importance of adaptation and for reducing vulnerability in Africa, which is generally less attractive for private sector investment.
- **Partnerships have played a key role in knowledge products, capacity building and advocacy, but also in mobilising finance to address climate change.** They do, however, stretch administrative capacity, both at country and at the organisational level, which must be acknowledged in staffing plans.
- **Much AfDB work, in energy especially but also in agriculture, among other sectors, has focused on improving the enabling environment for private sector investment.** AfDB estimates that it must provide 75% of the USD 3 trillion needed to implement African NDCs. AfDB is supporting initiatives such as the African Financial Alliance on Climate Change to help mobilise private sector players.
- **AfDB focuses on core development priorities, including programmes with the potential for transformational change in adaptation and low carbon development.** Examples include the GGWI and the Desert to Power Initiative for the Sahel. These take time to implement, however, and the operating environment is often highly challenging.
- **By adopting its green growth framework in 2012 and by incorporating green growth and climate change under a single department, the AfDB recognises the importance of cross-sectoral integration for green, inclusive and climate-resilient growth.**

3. EUROPEAN INVESTMENT BANK

The EIB was established in 1958 as a policy-driven bank using financing operations to further EU policy goals such as European integration and social cohesion. Its shareholders are the EU member states. The EIB Group (EIBG) was formed in 2000, comprising the EIB and the European Investment Fund, the EIB's venture capital arm that provides finance and guarantees for small and medium enterprises (SMEs). With 62% of the fund's shares, EIB is its majority shareholder.

EIB is the world's largest international public lending institution, providing some USD 744 billion in finance over the 2010-20 decade, or an average of almost USD 75 billion per year. While close to 90% of EIB financing comes in the form of loans, equity investments and guarantees destined for the EU and accession candidate countries, the balance occurs in outside markets dispersed among about 150 partner countries. EIB focuses include financing infrastructure, trans-European networks, energy security, environmental improvement and sustainability, SMEs, and knowledge economy projects. The EIB favours PPP funding models.

3.A How is the EIB responding to climate change?

3.A.1 How does the EIB adhere to the normative frameworks of the 2030 Agenda and Paris Agreement?

The European Green Deal. Reflecting its parentage, the EIB is highly committed to achieving the goals of the Paris Agreement and of SDG13. In addition to the EU Bank moniker, it also refers to itself as the EU's climate bank. The backdrop for EIB's current policy guidance is the European Green Deal, announced by the European Commission in December 2019, which committed the EU to becoming climate neutral by 2050 and promised to help companies become world leaders in clean products and green technologies. The plan's ambitious, wide-ranging measures aim to significantly reduce carbon emissions and a net zero target will be given legislative force in a new climate law. Box 4 presents milestones in EIB's progress on becoming the climate bank.

Box 4: Milestones to becoming the climate bank

June 2001: European Council of Gothenburg: The EU's sustainable development strategy is endorsed and the EIB is asked to support.

July 2007: EIB issues the world's first green bonds, or climate awareness bonds, on the capital markets.

September 2010: EIB adopts its Environmental and Social Handbook setting guidelines to include environmental concerns and human wellbeing in EIB projects.

July 2013: Emissions performance standard launched for all fossil fuel generation projects screening out investments whose carbon emissions exceed a threshold level.

September 2015: EIB adopts its climate strategy after a public consultation reviews the EIBG's approach to climate action.

September 2018: EIB issues its first sustainability awareness bonds on the capital markets, intended to directly support sustainable finance.

November 2019: Adoption of an energy lending policy: After an intensive stakeholder engagement, the EIBG decides to phase out financing of unabated fossil fuel energy projects, including natural gas, by the end of 2021.

November 2020: EU member states approve the EIBG Climate Bank Roadmap 2021-25 detailing how the group will support the objectives of the European Green Deal and sustainable development outside the EU in the decade 2021-30.

Source: https://www.eib.org/en/about/priorities/climate-action/index.htm

Box 5 provides details on the European Deal and the EU Climate Law.

Box 5: The European Green Deal

On 11 December 2019, coinciding with the UN's COP25 climate summit in Madrid, the EU Commission launched the European Green Deal, a major climate package, as a roadmap for achieving EU climate neutrality by 2050, with measures to be rolled out over the coming years. The package focuses on cuts and on economic development, decoupling growth from resource use. Some of the key measures include:

- **Energy:** promote and integrate renewable energy sources, decarbonise energy-intensive industries and a sustainable products policy targeting resource-intensive industries such as textiles.
- **Buildings:** focus on renovating existing buildings to improve energy efficiency.
- **Transport:** measures to support cleaner, greener and alternative transport methods to achieve a 90% reduction of emissions from the sector.
- **Agriculture/fisheries:** measures to support biodiversity, to reduce the use of harmful chemicals, and improve food processing, packaging and waste.
- **Pollution:** planned launch of a new zero pollution plan in 2021 covering air, water, and soil, to better monitor, report, prevent and remedy pollution.

The EU Climate Law, published in draft in March 2020, is the Green Deal cornerstone and will enshrine the carbon neutrality objective by 2050. The law is still being negotiated because Poland, which still produces 80% of its energy from coal, has refused to commit to this pledge and its prime minister said that Poland had secured an exemption from the net zero target. This is not the first time that Polish interests in fossil fuels have caused difficulties for EU climate and energy negotiations: In December 2018, the EU's clean energy package was agreed with a carve-out allowing Poland to continue subsidising its coal industry. Earlier in 2020, Poland, the Czech Republic, and Hungary all refused to support the 2050 goal. In the Green Deal announcement, the European Commission stated that it would press ahead with implementation of the Green Deal, while noting Poland's refusal to do so. Poland, together with certain other Central and Eastern European countries, may further resist any short-term binding measures aimed at securing a 2030 emissions reduction target.

Source: https://www.lexology.com/library/detail.aspx?g=b18af039-49eb-484e-ac52-25820a7513e3#:~:text=The%20European%20Green%20Deal%2C%20announced,clean%20products%20and%20green%20technologies.

Energy lending policy. This new policy is a key milestone on the path to increasing the EIB's commitment to comprehensively addressing climate change.[92] In November 2019, the EIB Board adopted a decision to stop financing fossil fuel energy projects by the end of 2021. The EIB Energy Lending Policy, aimed at supporting the energy transformation further laid out its climate action and environmental sustainability strategy and focus on support for clean energy and security. Specifically, the policy change meant phasing

92 https://www.eib.org/en/publications/eib-energy-lending-policy

out support for oil and natural gas production, traditional gas infrastructure, power generation technologies (including coal, oil and gas) resulting in GHG emissions above 250 GCO_2 per kWh of electricity generated, and large-scale heat production infrastructure based on unabated oil, natural gas, coal, or peat.[93],[94]

The EIB will continue to approve gas infrastructure projects already formally under appraisal until the end of 2021, noting that switching from oil or coal to natural gas may reduce GHG emissions in the short term. It explains that it will support clean energy and security directly by reinforcing electricity networks, reducing energy demand through energy efficiency projects or through low-carbon power generation, and deploy demand response or storage at scale. Outside the EU, the EIB foresees supporting energy access in Sub-Saharan Africa using low-carbon energy systems, with an emphasis on energy transformation in other regions, in particular Asia and Latin America.

Climate Bank Roadmap. In November 2020, and in line with the political ambition of the European Green Deal, the EIB Board increased the group's level of climate and environment commitment by approving the climate bank roadmap 2021-25.[95] The decision has two broad elements. First, the EIB will increase its level of support to climate action and environmental sustainability to exceed 50% of its overall lending activity by 2025 and beyond, and thus help leverage EUR 1 trillion of investment by the EIBG over the decade ahead. This new level of commitment is designed to accelerate the transition to a climate neutral, climate-resilient and sustainable economy. Importantly, this includes a commitment for a proposal regarding a just transition (e.g., transitional support to coal miners). Second, the EIB will ensure that, "all financing activities are aligned to the goals and principles of the Paris Agreement by the end of 2020." Thus, a key principle underpinning the roadmap is that the EIB must ensure that its activities "do no significant harm" to the low-carbon, climate-resilient goals of the Paris Agreement. Working within the joint MDB Paris Alignment framework, the roadmap breaks down this commitment into four core work streams (see Figure 1).

Figure 1: Main work streams of the climate bank roadmap

93 This emissions constraint effectively excludes open and combined cycle gas turbine power generation, as even the most efficient of the latter gas electric power technologies would emit in excess of 400 GCO_2 per kWh. High efficiency combined heat-and-power schemes would likely meet this hurdle, however.

94 Unabated is generally understood as not involving carbon capture.

95 https://www.eib.org/attachments/thematic/eib_group_climate_bank_roadmap_en.pdf

Despite the roadmap's ambitious goals, civil society has criticised some aspects of it (see Box 6).

Box 6: Is EIB a climate bank yet?

While recognising that the EIB 2019 energy policy's phasing out support to fossil fuels is a turning point, some NGOs remain sceptical of its ability to deliver on the climate roadmap and to become the EU climate bank. According to the critiques, energy sector loopholes that remain in the EIB policy allow it to continue supporting nuclear energy and fossil fuel infrastructure. "What the EIB labels 'climate action' too often includes unsustainable projects. By using terms like 'green and low carbon gas' the Bank is green washing business as usual," asserted one campaigner. "It's a false promise. The potential for truly renewable gas production in the EU is only a fraction of what industry claims is possible."

The EIB's transport sector programmes also came under fire. Critics noted that the roadmap does not exclude motorway expansion projects, even for countries with very well developed road infrastructure. And while financing for airport expansion has been nixed under the roadmap, "green aviation" has been termed "another myth that risks enabling further public investment to [sic] the aviation industry on the vague promise that it might become sustainable in the future…and distracts us from addressing the root of the problem, which is the growth of the aviation sector."

Perhaps most significant were critical observations about the EIB's use of financial intermediaries, which has skyrocketed in the past 20 years and now represents one-third of its activities. "The EIB must introduce clear requirements for these intermediaries to adopt credible decarbonisation plans if they are to access public funds, and to report in a transparent manner on all operations supported by the EIB."

Apparently, it's not easy being the EU climate bank.

Source: Press articles from Counter Balance, WWF, Greenpeace, and Fossil-Free EIB

3.A.2 How do ADB responses to the climate change crisis cohere with the MS?

Collaboration with other MOs, organisations and initiatives

Befitting its origins and governance structure, the EIB has a particularly important relationship with the EC, whose involvement has been central in developing the Climate Bank Roadmap. The extensive EC feedback was instrumental in shaping its main elements and in refining the proposed approach. Follow-up discussions with the EC are to take place on the external (non-EU) dimensions of the Climate Bank Roadmap as the EIB evolves towards a fully-fledged climate bank and as a key implementer of the European Green Deal. The EIB is currently preparing a new transport lending policy for review in 2021; the EC released its strategy for sustainable and smart mobility in December 2020.

Co-operation with the MDBs and IFIs has a long tradition, particularly on co-financing EIB's non-EU operations. The EIB is also leveraging its expertise as a strong innovator in climate and development finance, participating in MDB and DFI working groups on blended finance and private resource mobilisation, among others. EIB is a leading voice in the technical working groups of climate managers from all MDBs in pursuit of a joint approach to Paris Alignment.

The EIBG continues to co-operate closely with national promotional banks and institutions and DFIs. NPBIs and DFIs, which can be either EIB clients or can co-finance projects alongside the EIB, are important partners for knowledge-sharing and leading jointly on important initiatives targeting climate and the environment or SDG implementation. The quality of the business and institutional relationships between the EIBG, national promotional banks and institutions, and DFIs has proven particularly valuable for ensuring a rapid deployment of the EIBG response to the COVID-19 crisis complementing and reinforcing national measures implemented by them.

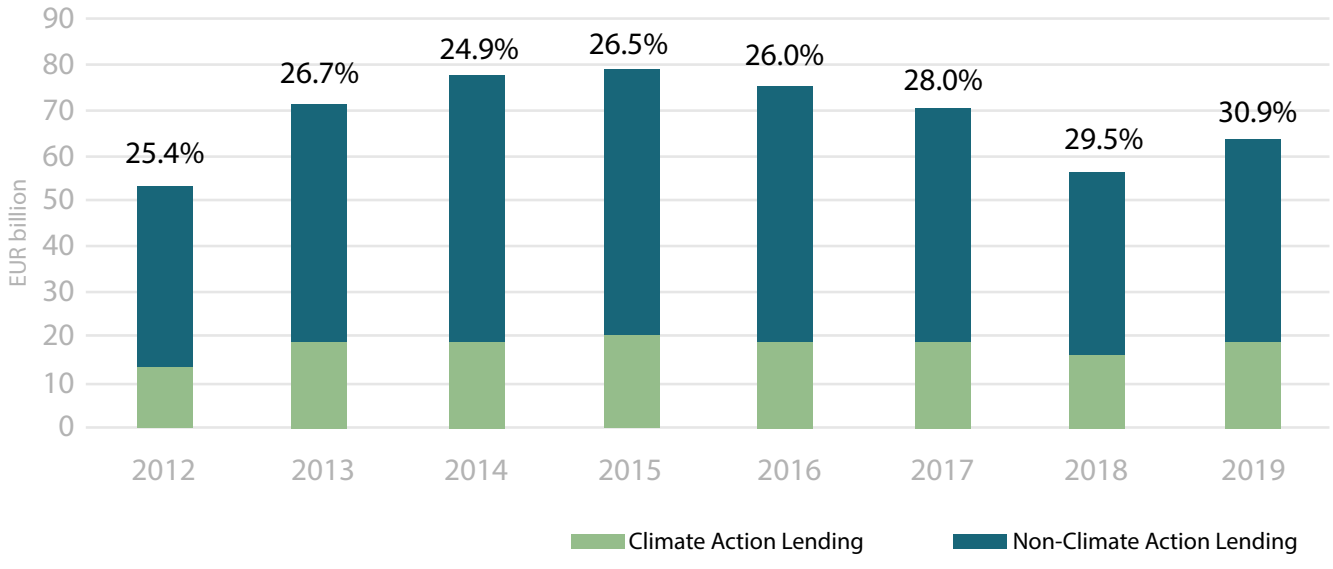
The wide availability of EU-sourced grant and trust funds makes EIB's relationships with the UNFCCC financing mechanisms, the GEF, and the GCF, less important. The EIB has not sought GEF financing. EIB became an AE for the GCF in 2016. GCF has approved only one EIB proposal to date, the Global Energy Efficiency and Renewable Energy Fund, the second generation of a fund of funds to serve as an anchor investor in renewable energy/energy efficiency investment funds and to spur co-investment. The GCF Board sanctioned a USD 250 million equity and USD 15 million grant financing package in April 2017, complementing USD 500 million in co-financed equity. However, GCF reports the project as having lapsed in June 2020.

3.B How have EIB organisational strategies, operational activities, and resource plans integrated climate change?

3.B.1 Organisational strategies

The EIB is one of the world's largest multilateral financiers of climate action, typically vying with the WBG yearly for the top spot. In 2013, the EIB set a target to maintain its climate lending at or above a 25% share of total EIB lending, an objective that was consistently met (see Figure 2).

Figure 2: EIB total climate action share of total EIB lending 2012-19



Source: EIB Climate Bank Roadmap, 2021-25

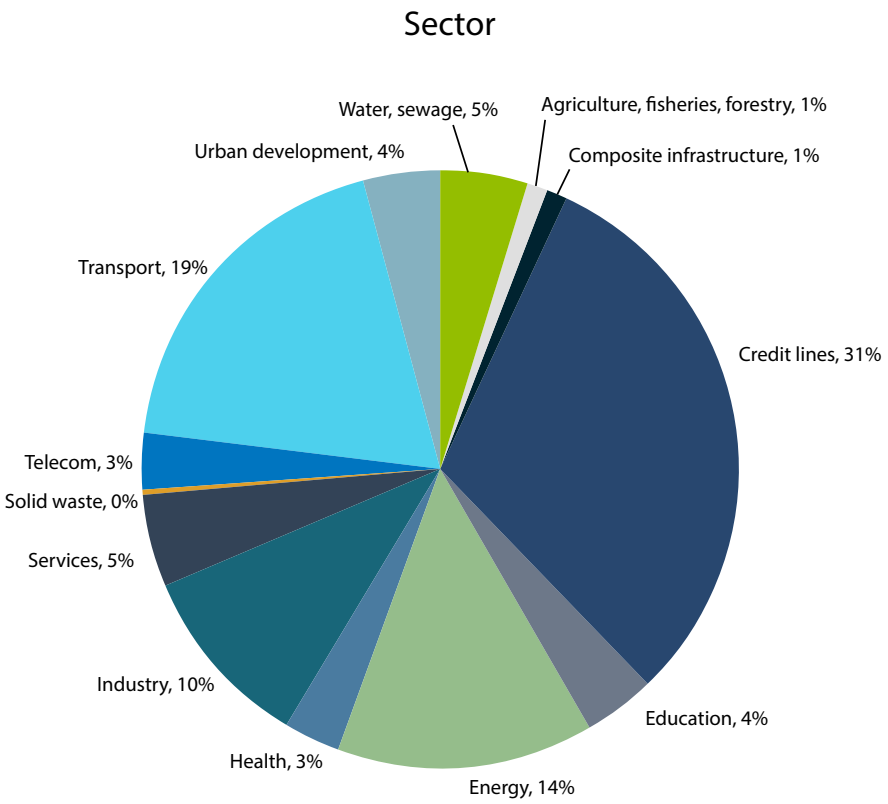
This commitment was refined in 2015, specifying that climate finance would increase to 35% of EIB investment in developing countries by 2020. The target was exceeded in 2019 with financing reaching USD 3 billion and 43%. As noted, and consistent with its undertaking under the European Green Deal, the EIB has now committed to reach a 50% share of support for "climate action and environmental sustainability" in its overall lending programme.[96]

3.B.2 Operational activities

Climate finance

Climate finance is overwhelmingly sourced from internal resources. Only a 2% share has been mobilised from external sources over the period 2015-2109. Over the same period, mitigation finance accounted for almost 95% of total climate finance and adaptation finance just over 5%. Taking EUR 16.8 million in climate finance in 2018 as a representative year, the sectoral breakdown was renewable energy (EUR 4.1 billion), sustainable transport (EUR 6.0 billion), energy efficiency (EUR 2.7 billion), CCA (EUR 1.2 billion), research, development and innovation (EUR 1.1 billion), and afforestation, forest management and other climate action projects (EUR 1.1 billion). This distribution broadly mirrors the sectoral breakdown of EIB's total financing programme (see Figure 3).

Figure 3: EIB financing operations 2010-20 by sector



Source: EIB Project Database

96 This is the precise language of the EIB Group Climate Bank Roadmap, 2021-15. Direct comparability with earlier targets is not clear.

Box 7 highlights an example of an innovative EIB project in the energy efficiency and industry FA.

Box 7: Green steel, circular steel

A blast furnace uses coal to chemically reduce iron ore to iron, which is then further processed into steel. It releases large amounts of GHG CO and CO_2 in the process. In Europe, steelmakers capture and transform these by-product gases into electricity and useful heat. But then the CO_2 is released into the atmosphere, which makes integrated steel plants a key area for decarbonisation.

The giant steelmaker ArcelorMittal Belgium is implementing a first-of-its-kind, innovative technology at a scale and complexity that does not exist anywhere else in the world. Under the EC InnovFin Energy Demonstration Projects facility, the EIB signed a EUR 75 million loan in May 2020 with ArcelorMittal Belgium to partially finance the construction of the new facilities.

The project is in line with ArcelorMittal Europe's carbon emissions reduction roadmap, which targets a 30% reduction by 2030 and carbon neutrality by 2050. The installation captures the CO- and CO_2-rich off-gases emitted from the blast furnace and transforms them into ethanol through a gas fermentation process using microbes. "As a material producer, we believe that we must focus on the circular economy and develop 'cradle to cradle' processes that use fewer primary resources and enable us to reduce carbon emissions," says Carl De Maré, ArcelorMittal Group's head of technology strategy.

There's a second step to the project. Since carbon is currently used as an input to the blast furnace as fossil coal, the company intends to partly replace this fossil carbon with waste wood treated to become bio-coal. This substitution of fossil coal by circular carbon is already a step towards the green transition. "It's a typical carbon capture and usage process," De Maré explains. "But by combining innovations, the output is so-called bioethanol: ethanol produced with carbon of biological origin. This closes the carbon circle."

Source: EIB 2020 Activity Report

Traditionally focused on infrastructure, the EIB has found it difficult to increase allocations to adaptation much above about EUR 1 billion per year without a specific delivery target. However, the advent of the Climate Bank Roadmap promises stronger efforts in this direction. According to EIB's chief climate change expert Nancy Saich,

> You can't really seriously address climate change without also addressing the problem we have with nature, where we are devaluing nature by destroying forests and polluting the oceans. Similarly, you can't seriously address the biodiversity, environmental degradation and pollution problem without thinking about climate change as well…. We need to really seriously address the adaptation goal of the Paris Agreement as well as the mitigation goal. By having a climate target and a sustainability target what we are doing is reprioritising and reemphasising the importance of land and water and we believe it will also help us do a lot more on adaptation.[97]

97 https://www.globalcapital.com/article/b1nsjhxtgmytwt/eib-2020-when-ambition-becomes-transformation

Selected country operations: Brazil and Ethiopia

EIB operations in the five case study countries were consistent with the overall portfolio composition. The India portfolio was the largest, with twenty-six large-scale operations, and the largest share by far of these was in energy and then transport, followed by credit lines and equity fund investments for SMEs. The energy projects all addressed various aspects of renewable energy and energy efficiency. The transport projects focused on constructing metro rail lines and providing rolling stock. The EIB has been a leader and innovator in green finance (see Box 8).

Box 8: EIB: pioneering green bond finance

In 2007, EIB pioneered the green bonds market by issuing the world's first climate awareness bond, allocated exclusively to climate change mitigating activities, in line with EU's sustainability objectives. In 2018, EIB's first sustainability awareness bond extended the approach to other environmental and social policy objectives. As of the end of July 2020, the EIB remains world's leading supranational of green and sustainability bonds with over EUR 38 billion raised across seventeen currencies. In total, the proceeds from the two bonds have helped finance 312 projects in 71 countries around the world.

Together with other experts, EIB experts have contributed to the EU Sustainability Taxonomy and the EU Green Bond Standard. The EU Taxonomy is a tool to help investors, companies, issuers, and project promoters navigate the transition to a low-carbon, resilient, resource-efficient economy. The EU Green Bond Standard, based on best market practices and the taxonomy classifications, aims to safeguard the robustness of the green capital markets. The EIB will contribute to the EU Platform on Sustainable Finance to develop the EU taxonomy to cover progressively wider areas of environmental and social sustainability.

The EIB has advanced the following key lessons based on its pioneering green bond experience:

- Climate awareness bonds have increased interdepartmental co-operation on climate finance, boosting organisational knowledge and improving communication on climate action.
- Product innovation has enhanced market interest and has enabled investors to engage more effectively in climate finance.
- Larger volumes of green bond issuance have kick-started a spiral process gradually improving issuers' accountability.
- Higher transparency and accountability have increased capital market awareness and started to mobilise new, dedicated financial resources.
- Lack of commonly accepted project assessment standards still limits comparability of data from different issuers.

Source: https://www.eib.org/attachments/fi_mainstreaming_epp_overview_en.pdf

The substantial Brazil portfolio included twenty large-scale operations over the decade 2010-20. In the climate sensitive sectors, support to hydropower and other forms of renewable energy was favoured along with investments to upgrade and expand power transmission and distribution, with an increasing share to renewables over time. One project dating to 2010 involved the rehabilitation and expansion of existing gas grids. The balance of projects mostly relates to SME credit lines, purchase of rail car stock, and a 2019 water and sewerage project with climate resilience components.

The Ethiopia portfolio was modest, consisting of six operations spread among SME credit lines, rural renewable energy investments, telecoms, and an urban water and sewage project. The Indonesia and Jamaica portfolios counted only one project each.

Overall, this review suggests that EIB's regular development financings in the selected countries, which are composed largely of renewable energy, energy efficiency, urban mass transit and SME support, are consistent with its commitment to mainstreaming climate action and showed indications of a positive trend over the decade examined.

Advisory activities

The EIB also operates a substantial advisory arm in close partnership with the EC, carrying out an average of 400 advisory tasks per year with about one quarter of these assignments outside the EU. The EIB believes that these advisory activities are a critical part of its value proposition, essential to supporting the generation of bankable projects and ensuring efficient implementation. However, to strengthen its development role further, EIB recognises that the quantum and range of TA will need expansion. More upstream intervention is foreseen at the strategic and policy level through market development and capacity building in support of EU programming objectives.

EIB has tabbed supporting climate action and environmental sustainability as becoming central to its advisory activity over the next few years as an integral part of its ambitions in these areas. Advisory can build on a wide range of existing actions in this field, including assignments focusing on energy efficiency, systematic climate-proofing of investment projects, and support for innovations with climate mitigation impacts. However, EIB notes that these are somewhat fragmented across various mandates and a core action to strengthen the pipeline of investment in CCMA will be to promote closer integration and transfer of knowledge and expertise across mandate boundaries. Advisory thus expects to be closely involved in ensuring the Paris Alignment of the EIB's financing activities. Specific areas of focus will therefore be the development of investment projects within the national energy and climate plans and expanding the effectiveness of intermediated loans in supporting climate investments.[98]

3.B.3 Measuring the impacts of GHG emissions reduction and adaptation

EIB began to work on carbon accounting in 2008. Pilots were systematically launched across all sectors beginning in 2009, and piloting completed in 2011. Project level data reporting of both absolute and relative emissions began in 2012 and is now routinely published in project environmental and social data sheets. External auditing of annual GHG figures started with the 2013 annual report. Methodological improvements continue in challenging areas such as forests, intermediated lending and construction emissions. Regular exchanges on methodologies take place with the IFI Carbon Footprint Working Group and the CDM team at the UNFCCC.[99]

98 https://www.eib.org/attachments/strategies/operational_plan_2020_en.pdf; https://www.eib.org/attachments/strategies/eib_group_operational_plan_2021_en.pdf

99 https://www.eib.org/attachments/fi_mainstreaming_epp_overview_en.pdf

EIB states that the shadow cost of carbon is an integral part of its Paris Alignment framework and serves as a key technical parameter in its economic assessment of projects. The current EIB carbon value of EUR 80 per tCO_2e (in 2016 EUR) is based on studies that pre-date the Paris Agreement and do not reflect the net-zero emissions target by 2050 or a 1.5˚C of global warming goal.[100] Based on a review of the latest modelling evidence, EIB has proposed to increase the applied shadow cost of carbon to EUR 250 per tonne by 2030. By the time of net-zero emissions in 2050, this shadow cost will rise to EUR 800 per tonne. EIB's latest analysis on an appropriate shadow cost of carbon will be reviewed on an annual basis and the cost adjusted accordingly (both up and down). Details of the monitoring will be reported to the board annually, and any changes will be presented to it for approval.[101]

The EIB is committed to applying best practice in risk assessment to developing the use of climate risk and vulnerability assessments. In 2019, EIB introduced its climate risk assessment (CRA) system to provide a systematic assessment of the physical climate risk in direct lending. The CRA covers sectors vulnerable to the negative effects of climate change, including agriculture, buildings, energy, forestry, transport, urban development, water and wastewater management, and industry. EIB's climate risk screening process follows a 4-step approach: (i) climate risk triage, based on country and sector; (ii) climate risk screening using analytical tools such as AWARE[102]; (iii) CRA, to project vulnerability and how this will be addressed, and (iv) monitoring and reporting on projects post-approval. Climate risks for counterparties will also be assessed and applied across EIB's credit segments and the European Investment Fund's equity portfolio. While initially used for internal monitoring and reporting, EIB states that in the future, "the [risk] scores could be used as a basis for strategic decisions (e.g., risk appetite, credit policies, credit approval) and used as an input for internal rating models and downstream processes (e.g., capital allocation)." Notably, EIB is also developing country- and sector-specific climate change risk scores, modelling both physical and transition risk for all countries where it operates.[103]

3.B.4 Incorporating COVID-19

Like other IFIs, the EIB sees the current COVID-19 crisis as a critical opportunity to build back better and greener as part of the recovery process. As of end-February 2021, the EIB had approved EUR 40.3 billion in COVID-19 recovery financing distributed among 158 projects. However, the sectoral composition of these projects – 66% in SME credit lines, 12% in health, and only a combined 14% in the GHG intensive sectors of industry and transport – reflects the reality that project identification and design in capital intensive infrastructure sectors takes time. It is therefore likely too early to tell the degree by which EIB financing will accelerate a "green recovery."[104]

100 For reference, the WB's internal carbon shadow value started at approximately USD 40 per tCO_2-e in 2020 and rises to USD 80 per tCO_2-e in 2050.

101 https://www.eib.org/attachments/thematic/eib_group_climate_bank_roadmap_en.pdf

102 http://www.acclimatise.uk.com/wp-content/uploads/2018/11/Aware_brochure_Nov2018.pdf

103 "EIB Climate Risk, Resilience and Adaptation," e3G Public Bank Climate Tracker Matrix, 2020; https://www.eib.org/attachments/thematic/eib_group_climate_bank_roadmap_en.pdf

104 https://www.eib.org/en/about/initiatives/covid-19-response/financing.htm?q=&sortColumn=name&sortDir=asc&pageNumber=0&itemPerPage=25&pageable=true&language=EN&defaultLanguage=EN&=&or=true&orCountries=true&orSectors=true&orStatus=true

3.C What EIB lessons can inform the MS approach to the climate crisis?

The EIB is a case study in the importance of consistent strategic direction, leadership, and political commitment. While shareholders certainly have varied opinions and policy positions, EIB's board is composed of governments from the same continent and the same supra-national entity: There are more East-West divides than North-South divisions (i.e., industrialised vs. developing countries) as characterise the top-level governance of other MDBs. The EIB's overarching policy guidance is unusually unified and clear, most recently consisting of the European Green Deal and the EU Climate Law. These EU directives have been efficiently and faithfully translated into a robust internal policy nexus, framed by the EIBG climate bank roadmap and, notably, a significantly more aggressive, progressive energy lending policy from a climate standpoint than other multilateral financing institutions might find acceptable due to diverging donor/recipient interests.

High client country capacity and commitment to climate change action have been key to EIB's ability to output high volumes of financing in general, and climate finance in particular. The success of the EIB in committing public resources and mobilising private capital for climate friendly investments is all the more striking in view of its modest staff complement of 3 400, a fraction of comparator IFIs (e.g., the WBG employs 15 900 staff with lower financing volumes). The quality and dedication of EIB staff are no doubt important success factors. However, EIB's facility in responding to climate mandates speaks to the high capacity of many of its client countries as EU or EU-aspiring states and the soon-to-be legally binding emissions commitments undertaken by this same majority of countries. In addition, the bulk of EIB operations are in countries with well-defined CAPs, supportive investment climates and climate policy frameworks, thriving private sectors, and high implementation capacity, leading to the early development of a solid pipeline of climate investment opportunities.

The EIB's ability to impressively scale up its portfolio of climate beneficial investments is also a testament to the advantages of having substantial grant and concessional resources at hand, quickly accessible at low transaction costs, to accelerate project identification and preparation and to provide blended finance climate solutions. These financial lubricants, usually in the form of grant funds placed at the disposal of EU and accession countries, or EIB in-house trust funds, are a big part of the solution to the problem of "money chasing projects," a term corresponding to the world view of many in the ESG and development banking world. In this conception, the present limiting factor on the flow of funds for climate-friendly investments is not a lack of investment funds, which are abundant in a world awash in liquidity, but rather a scarcity of well prepared, risk-mitigated deal flows set in solid enabling environments. This view may not be well accepted by many in the climate negotiations community who maintain that the problem is more one of "projects chasing money" due to an absolute shortage of climate finance to meet recipient country demands. However, no matter where one sits on this, there is no denying the positive impact of climate change grants and trust funds on EIB operations.

EIB's implementation of carbon pricing for investment analysis is noteworthy and bears watching. While a number of MDBs have similarly mandated the inclusion of a carbon shadow value in the economic evaluation of their projects, the EIB's enactment appears to have more prominence and policy weight and is therefore more likely to have actual sway in project selection, justification and decision-making. EIB's initial carbon value is also higher than the one chosen by other MDBs and rises faster, making it more likely that its inclusion will be a determining factor in investment choices. However, a detailed inspection would be required to see whether the instrument is having a real world impact. In particular, the baseline for emissions analysis (in the counterfactual scenario of what project would have been implemented in the absence of EIB's intervention) must be realistic and consistent with the baseline defined for economic

cash flows. If the baselines are frequently represented as high carbon intensity, then the EIB-supported alternatives will almost always be net carbon reducing and look good by comparison. In that case, the inclusion of the carbon price will amplify project economic returns – a useful signal for truly good climate projects but which may not signal high carbon projects to avoid.

The EIB faces challenges similar to those that decided the IFC to green its equity investments in financial institutions. EIB's high investment in credit line operations with relatively lighter tracking and accounting of climate impacts of the intermediated funds as used by the ultimate beneficiaries may represent a growing liability, and EIB is developing policies to address this. In response to similar concerns, IFC announced in late 2019 that it would no longer make equity investments in commercial banks, non-bank financial institutions, and insurance companies that do not have a plan to phase out investments in coal-related activities. In addition, to monitor the performance of its equity clients in reducing exposure to coal related projects, IFC will require financial institution clients to disclose publicly their aggregated exposures to coal-related projects on an annual basis on their website or in their annual report.

Table 3: EIB project portfolio in case study countries

Project Title	Country	Sector	Date	Amount in EUR million	Description
DASOS TIMBERLAND FUND II	Brazil	Agri-culture, fisheries, forestry	02/01/2013	3	Fund targeting forestry assets mainly in Europe.
BDMG CLIMATE ACTION	Brazil	Credit lines	21/10/2019	30	Framework Loan to part-finance a series of climate action projects in the state of Minas Gerais, Brazil, including solar PV, small-scale hydropower and other renewables.
BRASIL LOAN FOR SMES & MIDCAPS	Brazil	Credit lines	28/05/2015	150	The project is an intermediated loan dedicated to on-lending to SMEs and Mid-Caps, and to private sector entities of any size undertaking small-scale investments to support priority objectives under the mandate in Brazil.
BRAZIL GENDER COVID-19 RESPONSE	Brazil	Credit lines	29/12/2020	200	Loan to the Banco do Nordeste do Brasil. a regional development institution financing micro-enterprises, mainly targeted at women's empowerment, in response to the COVID-19 crisis affecting private businesses, directly impacting poverty alleviation.
BRAZIL CLIMATE CHANGE MITIGATION	Brazil	Energy	05/10/2011	500	The framework loan is to part-finance mainly small- to medium- sized projects implemented by the private sector in Brazil and focusing on climate change mitigation.
SAO PAULO POWER DISTRIBUTION - ELEKTRO	Brazil	Energy	08/04/2013	115	The project aims at the renewal and expansion of the promoter's distribution networks, reducing energy losses and enhancing the reliability and quality of electricity supply in the states of Sao Paulo and part of Mato Grosso do Sul. The project will connect some 116 000 customers to the network.

Table 3: EIB project portfolio in case study countries

Project Title	Country	Sector	Date	Amount in EUR million	Description
NEOENERGIA ELECTRICITY DISTRIBUTION II	Brazil	Energy	08/09/2016	200	Programme to modernise and expand the electricity distribution network of Coelba, Neoenergia's distribution subsidiary in the state of Bahia, Brazil.
NEOENERGIA GREEN ENERGY	Brazil	Energy	04/12/2019	250	A framework loan to finance renewable energy projects in Brazil, promoted by Neoenergia.
LATAM SUSTAINABLE POWER GENERATION	Brazil	Energy	18/06/2019	150.8	A framework loan to support the development of renewable energy projects in Brazil and Mexico, promoted by Energias De Portugal Renovaveis.
SAO PAULO POWER DISTRIBUTION II	Brazil	Energy	18/12/2015	150	The project aims to renew and expand the promoter's distribution networks, reducing energy losses and enhancing the reliability and quality of electricity supply in Sao Paulo and part of Mato Grosso do Sul States.
ENERGIAS DO BRASIL POWER DISTRIBUTION	Brazil	Energy	19/03/2010	45	Two years of the multi-annual investments in the electricity distribution networks owned/operated by Bandeirante and Escelsa with voltage ranging from 138 KV to low tension.
BDMG CLIMATE ACTION FL II	Brazil	Energy	21/10/2019	70	Framework loan to part-finance a series of climate action projects in the state of Minas Gerais, Brazil, including solar PV, small-scale hydropower and other renewables.
GAS DISTRIBUTION SAO PAULO - COMGAS	Brazil	Energy	24/11/2010	100	Rehabilitation, expansion and operation of gas distribution grids in the greater São Paulo area.
BRDE CLIMATE ACTION	Brazil	Energy	28/09/2018	45.6	Framework loan to part-finance a series of climate action projects in the southern states of Brazil, including small-scale hydroelectric power plant projects and energy efficiency and mobility projects in urban areas, which could benefit from TA under the Financing Energy for Low-Carbon Investment - Cities Advisory Facility Initiative.
ARCELORMITTAL BRAZIL - PLANTS UPGRADE	Brazil	Industry	26/03/2010	130	An investment programme with three objectives: (i) improve product mix and production balance, (ii) energy efficiency and (iii) improve environmental impacts.
TIM MOBILE BROADBAND NETWORK	Brazil	Telecom	13/07/2012	100	Investments for the geographical coverage expansion and capacity increase of TIM Celular's GSM and UMTS mobile broadband networks in Brazil. To be implemented during 2011 and 2012.
SAO PAULO ROLLING STOCK	Brazil	Transport	20/10/2014	200	Acquisition of 73 passenger trains of eight cars each to increase the performance and capacity of São Paulo's commuter railway lines.

Table 3: EIB project portfolio in case study countries

Project Title	Country	Sector	Date	Amount in EUR million	Description
BRDE CLIMATE ACTION	Brazil	Transport	28/09/2018	10.4	Framework loan to part-finance a series of climate action projects in the southern states of Brazil, including small-scale hydroelectric power plant projects as well as energy efficiency and mobility projects in urban areas, which could benefit from TA under the Financing Energy for Low-Carbon Investment - Cities Advisory Facility Initiative.
BRDE CLIMATE ACTION	Brazil	Urban develop-ment	28/09/2018	24	Framework loan to part-finance a series of climate action projects in the southern states of Brazil, including small-scale hydroelectric power plant projects as well as energy efficiency and mobility projects in urban areas, which could benefit from TA. Under the Financing Energy for Low-Carbon Investment - Cities Advisory Facility Initiative.
COPASA WATER AND SANITATION PROGRAMME	Brazil	Water, sewerage	13/12/2019	145	Structured around providing sanitation services to un-served customers, additional water connec-tions and climate resilience investment compo-nents, in Minas Gerais State.
LEASING AND LENDING FOR SMES	Ethiopia	Credit lines	18/05/2017	70	A loan for on lending to the Development Bank of Ethiopia that will on-lend directly (leasing finance) to eligible SMEs and indirectly (leasing and loan finance) through financial institutions. The loan is part of a wider SME support scheme led by the WBG.
WEDP -FINANCING FEMALE ENTREPRE-NEURS IN ETHIOPIA	Ethiopia	Credit lines	19/11/2018	30	A senior loan to the Federal Republic of Ethio-pia, acting through the ministry of finance and economic co-operation, to be lent to female entre-preneurs via MFIs.
OFF-GRID SOLAR ACCEL-ERATION	Ethiopia	Energy	26/03/2018	4	Providing access to energy to households and micro-entrepreneurs in Sub-Saharan Africa: the design, assembly, distribution, financing and installation of 7 to 10 million solar devices by the promoter over the next 2.5 years.
CEPHEUS ETHIOPIA SME FUND	Ethiopia	Services	23/11/2017	8.4	Cepheus is a local Ethiopian fund manager launching its first fund focused on Ethiopia where the private equity industry is nascent. The fund is incorporated in Mauritius and will focus on provid-ing growth capital for Ethiopian SMEs with a focus on strong job creation and sustainable financial returns.
MBIRR MOBILE BANKING SERVICE	Ethiopia	Telecom	28/11/2017	4	An equity investment of up to EUR 4m in (MBIRR Ltd. Ireland), a SME offering mobile financial services.

Table 3: EIB project portfolio in case study countries

Project Title	Country	Sector	Date	Amount in EUR million	Description
URBAN WATER SUPPLY PROGRAMME	Ethiopia	Water, sewerage	03/12/2015	40	Expanding and rehabilitating urban water supply and sanitation infrastructures in small and medium towns in Ethiopia.
GEF SOUTH ASIA GROWTH FUND II	India	Agri-culture, fisheries, forestry	10/05/2019	3.3	Equity participation in GEF South Asia Growth Fund II, a USD 150 million regional fund targeting SMEs promoting energy efficiency, environmental actions and a circular economy in agricultural projects, renewable energy and the efficient use of water in India and Bangladesh.
SBI LOAN FOR SMES AND MID-CAPS	India	Credit lines	19/01/2015	100	To finance investments promoted by SMEs and mid-Caps in India contributing to private sector development and other priorities under the mandate such as social and economic infrastructure, and CCMA.
SBI LOAN FOR SMES AND MID-CAPS	India	Credit lines	25/06/2014	55	To finance investments promoted by SMEs and mid-caps in India contributing to private sector development and other priorities under the mandate such as social and economic infrastructure, and CCMA.
SBI LOAN FOR SMES AND MID-CAPS	India	Credit lines	28/11/2014	45	To finance investments promoted by SMEs and mid-caps in India contributing to private sector development and other priorities under the mandate such as social and economic infrastructure, and CCMA.
EXIM BANK OF INDIA CLIMATE CHANGE	India	Energy	07/03/2013	150	Framework loan supporting renewable energy and energy efficiency investment projects that contribute to climate change mitigation.
IREDA-RENEWABLE ENERGY AND ENERGY EFFICIENCY	India	Energy	10/03/2018	150	A framework loan to support small to medium-scale capital investments in renewable energy. Expected to fund PV and on-shore wind technologies.
YES BANK (INDIA) CLIMATE ACTION	India	Energy	08/01/2019	87.4	A framework loan of up to USD 200 million to part-finance renewable energy projects in India.
GEF SOUTH ASIA GROWTH FUND II	India	Energy	10/05/2019	15.9	Equity participation in GEF South Asia Growth Fund II, a USD 150 million regional fund targeting SMEs promoting energy efficiency, environmental actions and circular economy in agricultural projects, renewable energy and the efficient use of water in India and Bangladesh.

Table 3: EIB project portfolio in case study countries

Project Title	Country	Sector	Date	Amount in EUR million	Description
IREDA-RENEWABLE ENERGY AND ENERGY EFFICIENCY	India	Energy	21/02/2014	200	Framework loan to fund small and medium-scale capital investments in renewable energy and energy efficiency in India.
NEEV II	India	Energy	22/12/2020	8.8	Equity participation in an investment fund targeting SMEs that contributes to the achievement of SDGs and climate sustainability in India.
SREI CLIMATE CHANGE	India	Energy	23/07/2013	40	Framework loan supporting renewable energy and energy efficiency investments that contribute to climate change mitigation. Expected to finance mainly wind, solar, hydropower and high efficiency cogeneration projects.
ICICI BANK CLIMATE CHANGE	India	Energy	25/08/2011	200	Framework loan supporting investments projects that contribute to climate change mitigation.
INDIA SOLAR POWER	India	Energy	31/01/2017	199.3	Financing for corporate project developers in India to implement solar PV investments in India.
YES BANK (INDIA) CLIMATE ACTION	India	Energy	31/01/2018	80.3	Framework loan of up to USD 200 million to part-finance renewable energy projects in India.
IIFCL ENERGY SUSTAINABILITY & CLIMATE ACTION	India	Energy	31/03/2014	200	Framework loan to support renewable energy and energy efficiency investment projects that contribute to climate change mitigation.
NEEV II	India	Services	22/12/2020	7.5	Equity participation in an investment fund targeting SMEs that contributes to achieving the SDGs and climate sustainability in India.
BANGALORE METRO RAIL PROJECT LINE R6	India	Transport	05/10/2017	300	Construction of a 23 km metro line and purchase of a fleet of about 96 metro cars in Bangalore, Karnataka, in southern India.
BHOPAL METRO RAIL PROJECT	India	Transport	20/12/2019	250	Construction of two lines of metro totalling 31 km with 30 stations and purchase of a related fleet of metro cars in Bhopal, Madhya Pradesh in central India.
PUNE METRO RAIL PROJECT	India	Transport	22/07/2019	200	Construction of two metro lines totalling of 31.25 km and 30 stations, and the purchase of a related fleet of metro cars.
BANGALORE METRO RAIL PROJECT LINE R6	India	Transport	28/09/2018	200	Construction of a 23 km metro line and purchase of a fleet of about 96 metro cars in Bangalore, Karnataka, in southern India.

Table 3: EIB project portfolio in case study countries

Project Title	Country	Sector	Date	Amount in EUR million	Description
KANPUR METRO PROJECT	India	Transport	29/12/2020	150	Construction and operation of an urban metro rail transit system in Kanpur totalling 32.4 km with 30 stations.
LUCKNOW METRO RAIL PROJECT	India	Transport	30/03/2016	200	Construction of a 23 km metro line and purchase of a fleet of about 80 metro cars in Lucknow, Uttar Pradesh, in northern India.
LUCKNOW METRO RAIL PROJECT	India	Transport	31/03/2017	250	Construction of a 23 km metro line and purchase of a fleet of about 80 metro cars in Lucknow, Uttar Pradesh, in northern India.
KANPUR METRO PROJECT	India	Transport	31/08/2020	200	Construction and operation of an urban metro rail transit system in Kanpur totalling 32.4 km with 30 stations.
GEF SOUTH ASIA GROWTH FUND II	India	Water, sewerage	10/05/2019	3.3	Equity participation in GEF South Asia Growth Fund II, a USD 150 million regional fund targeting SMEs promoting energy efficiency, environmental actions and circular economy in agricultural projects, renewable energy and efficient use of water in India and Bangladesh.
NEEV II	India	Water, sewerage	22/12/2020	8.8	Equity participation in an investment fund targeting SMEs contributing to the achievement of SDGs and climate sustainability in India.
DASOS TIMBERLAND FUND II	Indonesia	Agriculture, fisheries, forestry	02/01/2013	3.4	Fund targeting forestry assets mainly in Europe.
JAMAICA TOLL ROAD	Jamaica	Transport	18/02/2011	39.1	Construction of 17 km of tolled multi-lane limited access carriageway to the west of Kingston (Sandy Bay to Four Paths in central Jamaica) as a further phase of "Highway 2000", an on going 35-year Build Operate and Transfer concession contract.

Source: EIB.

4. THE GREEN CLIMATE FUND

4.A How is the GCF responding to climate change?

4.A.1 How does the GCF adhere to the normative frameworks of the 2030 Agenda and Paris Agreement?

The GCF was set up to combat climate change, as per its governing instrument, approved at COP 17 in December 2011 in Durban, South Africa:[105]

> …to make a significant and ambitious contribution to the global efforts towards attaining the goals set by the international community to combat climate change" by promoting "the paradigm shift towards low emission and climate-resilient development pathways by providing support to developing countries to limit or reduce their GHG emissions and to adapt to the impacts of climate change, taking into account the needs of those developing countries particularly vulnerable to the adverse effects of climate change.

The GCF is guided by the principles and provisions of the convention as a part of its financial mechanism, and serves the Paris Agreement (1/CP.21).[106] The initial strategic plan for the GCF in 2016 and updated strategic plan 2020-23 fully integrate the goals of the Paris agreement and lay out its role in supporting their achievement.[107],[108]The GCF's work as an enabler of the SDGs has been highlighted at high level since they were adopted.

Efforts are being made to integrate both normative frameworks into operational procedures. For example, the integrated results framework management is designed to measure, among other things, its support to the implementation of the objectives of the UNFCCC and the Paris Agreement; all indicators are cross-referenced with the SDGs. [109] The board has not yet agreed to adopt it.

4.A.2 How do GEF responses to the climate change crisis cohere with the MS?

As part of the UNFCCC Financial Mechanism, the GCF contributes to structuring the MS on climate change. It operates under the guidance of the COP and channels resources through other MO. As of April 2021, the GCF had 103 entities approved for accreditation (of which 86 have signed a legal agreement and 74 have fully completed their accreditation process).[110] Other than the IMF, all MOs analysed during this study are GCF AEs.

The GCF governing instrument states, "The Fund shall operate in the context of appropriate arrangements between itself and other existing funds under the Convention, and between itself and other funds, entities, and channels of climate change financing outside the Fund"(§33), and calls on the board to develop "methods to enhance complementarity between the activities of the Fund and the activities of other relevant bilateral, regional and global funding mechanisms and institutions, to better mobilise the full range of financial and technical capacities." (§34)

105 https://www.greenclimate.fund/sites/default/files/document/governing-instrument.pdf
106 https://unfccc.int/sites/default/files/resource/docs/2015/cop21/eng/10a01.pdf
107 https://www.greenclimate.fund/sites/default/files/document/initial-strategic-plan-gcf.pdf
108 https://www.greenclimate.fund/sites/default/files/document/gcf-b27-21.pdf
109 https://www.greenclimate.fund/document/gcf-b27-inf14
110 https://www.greenclimate.fund/about/partners/ae, visited on 12 April 2021 GCF identifies board meetings by number, i.e. B.17.

The COP 21 encouraged the board to improve complementarity and coherence with other institutions as per its governing instrument (decision 7/CP.21, paragraph 26)[111]. The GCF therefore developed an operational framework on complementarity and coherence that it adopted at its 17th board meeting in June 2017.[112] This four-pillar framework seeks to strengthen complementarity and enhance the coherence of operations and processes across climate finance:

- **Pillar I**: board-level discussions on fund-to-fund arrangements
- **Pillar II**: enhanced complementarity at the activity level
- **Pillar III**: promotion of coherence at the national programming level
- **Pillar IV**: complementarity of delivery of climate finance through an established dialogue

The GCF reports on framework implementation at every COP as part of its annual report. In 2018, in its first report, the GCF states, "significant progress has been made since B.17. Important work remains to meet the outcomes sought for 2019 and beyond:[113]

- **Programming**, with early efforts demonstrating potential for exploring joint programming options that enhance efficiencies and parallel financing representing an area with significant potential to strengthen the programmatic efforts across the climate finance landscape.
- **Simplifying procedures**, for example by fast-tracking projects as funds have fast tracked AEs, further investigating the sequencing of activities where the scope and modalities for funds can be better aligned and taking advantage of the fact that some funds are more experienced in local engagement or pioneering activities, which can inform the programmatic approach of other funds, and vice versa. For example, programming inputs developed by one fund can be used by others (e.g., GEF country programming documents and CIFs investment plans informing GCF country programmes), and assist in identifying linkages to scale up and support country ownership.
- **Knowledge management**, including via joint seminars and other learning exercises, and communication of inputs to countries to clarify roles and areas of beneficial complementarity among the funds..
- **Capacity-building**, the funds all provide different forms of support for upstream capacity building and/or readiness, each with their respective workshops and trainings and project preparation support. Potential exists to enhance complementarity and coherence by better considering the division and co-ordination of labour among the funds.
- **Thematic synergies** can be pursued where operations of the different funds overlap, such as technology, NAPs and forest and landscapes; and exploring different approaches and lessons learnt in engaging private sector and non-state actors.
- **Feedback and information sharing**, Engaging in inputs to the work of the other funds – programming documents and other material – has begun and is a useful process to better understand each institution's operations and proactively foster complementarity.

111 https://unfccc.int/resource/docs/2015/cop21/eng/10a02.pdf#page=10
112 https://www.greenclimate.fund/document/gcf-b17-08
113 https://www.greenclimate.fund/document/gcf-b20-05

The report provides an overview of the GCF's collaboration with other climate funds (see Table 4).

Table 4: GCF collaboration with climate funds, 2018

	Global Environment Facility (GIF)	Adaptation Fund (AF)	Climate Investment Funds (CIF)
Co-ordination of support	Exchange of information on capacity-building support, project preparation and thematic areas (NAPs, etc.)	Collaboration on synergies for capacity-building support for DAEs	Collaboration on analysis of interactions in funding proposals to apply lessons to programming
Programming and accreditation	Enhance understanding of interactions in funding proposals to apply lessons to programming	Enhance understanding of interactions in funding proposals to apply lessons to programming	Discussion and facilitation for countries and entities wishing to transfer work developed under CIFs to GCF
	Pilot initiative to foster synergies between GEF-7 and GCF programming	Ongoing collaboration on accreditation, including fast tracking	
M&E	Collaboration on streamlining and harmonizing M&E approaches and methodologies	Information sharing on M&E approaches and methodologies	Information sharing on M&E approaches and methodologies
Policies and procedures	Provision of information requested in the development of GCF policies and procedures, including for benchmarking	Provision of information requested in the development of GCF policies and procedures, including for benchmarking	Provision of information requested in the development of GCF policies and procedures, including for benchmarking
Learning	Joint outreach event at COP 24 on experience and challenges in advancing synergies in the climate finance landscape	Engagement in Adaptation Futures 2018 conference	Engagement in evaluation and learning activities of the CIFs, including through the GCF IEU

Source: https://www.greenclimate.fund/sites/default/files/document/gcf-b20-05.pdf

The second report on framework implementation to the COP in 2019 updates the GCF's collaboration with climate funds (see Table 5).[114]

Table 5: GCF collaboration with climate funds, 2019

	Global Environment Facility (GEF), including the Least Developed Countries Fund	Adaptation Fund (AF)	Climate Investment Fund (CIF)
Co-ordination of support	GEF and GCF are implementing a "coordinated engagement" initiative that seeks to support countries to move towards coordinated engagement in national programming and project development, on scaling up investment from the GEF to GCF through country-specific bilateral engagement and on coordinating in-country engagement with pilot countries	The GCF and AF are collaborating in promoting a community of practice for direct access entities (DAEs) as a means to provide an avenue for knowledge exchange, learning and experience sharing, collaborations and peer support around programming climate finance	GCF engages with the CIF by pursuing complementarity at national programming/investment planning and at activity level, including in follow-up to a decision adopted at the twentieth meeting of the Board requesting the Secretariat to "collaborate with the CIF Administrative Unit (AU)"
Programming and accreditation	Enhance understanding of interactions in funding proposals to apply lessons to programming including through the coordinated engagement initiative, with six countries actively engaging to proactively seek synergies between the two funds	Both funds are exploring options for whether the AF can implement projects funded by the GCF through modalities which are yet to be defined by the GCF Board and the AF Board	Discussion and facilitation are under way for countries and entities wishing to transfer work developed under CIF to GCF
	Ongoing collaboration on accreditation, including fast tracking		Promote synergies with CIF Investment plans (IPs)
Learning and information sharing, including on motoring and evaluation and policies and procedures	The GCF is developing a proposal for collaboration among climate funds, which aims to create a collaboration space for regular exchange of current practices, and the better understand each funds experiences in the areas of results management, performance indicators, and methodologies for measuring impact of the portfolios, and well as operational efficiency of the organisations. The Secretariat; expects to be able to launch the initiative in the upcoming six months.		

Source: https://unfccc.int/sites/default/files/resource/cp2019_03a01.pdf

An example of enhanced co-ordination, the GCF-GEF-co-ordinated engagement initiative (pillar III) was launched in 2018 at the sixth GEF assembly to support countries to move towards co-ordinated engagement in national programming and project development and to scale up investment from GEF to GCF through country-specific bilateral engagement. In 2019, 21 countries were engaged in the initiative.

Further progress included revisions across the GCF operational modalities to address complementarity and to clarify the value of GCF activities in the climate landscape (pillar II). For example, the readiness proposal template was revised to request additional context about how such support would build on and leverage prior and current support from the GEF, LDCF and AF, and from the GCF Readiness Programme

114 https://unfccc.int/sites/default/files/resource/cp2019_03a01.pdf

provided by other funding sources, including bilateral agencies and MDBs. Also at the activity level, the GCF is participating in an initiative with other climate funds to learn and compare experiences on measuring performance and establishing indicators and methodologies for measuring impact.

The GCF applies some requirements to its AEs

In decision B.10/06, paragraph (i), the board decided that "all international entities, as an important consideration of their accreditation application, shall indicate *how they intend to strengthen capacities of, or otherwise support, potential subnational, national and regional entities to meet, at the earliest opportunity, the accreditation requirements of the Fund in order to enhance country ownership and that they report annually on these actions*". International access AEs are asked to report annually on these actions, as per the MAF and the AMA.

Paragraph 35 of the GCF Monitoring and Accountability Framework, adopted in decision B.11/10, to advance the goal of the GCF to promote the paradigm shift towards low emission and climate-resilient development pathways in the context of sustainable development states, "the re-accreditation decision by the Board will take into account the Secretariat and Accreditation Panel's (AP) assessment of the extent to which the accredited entity's overall portfolio of activities beyond those funded by the GCF has evolved in this direction during the accreditation period."[115]

Implementation of the second requirement is proving challenging (technical difficulties assessing the AEs portfolio, for example, defining its baseline).

4.A.3 How has greater global attention to climate change affected the GCF's work?

The GCF has strong political links with the UNFCCC negotiations. It reports to the COP and works under its guidance as a part of the UNFCCC Finance Mechanism, and because it was created with the expectation of becoming a significant channel for the 100 billion USD in annual climate finance that developed countries have committed to mobilise by 2020. As such, it is a key element of trust building between developed and developing country parties to the UNFCCC. It has come under significant political pressure ahead of and since COP 21 to operationalize extremely rapidly to show that it could deliver.

Its initial resource mobilisation (IRM) in 2014 amounted to USD 8.3 billion received in different currencies (of USD 10.3 billion in pledges).[116] Its first replenishment culminated at the Paris Pledging Conference in October 2019, where 27 countries pledged a combined USD 9.78 billion, with many developed European countries (Germany, France, the United Kingdom, Norway and Sweden) doubling their IRM contribution in local currencies (others such as Australia and the USA did not participate and major contributors such as Japan and Canada did not raise their contributions).[117] To date (April 2021) the GCF approved 173 projects, committing USD 8.3 billion and disbursing USD 1.8 billion.[118] In comparison, the GEF has committed approximately USD 6.5 billion to the climate change FA since its creation in 1991.

115 https://www.greenclimate.fund/sites/default/files/document/gcf-b22-inf15_0.pdf
116 https://www.greenclimate.fund/document/gcf-b24-11
117 https://climatefundsupdate.org/publications/the-green-climate-fund-2/
118 https://www.greenclimate.fund/projects/dashboard, visited on April 12th, 2021

How agile and effective is the reaction to greater demand?

The increased global attention and concern on climate change and the central role of the GCF in this space made it necessary to operationalise very rapidly. The GCF's record shows that it reacted effectively and with agility. Accelerated operationalization has led to learning while doing and GCF is still working on filling policy gaps and enhancing its operational procedures and policies.

The work of its independent evaluation unit (IEU) has made major contributions in this regard. The Forward-Looking Performance Review carried out ahead of the first replenishment made the following four recommendations: [119]

- Strengthen criteria, business processes and implementation structures that are likely to better address differentiated developing country needs and capacities, with a focus on direct access entities. Within this, develop key performance indicators and targets to track transparency, speed, predictability, impact and innovation.
- Develop a strategic plan focusing the GCF on being a global thought leader and climate policy influencer that establishes its niche commensurate with innovation and impact.
- Re-emphasise adaptation while recognising (and leveraging) the role of new actors in mitigation (and their special needs) and strengthen the role of the private sector in an overall symbiotic ecosystem of financial instruments and modalities that enable better access, transparency, and predictability for entities, and foster innovative solutions and global climate impact for countries.
- Clarify and re-examine the separation of supervision and management in the GCF and consider delegating authority to emphasise agency, responsibility and urgency in delivering on developing country climate needs (predictably, transparently, speedily, innovatively and with impact).

Progress has been made on these recommendations, for example, the updated strategic plan 2020-23, but work continues on the integrated results framework for example.[120] Other IEU evaluations have covered the Readiness and Preparatory Support Programme, the Results Management Framework, the GCF accreditation approach, the Simplified Approval Program, GCF support to SIDS, the Country Ownership Approach or Environmental and Social Safeguards and the Environmental and Social Management System, paving the way for important enhancements to GCF procedures.

Given the importance of the IEU's work, some parties noted with regret the board's inability to adopt a GCF Evaluation Policy at its 28th meeting (16-19 March 2021) or to launch the replacement process for its head, who left in September 2020. The board subsequently approved the evaluation policy and the revised policy on the prevention and protection from sexual exploitation, sexual abuse, and sexual harassment in May 2021 in an in-between board meeting decision.

119 https://ieu.greenclimate.fund/evaluation/fpr2019

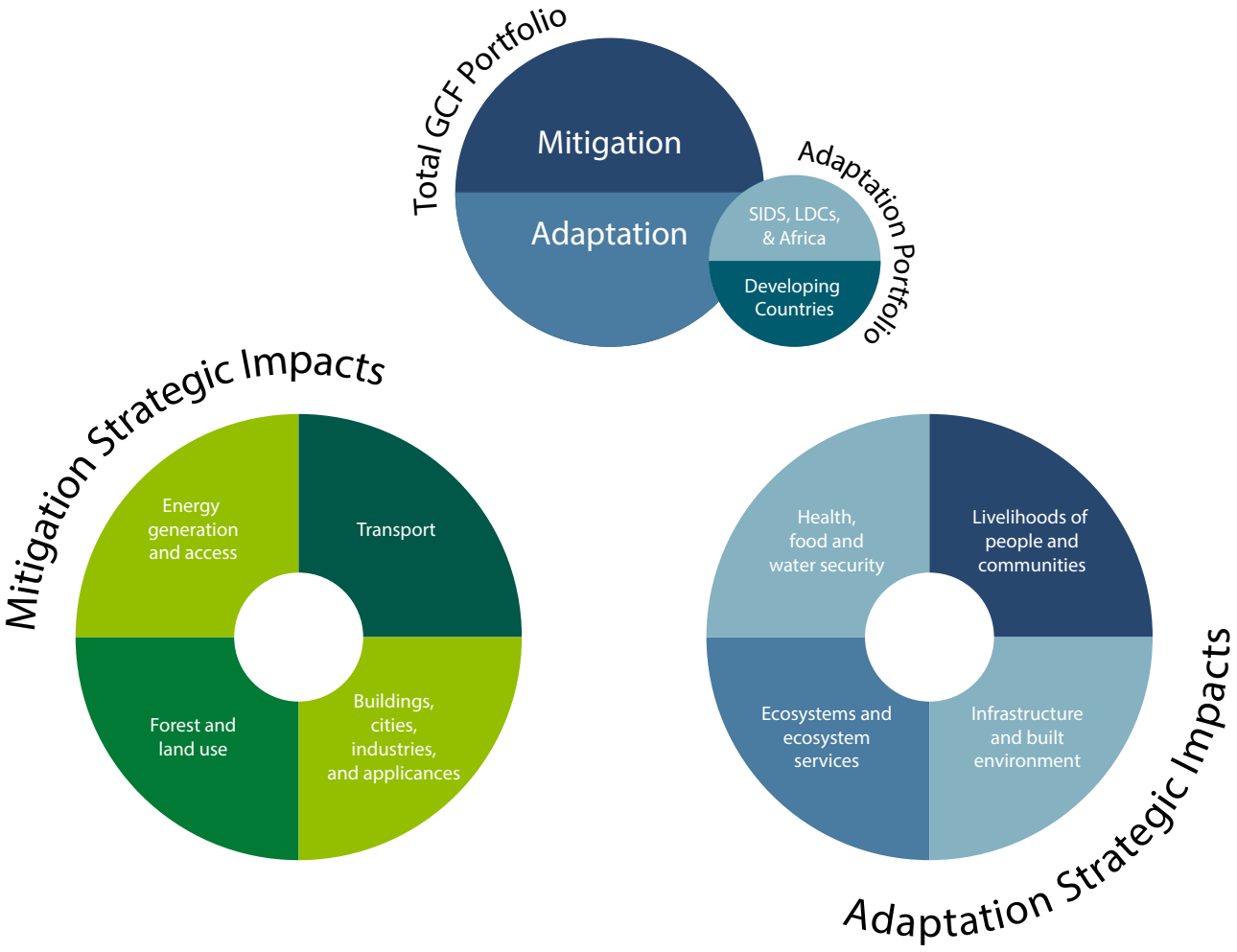
120 https://www.greenclimate.fund/sites/default/files/document/gcf-b27-21.pdf

4.B How have GCF organisational strategies, operational activities, and resource plans incorporated climate change?

4.B.1 Organisational strategies

The GCF seeks to balance funding for mitigation and adaptation initiatives. Half of the AF is earmarked for particularly vulnerable developing countries such as LDCs, SIDS, and African countries. It aims to impact eight mitigation and adaptation results areas (see Figure 4).

Figure 4: GCF mitigation and adaptation portfolio



Source: https://unfccc.int/files/adaptation/application/pdf/gcf_nap_malawi27feb.pdf
https://www.greenclimate.fund/sites/default/files/document/gcf-b20-inf15.pdf

The updated portfolio targets and allocation parameters guide investments for the first GCF replenishment programme period (2020-23).[121] (Table 6)

Table 6: Portfolio targets

GCF-1 allocation parameters	GCF-1 portfolio targets
Balance between mitigation and adaptation, and portfolio impact	50/50 (over time), while seeking to deliver portfolio-level mitigation and adaptation outcomes that exceed average IRM outcomes[a]
Adaptation allocation for vulnerable countries (including the LDCs, SIDS and African states) taking into account their urgent and immediate needs	Floor of 50% of adaptation allocation, while aiming to build on IRM outcomes[b]
Supporting developing country mitigation activities	Supporting mitigation activities that help respond to the urgency of action to keep global average temperature rises to well below 2°C and to pursue efforts to limit them to 1.5°C
Geographic balance	Appropriate geographical balance
Funding channelled through direct access entities	Significantly increase relative to the IRM[c]
Private sector engagement	Maximise fund-wide engagement with the private sector, including MSMEs, ensuring the allocation to the private sector facility exceeds 20%
Mobilised private sector finance at the portfolio level	Significantly increase relative to the IRM[d]
Readiness and preparatory support	Sufficient support for readiness and preparatory activities associated with the above

[a] IRM outcomes as of 31 December 2019: 460 $MtCO_2e$ reduced/avoided for each USD billion invested in mitigation; 166 million beneficiaries with increased resilience for each USD billion invested in adaptation.
[b] IRM outcome as of 31 December 2019: 69% of adaptation allocation in grant equivalents allocated to the LDCs, SIDS and African States.
[c] IRM outcome as of 31 December 2019: 11% of funding in grant equivalents allocated to direct access entities.
[d] IRM outcome as of 31 December 2019: IRM private sector co-financing 1:3. Mobilised private finance will be reported when data becomes available.

4.B.2 Operational activities

The REDD+ pilot programme for result-based payments: a noteworthy recent GCF programme. Open since 2017, with a total budget of USD 500 million (for a set price of USD 5 per tCO_2e), this pilot programme enables countries that have completed the first two phases of REDD+ to apply for payments for results generated from end-2013 to end 2018.[122] To date, the board has approved applications from six countries (Colombia, Indonesia, Paraguay, Chile, Ecuador, Brazil) with more in the pipeline.

121 https://www.greenclimate.fund/document/initial-investment-framework
122 https://www.greenclimate.fund/redd

GCF developed investment criteria when it began operating in 2015, linked to its mandate.[123]

Impact potential: programme/project potential to contribute to achieving objectives and result areas:

- **Mitigation impact:** Contribution to the shift to low-emission sustainable development pathways (indicative assessment factors examples: Expected tonnes of carbon dioxide equivalent to be reduced or avoided, degree to which activity avoids lock in of long-lived, high-emission infrastructure assessment).
- **Adaptation impact:** Contribution to increased climate-resilient sustainable development (ex: Expected total number of direct and indirect beneficiaries, (reduced vulnerability or increased resilience); number of beneficiaries relative to total population, particularly the most vulnerable groups).
- **Paradigm shift potential:** Degree to which the proposed activity can catalyse an impact beyond a one-off project or programme investment, covering potential for scaling up and replication, and having its overall contribution to global low-carbon development pathways consistent with a temperature increase below 2 degrees C (mitigation only), Potential for knowledge and learning, Contribution to the creation of an enabling environment, to the regulatory framework and policies, to climate-resilient development pathways overall, consistent with a country's CCA strategies and plans (adaptation only).
- **Sustainable development potential:** Wider benefits and priorities, covering environmental, social, and economic co-benefits, and gender-sensitive development impact.
- **Recipient needs:** Vulnerability and financing needs of the beneficiary country and population, covering country vulnerability (adaptation only), vulnerable groups and gender aspects (adaptation only), economic and social development level of the country and the affected population, absence of alternative sources of financing, need for strengthening institutions, and implementation capacity.
- **Country ownership:** Beneficiary country ownership of and capacity to implement a funded project or programme (policies, climate strategies and institutions), covering the existence of a national climate strategy, coherence with existing policies, the capacity of AE or executing entities to deliver, engagement with civil society organisations and other relevant stakeholders.
- **Efficiency and effectiveness:** Economic and, if appropriate, financial soundness of the programme/project, covering: cost-effectiveness and efficiency regarding financial and non-financial aspects, amount of co-financing, programme/project financial viability and other financial indicators, industry best practices.

The investment criteria were further refined to better guide AE applications by defining a set of indicators that were approved at the twenty-second board meeting in February 2019.[124]

This process of clarification continues. The evaluation of the GCF's environmental and social safeguards and environmental and social management system, published in February 2020 by the IEU, assessed the investment criterion of "sustainable development potential" as subject to interpretation internally and recommended clear guidance on it.[125]

123 https://www.greenclimate.fund/sites/default/files/document/investment-framework-criteria-assessment.pdf

124 https://www.greenclimate.fund/document/investment-criteria-indicators

125 https://ieu.greenclimate.fund/sites/default/files/evaluation/ess-report-executive-summary.pdf

Regarding quality-at-entry, the same evaluation stated,

> …the GCF's current environmental and social management system and safeguards are not customised or relevant to the GCF's overall mandate. The GCF needs to urgently develop and adopt a new set of policies that reflect positive environmental, social and climate value in its actions and investments. Specifically, it needs to address gaps found in the interim standards related to climate value, human rights, gender equity and consent, among others. The GCF also needs to develop tailored operational guidelines and develop a strategy around impact investing.[126]

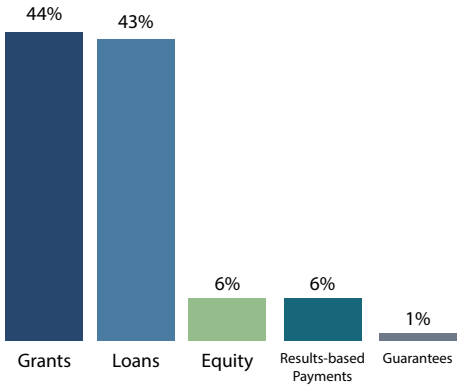
Filling these policy gaps is a work in progress, for example, with the ongoing participatory development of a comprehensive set of 11 sector guides across the fund's 8 results areas due to be completed by mid-2021 and meant to guide and inform the development of high-quality funding approvals, and the current developing of the GCF's own environmental and social safeguards.[127] Progress is being made on both.

- **The revision of the interim ESS standards will consider the gaps identified in the IEU evaluation that are suited to its climate mandate in consultation with internal and external stakeholders.** The board work plan for 2020-23 included adopting the new ESS a reviewing the current ESS, as well as stakeholder consultations on the scoping, to develop an initial draft ESS by year's end.
- **A recognised criterion for assessing investment, sustainable development potential was considered during the review of funding proposals.** The programming manual developed by the secretariat provides clearer guidance on this criterion, including guiding questions and good examples of applications in approved funding proposals.

Private sector engagement

GCF uses a variety of financial instruments to enable the public and private sectors to blend different sources of finance in order to deliver and mobilise climate-friendly investments. Notably, GCF promotes private sector investment through concessional instruments – low-interest and long-tenor project loans, lines of credit to banks and other financial institutions, equity investments, and risk mitigators such as guarantees, first-loss protection, and grant-based capacity-building programmes (see Figure 5).

Figure 5: GCF portfolio



Source: Portfolio dashboard, 12 April 2021

126 https://ieu.greenclimate.fund/sites/default/files/evaluation/geval-note-ess.pdf
127 https://climatefundsupdate.org/publications/the-green-climate-fund-2/

As of April 2021, 33% of the funds committed by the GCF are directed to private sector projects. GCF financing captures the evolving trend of blending public and private funds. Its public sector-targeted projects also include concessional sovereign loans, which can be on-loaned, often through national development banks, to direct private sector investments in sustainable, climate-focused directions.

As established by the governing instrument, the GCF has a Private Sector Facility (PSF) that seeks to promote the participation of private sector actors in developing countries, in particular local actors, MSMEs, and local financial intermediaries. The instrument establishes that the facility will also support activities to enable private sector involvement in SIDS and LDCs and that the PSF operations will be consistent with a country-driven approach.

PSF funds help mobilise other private sector finance, including from private and institutional investors, and encourage climate co-investment across all spectrums of climate action. The PSF has four objectives:

- Address the perceived dearth of "bankable" projects through its readiness programme and its PPF, which help build institutional capacity and enabling policy environments.
- Foster innovation by supporting climate technology incubators and accelerators, and deploying patient capital.
- De-risk large investment projects through blended and structured finance.
- Align financial flows with sustainable development areas of climate action.[128]

The GCF IEU published the forward-looking performance review in 2019 with recommendations for the PSF.[129]

- **Take more risk and focus more on innovation and replication.** The PSF should optimise its high-risk mandate appetite to finance pioneering and replicable projects. Its portfolio could include start-up technologies, climate-focused venture capital, early-stage funds, blended finance, or adaptation activities such as micro-finance or (micro) climate insurance.
- **Increase awareness and focus on innovation in sectors.** The PSF needs to be structured less according to financial instruments and more according to sectors seeking solutions. PSF experts can advise on private sector initiatives that help achieve a division of mitigation and adaptation project objectives. The knowledge of sector experts is a potentially rich source of inspiration for innovative sectoral initiatives.
- **Increase financing in local currencies using guarantees and reimbursable grants.** Recognising that currency risk constrains private sector investment in many developing countries, a GCF local currency facility could help manage un-hedged currency risk and/or guarantee financial credit lines.
- **Establish an internal innovation hub focused on early-stage climate innovations.** GCF could consider fostering high-risk investments in small, untested, innovative climate actions with the potential to be scaled up or be transformational. It could be a specialised internal fund that allows for academic, corporate and other partners to finance directly in game-changing activities.
- **Increase the focus on adaptation projects.** The PSF can develop a better balance between mitigation and adaptation by designing a request for proposal for private sector adaptation projects that signals GCF seriousness about attracting commercial funding to adaptation. This may require working with incubators, research entities, and small- and medium-sized entrepreneurs.

128 https://www.greenclimate.fund/sites/default/files/document/gcf-means-business_0.pdf
129 https://ieu.greenclimate.fund/sites/default/files/evaluation/fpr-brief-private-sector.pdf

- **Reform accreditation for private sector actors.** Simplify accreditation generally for private sector actors, and especially for national DAEs; for example, by better assessing the relevance of policies for actors and allowing grace periods for policy development. In addition, allow for project-specific accreditation for proponents that win requests for proposals or direct investment in these projects.
- **Increase the focus on engaging with private sector actors.** Invest in more active engagement with national and international commercial banks and institutional investors such as pension funds, insurance companies and sovereign wealth funds to unlock their capital and encourage private (co)-investment at scale in low-carbon, climate-resilient development.

The updated GCF strategic plan 2020-23 identified one strategic objective to, "significantly increased portfolio level mobilisation achieved through the GCF contributions to private sector projects under the PSF, relative to the IRM."[130]

To do this, the GCF private sector strategy 2020-23 will be developed, focusing on the following:

- Strengthening capacity among NDAs, AEs, and local private sector partners to support private investments in climate activities, including supporting climate-oriented local financial systems, green banks, markets and institutions.
- Enabling climate transformation in key sectors and regions in accordance with national objectives.
- De-risking and addressing barriers, including currency fluctuation, to mobilise private sector resources at scale for climate investments in developing countries, including a greater role in supporting CCA.
- Consistency with guidelines for enhanced country ownership and for being country driven, and ensuring a strong focus on local private sector actors, including by linking international and local actors operationally.

Key actions in this area of the GCF business model include:

- **Identifying and increasing private sector engagement potential across results areas:** GCF sectoral guidance will identify more specifically the potential for a greater role for the private sector and barriers to its participation.
- **Strengthening engagement capacity, investment environments and climate-oriented financial systems:** the GCF will deploy readiness activities and promote knowledge exchange to support country-led efforts to increase engagement with private sector actors, especially the local private sector, in supporting planning, programming and designing investment; formulate supportive policy/regulatory settings; support the development of the climate investment capabilities of national financial institutions, and consider ways to further align financial flows with countries' low GHG and climate-resilient development, building on the expectations included in the GCF's accreditation process and exploring partnerships with long-term institutional investors.
- **Structuring to mobilise private sector resources at scale:** GCF will assess the current portfolio in 2021 to evaluate the capacity of the current structure and how it is delivering through the current financial instruments. This will help identify strategic investment partners and build an understanding of how partners can work through the flexible instruments and current structure to create de-risking vehicles and use blended finance to catalyse new private investment. It will also work on structuring options to attract larger institutional sources of capital through aggregation and securitisation, and improve the affordability of technologies.

130 https://www.greenclimate.fund/document/updated-strategic-plan-green-climate-fund-2020-2023

- **Supporting private sector engagement in all developing countries, including LDCs and SIDS:** the GCF will also consider recommendations made by the private sector advisory group (PSAG) to help build markets for climate action in LDCs and SIDS, focusing on market activation, enabling environments and facilitating the aggregation of demand for mitigation and adaptation services.
- **Enhancing the private sector's role in adaptation:** the GCF will consider the PSAG's recommendations on engaging the private sector in adaptation action, by supporting adequate enabling environments, deploying blended finance to test innovative business models for climate-resilient products and services, and promoting the use of climate data to inform private-sector decision-making. The PSAG will be engaged to support this work.
- **Executing a private sector outreach plan:** the secretariat will develop a private sector outreach plan to implement the strategy, including targeted engagement with the domestic private sector, communications and the GCF Private Investment for Climate Conference.
- **Staged development of PSF modalities:** to be successfully carried out, the private sector strategy will require developing modalities in stages, starting with an accreditation strategy and readiness for private sector engagement. In 2021, the GCF will undertake the board work plan review of PSF modalities and further evaluate options for additional PSF modalities.
- **The PSF is already working with AEs to implement parts of the updated strategic plan including the use of equity to mobilise private finance at scale in new and innovative sectors.** Recent examples include the equity commitments made at B.26 and B.27 for the Sub-national Climate Fund (FP151[131]) and the Green Growth Equity Fund (FP164), each of which will mobilise private and institutional capital at scale across over 40 countries. Examples currently being developed include three private equity funds targeting B.30 and B.31 for innovative adaptation technologies, coral reefs and green bond guarantees to help mobilise capital across new sectors and instruments, and two additional private equity funds for B.31 and B.32 in agro-ecology and technology innovation.

4.B.3 Measuring the impact of GHG emissions reduction and adaptation

All GCF funding proposals must detail their impact potential.

Mitigation

Proposals must include an estimate of emission reductions in tCO_2eq, the methodology used, the emissions baseline, and the sources of emission reductions. The GCF Programming Manual states, "Although no specific set of methodologies has been proposed for use by GCF to calculate GHG emission reductions, it is expected that AEs can apply available and credible GHG methodologies and provide sufficient information on the results of such calculations and underlying assumptions."[132]

For example, the CDM under the UNFCC includes over 250 methodologies and is considered good practice for establishing baselines and quantifying GHG emission reductions. Other methodological approaches following the approach provided in the International Panel on Climate Change (IPCC). The 2006 IPCC Guidelines for National Greenhouse Gas Inventories and 2019 IPCC Guidelines Refinement may also be applied like gold standard methodologies, GHG accounting methodologies of various MDBs, or methodologies of bilateral mechanisms established under Article 6 of the Paris Agreement, such as the Joint Crediting Mechanism. GCF may provide further guidance on the methodological approaches in the future.

131 FP numbers identify projects and are searchable on the web.

132 https://www.greenclimate.fund/document/programming-manual

Adaptation

Proposals must include the number of beneficiaries (direct and indirect, and the percentage of total beneficiaries relative to the total population), identify current or future climate impacts, and anticipated adaptation benefit streams. However, a study has shown that the number of direct and indirect beneficiaries, the core indicator for adaptation, was not applied consistently across projects as AEs used different methods and underlying assumptions to identify that number.[133]

In 2019, the secretariat began a systematic review of the GHG emissions reductions of all mitigation and crosscutting projects. This included hiring an external consultant to review and assess the emission reduction potential of all mitigation and crosscutting project approved prior to B.24 (a total of 63 projects). Currently, the secretariat is discussing the outcomes of this assignment with relevant AEs and plans to make public a recalculated mitigation impact after completing the consultation with AEs.

The secretariat also established Climate Impact Assessment Network (C-NET) in 2020 as an inter-divisional network to tightly integrate climate science in GCF operations, including systematically assessing mitigation impact and establishing a climate rationale in adaptation projects. C-NET is headed by a chief climate scientist who works with other C-NET members across the GCF and with external partners on strengthening the application of climate science in GCF-funded activities and overall GCF operations. C-NET is currently working on developing a board paper (tentatively scheduled for B.30) on strengthening the steps for establishing the climate rationale in the GCF and has drafted detailed mitigation and adaptation guidelines. These documents should allow for further streamlining the understanding of climate rationale in the GCF and by external partners.

Finally, the secretariat is developing a project appraisal manual to clarify GCF terminology and expectations for project developers. It should be shared for comments during the summer of 2021.

4.B.4 Incorporating COVID-19

At the discourse and knowledge production level, the GCF has positioned itself as a key partner for green stimulus packages and recovery for a more resilient future. It has organised several events on the subject, and published the paper, "Tipping or turning point: Scaling up climate finance in the era of COVID-19," which explores initiatives to close the gap in the infrastructure investment required to foster low-emission, climate-resilient pathways that the COVID-19crisis threatens to widen.[134,135]

At the operational level, the GCF has integrated COVID-19 recovery:

- In readiness activities: recognising that the readiness programme can, within the scope of its approved objectives and modalities, offer an avenue for developing countries to rapidly access resources for green resilient recovery planning measures and initiatives, dedicated attention has been given to how countries can be supported in developing priority green resilient stimulus measures and in exploring new types of financing structure to capitalise them. GCF is considering how to help governments engage with creditors, design debt swaps for climate action, and identify appropriate climate invest-

133 https://www.fs-unep-centre.org/wp-content/uploads/2020/04/GCFMonitor-edition2-final.pdf

134 For example, the online event, "At a turning point: Catalysing Climate Finance in the era of COVID-19" aiming to inform the work of the High-Level Initiative on Financing for Development in the Era of COVID-19 and Beyond, convened by Canada, Jamaica, and the UNSG in July 2020.

135 https://www.greenclimate.fund/sites/default/files/document/gcf-working-paper-tipping-or-turning-point-scaling-climate-finance-era-covid-19.pdf

ments. Similarly, as part of its support to NDC enhancement efforts, notably for COP 26, the GCF readiness programme is also helping countries to integrate NDCs into stimulus packages to secure financing for critical NDC priorities.

- In its programming, by supporting the development and approval of initiatives under its existing project pipeline that can be immediately submitted for review and approval at upcoming board meetings to contribute to a green resilient recovery in developing countries. Based on the GCF investment criteria, notably for paradigm shifting and sustainable development potential, the secretariat identified a set of indicators (expected positive economic, social, health and environmental impacts) that maximise the co-benefits of a green recovery within the context of the COVID-19 pandemic to guide the development of GCF work programmes.

In addition, four transitions will be actively pursued to promote and encourage green stimulus measures:

- Promoting green resilient construction projects that can deliver higher returns on public expenditures.
- Advancing the accelerated deployment of affordable renewable energy solutions to support the delivery of key services and advance development co-benefits.
- Encouraging investments in climate-resilient agriculture to strengthen food security, preserve livelihoods and generate new employment opportunities across supply chains.
- Advancing natural capital investments.

The priorities will be pursued all year long in line with existing mandates for maintaining a balance between mitigation and adaptation investments.

- In dedicated initiatives to maintain climate ambition, such as an emergency fund to support SMEs working on off-grid solar and options for a sovereign-backed green resilient stimulus guarantee facility aimed to support access to capital markets.

4.C What GCF lessons can inform the MS response to the climate crisis?

After operating for only about five years, the impact of GCF's funded projects cannot yet yield lessons.

The GCF is the largest multilateral climate fund and as such is subject to important political expectations, for example regarding country ownership and access, balance between adaptation and mitigation, and support for the most vulnerable countries such as LDCs, SIDS and African countries. However, little political attention has been placed on the GCF playing a co-ordination role in the MS.

Rapid operationalization has left important gaps in essential GEF policies and frameworks that must be filled if GEF is to achieve full potential and highest added value. Priorities include:

- Sharpened articulation of the GCF's general investment guidelines with detailed terms and conditions for GCF public and private sector grants, loans, equity investments and risk guarantees to address concessionality and incremental and full cost approaches.
- Finalising a revised GCF accreditation and partnership strategy.
- Guidelines for a programmatic funding approach.
- Finalising an environment and social management system for GCF by developing the its own environmental and social safeguards.

- Finalising an integrated results management framework adjusting and integrating existing results management and performance measurement frameworks with indicators, results tracking tools and methodologies for accounting for paradigm-shifting adaptation and mitigation results.[136]

Adopting, replicating, and scaling up lessons learnt and good practices

GCF reports yearly on funding proposals as part of its reporting on its complementarity and coherence framework:

- Scaling up experiences from other climate funds
- Scaling up activities implemented with the support of other climate funds
- Implementing lessons learnt in initiatives financed by other climate funds
- Attracting co-financing from another climate fund.

Examples include the UNDP project, Scaling up Multi Hazard Early Warning Systems and the Use of Climate Information in Georgia scales up pilot activities and achievements of the UNDP Developing Climate Resilient Flood and Flash Flood Management Practices to Protect Vulnerable Communities of Georgia project, financed by AF and the GEF, and EBRD's Scaling Up Hydropower Sector Climate Resistance project, which represents the scaled-up second phase of the CIFs' PPCR. Its indicative total financing package is expected to amount to USD 208 million, of which USD 75 million has already been committed by the CIFs' PPCR, EBRD, and the EBRD trust fund for phase I.

136 https://us.boell.org/sites/default/files/2020-12/CFF11%20-%20GCF%20-%20ENG%202020%20-%20Digital.pdf

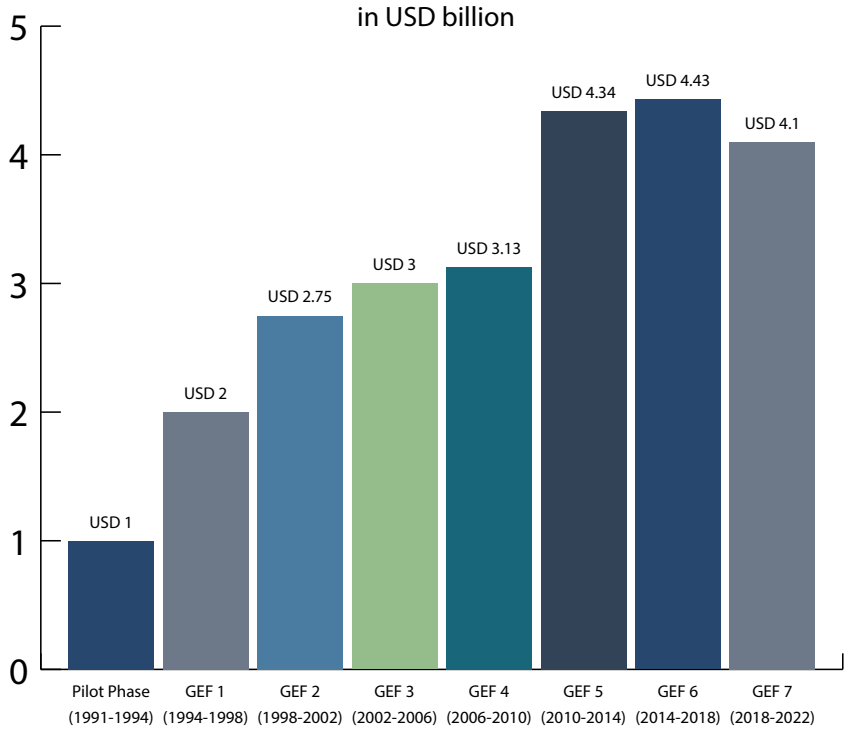
5. THE GLOBAL ENVIRONMENTAL FACILITY

5.A How is the GEF responding to climate change?

The GEF has been an official financial mechanism for the UNFCCC since 1994, when it came into force. Established at the first Rio Summit to address global environmental problems requiring the concerted action of global stakeholders, the GEF now includes 183 member nations. It raises funds from donor countries to provide grants and other forms of concessional finance to developing countries on issues ranging from biodiversity and climate change, to land degradation, to international waters and chemicals. The GEF is also the financial mechanism for several other multilateral environmental agreements and as such is unique among MOs in its mandate to support activities across global environmental conventions.

In 2001, the 194 signatories to the Climate Change Convention, established two distinct funds focusing on adaptation, to be managed by the GEF: (i) the LDC Fund to help the poorest countries deal with growing adaptation challenges, and (ii) the Special Climate Change Fund (SCCF), available to all vulnerable developing countries to address a wide range of adaptation and technology transfer needs including long- and short-term adaptation activities in WRM, land management, agriculture, health, infrastructure development, fragile ecosystems, including mountainous ecosystems, and integrated coastal zone management. The GEF has been replenished seven times since it was founded.[137] GEF member countries have provided a total of USD 24.75 billion in trust funds, of which USD 6.4 billion was allocated to the GEF trust fund's climate change FA; USD 1.625 billion was mobilised by UNFCCC developed member states for the LDCF, and USD 354 million for the SCCF (see Figure 6).

Figure 6: GEF replenishment cycles



Source: https://www.thegef.org/about/funding

137 www.thegef.org

5.A.1 How does the GEF adhere to the normative frameworks of the 2030 Agenda and Paris Agreement?

In 2015, the Paris Agreement reaffirmed the GEF as a financial mechanism for the Climate Convention and urged it to align its programming for the next replenishment period (GEF-6) with climate priorities identified by countries in their Initial NDCs.[138] In response, the GEF has provided support for the preparation of National Mitigation Action Plans (NAMAs) with resources from its climate change FA; the preparation of National Adaptation Plans of Action (NAPAs) in the neediest countries with help from the LDCF to identify priorities in sectors such as water, agriculture and food security, health, DRM, infrastructure, and fragile ecosystems, and more recently for preparing and updating NDCs. During COP 21, GEF was asked to support the establishment of a special fund to strengthen developing country institutions in transparency-related activities, including reporting on their NDCS. This was in line with Article 13 of the Paris Agreement and the need for transparency and accountability in reporting on progress achieved against a country's national contributions: CBIT was operationalized and mainstreamed in GEF-7.[139] The GEF sees the CBIT and with its support for implementing the NDCs and related SDGs through support from its trust funds (from the climate change FA and other FAs) as major contributions to implementing the Paris Agreement.

5.A.2 How do GEF responses to the climate change crisis cohere with the MS?

Collaboration with other MOs, organisations, and initiatives

Partnerships are the GEF's *modus operandi*. As a fund for the Climate Convention and several other multilateral environmental agreements, the GEF allocates trust funds to countries through 18 GEF-accredited agencies to implement and execute specific programmes and projects eligible for finance.[140] The GEF's business model is that of a lean secretariat focused on prioritising and programming its diverse trust funds across FAs and objectives to maximise their impact at scale. Its 18 implementing partners provide a range of expertise, geographic coverage, and in-country relationships, financing options (including loans, concessional finance, equity investments and risk guarantees), networks with thought leaders and change-makers, as well as access to key policymakers. These partners can jointly implement and help leverage the impact of any single GEF grant many times over, support innovation and catalyse transformation. While UNEP has relied on and received a major share of GEF programming in the past, UNDP has taken the lead in the last two GEF replenishment periods, with 32% of the share of GEF resources in GEF-7. The WBG is next at 16.5%, and UNEP is third at 14.7%.[141]

Among the regional development banks, the AfDB, whose constituents count among the most vulnerable in the world, has used GEF grant resources to help African countries build climate adaptation and resilience into their development plans. As reported in its 2015 annual report, AfDB, "with a large part of its GEF portfolio funded by the Least Developed Countries Fund (LDCF) and the SCCF, the AfDB ranked first among GEF MDB agencies for implementing CCA projects, demonstrating its capacity to mobilise

138 https://www.thegef.org/news/new-financial-initiative-support-paris-agreement

139 http://www.thegef.org/topics/capacity-building-initiative-transparency-cbit

140 UNDP, UNEP, WBG, ADB, AfDB, EBRD, IDB, FAO, IFAD, UNIDO, Development Bank of Latin America, West African Development Bank, Development Bank of Southern Africa, Foreign Economic Co-operation Office of the Ministry of Environmental Protection, China, Brazilian Biodiversity Fund, Conservation International, World Conservation Union, World Wildlife Fund-US. See https://www.thegef.org/partners/gef-agencies for a summary of the comparative advantage of each as a GEF partner.

141 *GEF-7 Replenishment Programming Directions*, GEF/R.7/19, delivered at the Fourth Meeting for the Seventh Replenishment of the GEF Trust Fund, 25 April 2018. As of 30 June 2020, the GEF had received the full pledged amount by donors of USD 61.6 million. "Report of the GEF to the 26th Session of the Conference of the Parties."

resources for African countries." Over the 2007-15 period, GEF financing totalled USD 260 million, of which 38% was for adaption, which was leveraged by USD 2.4 billion of co-financing. The report went on to say that the GEF FAs are perfectly aligned with the new AfDB High5 development priorities, including Light Up and Power Africa and Feed Africa.[142],[143] Five years later, the AfDB continues to be a leader among IFIs in the percentage of overall investments to supporting adaptation within the climate change arena.[144] More about the GEF's support for adaptation through improved food security, "Fostering Sustainability and Resilience for Food Security in Sub-Saharan Africa, "is discussed later in the report with reference to the "integrated approach" across FAs.

GEF co-ordinates with dedicated climate funds

In 2019, the GEF announced its intention to enhance collaboration and co-ordination with other climate funds under the UNFCCC, including the GCF, the CIFs and the AF. A recent study on enhancing synergies among these four climate funds found that "leveraging comparative advantages of various climate funds can be a boon to climate action" but requires deliberate co-ordination at the country level among implementing entities at every stage of the investment cycle. At the same time, it found that co-ordination was hindered by fragmented responsibilities among the focal points for different funds, inadequate knowledge management to share successes and good practices in accessing and implementing climate funds, and differences in climate fund processes and procedures that can complicate efforts to blend or combine funds. To address some of these constraints, the GEF and other fund managers are developing standard eligibility criteria and indicators for measuring results across funds. A special working group and planning framework has been formed to this end.[145]

5.A.3 How has greater global attention to climate change affected the GEF's work?

Since the Paris Agreement, the GEF has mobilised additional resources for climate change action by more deftly deploying its own trust funds and leveraging more co-financing from its implementing partners. It has also sought to engage the private sector more effectively as a source of climate finance and to catalyse innovation in its programming. Table 7 shows how GEF support for climate change mitigation activities has changed over time. Figures for GEF-7 are only at the halfway mark for the period.[146]

142 https://www.afdb.org/en/the-high-5/light-up-and-power-africa-%E2%80%93-a-new-deal-on-energy-for-africa

143 http://www.afdb.org/en/the-high-5/feed-africa/

144 Joint Report on MDB Climate Finance, August 2019.

145 "Climate Funds Collaboration Platform on Results, Indicators and Methodologies for Measuring. https://www.climateinvestmentfunds.org/sites/cif_enc/files/knowledge-documents/synergies_brief.pdf

146 https://www.thegef.org/council-meeting-documents/report-gef-26th-session-cop-unfccc

Table 7: GEF climate mitigation project* phases (in USD million)

Phase	Technology transfer/ innovative low-carbon technologies	Energy efficiency	Renewable energy	Transport/ urban	AFOLU	SGP	Mixed & others	Grand total
GEF-5 (2010-2014)	9 46.3 215.2	83 382.5 3 747.4	47 117.8 855.7	20 110.9 2 082.7	25 121.5 870.9	3 65.3 44.5	15 88.6 490.4	202 932.9 8 306.8
GEF-6 (2014-2018)	37 221.5 1 787.9	38 199.1 4 355.7	56 206.6 2 022.5	26 124.2 2 554.1	68 506.8 2 338.6	10 159.0 160.5	17 105.7 1 046.1	252 1 522.8 14 265.5
GEF-7 (2018-2022)	12 23.8 171.4	27 114.1 1 282.6	32 169.0 2 778.3	32 249.1 3 542.6	78 645.7 4 408.4	13 76.0 105.3	25 90 681.2	219 1 376.7 13 969.7

**excluding EAs and CBIT Trust Fund projects*
Source: Report of the GEF to the 26th session of the COP to the UNFCCC

From its inception in 1994 through 30 June 2020, the GEF "has supported 1008 projects on Climate Change Mitigation with more than USD 6 689.7 million in GEF funding, which has in turn leveraged USD 57 193.7 million from different sources, including GEF agencies, national and local governments, multilateral and bilateral agencies, the private sector, and civil society organisations."[147]

On adaptation, the GEF has ramped up and accelerated access to resources under LDCF and SCCF funds. From its inception to 30 June 2020, the LDCF approved USD 1 505.9 million for 305 projects, programmes, and enabling activities, with an additional USD 6 529.4 million in co-financing (including two global NAPA projects and 51 national NAPAs). The LDCF received USD 192.3 million in new pledges in the reporting period. During this same period, the SCCF supported a total of 86 projects with USD 349.8 million in GEF funding and approximately USD 2 660.5 million in co-financing, which is not required.[148]

5.B How have GEF organisational strategies, operational activities, and resource plans incorporated climate change?

5.B.1 Organisational strategies

Since the Paris Agreement, the GEF has mobilised greater resources for climate change, and increased the co-financing required to access GEF resources over time (currently USD 8.50 for every dollar of GEF support). It has also adjusted its strategic focus on those levers most likely to catalyse transformation and deliver impacts at scale in the climate change arena. This shift has been most evident in the programming directions mandating how replenishment funds at each 4-year interval will be allocated across FAs, with deliverables for each. Taking its cues from both COP guidance and successive IPCC reports urging an accelerated global response to rising GHG emissions and climate change impacts, the GEF ramped up its innovation and risk-taking. It identified new pathways to mainstream climate action across its FA, such that today 84% of GEF investments include climate-related finance. A look at some of the main transitions in the GEF's funding and programming around climate change from GEF-5 to the present (2010-21) will

147 https://www.thegef.org/council-meeting-documents/report-gef-26th-session-cop-unfccc
148 *Ibid*

shed light on how the GEF's strategies on climate have shifted to better align with the Paris Agreement.

5.B.2 Operational activities

GEF 5 (2010-14): In GEF-5, the climate change mitigation strategy (with CCFA trust funds) focused on: (i) promoting innovation and technology transfer, (ii) demonstrating the systemic impacts of mitigation options, and (iii) supporting the creation of enabling environments for broad-based mainstreaming of mitigation in development. Investments were expected to directly reduce 2 $BtCO_2e$ equivalent and catalyse the reduction of an additional 7 billion tonnes by transforming markets.[149] In 2011, the GEF partnered with UNIDO to launch the Global Cleantech Innovation Programme (GCIP), to encourage clean-tech entrepreneurial solutions in SMEs to, "promote affordable and scalable solutions enabling…countries to leapfrog to cleaner, more resilient economies."[150] By supporting an enabling policy framework that encourages SMEs and entrepreneurs to design clean-tech solutions, and adopting a competitive accelerator grants model, GCIP catalysed investments in the most promising start-up technologies and helped them transition from innovation pilots to commercial enterprises.[151] The GCIP continued through GEF-6 and was rated as being cost-effective and highly relevant by the GEF Independent Evaluation Office as an incubator for clean technology and low carbon job growth. Based on these results, the GCIP was expanded and introduced as an impact programme in GEF-7, with a total programme cost of nearly USD 18 million in GEF support and USD 634 million in co-financing.[152]

Adaptation, GEF-5 saw the beginning of efforts to tackle real-time impacts of climate change in such sectors as agriculture and food security, water management, DRM, coastal zone management. The GEF-5 Adaptation Programme responded to COP guidance and the needs of vulnerable developing countries in its GEF-5 Programming Directions and aimed for complementarity and coherence with other climate change funds.[153] During this period, more than USD 746.7 million was committed for adaptation in 176 projects, over two-thirds of which were to support implementation of the priorities laid out in the NAPA. This investment generated co-financing of USD 2.09 billion.

GEF-6 (14 February 2018): This replenishment period was the beginning of effectively mainstreaming climate change across GEF FAs and introducing innovation in mitigation and adaptation through a series of pilots on the integrated approach funded through set-asides from other thematic (focal) areas that could be programmed to be synergistic with climate resources to deliver broad benefits: (i) Taking Deforestation out of Commodity Supply Chains; (ii) Sustainable Cities – Harnessing Local Action for Global Commons, and (iii) Fostering Sustainability and Resilience for Food Security in Sub-Saharan Africa, (USD 60 million GEF: Biodiversity and Climate Change (USD 10 million each) and Land Degradation (USD 40 million). Total project costs come to USD 805 361 640).

The GEF Sustainability and Resilience for Food Security in Sub-Saharan Africa Programme was scaled up from an earlier pilot with several child projects. These sought to blend investments in natural capital

149 GEF-5 Programming Directions.

150 https://www.unido.org/our-focus-safeguarding-environment-clean-energy-access-productive-use-climate-policies-and-networks/global-cleantech-innovation-programme

151 https://www.gefieo.org/sites/default/files/ieo/evaluations/files/cleantech-programme-2018_2.pdf

152 The programming document in GEF-7 summarised the results achieved since the GCIP's inception as follows: "A small sample of just fourteen (14 out of 1000) GCIP alumni indicated that they had raised USD 22 million in investment and created over 300 jobs while delivering 600 000 tCO_2e benefits between 2011 and 2017. The leveraging effect of the GCIP is demonstrated by the fact that these 14 companies have such high growth prospects that they project that by 2020, they would have generated revenues of over USD 263 million, created over 1200 new jobs and generated over 4.8 million tonnes of GHG emissions savings. This was achieved from a total budget of USD 12 million invested across 9 countries."

153 www.thegef.org

and the flow of ecosystem services with support to smallholder farmers to capture them so as to create resilient, sustainable food production systems. The pilot aimed to demonstrate how global environmental benefits could be achieved in the form of CCMA while enhancing food security and the resilience of smallholder communities at the local level. It was aligned with the African Union's (AU) Comprehensive African Agricultural Development Programme and its pillars on food security and land and water management. Under the scaled-up programme, a total of USD 106 359 290 in GEF trust funds was approved with USD 805 361 640 in co-financing.[154] The geographic focus spanned the Sahel to southern Africa to the Horn of Africa and the Eastern Highlands. The IAs included IFAD, UNDP, FAO, WB, IFAD + UNIDO.

The GEF-6 evaluation, which covered the period 2014-18, assessed how well the GEF met the objectives set out for it by the GEF Council during that replenishment period.[155] The evaluation also reported on the perceived relevance of the GEF in the changing landscape for environmental finance since the Paris Agreement, and included an assessment of LCDF and SCCF climate finance, concluding, "The LDCF [is] highly effective, impactful, and providing value for money. The SCCF has been evaluated by the GEF Independent Evaluation Office as an "ideal incubator" to test and refine innovative concepts."[156] Interestingly, with respect to promoting transformational change, the evaluators further observed that the GEF would need to: (i) adopt systems approaches in addressing drivers of environmental degradation (hence the multi-FA thrust); (ii) promote policy and regulatory reform, and (iii) build institutional capacity in recipient countries.

The evaluation also noted that the climate change FA accounted for 62% of GEF private sector projects in GEF-6, the largest of any FA, and called on the GEF to do even more to engage the private sector in GEF-7 by increasing its use of non-grant instruments.[157] Valued at USD 100 million in the GEF-6 pilot, the NGIs included loans, guarantees, risk mitigation through venture capital, and equity investments. These de-risking tools and support for innovation through demonstration pilots that the private sector can subsequently scale were further developed in GEF-7.

GEF 7: The GEF-7 period (2018-22) coincides with a key phase in the implementation of the Paris Agreement. Under GEF-7, recognising the need for greater focus and impact considering looming tipping points on key environmental drivers, the GEF-7 Programming Directions noted that GEF programming should:

- Become more selective; focus GEF resources on areas where significant impact can be achieved.
- Mobilise and strengthen diverse coalitions of actors, especially to leverage the private sector.
- Respond more effectively to country priorities, as expressed in INDCs and consistent with country commitments to multilateral environmental agreements.

154 https://www.thegef.org/project/food-iap-fostering-sustainability-and-resilience-food-security-sub-saharan-africa-integrated

155 *The GEF in the Changing Environmental Finance Landscape: 6th Comprehensive Evaluation of the GEF: Final Report* 2018. GEF Independent Evaluation Office.

156 *The GEF in the Changing Environmental Finance Landscape: 6th Comprehensive Evaluation of the GEF: Final Report* 2018. GEF Independent Evaluation Office.

157 *Ibid.*

In light of this, "the single largest programme in GEF-7 focuses on food and land-use transformation, where there is enormous potential for both climate mitigation and adaptation."[158] To have a transformational impact, the GEF-7 introduced the concept of impact programmes (IP), designed to provide integrated solutions to complex environmental problems. These would serve to:

> …help countries pursue holistic and integrated approaches to promote transformational change in key economic systems in line with countries' national development priorities. IPs hold the potential to enhance synergies, integration, and impact of GEF investments… and to crowd-in private sector funding.[159]

Three IPs were introduced to support convention priorities, which were identified as follows:

1. Food, Land Use and Restoration: land-based and value chain GHG mitigation (sequestration and avoidance)
2. Sustainable Cities: avoiding urban-related GHG emissions
3. Sustainable Forest Management: protecting carbon-rich stocks; avoiding forest GHG emissions

Under the first priority, comprehensive land use planning is designed to prepare a transition to a more sustainable food and land-use system in a country or region. This IP has been instrumental in supporting landscape approaches to improved natural resources management in agriculture, food security, water, and climate resilience in Brazil, India, and Ethiopia.

The second IP regarding sustainable cities supports an integrated approach to urban planning that promotes, *among other things*, the following:

- Decarbonise cities
- Resilient urban design to absorb shocks from climate change and other disasters
- A circular economy approach addressing material and design engineering, consumer behaviour, recycling, and recovery.[160]

Accelerating the transition from combustion engines to EVs is one of the most promising areas of intervention for decarbonising city transport. Under the sustainable cities IP, the GEF has been supporting pilots worldwide, and recently scaled this into a global programme (see Box 9).

158 *https://www.thegef.org/publications/gef-and-climate-change-catalyzing-transformation*

159 *Ibid.*

160 The GEF co-chairs the Platform for Accelerating the Circular Economy with Royal Philips and UN Environment hosted by the World Economic Forum.

Box 9: Global E-mobility Programme

The Global E-mobility Programme, launched in June 2020, builds on initial pilots in 17 countries to electrify city fleets to expand into ten more countries in Africa, Asia, and the Pacific.[161] The programme includes enabling policies and incentives to transition from internal combustion engines to clean electric motors, working with the public and private sectors to access the technology and commercial finance to introduce new fleets of city buses, two- and three-wheelers, trucks, and private transport. The new programme, with a total cost of around USD 430 million, including USD 33 million from the GEF, represents the first global co-ordinated effort to promote and accelerate the uptake of electric mobility in developing countries. Since models project twice as many vehicles on the road by 2050, with most of the demand and growth in developing countries, this was considered a timely opportunity, ripe for GEF investment. Beyond GEF support, USD 400 million in co-financing is expected from partners, including the EC, the ADB, other international financial and philanthropic organisations, the private sector, and national institutions. UNEP will implement this programme in partnership with the IEA. The initial participants in the programme include Antigua and Barbuda, Armenia, Burundi, Chile, Costa Rica, India, Ivory Coast, Jamaica, Madagascar, Maldives, Peru, Seychelles, Sierra Leone, St. Lucia, Togo, Ukraine, and Uzbekistan.

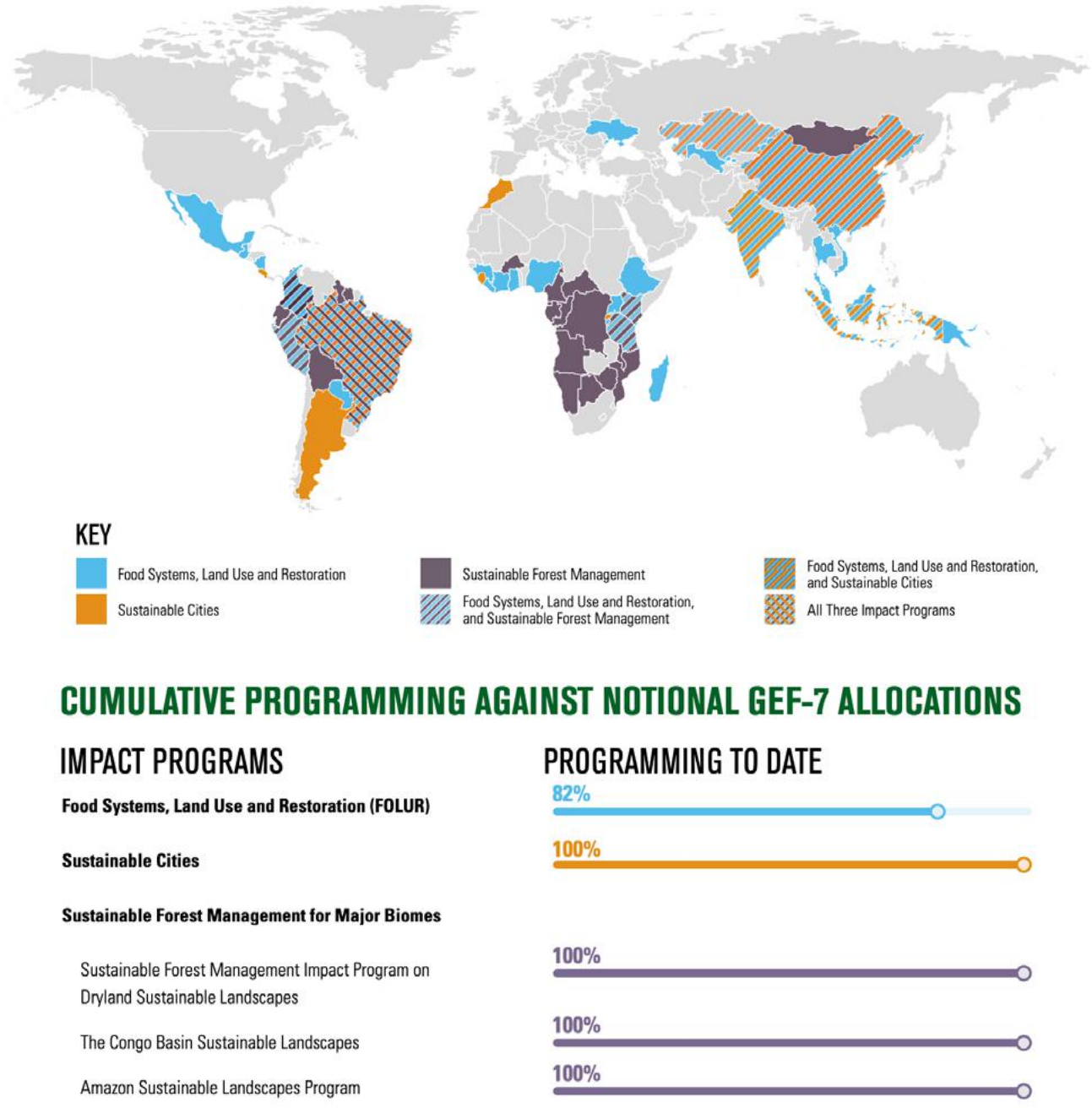
The sustainable forest management IP is based on the premise that biome level ecosystems require integrated ecosystem management at sufficient scale to secure the integrity and functioning of an ecosystem. This IP targets three forest biomes: the Amazon, the Congo Basin, and the world's extensive dryland forests. It addresses the drivers of forest loss by: (i) creating a better enabling environment for forest governance; (ii) clarifying land tenure and supporting rational land use planning; (iii) securing and improving the management of protected areas, and (Iv) using financial mechanisms to engage stakeholders in sustainable forest management.

All three IPs in GEF-7 have been approved and are currently being implemented. Figure 7 shows the global geographic distribution of the IPs, including in four of the five countries selected as case studies in this report: in Brazil, all three IPs are being implemented; in India and Indonesia, the Food Systems, Land Use and Restoration and the Sustainable Cities IPs are operating, and in Ethiopia, the Food Systems, Land Use and Restoration IP is underway. A snapshot of their implementation progress captured in the GEF-7 Scorecard published in December 2020 shows that GEF-7 programming targets have nearly been achieved.[162]

161 http://www.thegef.org/news/gef-global-e-mobility-program-help-developing-countries-go-electric

162 http://www.thegef.org/sites/default/files/publications/GEF%20Scorecard_2020_December_CRA_bl2.pdf

Figure 7: GEF regional programming and allocations



Source: https://www.thegef.org/sites/default/files/publications/GEF%20Scorecard_2020_December_CRA_bl2.pdf

Progress has been made in rolling out other programmatic approaches focusing on climate change mitigation or adaptation that have other environmental co-benefits – electrification and mini-grids in Africa, electric mobility in cities, clean technology, and climate-resilient urban growth in the Pacific (see Table 8).[163]

Table 8: GEF programmatic approaches

Other programmatic approaches	Countries (number)	Financing (USD million)
GEF Trust Fund		
African Mini-Grids Program	11	27.1
Global Cleantech Innovation Program to Accelerate the Uptake and Investments in Innovative Cleantech Solutions	10	20.1
Global Wildlife Program	18	109.8
Implementing Sustainable Low and Non-chemical Development in SIDS (ISLANDS)	27	73.5
Global Program to Support Countries with the Shift to Electric Mobility	27	55.7
Global Opportunities for Long-term Development of Artisanal and Small-scale Golf Mining (ASGM) Sector Plus – GEF GOLD+	8	47.8
Common Oceans – Sustainable Utilization and Conservation of Biodiversity in Areas Beyond National Jurisdiction	Global	29.1
Yangtze River Basis Biodiversity Conservation Program	1	7.3
Least Developed Countries Fund		
Climate Resilient Urban Development In the Pacific	4	17.5

In June 2018 a new programming strategy for CCA was approved at the GEF Council meeting that opened GEF-7.[164] Echoing the IP's integrated approach, the strategy was designed to enable greater complementarity between the LDCF and SCCF funds with other FAs and their MEA mandates. This would not only diversify the range of adaptation finance options available to countries but it would also result in more holistic, impactful programming.[165] The strategic objectives include: (i) reduce vulnerability and increase resilience through innovation and technology transfer for CCA; (ii) mainstream CCA and resilience for systemic impact, and (iii) foster enabling conditions for effective and integrated climate change adaptation.

163 Ibid.

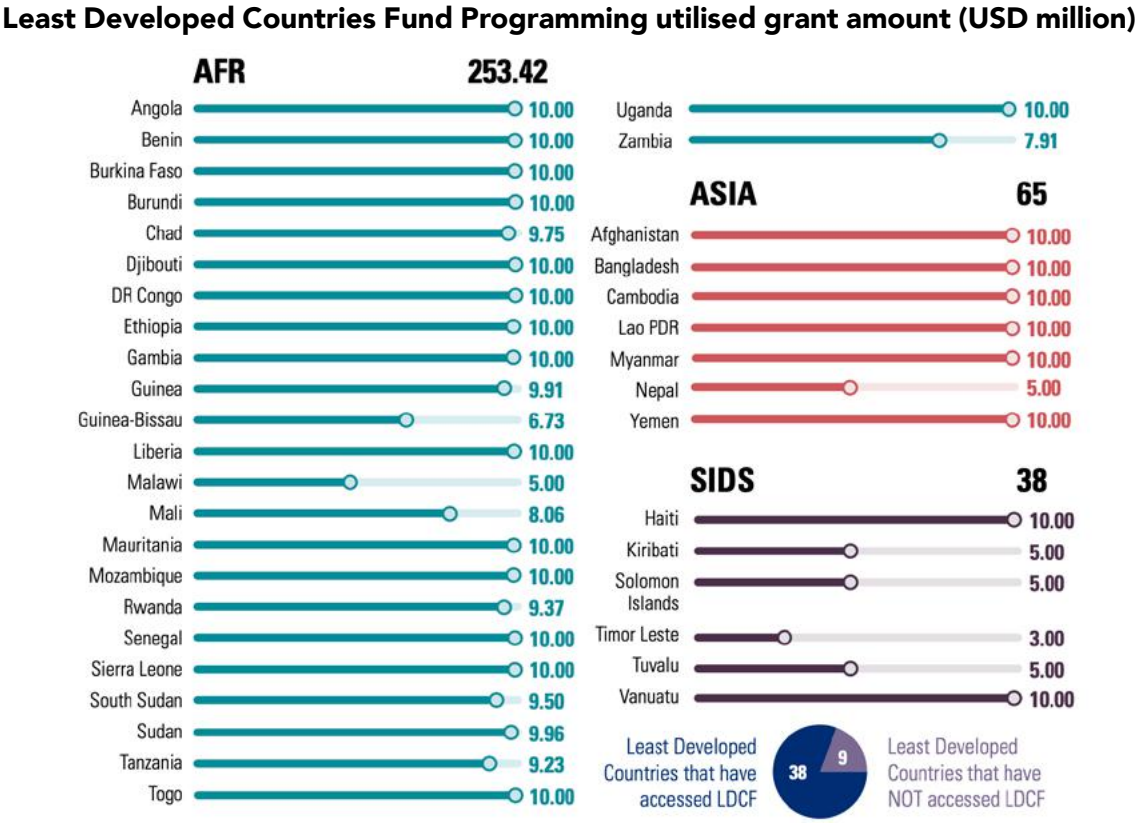
164 https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.LDCF_.SCCF_.24.03_Programming_Strategy_and_Operational_Policy_2.pdf

165 www.Thegef.org

As of June 2019, a total 75 projects in the LDCF and SCCF portfolio with a combined value of USD 1.7 billion had been approved since the inception of the funds (30 projects in Africa). The GEF Independent Evaluation Office reviewed these completed projects, using terminal evaluations and examining a range of variables (M&E ratings, innovative approaches, gender considerations, countries' fragility and lessons learnt) to determine which were correlated with higher project outcomes and sustainability.[166] It concluded that overall, the LDCF and SCCF funds performed well with respect to project outcomes and sustainability. Of LDCF projects, outcome ratings were in the satisfactory range for 81% and for 77% of SCCF projects. Not surprisingly perhaps, project design innovation was correlated with higher outcome ratings and sustainability ratings. Local leadership also suggested that there was a higher likelihood that projects would be sustainable.

Access to the LDCF was distributed across regions and countries in the first half of GEF-7. Figures indicate that 80% (38 countries) of LDCs, most of which were in Africa, have tapped into LDCF funds totalling USD 356 million. Six of the 38 recipients are SIDS. A cap of USD 10 million per country per GEF cycle introduced in GEF-7 ensures that LDCs have equal access to these funds. Four core indicators track the status of adaptation benefits from these funds: (i) number of direct beneficiaries (USD 17 977 501) of which half were female; (ii) hectares of land under climate-resilient management (1 949 560); (iii) number of policies and plans that will mainstream climate resilience (546), and (iv) number of people trained (360 336), of which half were female (see Figure 8).

Figure 8: GEF LDC programming



Source: https://www.ifc.org/wps/wcm/connect/7f6a737a-6bfb4cfa-8951-5e3456ea2aba/IFC-AR20-Full-Report.pdf

166 LCDF/SCCF Special Study on Completed Projects, June 2019. 26th LDCF/SCCF Council Meeting.

As of 30 June 2020, which is the halfway point for GEF-7A, the GEF appears to be on track to meet its programming commitments for climate change. In a report to the COP 26 in advance of the November 2020 COP, the GEF indicated that, based on progress achieved so far, "The GEF expects to deliver 1.5 $BtCO_2e$ in GHG emission reductions during GEF-7," exceeding its mitigation targets of 1.2 billion for the replenishment period.[167]

Selected country operations: Brazil, Ethiopia, India, Indonesia, Jamaica

The GEF is focusing on innovation and scale, and attracting new partnerships to help countries address their mitigation and adaptation challenges and mobilise the resources to help bridge the growing financing gap. The five countries selected as case studies all participate in at least one of the GEF's IPs for systems transformation, which yield multiple benefits across FA.[168]

Brazil

In Brazil, the Food Systems, Land Use and Restoration Impact Programme is supporting the Amazon Sustainable Landscapes Project (approved December 2017) with grant financing of USD 60.3 million from the GEF and USD 373.7 million in co-financing from Fund Bio and others. Implemented by the WB, the project aims to expand the area under legal protection and improve the management of protected areas, and increase the area being restored and sustainably managed in the Brazilian Amazon, with co-benefits for mitigation and adaptation. Another project under this same IP, Strengthening Participatory Natural Resource Management Processes for Sustainable Economic Development, Conservation of Biodiversity and Maintenance of Carbon Stocks in Amazon Wetlands, is a UNEP-implemented project that aims to conserve and sustainably use biodiversity and to maintain carbon stocks in the Varzea floodplain forests and mangrove wetlands of Amazonia.[169] In 2014, the GEF financed a multi-FA biodiversity and climate change project, the Recovery and Protection of Biodiversity and Climate Change Services in the Southeast Atlantic Corridor of Brazil. This USD 31.5 million grant is still being implemented with IDB support. Under the Sustainable Cities IP, the GEF is also promoting sustainable cities in Brazil through integrated urban planning and innovative technologies investment with a USD 22.6 million grant, implemented by UNEP.

Ethiopia

Ethiopia has received approximately USD 31 million in climate change FA funds, USD 31.4 million in LDCF and USD 2.1 million in SCCF between 2010 and 2018. The SLM Initiative undertaken with LCDF support falls under the GGWI.[170] Given the growing threats of water insecurity and drought, the project "introduced climate smart agriculture in 30 local districts, or woredas, 70 micro-watersheds, 149 farmer groups, and 2 886 households in six intervention regions." This LDCF project also received a WBG award for innovation and excellence. Its achievements include improving land rights among landless youth and women; ensuring use rights over rehabilitated degraded communal land to incentivise various natural resources-based income-generating activities, and

167 https://www.thegef.org/council-meeting-documents/report-gef-26th-session-cop-unfccc

168 For details of the GEF's support in each country see the country case studies.

169 https://www.thegef.org/project/strengthening-participatory-natural-resource-management-processes-sustainable-economic

170 This programme involves 11 Sahel countries from Senegal to Ethiopia and Djibouti. http://www.thegef.org/news/great-green-wall

rehabilitating over 575 000 hectares of degraded land through various physical and biological soil and water conservation measures. As of 2017, the project had also benefitted approximately 80 000 forest-dependent people.

India

India has received some USD 570 million in total grant funds from the GEF, of which over USD 200 million were for climate change.[171] India is involved in the Food Systems, Land Use and Restoration IP and the Sustainable Cities IP. While significant GEF resources have gone towards supporting the restoration of degraded lands for forestry, agriculture, and ecosystems services with co-benefits for biodiversity and climate resilience, India's urban population represents a huge market for scaling up energy efficiency. In a joint project of the GEF and Energy Efficiency Services Limited, a public-sector financial institution and energy services company, a pilot was developed to expand the institution's energy-savings business model in: (i) domestic and street lighting, delivering highly efficient LED light bulbs to users, (ii) developing new product business lines in power, heat and cooling (like super-efficient ceiling fans), and (iii) smart-grid technologies. With a grant of USD 18.8 million, the GEF was able to leverage over USD 430 million in co-financing (including equity investments and a USD 200 million loan from the ADB to provide Energy Efficiency Services Limited with the TA and risk capital needed to scale up activities. Approved in 2017, this project is being implemented jointly by ADB and UNEP. It is expected to generate approximately 38 million direct and 22 million indirect tonnes of GHG emission reductions through 2032.[172]

Indonesia

Indonesia has received over USD 297 million in total grant support from the GEF, of which approximately USD 75 million has been from the climate change FA and USD 5 million in SCCF funds.[173] Under GEF-7, two new projects have been approved, including support for its 4th Biennial Update Report to the UNFCCC and capacity building to increase transparency in its reporting under the CBIT transparency initiative. A third project, still under preparation, is a multi-FA project (USD 3.5 million) under the UNDP Small Grants Programme, "to build social, economic, and socio-ecological resilience in high biodiversity areas through community-based management." The approach is similar to other ecosystem-based interventions delivering multiple benefits in CMA, biodiversity, and the restoration of degraded lands. The project will pilot "emerging innovative solutions, including technologies for sustainable energy breakthroughs, supportive policies and strategies, and financial tools to foster private sector engagement for technology and innovation." Prior to GEF-7, climate change support to Indonesia consisted of energy sector projects to reduce GHG emissions and manage carbon sinks and biodiversity for mitigation and adaptation benefits.

Jamaica

Jamaica was allocated USD 2.0 million in GEF funds for climate change, mostly for participating in regional or global programmes divided between mitigation (including low carbon buildings and construction, renewable energy and improving vehicle emissions standards) and adaptation/resilience (improving soil and watershed management). Additional support was provided for capacity

171 Country profiles map and India project data base www.thegef.org

172 India country study, this report, and the India Economic Times Energy World: https://energy.economictimes.indiatimes.com/news/power/eesl-receives-454-mn-funding-from-global-environment-facility-for-energy-efficiency-programs/61417236

173 Country profile map, www.thegef.org

building activities to meet its reporting requirements to the UNFCCC. In GEF-7 (2019), on the mitigation front, Jamaica is participating in the global Catalysing the Global Shift to Electric Mobility project, which aligns with IPCC estimates that sector alignment with the Paris Agreement requires all new vehicles to be electric as of 2035. Jamaica was included in the design of a SCCF-financed regional project, CSIDS-SOILCARE Phase1: Caribbean Small Island Developing States Multi-country Soil Management Initiative for Integrated Landscape Restoration and Climate-resilient Food Systems, involving seven countries. The FAO-GEF project is an example of the Food Security and Land Use Management IP with co-benefits in adaptation.

Ensuring quality-at-entry

All GEF projects must be aligned with the programming directions and core indicators for each FA, which is part of each GEF replenishment. Project concepts are typically developed by a GEF IA in collaboration with countries. In GEF-6, the project approval cycle was considerably shortened to increase efficiency, reduce costs, and increase the likelihood of private sector involvement. The LDCF and SCCF trust funds have their own core indicators. As noted earlier, access to the LDCF is limited to LDCs to support adaptation priorities laid out in their NAPs and NAPAs. The SCCF may be accessed by all non-Annex 1 countries and has four thematic windows, but the majority of projects support adaptation and climate resilience with a focus on innovation. The GEF is working with other climate funds (e.g., GCF, CIFs, and the AF) to explore opportunities to harmonise core indicators and reporting metrics across funds.

New thematic work streams for climate mitigation and adaptation

Since 2015, in addition to supporting projects under the climate change FA, the GEF has included more multi-FA projects to capture synergies across FAs to support CCMA, but with other environmental co-benefits. These projects are consistent with the concept of NbS to protect and restore ecosystem services that deliver adaptation benefits and increase resilience to physical and economic shocks. Examples of NbS projects include: (i) protecting vulnerable coastlines against rising sea levels, coastal erosion and saltwater intrusion; (ii) reforestation to stabilise fragile soils in watersheds and river-valleys prone to flooding, and (iii) rehabilitating wetlands to protect coastlines and nursery grounds for artisanal fisheries and to sequester carbon in the biomass and soils of deep-rooted vegetation. This integrated upstream/downstream approach to building resilience in hydrological cycles from watersheds to the coastal zone has long been a hallmark of integrated WRM. The emergence of NbS to deliver sustainable climate and other benefits, while not new at the GEF, does represent a shift in focus and scale in line with the evolving science and **Scientific and Technical Advisory Panel (STAP)** guidance about the benefits of NbS in building ecological and social resilience in linked human-natural ecosystems.[174]

The ocean and climate change

The blue (ocean) economy is a huge driver of environmental change and also serves as a platform to deliver global environmental benefits across FA. The GEF is investing in blue economy initiatives in which the ocean and marine ecosystems are recognised as drivers of economic growth, which, if properly managed, have the potential to deliver benefits in climate mitigation, adaptation and resilience, particularly to coastal communities that depend on ecosystem services for their livelihoods, food security, and environmental protection.

174 Nature-based Solutions and the GEF: A STAP Advisory Document (2020). http://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.59.STAP_.Inf_.06.Rev_.01_Natured_Based_Solution_GEF.pdf

The ocean is the major reservoir of anthropogenic CO_2 emissions and the heat generated by GHGs. Marine ecosystems also have tremendous potential to re-cycle and store carbon through the bio-carbon cycle. In the open ocean, this occurs through the uptake of CO_2 in the atmosphere through photosynthesis by phytoplankton, cycling carbon through successive levels of consumers in the food chain, and it eventual sequestration in deep ocean sediments as decaying biomass (including whale carcasses) that sinks to the bottom. Along the coast, mangrove forests, sea grasses, tidal flats and other submerged vegetation form natural carbon sinks capable of sequestering carbon at five times the rate of tropical forests. Once disturbed, however, these wetlands can release vast quantities of CO_2 that have been built up over centuries in submerged vegetation and sediments The GEF Blue Forests Project, with support from the International Water FA, seeks to restore degraded coastal wetlands to maximise the value of their ecosystem services such as storm protection, fish stock restoration and carbon sequestration.[175] The adaptation and mitigation co-benefits of NbS for coastal protection include reducing carbon emissions and enhancing food security. SIDS and coastal nations are integrating this into their NDCs and GHG accounting as essential to addressing climate change.[176]

The GEF currently partners with the International Maritime Organisation to increase energy efficiency in the marine transport sector, a GHG-intensive industry.[177] One innovative project that was approved in the GEF pipeline last year proposed to go several steps further in decarbonising the maritime transport sector: The GEF-IFC Greener Shipping Investment Joint Venture for the Decarbonisation of Maritime Transportation Project (GEF: USD 13.5 million and IFC: USD 142.3 million) is a first-of-its-kind private sector-driven financing platform to accelerate the creation of a global fleet of green ships.[178]

Private sector engagement

Under GEF-7, new ways and instruments have been introduced to attract private sector investment in climate change, including a new private sector engagement strategy. Previously, the GEF engaged with the private sector by: (i) improving policy frameworks to de-risk and attract low-carbon investments; (ii) supporting technology innovation, demonstration and transfer, and (iii) providing concessional funds through blended finance to mobilise private sector investments. However, the private sector engagement strategy notes, "transforming the world's energy systems, cities, and land-use practices toward low-carbon and resilient pathways will require financing on the order of trillions of dollars/yr." Going forward, the GEF will seek to increase its leverage by making greater use of blended funds to de-risk private sector participation in PPPs and as a partner in market transformation. On adaptation, the GEF has pioneered new approaches in developing PPPs to catalyse innovation and harness the potential of the private sector. In June 2018, the LDCF and SCCF Council approved the Challenge Programme for Adaptation Innovation financed under them, focussing on innovation and learning to encourage the private development of adaptation solutions. It is designed to "test and validate potentially scalable, bankable or otherwise fundable investment approaches, business models, partnerships and technologies for CCA and resilience impacts."[179] To bolster the implementation of its private sector strategy, the GEF has contracted two

175 This project provides the first global-scale assessment of the values associated with coastal carbon and ecosystem services through pilots in Ecuador, Mozambique, Madagascar, Indonesia, the United Arab Emirates, Central America, and Kenya. https://www.thegef.org/sites/default/files/publications/gef_climate_change_catalyzing_transformation_201911_EN.pdf

176 https://unfccc.int/event/integrating-coastal-blue-carbon-in-ndcs

177 https://glomeep.imo.org/

178 https://www.thegef.org/project/ifc-gef-greener-shipping-investment-platform

179 A total of 9 projects have been funded and anticipated impacts include: number of direct beneficiaries (total of 897 804 persons), area of land for climate resilience (total of 229 936 hectares), policies and plans to mainstream climate resilience (total nine policies and plans), and the number of people trained (total 20,980 persons). https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF_LDCF.SCCF_.27_Inf.04_Progress%20Report%20on%20the%20Challenge%20Program%20for%20Adaptation%20on%20Innovation_0.pdf

additional staff with private sector experience and established a PSAG of diverse industries spanning key value chains globally. These advisors will help the GEF team deploy its grant and non-grant instruments to attract private sector investments in areas having the greatest potential outcomes such as clean energy, green landscape transformation, and sustainable food production.[180]

Promoting innovations for sustainable energy breakthroughs

The GEF's enhanced focus on the private sector as an agent of climate finance and market transformation under GEF-7 has led to the design of projects and programmes in four key areas: (i) decentralised renewable power with energy storage; (ii) electric mobility; (iii) accelerating energy efficiency adoption, and (iv) clean-tech innovation. A key feature is the new GEF-7 Africa Mini-grids Programme that will "focus on policy, technology, and financing barriers to ensure that clean mini-grids can be replicated at scale and compete against diesel alternatives." Another innovation catalyst under this sustainable energy breakthroughs programme is the scaling up of energy efficiency accelerators, platforms providing global best practice and harmonised standards in energy efficiency across sectors. The Net Zero Carbon Buildings Accelerator, launched in 2019 at the UN Climate Action Summit is one example, whose goal is to help developing countries completely decarbonise their building sector by 2050.[181] Other breakthrough programmes include the Global E-mobility Programme and the GCIP.

5.B.3 Incorporating the COVID-19 recovery

The GEF is "applying a green COVID-19 response lens" to all projects and programmes, making additional support available at the global or country levels for specific actions that reinforce an environmentally sustainable pandemic response. These actions are informed by a GEF COVID-19 task force of experts who are investigating the root causes of emerging infectious diseases in support of a potential early warning system for future pandemics and a truly sustainable post-COVID-19 recovery plan."[182] In a recent meeting of 400 scientists and environmental experts convened to reflect on the ongoing COVID-19 crisis and to identify top priorities for the GEF-8 (2022-26) replenishment period, GEF CEO Carlos Manuel Rodriguez stated,

> …there is no doubt to me that the COVID-19 recovery is a once in a lifetime opportunity to achieve breakthroughs in how we manage forests, the land, the water, the ocean, how we produce and consume, and even how we live… We need to be able to have countries recover better, greener, bluer, healthier, with more resilience. The current trajectories and levels of ambition are insufficient to meet these goals.[183]

5.C What GEF lessons can inform the MS response to the climate crisis?

As a vertical fund with a UNFCCC mandate to support developing countries to take on climate change, the GEF cannot compete with the MDBs in providing the scope and scale of climate finance. However, the GEF occupies a unique niche as a MO working in the climate space. It includes a partnerships model designed to leverage support for innovation, technology transfer, replication and global uptake. It has

180 https://www.thegef.org/sites/default/files/publications/gef_climate_change_catalyzing_transformation_201911_EN.pdf
181 *Ibid.*
182 https://www.thegef.org/news/gefs-response-covid-19
183 https://www.thegef.org/news/more-400-scientists-brainstorm-gef-investment-priorities

a science and technology-oriented programming culture, supported by the STAP and other external advisory networks with access to thought leaders in climate change that help it target system drivers of environmental change and design solutions to achieve impact at scale. Finally, the GEF's move toward greater risk-taking and innovation to attract private sector engagement on climate is yielding promising results. Some lessons and good practices include:

The GEF is a unique provider of grant funds for the vast majority of its support to developing countries, giving it a comparative advantage over other climate funds, which often involve loans or some form of blended, concessional finance. Similarly, LCDF funds are reserved for the poorest countries to address adaptation and resilience needs and provide secure funding relative to other climate finance. This gives the GEF enormous leverage in countries that are unwilling or unable to borrow extensively for the environment and climate change. However an urgent need remains to increase complementarity and synergy with other UNFCCC climate funds to optimise the value and access to such finance by eligible countries.

- **The System for Transparent Allocation of Resources (STAR) to individual countries has increased access to GEF resources for climate change by eliminating competition and allowing countries to plan how best to use these resources.** Additional flexibility in shifting STAR resources across FAs according to need and country context would enhance their utility beyond their monetary value.
- **It is both a challenge and an opportunity for the non-IFI IA GEF partners to raise real co-financing.** To increase the leverage of its funds, the GEF has significantly raised the ante for co-financing in successive replenishment periods. This puts pressure on non-IFIs to partner with the private sector, bilateral agencies and foundations and to help mobilise a country's own domestic resources. As of December 2020, the GEF-7 target of seven dollars of co-financing raised for every GEF dollar spent has been more than met across the FA portfolio.[184] For climate change mitigation projects, particularly those involving the private sector, this leverage can be twenty times the GEF investment.
- **A key tenet of the new GEF is to listen to the science, particularly with respect to system drivers and accelerated time frames in which change is occurring.** Partnering with the scientific community and the private sector for innovation in breakthrough technologies in mitigation and adaptation is part of the GEF's evolving strategy to achieve transformative change. GEF's IPs and multi-FA projects reflect this new approach in (eco) systems thinking to address root causes and drivers of environmental degradation, leveraging the power of healthy systems to drive positive change. "We will lose the Paris Agreement without the Amazon," observed the GEF Director of Programmes in justifying the funds pivot toward an integrated, ecosystem approach to preserving this biome. These programmes need to be further scaled in countries with high LULUCF emissions in Asia and Africa.
- **Investing in knowledge and learning across the GEF portfolio and disseminating to MS partners accelerates the uptake of new technologies and models of co-operation that can lead to sustained impact.** Examples include the GEF's collaboration with partner agencies to prepare Good Practice Briefs and the GEF and the WB's Global Platform for Sustainable Cities, a knowledge partnership promoting integrated solutions and cutting-edge support for sustainable urban growth.[185]
- **Greater upstream collaboration with MDB IAs and finance ministries can help set the stage for policy reforms and PS investment in key sectors, including energy, transport and agriculture.** As evidenced in GEF-8 planning, the GEF is laying greater emphasis on upstream dialogue with finance and line ministries, and with IA partners to help align these sectors with loans for policy reform. Such policy interventions are seen as essential to creating the regulatory environment, standards, and incentives

184 GEF-7 Corporate Scorecard, December 2020.

185 The platform is a network of 28 cities across 11 countries built on 3 pillars: (i) integrated urban planning and management; (ii) municipal finance, and (iii) sustainability indicators and tools, including city-level sustainability benchmarking and data-driven decision-making. https://www.thegpsc.org/

6. INTER-AMERICAN DEVELOPMENT BANK GROUP

6.A How is the IDB responding to climate change?

6.A.1 How does the IDB adhere to the normative frameworks of the 2030 Agenda and Paris Agreement?

The IDB Group (IDBG),[186] which has 26 borrowing member countries in LAC, affirms that the Paris Agreement was the basis for the 2016 resolution by its governors to increase its financing for climate change-related projects to 30% of its loan, guarantee, investment grant, technical co-operation, and equity operations by 31 December 2020. IDBG also committed to improving the evaluation of climate risks and identifying opportunities for resilience and adaptation measures at the project concept stage, and to accelerate efforts to mainstream climate change by 2018. The Paris Agreement also prompted IDBG to focus more on long-term consistency with global climate objectives across all of its work, building on earlier efforts to support dedicated green projects. It also called for countries to submit and periodically update their NDCs and to formulate long-term, low-GHG emission development strategies. This has increased the number of opportunities for IDBG to better understand the costs and benefits of decarbonising and to align the NDCs and LTS with countries' broader development goals.

IDBG subsequently approved two CCAP, elaborating on its efforts to achieve these commitments. The first CCAP, issued in 2017, acknowledged the significant challenges of climate change for ensuring sustainable and inclusive development, and that the SDGs and the Paris Agreement represented an unprecedented level of global commitment to meet them.[187] In this context, it affirmed that the overarching principles guiding IDBG's work would prominently feature climate change.[188] The second CCAP for 2021-25 of December 2020 reiterated this.[189] This plan also raises the ambitions of the IDBG climate agenda, in particular through its focus on consistent support for long-term decarbonisation and climate-resilience efforts as per the shared MDB approach to supporting countries to deliver on their commitments under the Paris Agreement. IDBG's rolling four-year updates to its sector framework documents also highlight key links with climate change and identify associated operational opportunities.

6.A.2 How do the IDBG's responses to the climate change crisis cohere with the MS?

Collaboration with other MOs, organisations and initiatives

In its 2017 *Delivering a Climate Agenda for LAC* report, one key line of action that the IDBG is following is described as "Strengthening Collaboration and Mobilising External Resources." On collaboration, more specifically, it states,

> Multilateral institutions have a critical role to ensure that development finance is aligned with the objective of a low-carbon, climate-resilient future. As agreed in their climate action plan for 2017-2019, MDBs will seek to intensify their collaboration with the UNFCCC Standing Committee on Finance, the Organisation for Economic Co-operation and Development (OECD), the International Development Finance Club (IDFC), the private sector, and other key climate finance and industry actors. MDBs will also continue to share knowledge on measuring and

186 The IDB Group is comprised of the Inter-American Development Bank, its public sector arm, the Inter-American Investment Corporation, its private sector arm, and the Multilateral Investment Fund, a trust fund administered by the IDB serving as its innovation laboratory, rebranded as IDB Invest in 2017. MIF was rebranded as IDB Lab in 2018

187 IDB, *Delivering a Climate Agenda for LAC: IDB Group Actions to 2020*, Washington DC., 2017.

188 Specifically, IDBG's Update to its Institutional Strategy (UIS) for 2010-2020, issued in early 2015 and covering 2016-2020 and its Corporate Results Framework (CRF) for 2016-2020.

189 IDBG, *IDB Group Climate Change Action Plan for 2021-2025*, Washington D.C., December 2020.

evaluating the impact of their investments for resilience-building outcomes. During COP 21 in Paris various International Financial Institutions committed to the Climate Action in Financial Institutions Initiative.[190]

IDB has partnered with the WBG for joint programming and use of the CIFs in LAC and is an active participant in various MDB working groups on climate change that meet regularly, and IDB Invest has a partnership with IFC to measure the impact of its transactions on financial institutions. In addition, IDB Invest has made strides in aligning with the recommendations of the task force on climate-related financial disclosures (TCFD) in recent years. IDB Invest established a cross-departmental TCFD working group to diffuse and operationalise climate actions institution-wide. In addition, IDB Invest used its expertise to accelerate alignment with the recommendations in LAC by engaging clients and offering advisory services.

IDBG collaborates regularly with other MDBs – AfDB, ADB, AIIB, CEB, EBRD, EIB, IsDB, NDB, and WBG – through interactions with the president, senior management, and technical staff, including in working groups for climate finance, adaptation, mitigation, GHG accounting. Currently it is also participating in a joint approach to alignment with the Paris Agreement that includes methodologies for assessing the alignment of the operations that IBDG finances, guidelines for preparing LTSs, etc. It adds that, given that this is an emerging topic, working in collaboration offers key efficiencies for advancing the climate agenda. IDBG is also part of the MDB infrastructure co-operation platform to ensure that its approach aligns with that of other financial institutions in supporting sustainable infrastructure in the region. While it has had less interaction with the UN agencies, it has worked with UNEP on guidelines for sustainable infrastructure and with ILO on a flagship report, *Jobs in a Net-Zero Emissions Future in Latin America and the Caribbean*, and in dialogues with WHO and the Pan-American Health Organisation on health system adaptation and resilience. IDB Invest has worked with UNEP's finance initiative to help train banks in LAC on sustainable finance and with the International Maritime Organisation in the FIN-Smart Roundtable to identify investment and financing needs for sustainable maritime transport.

IDBG is an active member of the NDC Partnership, in the Low-Emissions Development Global Partnership and its LAC platform. With the LED global partnership, LAC, more specifically, IDBG recently co-ordinated numerous events and capacity building exercises, including 34 virtual events with more than 16 000 participants in the second half of 2020 alone. It is also in contact with the UNEP-UNIDO-managed Climate Technology Centre and Network (CTCN) and identifying opportunities for collaboration in the region. Finally, IDBG is a UNFCCC observer and attends its COPs and supports the climate mainstreaming initiative, together with 51 other international and national financial institutions, and IDB Invest is working within Fast Infra, a public-private initiative led by HBSBC that aims to increase the flow of private finance to the developing world for sustainable infrastructure.

IDBG also maintains close dialogue with NGOs and think tanks about the alignment of financial institutions with the Paris Agreement, most notably E3G, WRI, the New Climate Institute, Germanwatch, and the Climate Policy Initiative, and the Nature Conservancy through the Latin American Conservation Council. It works with the Nature Conservancy and WRI specifically on NbS and the water funds, with WRI in approaches to sustainable recovery, and with TNC, WWF, and CI as executing partners for TA activities. In addition, IDB's Deep Decarbonisation Pathways for LAC is built around partnerships with national universities and works closely with national entities and stakeholders in planning decarbonisation and adaptation efforts. IDB Lab has played an important role in initiating experimental approaches with many of these NGOs and has co-invested in climate venture funds with other institutional and private inves-

190 IDB, *Delivering a Climate Change Agenda for LAC*, op. cit.

tors as a limited partner. IDB Invest has partnered with private sector organisations such as the Althelia Climate Fund, the Moringa Fund, and companies working with climate finance, usually in connection with a financial transaction.

How effective are the co-ordination mechanisms?

The most effective partnership is probably that with the other MDBs, according to IDB, because it allows the group to jointly develop methodologies and tools to track its climate-related investments to allow for comparison and also to share emerging approaches and lessons. Collaboration with both bilateral and multilateral concessional finance groups, including the CIFs and GCF, is also seen as crucial for enabling IDBG to achieve its climate mission. Work with the NDC Partnership has also proven valuable but has not yet reached its full potential as a facilitator of in-country co-ordination.

6.A.3 How has greater global attention to climate change affected the IDB's work?

Targets

IDB's CRF for 2020-2023[191] includes three specific sets of climate change-related targets for IDBG, broken down by IDB, IDB Invest, and IDB Lab. The first set of targets is for the share of climate finance in total IDB operations as a percentage of approved/committed amount equal to or greater than 30% for all three, against baselines of 25% for IDB, 26% for IDB Invest, and 28% for IDB Lab. It also includes targets for projects supporting climate change mitigation and/or adaptation (percentage of new approvals/commitments) of equal to or greater than 65% for IDB, against a baseline of 53% for IDB, equal to or greater than 40% against a baseline of 40% for IDB Invest, and equal to or greater than 40% against a baseline of 34% for IDB Lab. Finally, it has targets for projects supporting agriculture, forestry and land use, and coastal zone management (percentage of new approvals/commitments equal to or greater than 10%) for IDB against a baseline of 8% of equal to or greater than 8% for IDB Invest against a baseline of 6% and of equal to or greater than 25% against a baseline of 19% for IDB Lab. The IDB has an additional target for the end of 2023 of preparing 100% of projects with moderate to high disaster and climate change risks with, at a minimum, a simplified qualitative risk assessment (narrative with diagnostic) and management plan, against a baseline of 16% in 2017-18.

Staffing and skills profile

Created in 2016 at IDBG, the climate change and sustainable development sector increased the visibility of this topic internally. It grew from 95 full-time permanent staff in 2017 to 103 in 2020. In addition, as of July 2020, the Vice Presidency for Sectors and Knowledge includes a sustainability advisor in its front office who co-ordinates with a network of sector champions in the operational departments, interdepartmental working groups, and other IDB departments to implement the mainstreaming action plan and bolster specific thematic agendas on environmental and social sustainability. Moreover, the climate change division is currently moving climate change specialists to the country offices where they can serve as climate advisors to IDBG resident country representatives. IDB Invest's climate team grew from one to seven staff (five regular staff, two consultants) between 2017 and 2020 to respond to greater demand and new priorities including the Paris Alignment work; two staff members and a short-term consultant have also been

191 IDBG, *IDB Group Corporate Results Framework 2020-2023*, Washington D.C., April 2020. This document states that the CDF "is the IDB Group's highest-level tool for monitoring performance and achievement of its strategic objectives" and has three levels: (i) regional context tracks the region's progress on the strategy's three crosscutting issues including climate change and environmental sustainability; (ii) IDBG contributions to development results tracks the magnitude of IDBG contributions to the three challenges and three crosscutting issues, and (iii) IDBG performance assesses against operational and organisational targets; those cited here fall into the third category.

hired to assess climate risks. In 2018, IDB and IDB Lab launched the Natural Capital Lab, a joint venture that strengthened the IDBG's capacity to address climate change. Since then, the lab has been funded by the French and UK governments, and is promoting NbS across the IDBG. IDB Invest has a climate change team within its advisory services division to provide climate change focused non-financial additionality in the transactions financed.

Financial commitments

As noted above, in 2016, the board of governors directed the IDBG to increase financing for climate change-related projects to 30% of the total by the end of 2020. Although IDBG's climate finance had concentrated on mitigation, a growing share now focuses on adaptation, and "dual-benefit" finance, with simultaneous mitigation and adaptation benefits, has also grown (see Table 9).[192]

Table 9: IDBG climate finance 2015-20

Item/Year	2015	2016	2017	2018	2019	2020
IDBG climate finance (USD billion)	1.744	2.689	4.384	4.966	4.838	3.431
IDBG climate finance/ MDB finance (%)	6.9	9.9	12.3	11.5	8.1	*
IDBG total finance (USD billion)	10.806	12.249	15.254	18.561	17.107	17.232
Climate finance/total IBDG finance (%)	16.1	22.0	28.7	26.8	28.3	19.9
Mitigation finance/ climate finance (%)	84.6	78.4	80.7	74.3	71.3	66.0
Adaptation finance/ climate finance (%)	15.4	21.6	19.3	25.7	28.7	34.0
Own resources/ climate finance (%)	85.2	89.5	93.6	90.1	94.8	89.1

Source: Joint MDB Climate Finance Reports 2015-19
* Pending finalisation of joint MDB report

IDBG's climate finance has accounted for a growing share of its total financial commitments over the past half-decade. It also contributed a rising share of total MDB climate finance between 2015 and 2017, although it fell slightly in 2018 and more significantly in 2019 due primarily to EIB's dramatic increase in climate financing, which includes climate finance directed to high-income countries in addition to developing ones. In 2020, the IDBG financed USD 3.4 billion in activities related to climate change through loans, grants, technical co-operation, guarantees, and equity investments—accounting for 19% of total IDBG

192 IDBG's analysis indicates that, while only 1% of its total climate finance was for dual benefits in 2016, it rose to 7% in 2020 and peaked at 19% in 2019 after increasing gradually to 4% in 2017 and to 11% in 2018.

annual approvals.[193] Although the 30% target for 2020 was not achieved, the IDBG remains committed to increasing its climate finance and volume is expected to rebound as countries move away from emergency response and toward sustainable recovery.[194]

Adaptation as a share of the total has clearly risen substantially since 2015. However, IDB points out that, while adaptation commitments are based on incremental costs, mitigation commitments refer to full project costs and are therefore not directly comparable. It also observed that the group started testing new approaches to adaptation as early as 2012 through pilot initiatives supported by the Multilateral Investment Fund, which was renamed the IDB Lab. In addition, it clarified that IDBG's mitigation finance has been primarily for renewable energy, energy efficiency, urban mobility, mass transportation, and green buildings. Its financing for adaptation has aimed at lowering risks or vulnerability posed by climate change and had been channelled mainly to DRM, resilient infrastructure, coastal zone and ecosystem management, and water supply and resource management.

How agile and effective is the reaction to greater demand?

IDBG has responded to the rising demand for climate change-related support from its country clients with agility. However, the unexpected onset and impact of the COVID-19 pandemic was a significant factor in the reduced level of climate finance in 2020. The IDB established four rapid-response project prototypes to provide urgent support to countries to deal with the emergency, leading to a sudden shift in the composition of new approvals toward social and fiscal sectors and an emphasis on policy-based lending, which limited opportunities for climate finance that was previously concentrated in the infrastructure, urban development, and agriculture sectors. Analysis has shown that the effectiveness of IDB sovereign-guaranteed operations with climate finance is similar to the overall portfolio. The effectiveness of SG loans is monitored through a project monitoring report. A comparison of four cycles of the report's classification of operations with and without climate finance shows no notable differences.[195] In addition, while guarantees may never be called, they give investors confidence since IDBG participation reduces perceived financial risks. By participating with equity in private company ownership, IDB Invest and IDB Lab (through specialised venture capital funds) signal confidence to private sector markets for specific climate-friendly opportunities, again essentially realising the added value of the climate finance at the time of approval.[196]

193 IDB Invest information is reported here based on *approvals*, consistent with the approach used for the 30% climate finance target set in 2016. The updated and extended target, as defined in the CRF and as reported in the MDB joint report, is based on *commitments*.

194 Excluding approvals related to COVID-19, the IDBG reached 30% climate finance in 2020.

195 Of 165 PCRs prepared in 2017-19, 62 were for projects approved in 2012 or later (i.e., had a climate finance estimate following the established MDB methodology), among which 13 were for operations with climate finance greater than USD 0. These had overall OVE ratings ranging from partly unsuccessful to highly successful. It is difficult to draw broad conclusions based on this analysis due to the limited number of PCRs for climate change operations. Ex-ante IDB climate finance estimates are generally reliable measures when re-examined ex-post. IDB climate finance estimates reviewed for climate finance operations based on actual budget amounts. All operations delivered their respective climate finance related outputs, resulting in ex-post climate finance estimates virtually the same as *ex-ante* estimates.

196 See *Electronic Appendix I to the Climate Change Action Plan 2021-2025: Operational Review and Lessons Learnt from CCAP 2016–2020*, December 2020.

6.B How have IDB organisational strategies, operational activities, and resource plans incorporated climate change?

6.B.1 Organisational strategies

The IDBG's most recent institutional strategy update, approved by its board of governors in July 2019, identified climate change and environmental sustainability as a crosscutting issue, alongside gender equality and diversity, institutional capacity, and the rule of law.[197] In the update, IDBG also renewed its commitment to accelerate progress on climate change and environmental sustainability, stating, "climate change is threatening social and economic outcomes in LAC" and highlighting that "Belize, Haiti, and Jamaica are already considered to be acutely vulnerable to climate change, and by 2030, another seven borrowing member countries are expected to be added to that category. The most recent update for 2010-20, issued in 2015, identified "climate change and sustainability" as one of the crosscutting elements to the region's three main development challenges – social exclusion and inequality, low productivity and innovation, and limited economic integration – the other two being gender equality and diversity and institutional capacity. It also recognised LAC's high vulnerability to the effects of climate change in terms of physical damage and negative social impacts and that "climate impacts are likely to affect the most vulnerable groups disproportionately, especially the poor and indigenous." In March 2011, the IDB Board of Directors approved the most recent specific corporate strategy concerning climate change, the Integrated Strategy for Climate Change Adaptation and Mitigation and Sustainable and Renewable Energy, which was critically assessed by IDB's Office of Oversight and Evaluation in a report published in March 2013.[198] The assessment was an input into the oversight and evaluation office's IDB-9 evaluation recommending that IDB update its institutional and sector strategies and revisit the CRF, "with an eye to simplification, improved data accuracy, and full knowledge and ownership by Bank staff and other stakeholders."[199] Under the current regulatory framework, sector strategies are broad expressions of institutional operational and knowledge priorities.[200] Approved by the board, they are subject to external consultation. Following the IDB's ninth general capital increase, management prepared and the board approved five sector strategies, which remain in effect.

Issued in 2017, the IDBG CCAP for 2016-20 identified five action lines, including "opportunities and actions by sector" with sections on: (i) agriculture, forestry, natural resources, and coastal management; (ii) DRM; (iii) tourism; (iv) housing and urban development; (v) transportation; (vi) energy; (vii) water and sanitation; (viii) education; (ix) health; (x) social protection; (xi) gender equality and women's empowerment, and (xi) social inclusion and diversity. IDBG recently updated its CCAP for 2021-25. It presented sections on MDB building blocks and corresponding IDBG actions, sector-specific considerations, monitoring, and risks, resources, and next steps, noting more specifically that country client demand is at the core of driving climate action, climate resilience is critical for sustainable development, that the climate change and natural capital/biodiversity agendas overlap and should be addressed jointly, and the entire

197 See IDB, Second Update to the Institutional Strategy (AB-3190-2), Washington D.C., August 2019.

198 See Office of Oversight and Evaluation, Mid-Term Evaluation of IDB-9 Commitments: IDB Integrated Strategy for Climate Change Adaptation and Mitigation and Sustainable and Renewable Energy, background paper, Washington D.C., March 2013.

199 See Office of Oversight and Evaluation Mid-term Review of IDB-9 Commitments: Overview Report, Washington D.C, March 2013. The overview document concluded that "the four sector strategies required under IDB-9—on Social Policy for Equity and Productivity; Institutions for Growth and Social Welfare; Competitive Regional and Global International Integration; and Environment, Climate Change, Renewable Energy and Food Security — are in place but do not fulfil the expectations of a strategy document and in practice appear to have little impact."

200 Strategies, Policies, Sector Frameworks and Guidelines at the IDB, October 2018.

IDBG should contribute and collaborate on delivering climate goals.[201] This new action plan shifts attention toward assisting countries and clients in achieving long-term consistency with net-zero carbon and climate-resilient development pathways.

IDB's *Sustainability Report 2019* includes IDB contributions to increasing resilience in LAC. This section of the report explores the contributions of IDB-financed projects and research to building resilience in LAC by (i) considering its role in finance, fiscal management, and public policy; (ii) protecting coastal zones, forests, and other natural capital and promoting sustainable agriculture practices; (iii) incorporating sustainable approaches into water and sanitation, energy, and transportation systems, and (iv) developing cities in a sustainable way. It provides examples of relevant IDB projects, including Building Resilience in Public Finance for Natural Disaster Emergencies. With respect to a project in Jamaica it observes, in referring to a USD 285 million loan approved in 2018, that it was, "highly exposed to natural hazards of varying intensity and severity, including hurricanes, earthquakes, droughts, floods, and landslides."[202] IDBG's most recent *Development Effectiveness Overview (DEO) 2020* states that climate change and other concerns about sustainability remain critical for LAC. It also observes that IDBG's focus on regional CCMA efforts grew from 2016 to 2019 as global attention grew along with country demand. This includes investments in renewable energy, low-carbon transportation, improved climate resilience in various sectors, and support to formulate long-term national decarbonisation plans.[203]

Organisational changes

Institutional arrangements supporting the climate change agenda have evolved in recent years. The 2007 Sustainable Energy and Climate Change Initiative was the basis. In 2012, this became the Climate Change and Sustainability Division. In 2016, IDB created the Climate Change and Sustainable Development Sector bringing together other divisions (climate change, environment, rural development and DRM, housing and urban development) under a single manager.[204] Transversal working groups were also established to discuss crosscutting issues, including joint projects or scaling up existing ones, exploring potential PPPs, and generating knowledge products.[205] Also in 2016, IDB established a community of practice on resilience. As of December 2019, it was being led by specialists of the environment, rural development and DRM division, the climate change and sustainability divisions, and the environmental and social safeguards unit to (i) contribute to a better understanding of the factors that determine resilience and the sustainability of programmes promoting the development of the LAC region; (ii) harness existing knowledge and lessons learnt to improve the resilience of IDB-financed projects, and (iii) strengthen IDBG and clients' capacities to mainstream resilience into development programmes. In addition, the former environment and safeguards group was split into a service-oriented group with, in addition, a portfolio review group, which separated the delivery of sustainability services to achieve policy standards from the

201 IDBG, *Climate Change Action Plan, 2021-2025*, op. cit.

202 IDB, IDB, *Sustainability Report 2019*, Washington D.C. 2020, pg. 26. See also IDB, *Sustainability Report 2020*, March 2021, which focuses on the COVID-19 pandemic and IDB support for a green recovery.

203 IDB Group, *DEO Development Effectiveness Overview 2020*, Washington D.C. July 2020, pp. 20-21.

204 According to IDB, subsequent interviews with IDB managers and senior staff indicated that, following the creation of CSD, CCS's explicit mandate to provide support services and knowledge products reduced perceptions of competition with other operational units and helped foster a positive reception for mainstreaming the climate change agenda.

205 *Delivering a Climate Change Agenda for LAC, op. cit.*, indicates that these groups discussed the following topics (i) sustainable infrastructure for "building a shared definition, improving upstream support to enhance sustainability of infrastructure portfolios and projects, and improving access to financing for sustainable infrastructure investments; (ii) sustainable islands, more specifically developing a platform for addressing high climate risks faced by Caribbean and Central American islands, and (iii) a community of practice on resilience to integrate approaches to disaster risk and climate risk. A similar working group was being considered for sustainable landscapes to capture synergies on sustainable agriculture-related initiatives.

review of those efforts. It also established two new clusters – one for natural disasters and climate change and one for biodiversity – that cut across divisions and the IDBG to enhance the delivery of solutions for adaptation and resilience, on the one hand, and for NbS, on the other.[206]

According to the IDB, the SDGs and the Paris Agreement informed its internal changes regarding climate change between 2016 and 2020, including an enhanced focus on: (i) policy and planning support to governments; (ii) mainstreaming climate change in country strategies, sector strategies, and operations; (iii) value added from concessional finance, and (iv) mobilisation mechanisms including through sustainable infrastructure. Within IDB Invest, they led to the creation of the advisory services division in the investment operations department to focus on linking international agendas with work with private sector clients in the LAC region. This division is also responsible for helping to mobilise resources, track targets, and suggest potential actions to achieve them. In 2021, the advisory services division, with its specific climate change team, and the social and environmental governance division, were moved to the strategy and development department to enhance IDB Invest impact and non-financial additionality and ensure that climate change and environmental and social considerations were fully integrated into IDB Invest's strategic planning and impact framework.

6.B.2 Operational activities

Country level

The most recent Jamaica and Brazil CS illustrate how climate change has been integrated into these periodic IDBG documents during the period under review, the former having been issued in October 2016 and the latter in June 2019. The most recent CS for Jamaica covers 2016-21 and was designed to support the government's development agenda, address constraints to economic growth, and contribute to poverty reduction with a focus on three strategic objectives: (i) improve public sector management; (ii) increase private sector productivity and growth, (iii) and reinforce human capital protection and development. Resilience to climate shocks, fighting crime and violence, and gender equality are crosscutting areas and the climate change notes, "climate-related shocks worsen economic performance and fiscal outcomes, while fiscal constraints affect the resources that can be allocated to adaptation, mitigation and disaster risk management."[207]

Regarding its support, IDBG would encourage private sector development as follows, among other things: (i) reforms that reduce electricity costs by diversifying energy generation towards clean energy, supporting energy efficiency, and strengthening governance, and (ii) improving agricultural infrastructure, including irrigation, farm roads, and rural electrification, taking into account climate resilience and promoting climate-smart technology and practices. Both CCAM also represented opportunities for the private sector to support environmentally sustainable business models and promote innovative technology adoption. It also observed, "the vulnerability of Jamaica to the impacts of climate shocks is a function of various elements, mainly related to its relatively small size, its location within the Atlantic hurricane belt, its hilly topography, and geographical setting (narrow coastal zones), and being a small island developing state." In addition, the effects of climate change had, "altered the dynamics of development and increased uncertainty in the planning and implementation of activities, whether it is planting and harvesting of crops, the supply of water, or the predictability of climate patterns."

206 See, for example, Graham Watkins, et al., *Nature-Based Solutions: Increasing Private Sector Uptake for Climate Resilient Infrastructure for Latin America and the Caribbean*, IDB Climate Change Discussion Paper, Washington D.C., December 2019, and IDB, I*ncreasing Infrastructure Resilience with Nature-Based Solutions: A 12-Step Technical Guidance for Project Developers*, Washington D.C., 2020.

207 IDBG, *IDB Group Country Strategy with Jamaica, Washington D.C.*, October 2016, pp. 7, 10.

Future IDBG interventions in Jamaica, according to the CS, would seek to increase climate finance resources to support a "transition toward a lower carbon, more resilient future." It would do this by: (i) promoting policy reforms across sectors and thematic areas to integrate climate change considerations with a focus on fiscal and national accounting policies; (ii) increasing the availability of climate-relevant information; (iii) strengthening capacity building and improving information dissemination and public awareness, and (iv) adopting a multi-sectorial approach to resilience and DRM. The CS also affirmed that these issues were not confined to the public sector and should include cross-linkages with areas such as water, energy, agriculture, tourism, and housing with and in the private sector.

The most recent IDBG CS for Brazil covers 2019-22. It highlights four priorities and three crosscutting areas, one of which is environmental sustainability and climate change. As concerns the energy sector specifically, it observes that Brazil's energy matrix is highly dependent on hydroelectric energy, "which helps to provide renewable, clean, and low-cost power, but increases the country's vulnerability to climate change." Accordingly, it argues that additional generating capacity should come primarily from other renewable sources, such as wind and solar energy. It also describes improved energy efficiency as a "pending challenge" and states that inefficiencies exist in energy consumption, transportation, and distribution. Regarding urban mobility, it observes that Brazil ranked as the world's eighth most congested country, that the city of São Paulo ranked sixth and that inadequate planning was the main urban challenge.

In response, IDBG would help the government improve infrastructure quality by building institutional capacity for planning and investment. With respect to transportation and logistics specifically, IDBG priorities would be to develop multimodal transport systems and to modernise and expand climate-resilient infrastructure and operating efficiency. Regarding energy, it would promote policies and investments to diversify the matrix and increase the role of renewable energy sources, encourage innovative solutions, and promote regional energy integration. For water and sanitation infrastructure, it would focus on improving access to sustainable basic sanitation services and creating greater climate and environmental resilience, including watershed protection to safeguard sources. With respect to urban mobility, it would support the implementation of mobility plans promoting a shift toward more sustainable modes with low emissions and the use of new technology.[208]

Projects and programmes

IDB assistance programmes have evolved in response to climate change. The most recent *Sustainability Report* provides several recent illustrations of green finance that support this observation:

- **In 2019, IDB announced the Green Bond Transparency Platform,** a digital tool that brings greater transparency to the green bond market in LAC, which uses block chain technology and facilitates harmonised issuance reporting and verification. Issuers, investors, and other market actors can upload and research information on transaction details, bond performance, use of proceeds, and environmental impacts of green bonds in the region. The platform will provide greater confidence in the market and is supported by more than 30 organisations. Also on 2019, the IDB launched its inaugural sustainable development bond to begin leveraging the green bond market to finance those projects aligned with the SDGs. Box 10 describes specific support for Chile.

208 IDBG, IDB Group Strategy with Brazil, 2019-2022, Washington D.C., June 2019.

Box 10. IDB support for green finance in Chile

IDB is the lead supporting institution in Chile, helping the ministry of finance and other financial regulators agree on a roadmap for the green finance transition that includes improved management of climate-related risks and creating new opportunities. Work is underway to identify how the Chilean financial sector and capital markets can analyse, consider, and report the risks and opportunities arising from climate change, using international best practices as a reference (e.g., the Taskforce for Climate Related Disclosures). IDB accompanied the ministry of finance and other financial regulators at a Green Finance Roundtable discussion with the private sector in 2019. As a result, financial sector regulators signed a green agreement for the financial sector and issued a declaration on climate-related risks and opportunities.

In addition, IDB supported Chile's ministry of finance in issuing the first sovereign green bond in the region, which won a GlobalCapital award in 2019 for issuing the most impressive LAC green debt. Specifically, IDB helped structure the bond issuance framework, the expenditure eligibility criteria, and monitoring and reporting mechanisms. Chile had two highly successful issuances in 2019 (USD 1.4 billion and EUR 861 million). In 2020, the ministry of finance plans to issue more bonds under the framework. Thanks to these and other efforts, Chile is quickly emerging as a leader in the transition toward a low-carbon and climate-resilient financial system.

The work in Chile was based on regional research — Climate Risk and Financial Systems of Latin America: Regulatory, Supervisory and Industry Practices in the Region and Beyond — that examines the relationship between climate change and financial markets in LAC.

Source: IDB, Sustainability Report 2019

- **While more green bonds are being issued in recent years, agricultural green bonds have lagged, likely due to difficulties of developing international certifications such as the Climate Bonds Standard,** which has proven to be methodologically complex given the variety of environmental and social benefits spanning different geographic and climatic regions. In Mexico, IDB has supported the development of a methodology to issue the world's first certified agricultural green bond for which USD 150 million has been raised to date to finance over 500 green projects, leading to lower usage of water, pesticide, and fertilizer.
- **The 2019 IDB, *Transforming Green Bond Markets: Financial Innovation and Technology to Expand Green Bond Issuance in Latin America and the Caribbean*, found that it still represents less than 1% of the global bond market.** The publication identifies two challenges that have slowed the adoption of green bonds and presents a menu of responses that policymakers, regulators, and public financial institutions could use to offset them. It argues that new approaches to risk design and technology are essential for tapping the potential of green bond markets in LAC and elsewhere. [209]

The report also provides recent examples of IDB projects for DRM in Argentina, the Bahamas, Belize, Ecuador, Jamaica, and Suriname. It also briefly describes an agricultural insurance programme for climate risks, an adaptation project for the fisheries sector and marine coastal ecosystems in Peru, a USD 10.7 million loan and a USD 24.3 million grant from the GCF for a programme to restore climate-resilient forests

209 IDB, *Sustainability Report 2019, op. cit.* states, "green bonds (bonds whose proceeds are designated for climate and environmental projects) are a powerful tool for mobilising investment to meet climate targets, especially valuable in the context of countries' commitments to the Paris Agreement and the SDGs. Since the first green bond in 2014, sovereign and private issuance in LAC has reached USD 12.6 billion."

in Honduras, support for the REDD+ project portfolio in Colombia, and an operation for the Recovery of Natural Capital of the Dry Corridor Region of Guatemala, among others. Finally, it highlights recent IDB publications on (i) *NbS: Increasing Private Sector Uptake for Climate-Resilient Infrastructure in Latin America and the Caribbean; (ii) The Role of Green Infrastructure in Water, Energy, and Food Security in Latin America and the Caribbean, and Climate Change Vulnerability and Adaptation Measures for Hydroelectric Systems in Andean Countries*, among others, and the Caribbean Climate Smart Islands Programme (see Box 11).

Box 11. The Caribbean climate-smart islands programme

In December 2017, the IDBG announced its support for the newly formed Caribbean Climate-Smart Coalition, a public-private initiative involving an USD 8 billion investment plan that aims to transform the region into the world's first "climate-smart" zone and benefit an estimated 3.2 million households. The coalition will focus on co-ordinated action for four initial climate-related priorities: scaling renewable energy and energy efficiency, building low-carbon resilient infrastructure, creating innovative financing models in exchange for progress on policy reforms to promote climate-smart growth, and strengthening country capacity to plan long-term resilience strategies. IDBG indicated that its new public and private sector financing for this initiative would be around USD 1 billion over the next five years.

The IDB's associated Caribbean Climate-smart Islands Programme seeks to build climate resilience and to demonstrate low-carbon transition pathways on the islands of Tobago (Trinidad and Tobago), Caye Caulker (Belize), and Harbour Island (the Bahamas). It focuses on identifying, analysing, and piloting innovative measures in priority sectors, including transport, infrastructure, energy, water, waste treatment, and tourism. As a sandbar island with an elevation of just over eight feet at its highest point, Caye Caulker faces a very real threat from climate change. Storm damage hampers daily life and floods have covered the island in recent years. Water scarcity is also a major issue, particularly after natural disasters. These challenges made Caye Caulker Roman Catholic School an ideal setting for a pilot project to install an off-the-grid water-producing system since it could be used in daily life and in emergency situations.

The new system is a set of hydro-panels that create drinking water from sunlight and air by using solar power to draw moisture from the atmosphere. Water is purified and mineralised to ensure that it is potable and then dispensed from a tap system. It also has a small battery to enable water delivery on cloudy days and at night and can be monitored with an app. Twenty-one panels were installed on the school's roof in 2019, and two more panels are scheduled for installation at the Caye Caulker Community Centre. IDB partnered with the Belise Ministry of Tourism and Civil Aviation and the Caye Caulker Village Council to facilitate the project at the regional and community levels, and with consulting services for environmental assessment and project management, and with Caye Solar for installation.

Source: IDB Sustainability Report 2019

Selected country operations: Brazil and Jamaica

Jamaica's natural and geographic vulnerability and growing susceptibility to extreme weather events make adaptation and resilience-building the principal challenges and opportunities for external support. Hurricanes and associated flooding appear to be becoming more frequent and more intense because of climate change. Over the longer term, sea level rise is also a growing threat to low-lying areas, including areas of heavy tourism. Regarding mitigation, the island remains highly dependent on imported fossil fuels. Jamaica is not a large emitter of GHG in international terms but must nevertheless shift its energy mix to rely more on domestic renewable sources.

IDBG climate change-related operations in Jamaica over the past decade focus mainly on energy efficiency and conservation, improved transport mobility, and greater resilience to natural disasters. Except for three loans, totalling USD 45 million for energy efficiency and conservation, the balance have been comparatively small technical co-operation operations, which have grown in number since the Paris Agreement was signed. Strengthening Jamaica's Capacity to Meet Transparency Requirements under the Paris Agreement, approved in December 2019, is directly associated with it and another recent operation, Blue Carbon Restoration in Southern Clarendon, approved in January 2020, identifies restoring mangrove ecosystems as its objective: both of these are noteworthy.

Looking ahead, a programme to improve climate change adaptation governance is being designed as a loan series to improve Jamaica's financial capacity for DRM and its governance of CCA across vulnerable sectors. IDB produced a study, *Improving Climate Resilience in Public Private Partnerships in Jamaica*, in June 2020, in co-operation with the Development Bank of Jamaica. In 2017, IDB Invest launched an initiative to transform the Caribbean into a climate-smart zone. This public-private initiative, the Climate-smart Coalition has an USD 8 billion investment plan that seeks to scale-up renewable energy and energy efficiency, build low-carbon, resilient infrastructure, and introduce new financing models to attract investment in climate-smart development. As part of its private sector investment activities, the IDBG also launched a sustainable islands platform, designed to help Caribbean SIDS make climate-resilient investments in the blue economy and the circular economy, including the restoration of natural capital (e.g., mangroves, coral reefs and other coastal habitats). Jamaica is one of 11 participating Caribbean Basin Island States.

Brazil

Brazil faces significant mitigation and adaptation challenges. The most important is to reduce its rates of deforestation and associated fires, which have increased again since January 2019 after more than a decade of decline, after a new federal administration took office. This affects both the Amazon and Cerrado Biomes that together account for around 80% of the national territory. The semi-arid northeast is also highly vulnerable to increasingly frequent and intense droughts that are now impacting other parts of the country as well, including the Amazônia region, the Pantanal (i.e., the world's largest wetlands), and the large cities and metropolitan areas of the highly urbanised southeast. The negative factors over the past two years have included climate-unfriendly federal government policies that include promoting commercial primary commodity export and failing to enforce environmental policies, including those specifically designed to curb deforestation and fires.

Jamaica

As in Jamaica, most IDB climate-relate operations are small TC projects. The exceptions include a loan for the follow-on Acre Sustainable Development Project II, approved in April 2013 with an IDB commitment of USD 72 million, to help improve forest management in this Amazonian state, and two GEF-financed

projects: (i) Conservation, Restoration, and Sustainable Management in the Caatinga, Pampa, and Pantanal GEF Terrestre Project, approved in March 2018 with USD 32.6 million; and (ii) Recovery and Protection of Climate and Biodiversity Services in Brazil's Southeast, approved 31 July 2014 for USD 31.5 million. There is also a grant of USD 16.45 million from the Strategic Climate Fund under the Brazil Investment Programme for the FIP for the Forest Information to Support Public and Private Sectors in Management Initiative, approved in December 2013. IDB has also supported Brazil's low-carbon agriculture programme in four biomes though five TC grants since 2013.

Formulating and implementing NDCs

In addition to being an active member of the NDC partnership with which it is co-ordinating interventions in Bolivia, Chile, Colombia, and the Dominican Republic on developing NDCs and LTSs and climate budget tagging, IDB is also in the process of signing a MOU with UNFCCC to enhance collaboration in areas of common interest, such as providing technical support to LAC countries on NDCs and LTSs, capacity building, and policy implementation and reform. In 2020, it launched the NDB LAC webpage, together with the LED LAC report also initiated last year, to provide an analysis of LAC progress on NDC implementation.

6.B.3 Measuring the impacts of GHG emissions reduction and adaptation

IDB follows the International Financial Institution Framework Guidelines for a Harmonised Approach to GHG Accounting, among other pertinent guidelines, as summarised in its Greenhouse Accounting Manual.[210] It applies these to all projects qualifying for IDBG climate mitigation finance. In 2021, IDB assessed emissions reductions in 13 investment projects and two credit lines totalling around 365 000 tCO2e per year during the project lifetimes. It also incorporates the social cost of carbon in the economic analysis of its potential investment projects, using low and high estimates of carbon prices of USD 40 and USD 80 per tonne respectively in line with the High Commission on Carbon Prices. IDB Invest develops its own GHG accounting system for measuring the impact of its transactions in terms of direct and indirect GHG emissions for projects expected to or currently producing more than 25 000 tCO_2e annually, according to the IFC performance standards, and GHG emissions reductions attributed to climate change mitigation investments. The IDB Invest GHG accounting system is based on accounting methodologies developed by the CDM.

IDBG has established a system for assessing the climate risks associated with its investment operations. Initially designed in 2017, the disaster and climate change risk assessment methodology was pilot tested in 2018. A more detailed version for IDB projects was published in December 2019 covering 11 types of natural hazards, including droughts, floods, heat waves, hurricane storm surge and wind, tsunamis, landslides, sea level rise, and wildfires and projects for water and wastewater utilities, roads, drainage, hydropower infrastructure, and social facilities. This effort included defining resilience indicators that feed into project results matrixes. CCS is currently also developing a conceptual resilience framework to operationalise climate resilience at the project and sector levels and has assessed the implications of climate

210 IDB, *IDB GHG Accounting Manual, Washington D.C.*, February 2021.

targets on oil production and fiscal revenues and of climate change vulnerability and economic impacts in the region's agriculture sector.[211],[212],[213] In operations, IDB's methodology takes a phased approach that allocates resources commensurate with climate risk.[214]

IDB points to the emerging challenge of coherently approaching climate risk group-wide where responsibility necessarily involves several departments. It adds that, for individual operations, CCS and the environmental and social solutions unit team work together to apply the risk methodology and that a new environmental and social risk management unit is responsible for quality assurance of the environmental and social solutions and risk management analysis of the sovereign-guaranteed loan portfolio. In addition, the investment team and the credit risk management unit monitor sustainability-related exposures in the IDBG's liquidity and treasury operations using an exclusion list and applying ESG filters to screen out securities with weak sustainability profiles from the investable portfolio. For climate risk, the IDB Invest Environmental, Social and Corporate Governance Division recently increased its capacity to screen potential investments for climate risk and became part of the task force on climate-related financial disclosures in 2019.

6.B.4 Incorporating COVID-19

IBDG's *DEO 2020* observed that the COVID-19 crisis was likely to have dramatic consequences for advancing progress on climate change as countries focus on other urgent priorities but that post-COVID-19 recovery efforts could be leveraged for sustainable, resilient growth and that many countries were already building sustainability into their plans.[215] IDB also recently issued a blog, *COVID-19 is our wake-up call to build a sustainable and inclusive future*, stating that this complex situation shows that governments, the private sector, civil society, and MDBs must "work together to support a sustainable recovery" and that development banks have a vital role to play "to support this shift by ensuring we do projects the right way, select the right projects, and help fix governance, financial, and institutional systems." In conclusion, it affirms that IDB and other MDBs could support low-carbon, climate-resilient development consistent with the Paris Agreement in response to COVID-19 by ensuring that the investments they help finance are low-carbon, climate resilient. and support country decarbonisation and adaption plans.[216]

211 See Stephen Prager, Ana. R. Rios, Benjamin Schiek, Juliana S. Almeida, and Carlos E. Gonzalez, *Vulnerability to Climate Change and Economic Impacts in the Agriculture Sector in Latin America and the Caribbean*, IDB Climate Change Division and Environment, Rural Development and Risk Management Division Technical Note, Washington D.C., August 2020.

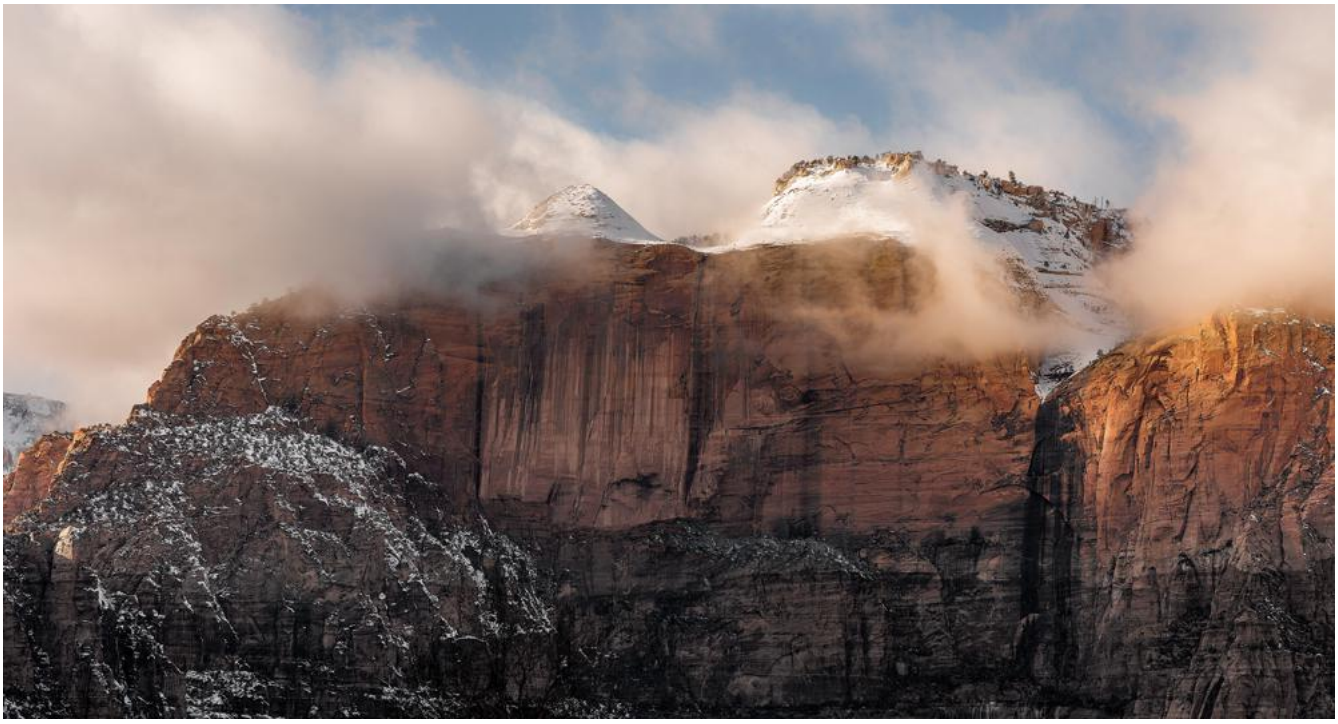
212 See Melissa Barandiarán, Maricarmen Esquivel, Sergio Lacambra, Ginés Suárez, and Daniela Zuloaga, *Disaster and Climate Risk Assessment Methodology for IDB Projects: A Technical Reference Document for IDB Teams*, Washington, D.C., December 2019, pp. 8-9.

213 Baltazar Solano Rodriguez, Steve Pye, Pei-Hao Li, Paul Elkins, Osmel Manzano, and Adrien Vogt-Schib, *Implications of Climate Targets on Oil Production and Fiscal Revenues in Latin America and the Caribbean*, IDB Climate Change Division Discussion Paper, Washington D.C., August 2019.

214 IDB adds that this methodology is organised around five steps: (i) classify hazard exposure; (ii) revise classification based on criticality and vulnerability; (iii) conduct a simplified quantitative analysis; (iv) conduct a qualitative analysis, and (v) make a quantitative analysis.

215 IDB, *DEO Development Effectiveness Overview 2020, op. cit.*, pg. 20. See also, IDB, *A Framework and Metrics in Financing Operations (developed jointly by MDBs and the International Development Financing Club)*, Climate Change Division, Washington D.C., December 2019.

216 Graham Watkins, *COVID-19 is our wake-up call to build a sustainable and inclusive future*, IDB, Washington D.C., 4 November 2020.



6.C What IDB lessons can inform the MS response to the climate crisis?

Adoption, replication, and scaling-up lessons learnt and good practices

One of the most important lessons learnt and good practices by IBDG on climate change is that the international climate change agenda requires ambitious policy reforms. However, current commitments as laid out in the NDCs are not aligned with the goal of limiting global warming to well below 2°C as decreed by the Paris Agreement. In fact, implementing current NDCs may, is some instances, increase the risk of carbon lock-in and stranded assets with their associated economic costs and potential social disruption by establishing technical and economic barriers for decarbonisation.[217]

IDB adds that, during the past five years, the paradigm shift entailed by the Paris Agreement has driven institutional changes and changes with its country clients. More specifically, it requires a shift in the climate change focus from a subset of IDBG operations with climate change impacts (climate finance) to ensuring that all operations are consistent with countries' long-term, low-GHG, climate-resilient development pathways. Experience is showing that LTSs can help governments to: (i) plan for climate resiliency and net-zero carbon emissions informed by science; (ii) update their NDCs; (iii) anticipate and better manage trade-offs, and (iv) design the policy and investment roadmaps needed to enable the transition and implement their climate goals in line with the Paris Agreement objectives. This is beginning to happen at the country level and the recent experience in Costa Rica is a paradigmatic example of this emerging focus. With its cross-sector capacity, the IDBG has helped Costa Rica design its LTS with the participation of different sectors and is now assisting in its implementation. Following the same approach, it is doing the same thing with Chile, Colombia, and Peru regarding their LTSs and providing support to other countries (e.g., Barbados, Bolivia, and Suriname, among others) to design their new NDCs.

217 See, for example, IDB, *Committed Emissions and the Risk of Stranded Assets from Power Plants in Latin America and the Caribbean*, Climate Change Division Discussion Paper, Washington D.C., September 2019.

Other lessons learnt

IDB regularly shares lessons with other MDBs and stakeholders through the climate-related working groups and publications, including the annual joint report on MDB's climate finance. According to IDB, lessons identified during implementation of the 2016-20 action plan included: (i) country and client demand drives IDBG's investments and climate change needs to be more deeply embedded in country strategies, programming exercises, and policies; (ii) more climate expertise is needed in country offices to foster demand and monitor execution; (iii) country and division-level sub-targets could have created a clearer sense of shared commitment for the 30% climate finance goal; (iv) climate finance needs to be complemented with an assessment of alignment to the Paris Agreement, including managing climate risk and tracking results, and (v) adequate human and financial resources are needed to deliver an ambitious agenda. Useful lessons are also put forward in Getting to Net Zero Emissions, issued by IDB and the IDB-led Deep Decarbonisation Platform for LAC projects in 2019, whose key messages included the following:

- **The transition to net-zero emissions is technically possible by producing zero carbon electricity, electrifying industry, transport, heating, and cooking.** Increasing the provision of public and non-motorised transportation, managing and regenerating natural carbon sinks, and improving the efficiency of resource use, reducing waste, and minimising carbon intensity in construction and diets.
- **The transition to net-zero emissions brings substantial economic and development opportunities for LAC.** The cost of renewable electricity and electric mobility is dropping fast. Solar and wind are already the cheapest options in many LAC countries. Done right, the transition could bring one million net jobs to the region by 2030 and generate benefits worth several percentage points of GDP by avoiding the current loss of productivity in congestion and health impacts from pollution.
- **LAC is producing compelling evidence on how to work with stakeholders from government, civil society, academia, and the private sector to design long-term strategies that integrate economic, social and decarbonisation goals.**[218]International Fund for Agricultural Development

218 IDB and DDPLAC, *Getting to Net Zero Emissions: Lessons from Latin America and the Caribbean*, Washington, D.C. 2019. See also IDB and ILO, *Jobs in a Net-Zero Emissions Future in Latin America and the Caribbean*, Washington D.C., 2020.

7. INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT

7.A How is IFAD responding to climate change?

7.A.1 How does IFAD adhere to the normative frameworks of the 2030 Agenda and Paris Agreement?

The IFAD Strategy and Action Plan on Environment and Climate Change 2019-25 recognises the importance of the SDG 2030 Agenda and the Paris Agreement in highlighting the relationships between economic growth, poverty reduction, environmental sustainability and social inclusion.[219] It notes that these normative frameworks also aim to increase country accountability for addressing environmental sustainability and climate change. IFAD's 2019 *Climate Action Report* highlights the role of the NDCs as a climate change action policy instrument.[220] It refers also to the Koronivia joint work on agriculture, a decision reached at COP 23 in November 2017 calling for a technical work programme on agriculture within the UNFCCC framework.

IFAD stresses the need to address climate change development in an integrated way, as reflected in its strategic framework 2016-25 and the 2019 annual report.[221],[222] As the IFI and UN agency with the mandate to eradicate poverty and hunger by investing in poor rural people through financial and TA to agriculture and rural development projects, IFAD highlights the importance of SDG 1 target 5: "By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters," and SDG 2, SDG 6, and SDG 13. The strategy also mentions the importance of other normative frameworks such as the Convention on Biodiversity and the International Treaty on Plant Genetic Resources for Food and Agriculture for Inclusive and Sustainable Rural Development.

IFAD has made considerable efforts to mainstream climate change considerations into its portfolio. It was an early mover in 2012 with the Adaptation for Smallholder Agriculture Programme (ASAP). Its SECAP process incorporated climate risk and climate response into country strategies and projects, and NDC implementation is now incorporated into its country strategy development process.

7.A.2 How does IFAD's response to climate change cohere with the MS?

IFAD engages in several climate-linked partnerships, including the Africa Sustainability Centre and the Global Innovation Lab for Climate Finance, to help build the resilience of African smallholder farmers to climate change using innovative financial instruments. Two instruments -- blockchain climate risk crop insurance and the West African initiative for CsA – have been selected. IFAD partnered with the lab because business solutions are important for addressing issues related to growing climate impacts on smallholder farmers and agriculture in Africa.

Within the NDC partnership, IFAD contributes to the thematic working group on agriculture, food security, and land use. It promotes the place of agriculture in the UNFCCC processes and NDC implementation, contributes to the National Designated Authorities Partnership platform to promote policy dialogue and

219 https://www.ifad.org/en/document-detail/asset/39434396#:~:text=Ambassadors%20and%20Advocates-,IFAD%20Strategy%20and%20Action%20Plan%20on%20Environment%20and%20Climate%20Change,on%20environment%20and%20climate%20change.

220 https://www.ifad.org/en/web/knowledge/publication/asset/41461792

221 https://www.ifad.org/en/web/knowledge/publication/asset/39369820

222 https://www.ifad.org/en/web/knowledge/publication/asset/41990757

environmental and climate finance, with a focus on smallholder agriculture, and capacity building, and supports the Learning Alliance for Adaptation in Smallholder Agriculture set up in 2015 to produce and disseminate evidence in high-level forums, South-South events, and research projects.

A recent MOPAN study on the collaboration among the FAO, WFP, and IFAD highlighted good co-operation in country, especially through individual operations.[223] One recent climate relevant example noted was the Bangladesh 2017 project Promoting Resilience of Vulnerable through Access to Infrastructure, Improved Skills and Information, which aims to improve incomes and promote the resilience to extreme weather conditions of 300 000 rural households in 25 flood-prone sub-districts of northern Bangladesh. It supports building climate-proof infrastructure, creating off-farm employment opportunities, and strengthening communities' ability to adapt to climate risks by increasing disaster and flood preparedness through improved access to information. The project maps ultra-poverty and malnutrition in partnership with WFP, helping to target beneficiaries, and supports community-managed early warning systems through an MOU with the local government engineering department. Costs are USD 92.35 million, including an IFAD contribution of USD 64 million.

IFAD partners with FAO, with which it collaborates in using the ex-ante carbon accounting tool developed by FAO to estimate the GHG emitted or sequestered by agricultural operations.[224] It provides research grants to organisations in the CGIAR for activities relevant to its mandate. One recent example is the use of conservation agriculture in crop-livestock systems in the drylands for more efficient water use, and greater soil fertility and productivity in North Africa, the Near East, and Latin American countries through a grant to ICARDA and the **International Maize and Wheat Improvement Centre**.[225] IFAD has also established some key institutional partnerships to enable the application of specific climate-related data/tools/approaches/expertise, including with WFP and the European Space Agency.

IFAD engages with partners beyond the multilateral system, especially through its South-South and triangular co-operation, and has supported partnerships among local communities, local organisations and NGOs in countries. It supports the cross-country collaboration of farmers' organisations, for example. It also supports public-private-producer-partnerships but notes that some have faced challenges.[226]

IFAD has been a GEF IA since 2004.[227] GEF has supported 58 IFAD operations to date, many through the SCCF and LDCF, with resources mostly from the land degradation FA. Activities have included land and water management, watershed/ecosystem and rangeland management, and often support innovative approaches that generate multiple benefits, including strengthening resilience to climate change and reducing/avoiding carbon emissions. The Resilient Food Systems Programme, launched in 2018, is one of three GEF integrated approach pilots.[228] It supports sustainability and resilience for food security in Sub-Saharan Africa and emphasises natural capital and ecosystem services to enhance agricultural productivity. Implementation is led by IFAD in collaboration with 12 African countries and several regional partners.[229] The Community-based Forestry Development Project in southern Mexico, implemented from 2011-16, is

223 The study also suggested that there was room for greater co-operation at strategic and programming levels and recognised the transaction costs of moving to such an approach. http://www.mopanonline.org/otherproducts/items/mopancasestudy-collaborationbetweenthethreerome-basedunagencies.htm

224 http://www.fao.org/3/a-i8075e.pdf

225 https://mel.cgiar.org/uploads/projects/Or84HhEC38-100114%20IFAD%20CLCA_ICARDA_CIMMYT_Proposal%204.10.17%20for%20SEC%20clean[1]_vg.pdf

226 https://www.ifad.org/documents/38714182/40240768/ESR+partnerships_for+web.pdf/b12c21eb-3a5a-40f3-89e7-ee0b15990c34

227 https://www.ifad.org/en/gef

228 https://www.ifad.org/en/web/knowledge/publication/asset/41823500

229 https://reliefweb.int/sites/reliefweb.int/files/resources/RFS_Annual%20Report_2019_compressed.pdf

an earlier example of the innovations that IFAD and the GEF often support.[230] It was designed to address deforestation and forest degradation in the rural communities of marginalised forest areas in Campeche, Chiapas and Oaxaca. It supported agro-forestry systems, microenterprises from forest-based resources, low-carbon energy transfer, and community carbon sequestration monitoring. Costs were USD 18.5 million including USD 5 million each from GEF and IFAD. Impact assessments were positive.

IFAD has been a GEF accredited implementing partner since 2016 and is currently implementing four operations.[231] The Burundi Climate Proofing Project aims to build farmers' resilience to climate change in the Imbo and Moso catchments and increase agricultural productivity and food security through better agro-ecosystem management practices. It will reach about 575 000 beneficiaries. Costs are USD 32 million, comprised of USD 10 million from the GCF and USD 22 million from IFAD. Co-benefits include 2.9 million tonnes of GHG emissions avoided. The Northeast Brazil Climate Resilience project will transform vulnerable farmers' productive systems to low emission climate-resilient agriculture and increase access to water through solar irrigation and support women, youth and traditional communities to scale up tested adaptation and mitigation measures. Costs are USD 202 million, comprised of USD 100 million from the GCF and USD 102 million from IFAD. It will reach 2.5 million beneficiaries. Co-benefits include 11.9 million tonnes of GHG emissions avoided. The Niger Inclusive Green Financing project will improve access to credit for smallholder farmers to implement climate-resilient and low emission agriculture. It will incentivise commercial banks and micro-finance institutions to provide credit to farmers in tandem with TA and capacity building. Costs are USD 13.9 million including USD 10.2 million from the GCF. It will reach 175 000 beneficiaries. The Resilient Rural Belise project will develop seven climate-proofed value chains for smallholder farmers, rehabilitate critical infrastructure and use grant and on-lending mechanisms to producer organisations and local communities and will reach 125 000 beneficiaries. It will support better access to climate information services for more resilient agricultural practices and planning. Costs are USD 20 million with USD 8 million from the GCF.

IFAD was accredited as a multilateral IE (MIE) to the AF in 2010. The board approved only two IFAD projects (Lebanon and Iraq) in the period 2012-18. IFAD notes that AF resources accessible to a MIE are limited to 50% and a USD 10 million cap per country. In 2019, three new projects were approved with AF support for Sierra Leone, Moldova and Georgia, with an estimated total value of USD 20.57 million.

Partnerships facilitate IFAD's work, overall. They support innovation and scaling-up of climate smart approaches to supporting rural livelihoods. IFAD also brings added value because of its particular focus, and strong emphasis on results monitoring. It has, however, noted some challenges, for example in linking global partnerships to country programmes and in accessing financing mechanisms such as the AF. And, partly because IFAD has lacked a strong country presence, collaboration with other agencies with a larger country presence has been challenging occasionally. Currently committed to decentralisation, IFAD is building up more technical capacity in country.

230 https://www.ifad.org/web/ioe/evaluation/asset/40971006, https://www.ifad.org/documents/38714170/41096508/MX_DECOFOS_IA+brief.pdf/bed6fcb9-6488-e915-1b49-b664924ebd9f

231 https://www.greenclimate.fund/ae/ifad

7.A.3 What is the impact of greater global attention to climate change on IFAD's work?

IFAD defines clear targets in its 2019-26 CAP.[232] Its aim is that its interventions will give 24 million more people greater resilience to climate change by 2026. This will be assessed by: (i) the number of groups supported to manage climate related risks and natural resources; (ii) the number of people accessing technologies that sequester carbon or reduce GHG emissions; (iii) implementation of updated approaches to social, environmental and CRA; (iv) strengthened capacity in client countries and among IFAD staff, knowledge and exchange, and (v) resource mobilisation. IFAD aims to secure an additional USD 400 million in climate and environment financing, including USD 100 million for its Adaptation for Smallholder Agriculture Programme+ (ASAP+). The target, furthermore, is that at least 25% of project and grant assistance in IFAD 11 (2019-21) and at least 35% in IFAD 12 (2022-25) will be allocated to climate focused activities and that financing is secured for joint projects with other responsible business alliances

The 2019 *Climate Action Report* summarises recent achievements:[233]

- **USD 244 million committed towards climate finance across 15 projects approved in calendar year 2019** (September) representing 28% of the total commitment made for the IFAD 11 cycle.
- **USD 45.7 million mobilised in supplementary finance in 2019 from climate and environmental funds:** USD 44 million mobilised in unrestricted complementary contributions to mainstream climate change concerns in the IFAD 11 portfolio from the governments of Germany, Sweden, and Switzerland.
- **All 94 IFAD client countries' NDC to the Paris Agreement on climate change have been screened to identify measures relevant to IFAD operations,** with 100% of new IFAD country strategies including an analysis of and alignment with NDCs.
- **All 48 new projects in 2019 have been screened for CRAs using its** social, environment and climate assessment procedures **(SECAP)**.
- **91% of IFAD projects have scored four or higher on CCA performance,** surpassing the target level of 85%.

The 2019-25 CSAP notes that internal reforms have aimed to improve how IFAD works with beneficiaries. Staff decentralisation has created opportunities for integrating environment and climate change into IFAD's operations. Most IFAD technical experts in environment and climate change are now based in country and regional offices and therefore better positioned to work with governments and partner. This will allow IFAD to align its work more closely with countries' environment and climate change strategies, and country-level UN development assistance frameworks to build capacity throughout the fund, a climate and environment module has been included in the curriculum of the newly established operations academy. In addition, the recent consolidation of the teams responsible for environment and climate change, nutrition, gender, youth and indigenous people into the environment, climate, gender and social inclusion division has created a foundation for integrating these issues more deeply into IFAD's operations. However, IFAD emphasises the need to strengthen technical capacity further to enable it to fulfil its complex development mandate.

232 It has, however, a tighter definition of "climate finance" than some other MOs.

233 https://www.ifad.org/en/web/knowledge/publication/asset/41461792

7.B How have IFAD organisational strategies, operational activities, and resource plans incorporated climate change?

7.B.1 Organisational strategies

IFAD first articulated a CCS in 2010 and has focused on adaptation and resilience for well over a decade.[234] IFAD's 2016-26 strategic framework states that it will pursue three closely interlinked, mutually reinforcing strategic objectives to: (i) increase poor rural people's productive capacities; (ii) increase poor rural people's benefits from market participation; and (iii) strengthen the environmental sustainability and climate resilience of poor rural people's economic activities. The newer 2019-25 CSAP refers to supporting country implementation of NDC commitments. It also refers to IFAD's key project safeguards tool, the SECAP, which provides an integrated approach to screening projects for positive (and negative) impacts in these areas. Climate markers have been integrated into IFAD's quality assurance protocols, and climate adaptation indicators into its results and impact management system.

7.B.2 Operational activities

Selected country operations: Brazil, Ethiopia, India, and Indonesia

IFAD's country strategies (COSOPs) are assessed for their climate impact through the SECAP tool. Elements of NDC are increasingly incorporated into COSOPs. The 2019 climate action report demonstrates how the 11 COSOPs approved under IFAD11 are integrating NDCs, with Vietnam, Rwanda and Zambia being notable examples. The following paragraphs summarise programmes for the four focus countries of the MOPAN study. (IFAD has no active programme in Jamaica, the fifth.)

Brazil

The most recent COSOP is anchored in the government's end poverty programme and covers the 2016-21 period.[235],[236] Brazil has the largest IFAD portfolio in Latin America, corresponding to about 50% of the portfolio, with ongoing operations totalling USD 560 million in 2018. About 60% is counterpart financing, mainly by federal and state governments and beneficiaries. COSOP's three objectives are to: (i) Improve agricultural production, food security and nutrition, and access to markets, including improved management of natural resources and adaptation to climate change; (ii) enhance rural development and rural poverty reduction programmes through testing and scaling up of best practices, and (iii) strengthen the capacities of government institutions and organisations of the rural poor for policy and programme implementation. IFAD targets landless families and family farmers with limited land area, lower fertility soils, usually distant from the largest markets and having limited access to TA and financial services. These include traditional populations with high levels of poverty, women, and young people.

Activities have generally focused on the semi-arid northeast region that is particularly affected by climate change including desertification and more intense, more frequent droughts and floods. However, IFAD is now also working in other areas where the rural poor are increasingly affected by

234 https://www.ifad.org/documents/38711624/39417915/climate_e.pdf/91513e27-2acf-41dc-8c4d-d8e8ec9e968f

235 https://www.ifad.org/document-detail/asset/42389292

236 https://www.ifad.org/en/web/operations/country/id/brazil. The COSOP also contains the annex, Natural resources management and climate change adaptation: Background, national policies and IFAD intervention strategies, and a second annex presenting a poverty profile for the rural north and northeast regions.

environmental and climate change problems: transitional Amazon areas in the western part of the region, which have a high concentration of traditional communities, and the forest zone (Zona da Mata) nearer to the east coast, where sugarcane production has been declining due to soil deterioration and more frequent droughts. Activities support family farmers in managing natural resources and adapting to climate change through: (i) water storage infrastructure for cattle production and irrigation with TA; (ii) organic practices, including seeds adapted to local conditions, agroforestry, soil conservation, multiple cropping, and organic rather than synthetic inputs, and (iii) income-generating activities that preserve native forests and biodiversity such as bee-keeping, agroforestry, and the traditional cultivation of products from natural forests. Projects could also support the implementation of climate information and alert systems.

The COSOP includes two concept notes. The first is for Agricultural Development and Poverty Reduction in the State of Maranhão, which has a transition zone from the semi-arid northeast to the humid tropical Amazon region (approved in 2020 with a loan of USD 15 million). The second is the Productive Transformation of the Zona da Mata and Agreste Territories in the northeastern state of Pernambuco, which is also relatively humid (approved in 2017 with a loan of USD 20 million). A third project was approved in 2020 with GCF support, the Northeast Brazil Climate Resilience project that aims to transform vulnerable farmers' productive systems to low emission climate-resilient agriculture, was approved in 2020 with costs of USD 202 million, comprising USD 100 million from the GCF and USD 102 million from IFAD.

Ethiopia

IFAD's current COSOP, approved in 2016 and grounded in Ethiopia's second growth plan and climate resilient and green economy strategy mainstreams climate resilience into its operations. [237] There are two objectives: (i) enhanced resilience and productivity of ecosystems and livelihoods by improving the management of natural resources, particularly water, and (ii) enhanced linkages with the private sector for access to markets, finance and agricultural technology. There are three areas of focus: (i) participatory small-scale irrigation development, especially in the highlands; (ii) pastoral community development, with a focus on the more arid lowlands, and (iii) rural finance. The COSOP includes a limited number of large-scale programmatic operations: the Pastoral Community Development Project (USD 223 million) co-financed with the WBG; the Participatory Small-Scale Irrigation Development Programme II, (USD 145 million) co-financed with the ASAP, and a Rural Financial Intermediation Programme (USD 305 million) co-financed with EIB and the EU.[238],[239] In addition, the Community-based Integrated Natural Resources Management Project, USD 27.1 million, financed by the Spanish GEF, was scheduled for completion in 2017. The programmes address particular climate challenges including changes in the duration and quality of the rainy season and its delayed onset leading to late planting and extreme yield losses owing to mid-season dry spells or the early cessation of the rains and reduction in surface water resources and water points in the lowlands and groundwater resources.

237 https://www.ifad.org/web/guest/document-detail/asset/40230880

238 https://www.ifad.org/en/asap#:~:text=The%20Adaptation%20for%20Smallholder%20Agriculture,environmental%20finance%20to%20smallholder%20farmers.&text=It%20has%20helped%20five%20million,and%20build%20more%20resilient%20livelihoods.https://www.ifad.org/en/asap#:~:text=The%20Adaptation%20for%20Smallholder%20Agriculture,environmental%20finance%20to%20smallholder%20farmers.&text=It%20has%20helped%20five%20million,and%20build%20more%20resilient%20livelihoods.

239 https://www.ifad.org/document-detail/asset/41264896

Investments prioritise climate resilience and adaptation by: (i) promoting sustainable agriculture and land and water management; (ii) increasing economic productivity; (iii) strengthening and mainstream climate resilience and sustainable NRM activities, and (iv) promoting capacity building at federal, regional, and at district levels. Investments are aligned with Ethiopia's climate-resilient green economy strategy to reduce CO2 emissions.[240] They strengthen linkages between investment projects and grant-supported research activities, notably with the CGIAR, and South-South partnerships. There has been no major shift in the climate-related focus of operations since 2015, although IFAD is now focusing on fewer areas to maximise its impact and comparative advantage.

India

IFAD's COSOP for India for 2018-24 emphasises the links between climate change and long-term food security, noting that,

> …climate change will affect, in particular, the most vulnerable groups – farmers in rain-fed areas, landless labourers and women, whose incomes are likely to decline by 20% to 25%. Hence a major challenge for India is to promote the widespread adoption of climate-smart techniques and other adaptation measures that sustain production and productivity and ensure continued national food and nutritional security.[241]

One strategic COSOP objective is to make smallholder food and agricultural productive systems remunerative, sustainable, and resilient.

The COSOP outlined IFAD's adaptation strategy for India. It emphasised vulnerability reduction and risk management and included support for participatory community mapping, biophysical and socio-economic resource mapping, vulnerability and adaptive capacity mapping, gender differentiated approaches, and participatory monitoring. Investments would support diversification, CsA, insurance and social protection, and the implementation of the IFAD guidelines for disaster early recovery.[242]

When the COSOP was issued, IFAD's active portfolio in India consisted of nine projects. Three of these specifically addressed climate change although some of the others may also include climate-relevant elements: (i) the Andhra Pradesh Drought Mitigation Project (approved in 2016 with a cost of USD 149 million) (ii) the Fostering Climate Resilient Upland Farming Systems in the Northeast (Mizoram and Nagaland States, (approved in 2017 with a cost of USD 158 million), and, (iii) the Post-Tsunami Sustainable Livelihoods Programme in the Coastal Communities of Tamil Nadu (approved in 2005 for a cost of USD 69 million, now closed).[243] Others have climate-relevant activities. The Odisha Particularly Vulnerable Tribal Groups Empowerment and Livelihoods Improvement Programme for example, was approved in 2015 and supports smokeless wood stoves, solar lanterns, and the maintenance of fuel wood reserves.[244]

240 IFAD uses the land-based accounting system tool developed by FAO that estimates carbon stock changes (i.e. emissions or sinks of CO2) as well as GHG emissions per unit of land as a result of specific interventions. http://www.fao.org/3/a-i8075e.pdf It is also used by the CGIAR and CCAFS, a core research programme under CGIAR https://ccafs.cgiar.org/resources/publications/ex-ante-carbon-balance-tool-ex-act

241 IFAD, *India Country Strategic Opportunities Programme 2018-2024*, Rome, 21 August 2018, pg. 7.

242 *Ibid.*, pp. 5, 9, and 13.

243 https://www.ifad.org/en/web/operations/project/id/1100001348/country/india#:~:text=The%20goal%20of%20the%20programme,and%20productive%20way%20of%20life.&text=The%20programme's%20aim%20is%20to,promotes%20community%20participation%20and%20planning.

244 https://www.ifad.org/en/document-detail/asset/41145048

The COSOP included a concept note, Scaling-up Renewable Energy-based Agricultural Technologies for Empowering Smallholder Farming Families in India, to increase the productivity and income of smallholder farmers by adopting affordable technologies using renewable or hybrid sources of energy. The COSOP noted that the project approach has also the potential to be further scaled up through government schemes and private investments related to access to clean energy and promoting value addition of agricultural products. The project has not yet been approved. However, in 2020, IFAD approved the transformative Nav Tejaswini Maharashtra Rural Women's Enterprise Development Project for women's empowerment, which is intended to reduce the risks and impacts of climate change and variability by integrating CsA and animal husbandry in the business advice offered to women entrepreneurs. It also incorporates measures for efficient use of water and for energy conservation in processing, manufacturing, and service enterprises, aligned with the Maharashtra CAP (2018). Total costs are USD 422 million, including an IFAD loan of USD 50 million, of which USD 23 million is defined as climate finance according to the MDB climate finance methodology.

Indonesia

The 2016-20 COSOP is aligned with the government's national medium-term development plan 2015-19 that aims to improve farmer welfare and self-sufficiency in key crops and to support smallholder farmers by investments in infrastructure, extension and adaptation to environmental risks. The COSOP has three interlinked strategic objectives: (i) smallholder producers participate in remunerative agricultural markets; (ii) smallholder producers and their families are more resilient to risks, and (iii) rural institutions deliver services that respond to the needs of smallholder producers. In 2016, the IFAD portfolio included four active investment projects, totalling USD 941 million (IFAD financing of USD 356 million) and benefiting over 122 million people. The Participatory Irrigation Project, approved in 2015, is co-financed by IFAD (USD 100 million) and ADB (USD 600 million) for a total cost of USD 852 million. It aims to modernise irrigation systems and improve agricultural water management, covers 1.9 million hectares and benefits 900 000 households. Other operations included a coastal community development project that closed in 2017, and supported improved fisheries management, a rural empowerment and agricultural development programme in Central Sulawesi, and a smallholder livelihood development project.

The SECAP prepared for the COSOP gave a detailed analysis of climate risks and outlines Indonesia's NAMAs and NAPAs in the agricultural sector. The IFAD programme supports sustainable, climate-smart productive systems taking multiple-benefit approaches. Enhanced biodiversity, lower GHG emissions and reduced vulnerability would be achieved through landscape approaches, conservation agriculture, environment-friendly technologies, drought resistant seed and crop varieties. Soil and vegetation conservation and restoration would be use to rehabilitate degraded land with low biomass (such as peat land and deforested land). The COSOP states that piloting climate risk-oriented approaches such as index insurance schemes would also be considered, and outlines concepts for two new operations: (i) The Rural Empowerment and Agricultural Development Programme on Sulawesi Island would scale-up an existing operation. Climate change management is incorporated into the support for farming systems, in particular for cocoa production and orchard management. It was approved in 2018 with a loan of USD 40 million and a cost of USD 55 million, and (ii) the Young Entrepreneurs Services Programme, an initiative to modernise the Indonesian agricultural sector and to promote employment opportunities for young rural men and women. It was approved in December 2018 with an IFAD loan of USD 55 million and a cost of USD 73 million.

Adaptation for Smallholder Agricultural Programme (ASAP)

ASAP was launched in 2012 to make climate and environmental finance work for smallholder farmers. This multi-year, multi-donor financing window provides co-financing to scale up and integrate CCA across IFAD's portfolio.[245] After ASAP's midterm review, IFAD launched ASAP+ to increase the capacity of smallholder farmers to improve their resilience to climate-related shocks and stresses.[246] In December 2020, ASAP had raised USD 300 million, had an active portfolio in 31 countries and had disbursed USD 158 million, mostly to support adaptation elements of larger IFAD financed projects. The results have been impressive.[247] By 2020, ASAP had benefited nearly 5 million people and brought nearly 900 000 hectares under climate-resilient land management practices, its support had climate-proofed over 400 kilometres of roads and improved access to and efficiency in the use of water for over 100 000 households and 3 000 production/processing facilities. An additional 1.3 million people were engaged in improved NRM/adaptation activities. The programme also aims to improve smallholder access to accurate agro-meteorological services. An additional USD 100 million is being raised under ASAP+.

Many of the supported activities also have mitigation benefits from increasing soil carbon/carbon sequestration or lessening forest degradation. Examples noted in the 2020 midterm review include afforestation (Mali); mangrove rehabilitation (Djibouti, Gambia); improved varieties, crop rotation and diversification (Vietnam, Nigeria); grassland and pasture rehabilitation (Kyrgyzstan, Tajikistan, Rwanda), and better management of fodder crops (Kyrgyzstan). Nepal and Uganda have introduced energy-efficient cook stoves. In both countries, they have reduced pressure on forest, woodlots, and communal tree cover. In Mali, a pilot supporting bio-digesters/photovoltaic (PV) kits have also improved household lighting and provided fertiliser as a by-product. The use of bio-digesters is being scaled up in subsequent projects. Lessons learnt from implementation have been integrated into a new IFAD loan of USD 40 million for the Multiénergies pour la Résilience et la Gestion Intégrée des Terroirs project.

Nine countries include activities intended to improve the meteorological information available to smallholder farmers. Five of these – Rwanda, Nigeria, Malawi, Lesotho and Ghana – provide climate or seasonal information to support long-range adaptations and four – Mozambique, Uganda, Bangladesh and Kyrgyzstan – focus on weather information, supporting near-term responses to flash floods and temperature changes.

ASAP+ focuses on addressing the climate change drivers of growing food insecurity.[248] It aims to increase the resilience of vulnerable communities to the uncertainty caused by climate change on food security and nutrition, and reduce GHG with win-win interventions that also yield significant food security benefits, particularly for vulnerable groups. It explicitly recognises the multiple benefits of CsA, adaptation, mitigation, and increased productivity. While ASAP+'s focus will be on countries where IFAD has an active portfolio, it may also engage directly with NGOs in fragile countries where IFAD does not yet have an active portfolio. A driving force of ASAP+ will be to bring climate finance to agricultural development projects. ASAP+ focuses on multiple-benefit, community-driven approaches. Investments will support climate services, NRM and governance, women's empowerment, NbS, and carbon sequestration.

245 https://www.ifad.org/en/web/knowledge/publication/asset/39186467. Donors initially included the ministries of foreign affairs of the governments of Finland, Sweden, the Netherlands and Norway, Belgian Development Co-operation, UK Aid, the government of Canada and the Korean International Co-operation Agency.

246 https://www.itad.com/project/mid-term-review-ifad-adaptation-smallholder-agriculture-programme/

247 Although less than targeted in 2012.

248 https://www.ifad.org/web/knowledge/publication/asset/42288611

Better project outcome sustainability is underpinned by applying the SECAP, which set out a minimum risk assessment process that recognises the necessary heterogeneity of IFAD investment responses given widely different country and community circumstances, and further mitigates the risk that IFAD programmes cause environmental or social harm. Climate risk screening is integrated into the quality enhancement process for all projects and COSOPs.

At the 2016 COP 22, the NDCS of ten countries explicitly acknowledged the role of ongoing IFAD-supported investments in achieving their climate commitment targets and moving smallholders out of poverty.[249]

The 2019 report on climate action states all new COSOPs developed by IFAD and its clients will analyse NDCs to help inform IFAD country strategies. This will help ensure that IFAD interventions help countries reach their goals and meet their obligations. They also include a thorough analysis of climate, the environment and social risks and challenges under the SECAP; IFAD has strengthened its geospatial capacity to better map trends and risks. The 2019 CAP also included an analysis of all IFAD client country NDCs on the basis of their adaptation and mitigation measures. Eleven country strategies have been approved under IFAD11 (2019-21) with the main NDC priorities included and classified according to MDB methodologies and with ten adaptation sectors referenced, among which crop and food production were mentioned the most often. Three of these countries – Burkina Faso, Rwanda and Senegal – already have approved IFAD11 investments, including climate finance investments that build on priorities identified in their NDCs(see Box 12).

249 https://ifad-un.blogspot.com/2016/11/nationally-determined-contributions.html

Box 12. Integrating NDC priorities into Rwanda's COSOP

Climate change means that Rwanda is experiencing recurrent mid-season droughts. Rainfall trends show shorter and more intense rainy seasons , leading to landslides, crop and livestock product losses, health risks and damages to infrastructure. Rising temperatures and more frequent flooding could also increase the incidence of climate-related diseases such as Rift Valley Fever, a vector-borne disease affecting livestock. Rwanda's NDC seeks to address these challenges, and its new IFAD COSOP (2019-24) maps prospective investment areas against the six actions detailed in the NDC under its programme on the sustainable intensification of agriculture.

Since COSOP approval, two new IFAD investments that both address climate vulnerabilities and contribute to the NDC adaptation priorities for agriculture have been approved. The Kayonza Irrigation and Integrated Watershed Management Project tackles Rwanda's vulnerability to climate-exacerbated drought through catchment rehabilitation, infrastructure development, efficient infrastructure management and CsA for irrigated and rain-fed lands. USD 8.3 million or 46% of IFAD's investment in it has been validated as IFAD adaptation finance. The Partnership for Resilient and Inclusive Small Livestock Markets responds to the NDC's aim to increase to 100% the share of households applying agroforestry by 2030 and lists resource recovery and reuse through organic waste composting and wastewater irrigation as one of the six action areas under its programme on agriculture. The project strengthens epidemiological surveillance and disease contingency planning to enable a rapid response to outbreaks of climate-sensitive diseases such as Rift Valley Fever. Climate-focused finance from IFAD for the Partnership for Resilient and Inclusive Small Livestock Markets amounts to USD 1.3 million, 9% of IFAD's investment. Rwanda's 2019 COSOP foresees further investment areas aligned with NDC priorities. For example, building on the Kayonza Irrigation and Integrated Watershed Management Project, further climate support will be provided in a second phase.

Source: IFAD 2019 Climate Action Plan

In 2018, IFAD adopted the MDB methodologies to monitor investments in adaptation and mitigation.[250] IFAD also undertakes a CRA in formulating COSOP and while preparing projects, while projects with climate benefits use the MDB tracking tool to estimate adaptation and mitigation benefits. Climate change is mainstreamed into project design. As mentioned above, IFAD uses the ex-ante carbon accounting tool developed by the FAO to assess the carbon sequestration/GHG emission impacts of its operations. It has not yet adopted carbon shadow pricing in project appraisal.

New thematic work streams for CMA

In addition to the ASAP, IFAD also uses a range of other climate finance instruments but support for climate adaptation and mitigation focuses on mainstreaming programmes and projects into IFAD's COSOPs to increase smallholder resilience to climate change while improving their livelihoods. The refined SECAP now incorporates climate change risks and opportunities. IFAD is also developing new approaches to mainstreaming. One recent example is a USD 2 million grant-funded activity for mainstreaming renewable energy in IFAD agricultural operations.[251]

250 https://www.ebrd.com/2019-joint-report-on-mdbs-climate-finance

251 https://www2.fundsforngos.org/latest-funds-for-ngos/ifad-call-for-proposals-scaling-up-renewable-energy-technologies-in-agriculture/

7.B.3 Incorporating COVID-19

In response to the COVID-19 pandemic, IFAD launched a multi-donor COVID-19 rural poor stimulus facility, an initiative aligned with the UN socio-economic response framework that complements IFAD's broader COVID-19 response efforts.[252] The facility seeks to improve the resilience of rural livelihoods in the context of the crisis by ensuring timely access to inputs, information, markets, and liquidity. It is a short-term strategy that feeds into IFAD's longer-term development objectives. IFAD initiated the facility with USD 40 million of seed funding from grant resources to mobilise at least USD 200 million from member states and other donors to scale up support. Initial contributions were received from the governments of Canada, Sweden, and the Netherlands. The planned interventions fall into four main categories:

1. Providing inputs and basic assets for the production of crops, livestock and fisheries.
2. Facilitating access to markets to support small-scale farmers in selling their products where market functions are restricted.
3. Targeting funds for rural financial services to ensure sufficient liquidity and ease repayment requirements so as to maintain services, markets and jobs.
4. Promoting the use of digital services to deliver key information on production, weather, finance and markets.

IFAD notes the impact of COVID-19 on agriculture, especially in rural areas.[253] Social distancing has disrupted farmers' access to inputs, services, and markets. Many rural households have lost crucial off-farm income sources. One aim of the response was to strengthen local capacity to respond to the emergency in a manner adapted to local circumstances. IFAD noted the key role of effective communication, outreach, co-ordination, planning and information, and organisation and also that the effects of COVID-19 put the rich potential of agriculture as a tool to promote food security and fight poverty at risk, in part from disruptions in supply chains. Two examples of the facility's work come from Malawi, where social cash transfers were made to ultra-poor farmers along with messages about financial literacy and COVID-19 prevention, and from Eritrea, where vulnerable households received small ruminants and seeds to maintain production, access markets, and safeguard household food security during the crisis.

7.C What IFAD lessons can inform the MS response to the climate crisis?

- **IFAD was an early mover in designing climate finance instruments through the ASAP specifically to address the threats of climate change for smallholder farmers and the rural poor.** Its experience would benefit other elements of the MS.
- **IFAD's experience also demonstrates CsA's "triple win" – strengthening resilience to climate change, contributing to climate change mitigation through productivity and improved land and water management, and increasing productivity and incomes.**
- **IFAD has a strong focus on results monitoring, learning and innovation.**

252 https://www.wbcsd.org/WBCSD-COVID-19-Response-Program/Vital-Supply-Chains/IFAD-COVID-19-Rural-Poor-Stimulus-Facility

253 https://www.ifad.org/en/web/latest/blog/asset/41914378

- IFAD's explicitly incorporates both CRA and NDC priorities in its COSOP design, clearly illustrating its commitment to supporting NDC implementation.
- IFAD's focus on poor rural communities gives it an especially challenging mandate. Programmes have often had implementation delays, linked in part to weak local capacity and difficult operating environments.
- IFAD's experience highlights the importance of a strong country presence. After having recently decentralised, it is now building up technical capacity at country level to have a stronger voice in country dialogue.
- MDBs would benefit from a strong partnership with IFAD given its focus on addressing vulnerability. The experience in Ethiopia is a good example of collaboration. IFAD has also made efforts to incorporate gender and youth considerations in project design. There is also scope for MDBs and IFAD to further collaborate on strengthening the enabling environment for climate-smart private investment in rural areas, and for rural communities to improve access to finance to strengthen value chains and climate resilience.International Finance Corporation

8. INTERNATIONAL FINANCE CORPORATION

8.A How is the IFC responding to climate change?

The IFC is a member of the WBG and the largest global development institution focused on the private sector in emerging markets. Established in the 1950s, the IFC works in over 100 developing countries through the private sector, with a special focus on infrastructure, manufacturing, agribusiness, services, and financial markets. IFC works with more than 2 000 businesses worldwide, and uses its capital, expertise, and influence to create markets and investment opportunities. In FY2020, IFC mobilised almost USD 22 billion (including USD 11 billion from its own accounts) in long-term financing for developing countries. An overview of IFC's financing commitments is given in Table 10.

Table 10: IFC FY20 long-term financial commitments

IFC's own account as of 30 June 2020, in USD million		
Total	11 135	100.00%
By Industry		
Financial Markets	5 801	52.10%
Infrastructure	1 415	12.71%
Agribusiness & Forestry	1 054	9.46%
Funds	816	7.33%
Health & Education	667	5.99%
Manufacturing	664	5.96%
Tourism, Retail & Property	635	5.70%
Natural Resources	62	0.56%
Telecommunications & Information Technology	21	0.19%
By Region		
Latin America and the Caribbean	3 165	28.42%
East Asia and the Pacific	2 490	22.36%
Sub-Saharan Africa	2 188	19.65%
Europe and Central Asia	1 345	12.08%
South Asia	1 314	11.80%
Middle East and North Africa	617	5.54%
Global	17l	0.15%
By Product		
Loans	9 509	85.40%
Equity	992	8.91%
Guarantees	550	4.94%
Risk-management products	85	0.76%

Source: IFC Annual Report 2020

8.A.1 How does IFC adhere to the normative frameworks of the 2030 Agenda and Paris Agreement?

IFC recognises climate change as an acute threat to global development that increases instability and contributes to poverty, fragility, and migration. It believes that climate action is also an investment opportunity for the private sector. IFC has been in the climate business space since the 1980s, when it began supporting simple project finance of renewables. Since then, it has diversified into green buildings, green finance, CsA, and other sectors. In FY20, IFC provided USD 3.3 billion in long-term finance for climate projects, a full 30% of its total commitments, in addition to USD 3.5 billion that was mobilised from investors. In FY20, committed investment projects are expected to help its clients reduce annual GHG emissions by 8.1 $MtCO_2e$.[254] Its experiences in leveraging, mobilising and intermediating climate funds and programmes for green growth has allowed it to help unlock private climate investment using its own capital and often using blended finance. In addition to investments in climate projects, IFC also provides TA and advisory services to private and public sector clients to promote sound environmental, social, governance, and industry standards, to catalyse investment in clean energy and resource efficiency, and to support sustainable supply chains and community investment.

IFC has evolved its policy framework governing climate change in response to the UNFCCC and the Paris Agreement mandates. The most significant steps in this policy evolution include the following:

- **Reducing exposure to coal.** WBG's 2013 *Energy Sector Directions* addresses the use of fossil fuels. It affirms that "only in rare circumstances" will WBG provide financial support for new greenfield coal power generation projects, such as for "meeting basic energy needs in countries with no feasible alternatives." It also states that WBG will scale up its work helping countries develop national and regional markets for natural gas as the fossil fuel with the lowest carbon intensity.[255] IFC has not financed a coal power plant since 2008.
- **Terminating support for upstream oil and gas development only in exceptional circumstances.** As per WBG's December 2017 announcement, IFC stopped financing upstream oil and gas in 2019 to align with the Paris Agreement goals. Only under exceptional circumstances will it consider financing upstream gas in the poorest countries where a clear benefit exists in energy access for the poor and the project fits within the countries' Paris Agreement commitments.[256]
- **Greening equity investments in financial institutions.** A variety of stakeholders have expressed concerns that a major part of IFC financing consists of injecting liquidity into financial markets and intermediaries with little control over their fungibility and their eventual application – including for climate unfriendly purposes.[257] The most visible example was a USD 253 million IFC investment in the Philippines' Rizal Commercial Banking Corporation. According to a complaint lodged by civil society organisations, it went on to finance 19 new or expanded coal-fired power plants.[258] In response to these concerns and in an effort to work with IFC banks committed to greening their portfolios, IFC announced in late 2019 that it would no longer make equity investments in commercial banks, non-bank financial institutions or insurance companies without a plan to phase out investments in coal-related activities. IFC will continue to provide loans to these financial institutions, defining that proceeds can only be used to finance such key development sectors as MSMEs, women-owned enterprises, climate-related

254 *IFC Annual Report 2020*
255 https://www.worldbank.org/content/dam/Worldbank/document/SDN/energy-secm2013-0281-2.pdf
256 https://www.worldbank.org/en/topic/energy/overview#2
257 https://www.re-course.org/news/saying-no-to-coal-ifcs-new-green-equity-approach-unveiled/
258 https://www.inclusivedevelopment.net/cases/philippines-climate-change-and-ifc-lending

projects, and housing finance. To monitor the performance of its equity clients in reducing exposure to coal-related projects, IFC will require financial institution clients to publicly disclose their aggregated exposures to coal-related projects on an annual basis on their website or in their annual report.[259]

8.A.2 How does the IFC response to climate change cohere with the MS?

Among the various MOs comprising the MS, the IFC's most important partnership is, unsurprisingly, with the WBG (IBRD and IDA). Maximising finance for development is the WBG's approach to systematically leveraging all sources of finance, expertise, and solutions to support sustainable growth in developing countries. The WBG institutions—IBRD, IDA, IFC, and the Multilateral Investment Guarantee Agency (MIGA)—work in concert to help countries transform sectors to reduce poverty and inequality and support growth by improving the enabling environment, developing regulatory conditions, building capacity, putting in place standards, financing a first mover or innovator, and reducing risks. Maximising finance for development constitutes an important element of IFC's corporate strategy.

The IFC has been a pioneer in blended concessional finance, including for climate projects.[260] All of IFC's own account investments are made on a commercial basis. However, the GEF, the CIF, and bilateral donor funds have historically been major sources of concessional co-financing for IFC climate-targeted projects. Combining IFC's own capital with concessional finance is a form of blended concessional finance operation (generally speaking, combining concessional climate finance with private sector commercial funds follows a certain set of principles and is called blended concessional finance). Outside funds are always matched by IFC-mobilised resources and can be deployed as concessional loans, guarantees, equity, or performance-based grants for private sector projects that would generally not have proceeded because of market barriers.

In a 2014 study, the IFC reported that it had made 39 investment transactions using blended concessional finance between 2006 and 2013.[261] Of these, 15 used guarantee instruments, twenty-three used debt products, and one project used equity. Nearly three-quarters of these projects were investments made through local financial intermediaries.[262]

Over the last twelve years, the CIF has been one of IFC's key partners in blended concessional finance for climate. A 2019 independent evaluation commissioned by the CIF found that blended finance has had a particularly important influence, especially for energy projects. Two projects – Solar PV in Thailand and Kaxu Concentrated Solar Power in South Africa – received UNFCCC's prestigious Lighthouse Activity of the Year award. Interviews and other reports showed that, over time, CIF made a significant contribution to building up MDBs' experience in this area, including at the IFC, and contributed to more sophisticated approaches to calibrating concessionality within blended concessional finance operations. The CIF is credited with contributing to developing the climate finance machinery, including the blended concessional finance approaches.[263]

259 https://www.reuters.com/article/climate-change-coal/world-banks-ifc-adopts-new-climate-rules-to-deter-lenders-from-backing-coal-idUSKCN26F06Y; internal IFC PowerPoint presentation

260 https://www.greenclimate.fund/documents/20182/24946/GCF_B.08_12_-_Use_of_Other_Financial_Instrument.pdf/bea220c7-473a-41bf-a698-746aa03ff19b

261 http://www.ifc.org/wps/wcm/connect/f69ea30041ca447993599700caa2aa08/Leverage+in+IFC%27s+Climate-Related+-Investments.pdf?MOD=AJPERES

262 https://cdkn.org/2017/01/feature-lessons-blending-finance-climate-projects-experience-ifc-gcf/?loclang=en_gb

263 https://www.climateinvestmentfunds.org/sites/cif_enc/files/knowledge-documents/evaluation_of_transformational_change_in_the_cif_final_w_mresp_jan_2019.pdf

The GEF was a significant early IFC partner in climate change blended concessional finance operations with the PV Market Transformation Initiative, the Solar Development Group and the Renewable Energy and Energy Efficiency Fund of the late 1990s. Its engagement with IFC has been scaled down to near insignificance in recent years. A review of GEF's project database found only one project, a USD 13.5 million grant for the Greener Shipping Investment Programme, executed with IFC since the advent of the Paris Agreement. Recent changes made by GEF about deploying blended concessional finance have significantly increased the challenge of accessing new funds. Many of the changes were operational, including the segregation of blended finance funds from the main GEF grant funding allocations, limiting project funding requests to less than USD 15 million, and deterring the use of platforms that could support multiple investments rather than single project allocations.

IFC became a GEF AE in late 2017. IFC has yet to draw on GCF resources, however. Box 13 describes an unsuccessful IFC application to the GCF for funding for one project.

Box 13: The IFC forests bond initiative

In November 2016, IFC issued a first-of-its-kind five-year bond, the Forests Bond, giving investors the option of getting repaid either in carbon credit coupons or cash. The bond raised USD 152 million to support private sector development and prevent deforestation. It was sold to major global institutional investors and was listed on the London Stock Exchange.

Investors opting for the carbon credit coupon receive tradable verified carbon units representing a right to claim the achievement of a verified reduction or removal of one tCO2e. They can retire the credits to offset their own corporate GHG emissions or sell them on the carbon market to governments, companies, or individuals who use them to mitigate their own emissions. Such carbon credits are traded over the counter and often directly between the project developer and buyer.

To pay investors a carbon credit coupon, IFC will buy carbon credits generated by Kenya's Kasigau Corridor Project, a 500 000 acre nature preserve near Mombasa. The carbon credits are to be issued under the Verified Carbon Standard, an internationally recognised standard for the voluntary market of carbon credits.

In 2019, the IFC submitted a funding proposal to the GCF for a global expansion and diversification of international bond finance for forest protection and carbon sequestration, Climate Bonds for Forests: Scaling up Private Sector Financing for REDD+. The IFC withdrew the proposal after the November 2019 meeting of the GCF Board at which the GCF's independent technical advisory panel reported that the proposal has "not progressed by the iTAP due to…the lack of country ownership in particular no-objection letters missing from most of the countries involved." However, underlying the demise of the proposal were critiques by international environmental NGOs who labelled the scheme "a subsidy to REDD+ project speculators," a means to let industrialised countries and their GHG emitting industries off the hook, and ineffective in addressing root causes of deforestation.

Source: "Mobilising Private Climate Finance—Green Bonds and Beyond," EMCompass, International Finance Corporation; December 2016; https://redd-monitor.org/2019/11/12/international-finance-corporation-has-withdrawn-its-redd-climate-bonds-proposal-to-the-green-climate-fund/; https://redd-monitor.org/2019/11/05/tell-the-the-green-climate-fund-no-to-ifc-subsidies-for-redd-offsets-no-to-redd-funding/

IFC has engaged in many partnerships outside the main MO sphere. It has business relationships with over 2000 corporations globally and 200 emerging market financial institutions. Since 2005, IFC has committed USD 7.8 billion from its own account and leveraged an additional USD 3.8 billion through its partner emerging market financial institutions. Its client financial institutions have built climate finance portfolios of USD 26.7 billion, avoiding annual GHG emissions of 85.5 MtCO2e. IFC estimates this to be the equivalent of taking approximately 18 million cars off the road every year or of erasing the annual emissions of a country the size of Greece.

IFC has a series of bilateral partnerships in blended concessional finance for climate with Canada, Finland, and the United Kingdom. In aggregate, these three countries have provided close to USD 1 billion of blended concessional funds to IFC, supporting numerous projects. IFC has found these bilateral blended finance programmes to be a flexible, efficient, and predictable instrument.

The most significant alliances include IFC's relationships for promoting green finance: climate finance is a closely related subset. IFC has a key relationship with the International Capital Markets Association as a conduit to creating standards for climate related bonds. Since 2014, IFC has been on the executive committee and now is the chair of the Green, Social and Sustainability-Linked Bond Principles, the de facto global framework for issuing bonds linked to sustainability. IFC has also been a key member of the G20 Green Finance Study Group set up in January 2016 and mandated to "identify institutional and market barriers to green finance, and based on country experiences, develop options on how to enhance the ability of the financial system to mobilise private capital for green investment." Several options are emerging from the GFSG's work for the G20 country authorities to consider for voluntary adoption to enhance the ability of the financial system to mobilise private capital for green investment.

In September 2016, at the G20 Summit in Hangzhou, China, global leaders endorsed a set of recommendations to boost green finance and called on the IFC-supported Sustainable Banking Network and other partners to help lead the implementation.[264] The summit marked the recognition of the central role played by the financial sector in reducing climate change and advancing environmentally sustainable growth.[265]

The Alliance for Green Commercial Banks is a new global initiative bringing together financial institutions, banking industry associations, research institutions, and innovative technology providers to work to develop a community of green commercial banks across emerging markets and finance the infrastructure and business solutions needed to urgently address climate change.[266] In November 2020, the IFC signed a new partnership with the Hong Kong Monetary Authority, the first in a series of expected signatories, to encourage commercial banks in Asia to adopt strategies and targets to become greener.[267]

264 Formed in 2012, SBN brings together central banks, regulators, and trade associations from across emerging markets seeking to transform domestic financial systems to advance national goals on climate change and sustainable growth.

265 https://www.cenfa.org/publications/ifc-climate-change-and-investments-in-cities/

266 https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=26062

267 https://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/financial+institutions/priorities/climate_finance_sa/alliance+for+green+commercial+banks

8.B How have IFC organisational strategies, operational activities, and resource plans incorporated climate change?

8.B.1 Organisational strategies

IFC's overarching corporate strategy is based on the 2016 IFC 3.0, *A Strategy for Creating Markets* which rests on two pillars: (i) a more deliberate approach to market creation, especially in IDA countries and fragile and conflict affected states and through upstream engagement, and (ii) mobilising new sources of funds to support private sector solutions. It was updated in 2020 by tabling the Strategy and Business Outlook Update FY20-FY22: Gearing up to Deliver IFC 3.0 at Scale.[268] The update states that in FY18 36% of IFC's long-term finance commitments were in the climate area, up from 17% in FY16 and 25% in FY17, and reiterates commitments in GHG accounting and carbon pricing. Critics have noted that IFC 3.0 strategy emphasises alignment with the SDGs but does not mention the Paris Agreement, even though climate is a key component to achieve the development goals.[269] However, this critique is based on a misunderstanding of the organisational hierarchy governing the IFC, which is a part of and accountable to the WBG CCAP.

The 2016-20 IFC Climate Implementation Plan, published in April 2016 and currently being updated **is the principal IFC-focused CCS document.**[270] Update details are not yet available, but on 2 April 2021, the WBG presented a new CCAP to its board that included a commitment to aligning 85% of new IFC operations to the Paris Agreement by 1 July 2023 and 100% by 1 July 2025.[271]

8.B.2 Operational activities

The IFC climate business department has the lead responsibility for operationalising the climate implementation plan, supporting investment teams to identify climate investment opportunities and to mitigate their climate risk. The department director reports to a vice president who reports to IFC's CEO. This team works with upstream teams and the mainstream investment teams – who have scorecards explicitly including climate targets – to identify low-carbon investment opportunities through its industry sector experts, metrics specialists, finance professionals, and strategists. It also supports CRA using tools such as carbon pricing and assessing the risk of transition and the physical climate in investment projects.

IFC's climate anchors network integrates climate business corporation-wide. It comprises senior staff in each industry and regional department as well as key operational departments, including legal and the environmental and social team. Regional and departmental climate anchors report to their department director and to the climate business director. In 2020, a senior specialist from IFC's risk department joined the network. In March 2020, IFC hired an electric vehicle (EV) industry specialist to help build IFC's business across the EV value chain, including charging infrastructure, manufacturing, batteries, and financing platforms. The plan is organised around five themes: scale climate investments, catalyse private capital, maximise impact, account for climate risk, and climate finance as discussed below.

268 https://www.ifc.org/wps/wcm/connect/78684d22-f9bb-4218-beac-181a0d30e753/201905-IFC-SBO-FY20-FY22-Gearing-up-to-Deliver-IFC-3-0-at-Scale.pdf?MOD=AJPERES&CVID=mF-.FRI

269 https://www.e3g.org/bank-metrics/standalone-climate-strategy-and-integration-of-climate-in-overarching-strategy-ifc/

270 https://www.ifc.org/wps/wcm/connect/cf8ac00f-7abc-4e67-9cd5-3c473052be08/IFC_Climate_Implementation_Plan_03152016_WBG_v2.pdf?MOD=AJPERES&CVID=lgbHEjb#:~:text=As%20part%20of%20the%20WBG,%2C%20aggregation%2C%20and%20de%2Drisking

271 https://www.worldbank.org/en/news/statement/2021/04/02/world-bank-group-president-statement-on-climate-change-action-plan

Scale climate investments

IFC succeeded in making climate investments account for 28% of its total financing portfolio by 2020 (see Figure 9).

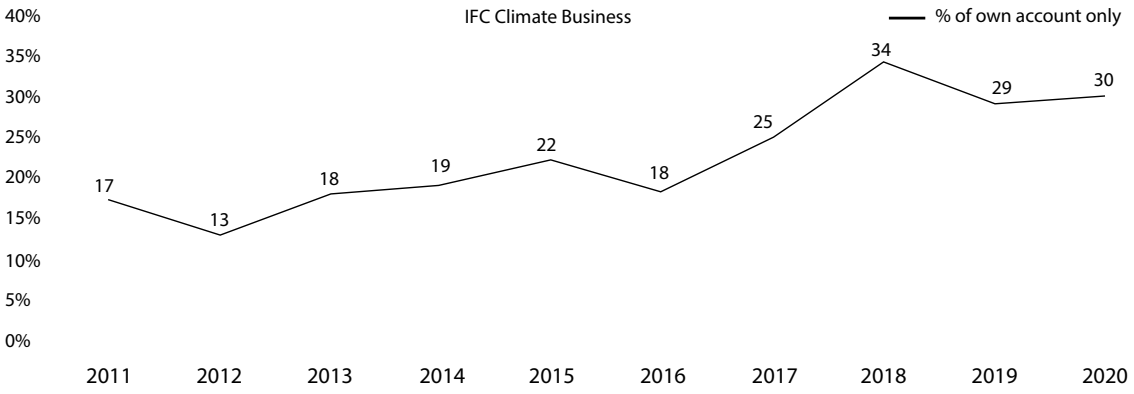
Figure 9: IFC climate change

Climate change commitments five-year trend

Total climate finance commitments (USD million)

Own account long-term finance (LFT)	3 324	2 603	3 910	2 996	1 986	2 349
Core Mobilisation	3 500	3 172	4 542	1 775	1 285	2 122
Total	6 824	5 775	8 452	4 771	3 271	4 471

IFC Climate Business as a percentage of total commitments: Ten-year trend



Source: https://www.ifc.org/wps/wcm/connect/7f6a737a-6bfb-4cfa-8951-5e3456ea2aba/IFC-AR20-Full-Report.pdf

Since 2017 IFC's climate-related financial disclosures conform to the guidelines recommended by the task force on climate-related financial disclosures.[272] These reports can be found online.[273] In addition, an independent, external auditing firm reviews IFC climate business-related indicators.

The climate implementation plan identifies three core areas for IFC's climate operations: (i) large scale renewable energy; (ii) energy efficiency and renewable energy credit lines, and (iii) direct investments in green buildings.

272 IFC regularly consults with peers to further a common understanding of good practice in TCFD reporting. IFC convened an informal working group of MDBs that report under TCFD guidelines. IFC has also engaged with 2° Investing Initiative, Citi, Oliver Wyman, PCAF, Navigant, Potsdam Institute, Standard Bank, Science Based Targets Initiative, S&P Trucost, UNEP-FI, and WSP, among others. More broadly, IFC is a member of several climate-related corporate leadership initiatives, such as the Principles for Responsible Investment, the TCFD (where IFC is a supporting institution), One Planet Summit, the One Planet Lab, the Global Green Bond Partnership, the Carbon Pricing Leadership Coalition, and the Fashion Industry Charter for Climate Action (where it is a supporting institution). See the *2020 IFC Annual Report.*

273 www.ifc.org/annualreport

Five areas are tabbed for business expansion: (i) distributed renewable energy for industrial and commercial sources; (ii) new financial intermediaries models; (iii) urban infrastructure; (iv) agribusiness, (v) clean tech venture capital.

Catalyse private capital

IFC's biggest impact is its ability to mobilise external capital to climate sectors. Major financial institutions have expressed interest in having IFC share its financial instruments and structures to help reduce country or perceived technology and project risk, unlocking investments and enabling them to invest at scale. IFC pledged to catalyse USD 13 billion in external private sector capital annually to climate sectors by 2020 by mobilising, aggregating, and de-risking products.

To achieve this, IFC undertook to create products attracting larger institutional sources of capital through aggregation and securitisation, to de-risk vehicles that use blended finance to catalyse new external investment, and to mobilise capital using PPPs.

Maximise impact

As IFC expands its investments, it commits to working to reduce GHG, increasing client resiliency to climate change, collaborating across the WBG at large, and sharing lessons learnt through partnerships, thought leadership, and setting global standards. Towards this end, IFC reports GHG reductions from all of its climate projects and will increase its resources to measure climate impacts.[274] In addition, IFC is committed to helping its clients adapt to the impacts of climate change by investing in projects such as high-yield agriculture, climate-resilient ports, and water efficiency in water-stressed regions.

IFC cannot provide its services without support from key business groups and networks. It therefore emphasises that sharing lessons learnt and partnering to reach scale is vital to its work and important for increasing climate impact.

Accounting for climate risk

Climate change creates two types of risk: climate impact risk, where the physical impacts of climate change can affect investments, and climate asset risk, where policies create pricing that devalues an investment. IFC shareholders are asking companies and financial institutions Increasingly to account for both types of risk, particularly in sectors associated with high potential exposure. IFC is working to develop systems that better understand these risks and will be able eventually to screen its portfolio and new investments for future threats.

Another important piece of IFC's climate risk work is acknowledging the impact of global and local policies and behavioural changes on carbon-intensive investments. As the world moves towards de-carbonisation, these assets may be stranded so IFC aims to evaluate the risk faced by its current portfolio as well as its new investments.

274 IFC developed a GHG-accounting methodology in FY19 and estimated gross and net GHG from its investment projects in FY19 and FY20. IFC calculates gross GHG emissions for all real sector projects with emissions over 25 000 metric tonnes of carbon dioxide equivalent, and net emissions on a project-by-project basis for real sector projects where possible. IFC continues to disclose ex-ante estimated annual gross GHG emissions in the publicly available *Environmental and Social Review Summary*. It also conducts an economic analysis incorporating the WBG-recommended carbon shadow value for all direct investment projects even though the impact of this analysis on investment decision-making is not clear.

Climate finance

As part of its recent capital increase, IFC committed to growing its climate-related investments to an annual average of 35% of its own-account long-term commitment volume between 2021 and 2025 and to working with financial institutions to finance projects that will support mitigation and adaptation.

IFC partners with financial institutions to deploy capital, mostly in the form of loans to businesses and other organisations, and to implement climate-friendly projects. IFC has identified over USD 23 trillion worth of climate-smart investment opportunities in 21 emerging markets by 2030, for which it indicates that financial institutions will need to provide the majority of the capital. It estimates that these institutions will have to grow the share of climate-friendly projects in their portfolios from an average of 7% in 2016 to 30% by 2030 to finance the greening of the economy. This equals an increase from approximately USD 1.5 trillion to USD 13.4 trillion, a growth opportunity that it deems "too big for banks to miss."[275]

IFC initiatives illustrate a range of these themes in Boxes 14, 15 and 16.

Box 14: Scaling solar – expanding the market for grid-scale PV energy

IFC launched the Scaling Solar initiative in January 2015 to promote fast, transparent development of the grid-connect PV market in Africa. This one-stop-shop initiative brings together a suite of WBG services under a single engagement.

- Advice to assess the right size and location for solar PV power plants in a country's grid and to prepare and develop sites for tender.
- Transparent, rapid tendering processes to ensure strong competition from committed industry players.
- Standardised templates for bankable project documents that can significantly reduce transaction costs and negotiation.
- Competitive financing and political risk insurance attached to the tender and available to all bidders.
- Risk management and credit enhancement products to lower financing costs and tariffs.

IFC is responsible for supervising the entire process from project preparation to project audit and financing to commissioning large-scale PV plants seeking to complete the cycle in no more than two years. Through IDA, WBG provides critical policy and analytical support (energy pricing, grid access, grid integration of intermittent renewable energy).

The scheme is being rolled out across Sub-Saharan Africa and has quickly become a market standard for the procurement of solar energy projects. Zambia, Senegal, Ethiopia and Côte d'Ivoire are the first countries to implement the initiative and others are expected to follow, including beyond Africa, with Uzbekistan announcing the results of a 100 MW tender under scaling solar at a highly competitive USD .027 cents/kWh.

Source: www.scalingsolar.org

275 https://www.ifc.org/wps/wcm/connect/59260145-ec2e-40de-97e6-3aa78b82b3c9/3503-IFC-Climate_Investment_Opportunity-Report-Dec-FINAL.pdf?MOD=AJPERES&CVID=lBLd6Xq. IFC assessed the national climate change commitments and other policies in 21 emerging markets representing 62% of the world's population and 48% of global GHG emissions. Based on this, IFC estimates that key sectors in these countries have an initial investment opportunity of nearly USD 23 trillion from 2026 to 2030.

Box 15: IFC and green buildings

Nearly 40% of the world's generated energy is used to cool, light, and ventilate buildings. The building sector will require an estimated 50% more energy by 2050 than it uses today.

The green buildings sector represents a USD 24.7 trillion investment opportunity by 2030 across all emerging market cities with over half a million people. Most of this potential of USD17.8 trillion lies in East Asia Pacific and South Asia, where more than half of the world's urban population will be living in 2030. The investment opportunity in residential construction, estimated at USD 15.7 trillion, represents 60% of the market. The current size of investments in green buildings, however, is only a fraction of the investment opportunity. Global investments in green buildings accounted for USD 423 billion of the USD 5 trillion spent on building construction and renovation in 2017.

IFC is working to stimulate supply and demand in emerging markets for resource-efficient building design, construction, and ownership through its Green Buildings Market Transformation Programme that seeks to set a metrics-driven definition of a green building, reward property developers for building green, increase regulatory pull, and promote direct investment.

IFC provides clients with both investment support and advisory services to facilitate the development of resource-efficient buildings. It has long-standing experience working with regulators on green building low-cost codes for the private sector to implement, easily enforce and that are impactful for the environment, and has helped to develop regulations in Colombia, Costa Rica, Indonesia, Panama, Peru, the Philippines, and Vietnam. Financial institutions have received support from IFC in developing green building investment products in Colombia, India, Kenya, South Africa, and Turkey. Direct investments are made in green homes, hotels, shopping malls, warehouses, light industry and hospitals. IFC's cumulative investment portfolio in green buildings exceeds USD four billion.

Source: https://edgebuildings.com/about/ifc-and-green-buildings/; https://www.ifc.org/greenbuildingsreport

Box 16: Lighting Africa: An IFC and WBG multi-donor partnership

Close to 600 million people in Sub-Saharan Africa – about two-thirds of the population – live without grid electricity. This lack of modern energy services severely limits educational and economic opportunities, and negatively impacts the day-to-day quality of life and health. Those without electricity often use expensive, polluting lighting sources such as kerosene lamps or candles, whose fumes can cause serious health problems. Modern, high-quality off-grid lighting and energy products offer a real, sustainable alternative to the off-grid population.

Since running its first pilot projects in Ghana and Kenya in 2009, Lighting Africa has enabled 28.8 million people across Africa to meet their basic electricity needs (lighting and charging mobile phones) through quality-verified off-grid solar products. Its aim is to reach an additional 250 million people by 2030. The initiative provides market intelligence valuable to entrepreneurs, business development support, and access to finance, quality assurance, and consumer education. Lighting Africa is currently operational in 25 countries, with plans to continue to extend its activities across the continent.

Lighting Africa is part of the WBG's contribution to Sustainable Energy for All and is implemented by the IFC in partnership with the Energy Sector Management Assistance Programme at the WBG, the GEF, and the governments of Australia, Austria, Canada, Denmark, Finland, France, Germany, Hungary, Iceland, Italy, Lithuania, the Netherlands, Norway, Sweden, the United Kingdom, and the United States.

Source: https://www.lightingafrica.org/

8.B.3 Incorporating COVID-19

Given the global market challenges provoked by the COVID-19 pandemic, IFC is providing immediate liquidity (USD 8 billion in fast-track financing) to clients and planning for investments that help rebuild hard-hit economies. IFC recognises that investments today will affect companies' ability to survive future climate-related shocks and is therefore identifying where new liquidity support to companies in emerging markets can be connected to lower-carbon pathways and a more resilient rebuild. IFC is considering green responses for sectors including financial institutions, urban infrastructure, buildings, textiles, and transport. A January 2021 IFC report, Ctrl-Alt-Delete: A Green Reboot for Emerging Markets, maintained that supporting low-carbon investments through COVID-19 recovery targeting funding for ten key sectors across 21 emerging markets could generate USD 10.2 trillion in investment opportunities, create 213 million jobs, and reduce GHG emissions by 4 GtCO2e by 2030.[276]

8.C What IFC lessons can inform the MS response to the climate crisis?

IFC has identified four key lessons for mainstreaming climate into its core business. Briefly summarised, these include: (i) generate buy-in from IFC's operational departments through dedicated staff resources; (ii) establish regional and industry climate targets as part of departmental scorecards and tie them to mone-

276 https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/climate%20business/resources/a%20green%20reboot%20for%20emerging%20markets

tary incentives; (iii) promulgate clear and easily definable guidelines on what qualifies as a climate project, and (iv) create a centralised climate business department. These basic lines of action are complemented with steps to raise awareness about the financial risks of climate change across the portfolio and internal trainings that move staff from climate familiarity to fluency.

The direct influence of NDCs on IFC climate business operations has been minor but they do highlight broad sectors and subsectors that governments point to as priorities.[277] Developing countries' NDCs do not usually delve into expected implementation and financing arrangements at individual project level or anticipate private financing. The IFC is a required contributor to WB CPS formulation, and since 2018 has added IFC country strategies to its toolkit. In parallel, the IFC is emphasising on upstream advisory activities more to help improve the environment for private sector engagement and to identify early stage and emerging business development needs. However, the bulk of its investments are made on an opportunistic basis in response to the business and sectoral priorities it defines on a global or regional basis.

It is nonetheless important for private investors seeking climate business opportunities for governments to get climate policies right. Countries should act quickly to align their institutions and policies across sectors by integrating their NDC commitments into national development strategies and budget and staffing processes. This will help governments move from often high-level NDC targets to establishing implementing regulations with clear, consistent policies such as carbon pricing, performance standards, market-based support, and removing fossil fuel subsidies, so as to ensure that climate considerations get integrated into other sector policies.[278]

Strengthening the private sector investment climate is even more important for mobilising private resources. Companies will first identify how attractive a country's investment climate and banking sector are as they look for investment grade opportunities to finance. Enforcing property rights, providing a robust PPP framework, and creating investment policies and incentives will all help to minimise unnecessary costs and reduce risks to attract private capital to these newer sectors. The WBG's annual Doing Business report is a useful tool to assess the overall state of the investment climate in countries. Enabling the financial sector to direct resources towards climate-friendly investments is key for ensuring that companies realise the identified opportunities (see Box 17 and 18).[279]

Box 17: Jordan's policies and enabling conditions drive renewable energy investment

Jordan's renewable energy law was complemented by feed-in tariffs, 20-year power purchase agreements with standardised contracts including tariff adjustment mechanisms for inflation and exchange rate variation, and a ten-year income tax holiday with a lower tax rate. The government also provided a sovereign guarantee to backstop the buyer's payment obligations under the purchase agreement. This mix of policies, processes, and incentives is transforming power generation in Jordan and resulted in the 117 MW, USD 290 million Tafila Wind Farm—it first privately-owned renewable energy facility. This is being followed by 12 solar projects with power purchase agreements totalling 190 MW—the largest private sector-led solar initiative in MENA.

Source: IFC (2013), IFC Finalizes USD 221 Million Debt Package for Ground-Breaking Wind Farm in Jordan http://ifcext.ifc.org/IFCExt/pressroom/IFCPressRoom.nsf/0/41F0C8F1C2A2D6

277 *Ibid.*
278 https://ndcpartnership.org/unlocking-private-finance-helps-governments-achieve-their-climate-goals
279 *Ibid.*

Box 18: Nachtigal Hydropower – a successful application of the WBG cascade

Nearly 40% of the population of Cameroon (10 million people) lack access to electricity. More power generation is urgently needed but the country is constrained by its fiscal realities. Using the cascade approach to maximising finance for development, the WBG is working with the government and private sponsors to crowd in private capital to build and operate high efficiency power plants without creating more debt. Nachtigal is a 420-MW hydroelectric plant jointly developed by IFC and Électricité de France. IFC dedicated substantial resources, in terms of people and finance – contributing USD 13 million to the development budget, and investing EUR 60 million in equity, up to EUR 110 million in loans, and mobilising up to EUR 806 million from DFIs and commercial banks. Senior-level staff worked for over five years with the client on project design, construction tendering, risk allocation and contract negotiation, sector reforms, and environmental and social performance standards.

The WB and MIGA proved crucial in attracting international capital contributing USD 500 million in project financing guarantees. In addition, a transmission network created by the company and supported with a USD 325 million WB project will transport electricity produced by Nachtigal. Nachtigal will increase the country's power generation capacity by nearly a third and bring clean, affordable power to millions. Selling electricity at around USD 0.06/KW/hour, the plant will provide very cheap power that will help sustain low-carbon economic growth.

Source: IFC Strategy and Business Outlook Update FY20 – FY22 at https://www.ifc.org/wps/wcm/connect/78684d22-f9bb-4218-beac-181a0d30e753/201905-IFC-SBO-FY20-FY22-Gearing-up-to-Deliver-IFC-3-0-at-Scale.pdf?MOD=AJPERES&CVID=mF-.FRI

Combining upstream support for policy and regulatory reforms with downstream private finance and risk mitigation instruments, WBG's cascade approach may be particularly relevant for countries unable to attract private participation in climate investment for lack of the right institutions or markets. In embracing the climate change and related SDG mandates, country resource needs surpass their budgets and available donor funding. Meeting the climate challenge requires that the international community find solutions to crowd in all possible sources of finance, innovation, and expertise. For MDBs, this implies a more co-ordinated approach to the public and private sides of development. The WBG has considerable experience in both areas but needs to connect them much more closely.[280]

Limited public finance must be used strategically to leverage the commitment of private capital and expertise in climate-friendly options. Public capital, including grant and concessional resources, should strategically target their limited funding pools to support project development, de-risk and aggregate investments, strengthen capital markets, and address policy, regulatory and pricing bottlenecks to mobilise private capital. Blended, concessional public finance provided through a variety of products and structures such as risk-sharing facilities can play a significant role in unlocking private finance. "Brute force" subsidisation approaches are generally disfavoured by IFC for many reasons, including market distortion effects, limited leverage, and an unclear path to profitability as the sine qua non for sustainability in private markets. This again argues for internalising environmental costs and benefits in climate-sensitive markets through pricing and regulatory approaches.[281]

To mesh with the business practices of the IFC and the private sector, climate financing mechanisms must be agile and able to react quickly, willing to tolerate substantial risk, able to commit funds in substantial size blocks to drive market transformation, support a wide range of instruments (e.g., grant, debt, equity,

280 https://www.worldbank.org/en/about/partners/maximising-finance-for-development

281 *Ibid.*

quasi-equity, guarantees), and feature transparent, predictable decision-making. IFC's project cycle operates more quickly than most external public funding decision time frames; most investments move from identification to approval in nine to 15 months. Moreover, once IFC commits to a private project sponsor to mobilise external resources, the proponent needs a high degree of certainty that the resources will be forthcoming. Lastly, as with any organisation striving to be profitable IFC must minimise its transactions costs including in proportion to the size of the external resources it is attempting to mobilise.

Reflecting these characteristics for meshing with the business cycle, IFC's call on the UNFCCC's financing mechanisms is very modest at present. Its use of the GEF, while initially robust and high impact in terms of catalysing new fields of activity, has been declining to the point of relative insignificance. This trend may be interpreted as positive, and indicate that GEF goals are being mainstreamed and that IFC is increasingly willing to risk its own capital in climate-beneficial investments. However, the IFC may be distancing itself from the GEF because allocation formulas have become highly prescribed and atomistic. Although newer and designed from the outset with a dedicated window for the private sector, the GCF has not been tapped at any scale by the IFC; indeed, a recent green bond proposal for REDD+ financing met an unhappy end. Among the multi-donor and multi-implementing entities and facilities, only the CIFs have continued to serve as a steady, reliable partner, due largely to a willingness to allocate capital in a predictable manner and in sizeable chunks, and a MDB-friendly governance structure. What's more, the CIFs have recognised that the while the country planning modality is conducive to public sector operations, it does not come naturally to private sector operations; it has therefore established new, dedicated private sector programmes that are thematic rather than country focused.

Investments in gas-fired power generation projects, LNG import facilities and gas distribution will represent a growing area of challenge for IFC and for the MDBs more generally. These would be well served by developing criteria and guidelines to select gas sector projects. A review of IFC financing operations in the climate-sensitive sectors of the five case study countries generally demonstrated strong commitment to low-carbon development, with a concentration of projects in renewable energy, materials-processing upgrade and supply-side energy efficiency, and sustainable forestry. Investments in high-efficiency gas-fired combined cycle power plants and associated LNG import infrastructure were the main exceptions. Natural gas frequently substitutes for coal and emits approximately one-half of the carbon per unit of electricity production; in many developing country environments, it is a suitable private sector investment opportunity. Nevertheless, power plants are significant point sources of GHG emissions and together with the associated gas supply infrastructure represent long-lived assets with carbon lock-in implications. Until country LTSs for low carbon development that define pathways and time-horizons for full gas phase-out are available, several shorter-term oriented criteria could be applied to screen proposed gas investments. These would limit consideration, on an "exceptional" basis, to natural gas activities that: (i) demonstrably avoid/replace high-emitting coal and oil energy; (ii) increase energy security by allowing for fuel and source diversification; (iii) provide needed power system flexibility through provisions for ramping, load following and other auxiliary services that expand the system's ability to absorb increasing amounts of intermittent renewable energy (principally wind and solar) at low operations cost; (iv) contribute to directly to poverty alleviation and local air quality improvement by substituting for coal, lignite or traditional biomass fuels in cooking and heating applications; (v) demonstrably lower methane leakage over the full gas fuel cycle (extraction and flaring, processing, transport and distribution); (vi) apply inherently low-carbon technology (low CO2 per output), such as CCGT with carbon capture and storage, and high efficiency co-generation and tri-generation exceeding a set emissions performance standard, and (vii) contribute to the transition to low carbon gas in future, such as hydrogen and biogas.

9. INTERNATIONAL MONETARY FUND

9.A How is the IMF responding to climate change?

9.A.1 How does the IMF adhere to the normative frameworks of the 2030 Agenda and Paris Agreement?

The IMF's managing director has stated publicly that climate change presents a major threat to long-term growth and prosperity and has a direct impact on the economic wellbeing of all countries. Therefore, the IMF has a role to play in helping its members address those climate change challenges for which fiscal and macroeconomic policies are an important component of the appropriate policy response.[282]

The seriousness with which IMF management and staff regard the climate change challenge is clear from statements from its top leadership. Former IMF Managing Director Christine Lagarde has termed climate change, "the great existential challenge of our times."[283] Echoing her earlier statement to the UNFCCC in Lima, in 2017, Lagarde warned, "if we don't do anything about climate change now, in 50 years' time we will be toasted, roasted and grilled." She was speaking to a nominally sceptical audience in Riyadh.[284]

Kristalina Georgieva IMF Managing Director since 2019 has amplified these concerns. Importantly, at an October 2020 meeting of finance ministers, Georgieva called climate change a "macro-critical" issue – a term the IMF uses to describe issues affecting or potentially affecting domestic (e.g., growth and inflation) or external stability, which is intended to ensure consistency with IMF's mandate.[285] She continued, "… even while we are in the midst of the COVID-19 crisis, we should mobilise to prevent the climate crisis. Climate change is a profound threat to growth and prosperity…and macroeconomic policies are central to the fight against climate change."[286] In her January 2021 speech at the Climate Adaptation Summit, she termed climate resilience a "critical priority" and concluded, "and this is why we place it at the heart of what we do – this year, and in the years to come."[287]

Despite these encouraging pronouncements, the IMF's Executive Board — composed of representatives of the member countries that must approve the most significant decisions — is not unified on where climate change figures in its mandate. In a recent exchange with Georgieva, Jon Sward, environment project manager at the UK-based Bretton Woods Project, reported that while Georgieva stated that the IMF has "established a very 'strong research stream' on the issue and was working to integrate climate risks into its stress tests," she also hinted "at divisions within the IMF Executive Board about the role the Fund should play in addressing climate change…. There are still some pushing that…the Fund needs to focus on financial stability and that's it," she told Sward. "And so I spend a lot of time explaining that you cannot have financial stability without environmental and social sustainability."[288]

282 https://www.imf.org/en/Topics/climate-change

283 https://www.wri.org/blog/2019/05/how-international-monetary-fund-waking-financial-risks-climate-crisis

284 https://weather.com/en-CA/canada/news/news/2017-10-26-christine-lagarde-climate-change-warning

285 For purposes of bilateral surveillance in Article IV consultations, IMF engagement on selected issues has been guided by the principles set forth in the integrated surveillance decision establishing that policies other than exchange rate, monetary, fiscal, and financial sector policies also be examined in the context of surveillance only to the extent that they significantly influence the present or prospective balance of payments or domestic stability. Referred to as "macro-criticality," this principle corresponds to issues or policies affecting or having the potential to affect, domestic or external stability (2015 Guidance Note for Surveillance under Article IV, IMF 2015c).

286 https://www.climatechangenews.com/2020/10/13/campaigners-confront-imf-chief-green-recovery-contradictions

287 https://www.eurasiareview.com/25012021-georgieva-imf-is-placing-climate-change-at-the-heart-of-its-work-speech

288 https://theenergymix.com/2020/10/19/new-imf-climate-action-blueprint-maintains-gdp-factors-in-human-health/

The IMF's primary output is to publish research on the economic implications of climate change and their translation into policy advice to its member countries to help them capture the opportunities of low-carbon, resilient growth. This research output was initially modest, with only a smattering of IMF publications before 2011 with a climate change theme. However, the volume of climate change-related studies, articles, books, manuals and blogs has grown over the past decade. The series of recent publications are impressive and have accelerated significantly in the five years since the Paris Agreement (see Box 19).

Box 19: Recent IMF publications on climate change

- "The Fiscal Implications of Climate Change," IMF Policy Paper, February 2008.
- "After Paris: Fiscal, Macroeconomic, and Financial Implications of Climate Change," Staff Discussion Note 16/01, January 2016.
- "The Effects of Weather Shocks on Economic Activity: How Can Low-Income Countries Cope?", World Economic Outlook, October 2017.
- "Fiscal Policies for Paris Climate Strategies – From Principle to Practice," IMF Board Paper, February 2019.
- "Long-term Macroeconomic Effects of Climate Change: A Cross-Country Analysis," IMF Working Paper, October 2019.
- "The Economics of Climate", Finance & Development; December 2019.
- "Markets in the Time of COVID-19", Chapter 5 in Climate Change: Physical Risk and Equity Prices, Global Financial Stability Report"; April 2020
- "This Changes Everything: Climate Shocks and Sovereign Bonds", IMF Working Paper, June 2020.
- "Fiscal Policies to Address Climate Change in Asia and the Pacific", IMF, Departmental Paper 21/07; March 2021.
- "Corporate Sustainability: Firms' Environmental performance and the COVID-19 Crisis, Global Financial Stability Report", October 2020.
- "Sustainable Finance: Looking Farther, Global Financial Stability Report", October 2019.
- "Climate Change and the Global Economy", World Economic Outlook, April 2008.
- "Fiscal Policy to Mitigate Climate Change", September 2012.
- "Climate Mitigation in China: Which Policies Are Most Effective?", IMF Working Paper 16/148, July 2016.
- "Reforming Energy Policy in India: Assessing the Options", May 2017.
- "How Should Shale Gas Extraction Be Taxed?", November 2017.
- "Canada's Carbon Price Floor", March 2018.
- "Mitigation Policies for the Paris Agreement: An Assessment for G20 Countries", August 2018.
- "Carbon Taxation for International Maritime Fuels: Assessing the Options", September 2018.
- "Fiscal Policies for Paris Climate Strategies—from Principle to Practice" May 2019.

Box 19: Recent IMF publications on climate change (cont)

- "Macroeconomic and Financial Policies for Climate Change Mitigation: A Review of the Literature", September 2019.
- "Nature's Solution to Climate Change: A strategy to protect whales can limit greenhouse gases and global warming," Finance & Development, September 2019.
- "How to Mitigate Climate Change," Fiscal Monitor, October 2019.
- "Sectoral Policies for Climate Change Mitigation in the EU," Departmental Paper No.20/14; September 2020.
- "Mitigating Climate Change—Growth and Distribution-Friendly Strategies," World Economic Outlook, October 2020.
- "Climate Mitigation Policy in Denmark: A Prototype for Other Countries", November 2020.
- "Reconsidering Climate Mitigation Policy in the UK", December 2020.
- "Implementing the United States' Domestic and International Climate Mitigation Goals: A Supportive Fiscal Policy Approach", February 2021.
- Energy Subsidy Reform: Lessons and Implications, September 2013.
- Getting Energy Prices Right: From Principle to Practice, July 2014.
- "How Large Are Global Energy Subsidies?", IMF Working Paper, May 2015.
- "Global Fossil Fuel Subsidies Remain Large: An Update Based on Country-Level Estimates", IMF Working Paper 19/89, May 2019.
- "Macroeconomic Outcomes in Disaster-Prone Countries," IMF Working Paper, October 2019.
- "We are all in the same boat: cross-border spill-overs of climate risk through international trade and supply chain", IMF Working paper, January 2021.
- "Enhancing Macroeconomic Resilience to Natural Disasters and Climate Change in the Small States of the Pacific," IMF Working Paper, June 2015.
- "Small States' Resilience to Natural Disasters and Climate Change – Role for the IMF", IMF Working Paper, November 2016
- "Climate Change Policy Assessments"; (TA Reports for Seychelles, 2017; Belize, 2018; St. Lucia, 2018; Micronesia, 2019; Grenada, 2019; Tonga, 2020).
- "Enhancing Resilience to Climate and Natural Disasters in the Seychelles", IMF Country Report No. 17/161, May 2017.
- Macro-Fiscal Implications of Climate Change: The Case of Djibouti", IMF Working Paper, November 2018.
- "Greening the Recovery," Special Series on Fiscal Policies to Respond to COVID-19", October 2019.
- "Building Back Better: How Big Are Green Spending Multipliers," IMF Working Paper, March 2021.

IMF climate-related output also includes data through the climate change indicators dashboard. The resulting policy guidance on climate change relates to the following three main areas:

- **Mitigation:** including advice on measures to contain and reduce emissions through policies such as increasing carbon taxes, reducing fuel subsidies, improving regulation, investing in low-carbon infrastructure, and providing tools to help countries achieve their NDCs.
- **Adaptation:** including guidance on building financial and institutional resilience to natural disasters and extreme weather events, and infrastructure investments to cope with rising sea levels and other warming-related phenomena.
- **Transition to a low-carbon economy:** including updates to financial sector regulation to cover climate risks and exposure to "brown" assets, as well as measures to help countries diversify economies away from carbon intensive industries while mitigating the economic and social impact on affected households and communities.[289]

The IMF's climate change website highlights six FAs within the broader envelope of its work on climate change issues.[290]

Climate and the economy

Climate change can do significant economic harm and poses worrying tail risks. The IMF notes that the climate change process is set to have a significant economic impact on many countries, with many lower income countries particularly at risk. Macroeconomic policies in these countries will thus need to be calibrated to accommodate more frequent weather shocks, including by building policy space to respond to them. Infrastructure will need to be upgraded to enhance economic resilience.

Climate change can entail significant risks to macro-financial stability. Non-financial corporate sectors face risks from climate damages and stranded assets, such as coal reserves that become uneconomic with carbon pricing, and the disruption could affect the quality of the corporate balance sheet. The risks for fossil fuel exporters that would emerge during a global transition to a low-carbon mode of production are also important.

Green finance

The financial sector plays an important role in combatting climate change by supporting reductions in climate change risk and mitigating the impact of adverse climate events. Long-term institutional investors can help rebalance and redistribute climate-related risks and maintain financial stability. Hedging instruments (e.g., catastrophe bonds, indexed insurance) can help insure against increasing natural disaster risk, and other financial instruments (e.g., green stock indices, green bonds, voluntary de-carbonisation initiatives) can help re-allocate investment to "green" sectors.

From the oversight perspective, central banks and other regulators are adapting frameworks and practices to address the multifaceted risks posed by climate change. This includes ways to improve climate risk disclosure and classification standards, which will help financial institutions and investors to better assess their climate-related exposures and help regulators better gauge system-wide risks.

289 https://www.imf.org/en/Topics/climate-change
290 Ibid.

The IMF is offering support by working with the Network of Central Banks and Supervisors for Greening the Financial System, the Financial Stability Board, and other standard-setting bodies to promote green finance more broadly and developing frameworks for climate-related stress tests.

Green finance also covers the need to step up financing more broadly from both private and public sources to low-income countries and other climate-vulnerable economies to help them meet their adaptation and mitigation objectives (a principle also inscribed in the Paris Agreement).

Climate change mitigation

The IMF is intensifying its work on carbon pricing and helping governments craft road maps as they navigate their way from brown economies dependent on carbon to green economies striving to be carbon free. Carbon taxes are one of the most powerful and efficient tools at their disposal; the latest IMF analysis finds that large emitting countries need to introduce a carbon tax that rises quickly to USD 75/tonne in 2030, consistent with limiting global warming to 2°C or less. But carbon taxes must be implemented in a careful, growth-friendly fashion. The key, according to the analysis, is to retool the tax system in fair, creative, and efficient ways. On the expenditure side, carbon taxes can be used to support low-income households and firms and households that choose green pathways. But it emphasises that carbon taxes must be complemented with sectoral mitigation measures. More recently, the IMF has highlighted the need for a comprehensive policy package featuring carbon pricing, green public investments and compensatory measures for affected households to put economies on a path to net-zero emissions by mid-century at reasonable economic costs, and support the recovery from the COVID-19 crisis.[291]

Fossil fuel subsidies

Many countries subsidise fossil fuel production and consumption (rather than charging to discourage their use). And even when energy is heavily taxed, the taxes may not be very effective environmentally speaking (e.g., they may be imposed on electricity or vehicle sales rather than on emissions or traffic congestion).

The IMF has been among the most vocal international bodies pressing for fossil fuel subsidy reform and has supported its dictums with an impressive body of research to quantify the extent and impact of subsidisation. Pre-tax subsidies (estimated as the differences between the amount consumers actually pay for fuel use and the corresponding opportunity cost of supplying the fuel) were estimated at USD 305 billion (0.4% of global GDP) in 2015 and estimated to decline to USD 295 billion (0.37% of global GDP) in 2017, reflecting both changes in international energy prices and energy subsidy reforms during this period. Somewhat controversially, IMF was the first international financial institution to label the failure to internalise the global GHG externality (through a global carbon tax or tradable permit regime) as a "subsidy" to fossil fuels. It estimated "post-tax energy subsidies" at USD 4.7 trillion (some 6.3% of global GDP) in 2015 and at USD 5.2 trillion (6.5% of global GDP) in 2017.

Climate resilience

The IMF has focused on reducing carbon emissions but is looking more at the effect of increasingly frequent extreme weather, particularly hurricanes, droughts, and floods, on people worldwide. For many developing countries, economic prospects will be significantly threatened without effective adaptation to climate change, and many small island states are particularly vulnerable. The IMF notes that disaster-re-

291 See "Mitigating Climate Change—Growth- and Distribution-Friendly Strategies", *World Economic Outlook*, October 2020.

lated economic losses have exceeded 200% of GDP in some countries, as for example when Hurricane Maria struck Dominica in 2017.

The economic impact of natural disasters, preparedness, and post-disaster response comprises the largest share of the IMF's work on climate resilience. However, disaster risk reduction, especially of weather-related events, can be seen as steps along a continuum leading to comprehensive climate change vulnerability assessment and adaptation. The IMF therefore believes that any analysis of appropriate adaptation policies must be inherently local and customised to the evolving climate impact on specific regions or sectors, including resilience-building strategies to help prepare for and rebound from disasters. Developing country governments can face very large adaptation costs. Importantly, the need for growth enhancing, scaled-up infrastructure provides an opportunity for climate-resilient, low-carbon infrastructure spending. To be successful, the management of this spending, and of financial assistance for it, should be undertaken within a medium-term financial framework consistent with available resources, macro-stability, and debt sustainability.

Green recovery

In the aftermath of COVID-19, governments around the world have deployed extraordinary policy measures to save lives and protect people's livelihoods. Given the gravity of this crisis, significant further efforts will be needed, especially during the recovery phase. To ensure a sustainable recovery, the IMF is urging policymakers to act to promote a green recovery.

Climate convention

The IMF regularly participates in annual COP events, mainly at staff level although sometimes at a managerial level. IMF and UNFCC staff meet routinely at a technical level, although collaboration has been limited. For example, a key activity of UNFCC staff is to track climate finance flows and IMF staff have not been involved in this. Additionally, the UNFCCC has done some work on carbon pricing as part of its assistance to countries on their NDCs, but the IMF has not been very involved in that work. It would be fair to say that the broad climate convention circle mostly associates the IMF with carbon pricing mitigation tools, energy subsidies reforms, and small islands climate policies assessments, and has not fully appreciated the large role that the range of macro and fiscal policies can play in both climate mitigation and vulnerability.

9.A.2 Does the IMF response cohere with the MS response to climate change?

Collaboration with other MOs, organisations, and initiatives

The IMF's key partnership historically and regarding climate change is with the WB. IMF engagement with the regional development banks has largely focused on outreach activities and is subject to resource constraints.

Formally, the IMF and the WB work together on two areas: the Financial Sector Assessment Programmes (FSAPs), which are part of the annual Article IV consultations from which the IMF produces a surveillance report on each member country, analysing its macroeconomic and fiscal position and including a debt sustainability analysis, and the Highly Indebted Poor Country Programme.[292],[293] They pool complementary

292 See https://www.imf.org/en/About/Factsheets/Sheets/2016/08/01/16/39/Debt-Sustainability-Framework-for-Low-Income-Countries

293 See Factsheet on Debt Relief Under the Heavily Indebted Poor Countries (HIPC) Initiative.

skills: the WB's sectoral, long-term view, and the IMF's knowledge of macro-financial linkages, short-term liquidity and debt pressures.[294] Climate issues are increasingly factored into these assessments, but the frameworks were not specifically built to encourage this.

Climate change policy assessments, the third area of collaboration, were launched as a pilot in 2017. Joint teams did in-depth studies in six island countries, starting with the Seychelles. The last, on Tonga, was completed in 2020. The IMF is considering rolling these out to all country types, and many believe that would be a valuable input to other parts of its work such as the debt sustainability analyses, FSAPs, and TA.

Expanding its engagement in climate change analytics and policy formulation will require more detailed assessments of energy, transport, agriculture, weather, etc. The WB has a strong knowledge base in these areas. Carter Brandon, former WB staff member and senior WRI fellow states, "the more the IMF gets into climate change, the more they will expose themselves, because they need credible access to sectoral knowledge." The need for closer collaboration is acknowledged on both sides: James Roaf, recently appointed co-ordinator of climate change policies in the IMF's Fiscal Affairs Department, states, "We need to swap knowledge with the Bank – in particular they have much more expertise on the sectoral impacts of climate change."[295] Prospects for closer collaboration between the WB and the IMF were likely enhanced when Kristalina Georgieva's assumed IMF's leadership post. Georgieva, a PhD environmental economist, served in senior roles in the WB from 1993 to 2010, as a chief executive and then as acting president from 2017 to 2019, where she was noted for including climate in key policies.

The Coalition of Finance Ministers for Climate Action is a more recent partnership in which the IMF plays a leading role. At the 2018 annual meetings of the WBG and the IMF in Bali, Indonesia, governments from 39 countries came together to boost their collective engagement on climate action. The group recognised the challenges posed by climate change, the unique capacity of the world's finance ministers to address these challenges, and ways in which these efforts could be strengthened. Several governments expressed strong support for developing a coalition of finance ministers that would promote cohesion between domestic and global action on climate change, boost ambitions, reaffirm commitments, and accelerate actions to implement the Paris Agreement.

In April 2019, governments from 26 countries joined forces to launch the coalition. Since its launch, finance ministers from 60 countries have signed on to the Helsinki Principles, a set of six principles promoting national climate action, especially through fiscal policy and the use of public finance. In December 2019, at the COP 25 in Madrid, Spain, the coalition officially launched the Santiago Action Plan, a vision document outlining the initiative's strategy in making collective progress on the Helsinki Principles in 2020 and beyond.[296]

The IMF also engages in the Partnership for Market Implementation, the Green Fiscal Policy Network, Carbon Pricing Leadership Coalition, Climate Leadership Coalition, and the Partnership for Collaboration on Taxation

A final partnership to highlight is the Network for Greening the Financial System, in which the IMF has observer status (some 83 central banks are members). At the Paris One Planet Summit in December 2017, eight central banks and supervisors established this network and its membership has grown dramatically since, across the five continents. Its purpose is to help strengthen the global response required to meet

294 See Factsheet on the IMF and World Bank.

295 "IMF will need Bank's help to fulfil climate ambition" Global Capital – The New Euroweek, 15 October 2020; https://www.globalcapital.com/article/b1ntmzrc5jxpf4/imf-will-need-banks-help-to-fulfil-climate-ambition

296 https://www.financeministersforclimate.org/about-us

the Paris Agreement goals and to enhance the role of the financial system to manage risks and to mobilise capital for green and low-carbon investments in the broader context of environmentally sustainable development. To this end, the network defines and promotes best practices to be implemented in and outside its membership and conducts or commissions analytical work on green finance.[297]

9.A.3 How does greater global attention to climate change impact the IMF's work?

How agile and effective are IMF's reactions to greater demand?

Starting under Managing Director Christine Lagarde but particularly in the last two years under Kristalina Georgieva, the IMF has been trying to rectify a severe shortage of climate experts. According to Roaf, "On climate we are trying to step up a lot. The idea is to mainstream climate within our country teams. We want them to be able to deepen their engagement with central banks and country authorities, to advise and discuss climate issues in all our member countries."[298]

The IMF has raised resources dedicated to climate-related issues incrementally from very little activity in 2016. Spending on climate-related work is estimated to have increased from USD 16 million in FY20 to about USD 24 million in FY21. This includes USD 4.5 million in externally funded capacity development resources in FY20 and FY21 earmarked for climate-related work, reflecting growing interest and support from the IMF's partners.

9.B How have IMF organisational strategies, operational activities and resource plans incorporated climate change?

9.B.1 Organisational strategies

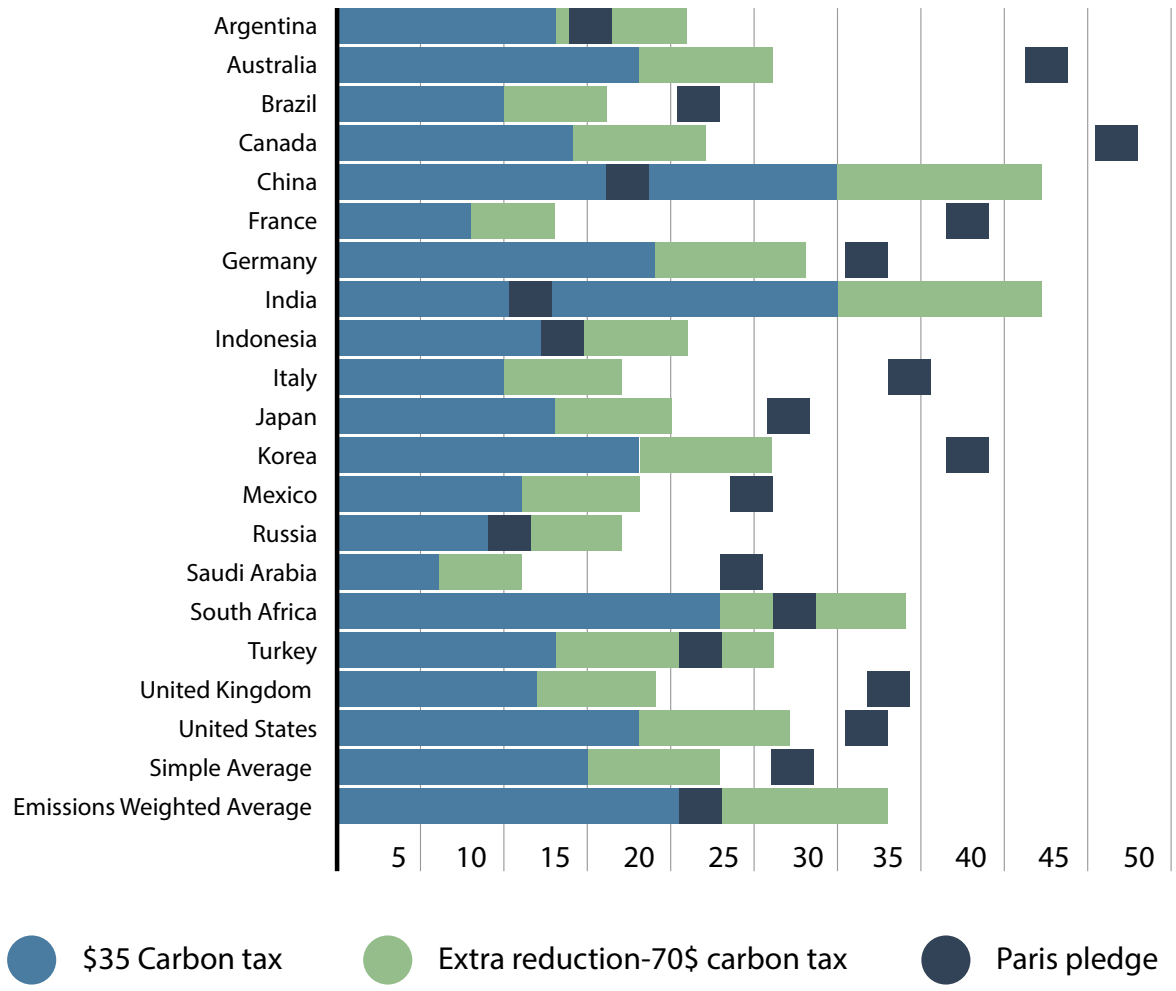
The IMF is currently engaging with its executive board to define a climate change strategy to guide its climate work. In the interim, the managing director has named the deputy director in the strategy, policy, and review department as the IMF climate co-ordinator overseeing collaboration and co-ordination of climate work across the IMF in close contact with the offices of the managing director and deputy managing director with climate change portfolio responsibility. In addition, an interdepartmental climate advisory group meets regularly to discuss ongoing work and co-ordinate deliverables – members include senior staff in all functional and area departments. The group is co-led by an assistant director and climate change policy co-ordinator in the fiscal affairs department, and the advisor/unit chief of the development issues unit in the strategy, policy, and review department.

297 https://www.ngfs.net/en/about-us/governance/origin-and-purpose

298 *Global Capital, op cit.*

The fund has been the loudest voice to date on carbon taxation as a key to mitigation. The power of putting a price on carbon is illustrated in Figure 10.

Figure 10: Potential contribution of carbon taxes to meeting Paris Agreement commitments



Source: Ian Parry, Victor Mylonas, and Nate Vernon, 2018, forthcoming, "Policies for Implementing the Paris Climate Agreement: An Assessment for G20 Countries?" IMF Working Paper.

While the impact of a given level of carbon tax differs in countries with different economic structures and energy/industry/transport sectors, even a moderate level of carbon pricing would, in many cases, bring GHG emissions countries close or equal to their Paris pledges.

In general, the IMF recommends that carbon pricing be the centrepiece of mitigation strategies for advanced and developing countries alike. It is preferred because it: (i) directs activity towards low-emissions options; (ii) provides an essential price signal for mobilising private investment in low-carbon technologies; (iii) raises an easily collected source of revenue, which can be especially appealing in developing countries where revenue mobilisation can be hampered by informality, whereas upstream carbon taxes can also cover the shadow economy; (iv) produces carbon revenues that can help fund investments to meet the SDGs, which can disproportionately benefit low-income households, and (v) can lead to pricing that can also generate large domestic environmental co-benefits, such as reductions in local air pollution mortality, which is especially high in developing countries. Pricing is emerging in some non-advanced countries such as Argentina, Chile, China, Colombia, Mexico, and South Africa. Many developing countries are members of the Coalition of Finance Ministers for Climate Action, which emphasises the critical role of carbon pricing.

However, carbon taxes face many political hurdles. In recent years, the IMF has broadened its coverage of climate policy topics. In its latest analysis and in the context of the recovery from the COVID-19 crisis, it has emphasised the need for a comprehensive mitigation policy package where, in addition to carbon pricing, green public investments in infrastructure both help boost economic activity (counteracting the economic costs of carbon pricing) and lay the foundation for a just transition to a low-carbon economy by (i) incentivising more private investment in green sectors (October 2020 World Economic Outlook chapter) and (ii) reducing the burden of transition on low-income households and workers through adequate, efficient, and fiscally sustainable social spending policies. The IMF has also touched on various options, to at least some degree (see Table 11).

Table 11: Financial and monetary policies for climate change

Policy Area	Policy	Instruments
Financial	Redressing underpricing and lack of transparency of climate risks	Climate-related financing data and risk disclosures, green asset taxonomy, climate-related stress tests, macroprudental tools
	Reducing short-term bias and improving governance frame-works of financial institutions	Prudent reforms, corporate governance reforms
	Supporting the development of green financial securities	Standardised taxonomy of green assets, low-carbon indices, platforms and active issuance by authorities
	Actively promoting climate finance using financial regulatory tools	Green supporting/brown penalising factor in capital requirements, mi. amount of green assets on balance sheet
Monetary	Integrating climate risk analytics into collateral frameworks, central bank portfolio management and QE	Developing own risk assessments, ensuring climate risks appropriately reflected in central bank asses portfolios
	Green QE and collateral frameworks	Better access to funding schemes for banks that invest in low-carbon projects, central bank purchases of low-carbon bonds
	Credit allocation policies	Central bank credit allocation operations, adapting monetary policy frameworks

Source: https://blogs.imf.org/2019/09/04/a-role-for-financial-and-monetary-policies-in-climate-change-mitigation/#post/0

Managing Director Georgieva has identified priorities for the IMF's future actions in five key areas:

1. Integrating climate in its annual country economic assessments: the Article IV consultations. In highly vulnerable countries, the IMF focuses on adaptation and is building up mitigation analysis, including carbon pricing, in its assessments of large emitters.
2. Including climate-related financial stability risks in its financial sector surveillance: through the standardised disclosure of these risks, enhanced stress tests and assessments of supervisory frameworks.
3. Developing modelling tools to support climate analysis in bilateral surveillance and in a multilateral perspective.
4. Scaling up climate in capacity development to help equip finance ministries and central banks with the skills to take climate considerations into account.
5. Mainstreaming climate indicators in macroeconomic data. The IMF launched a climate change indicators dashboard in April 2021 with indicators to track the economic impact of climate risks and the measures taken to mitigate them.[299]

299 Remarks by the IMF Managing Director at the Climate Adaptation Summit: https://www.imf.org/en/News/Articles/2021/01/25/sp012521-md-remarks-at-the-climate-adaptation-summit

The IMF will be best able to leverage its expertise if climate change becomes part and parcel of its macro-economic analysis. However, climate issues have yet to be consistently integrated into its actual analytic toolset. For example, a Centre for Global Development survey of IMF's flagship annual economic country evaluations, the Article IV consultations, shows that 45 of the 100 country reports published between 1 January 2019 and 17 March 2020 made some mention of climate issues, including references to vulnerability associated with weather-related natural disasters, but few had deep analysis. A few developing countries had more in-depth discussions, especially where weather-related issues were causing major economic dislocations (e.g., Mozambique, Somalia, and Zambia). Among developed countries, the staff reports for Ireland, Germany, and Singapore included discussions of the authorities' climate policies, and the French authorities outlined similar policies in their statement accompanying the staff report. No climate-related concerns were raised in the reports for Canada, China, Russia, or the United States during the 15-month period covered in the CGD study.[300] However, climate-related issues were covered in the context of the 2021 Article IV for Canada, 2020 Article IV for China, 2020 Article IV for the US and the March 2021 IMF Working Paper, "Implementing the United States' Domestic and International Climate Mitigation Goals: A Supportive Fiscal Policy Approach."

300 https://www.cgdev.org/publication/confronting-macroeconomic-challenges-climate-change-road-ahead-imf. The Boston University Global Development Policy Centre as reported in Gallagher (2021), "Climate Risk and IMF Surveillance Policy: A Baseline Analysis," reached similar conclusions on the incorporation of climate risk, physical risk, and transition risk in Article IV surveillance and the FSAPs.

These Centre for Global Development findings are broadly consistent with the small sample of country case studies conducted for this overall study (see Table 12).

Table 12: Climate change coverage in recent IMF Article IV assessments: case study countries

Country	Article IV Consultation Year	Climate Change addressed?	Comments
Ethiopia	2018	Marginally	Report identifies climate change as a risk in the outlook and risks section. [301]
Jamaica	2018	Yes	Report covered climate issues in-depth, including in a dedicated section, Enhancing Resilience to Climate Change, and an annex, Building Resilience to Floods, Droughts, and Disasters.
India	2019	No	Climate-related issues were covered as part of the 2017 Article IV Consultation for India, including in the selected issues paper, "Energy Policy Reform in India: Assessing the Options". Climate-related issues are being considered again in the current cycle.
Brazil	2020	No	
Indonesia	2019	No	
Indonesia	2020	Yes	Report noted, "Indonesia's proactive policies tackling climate change could put further emphasis on a greener economy. A comprehensive transition plan would contribute to the economic recovery. Further progress in monitoring and executing adaptation plans would provide a welcome increase in resilience to climate change, given Indonesia's high exposure to related natural hazards." It included an appendix, Designing a Medium-Term Revenue Strategy for Stronger and More Sustainable and Inclusive Post-Pandemic Growth in Indonesia. [302]

Source: Article IV reports for specified countries

It should nevertheless be noted that the IMF does not aim to cover climate change issues in every Article IV assessment. More generally, it does not intend to treat every macro-critical issue in every Article IV assessment mission: like other high-level concerns, it is expected that climate change will be addressed periodically or on a rotational basis.

301 https://www.imf.org/en/Publications/CR/Issues/2020/01/28/The-Federal-Democratic-Republic-of-Ethiopia-2019-Article-IV-Consultation-and-Requests-for-48987

302 See Indonesia : 2020 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Indonesia (imf.org)

9.B.2 Operational activities

In co-ordination with the WB, the IMF prepared CCPAs for six vulnerable countries: Seychelles, St. Lucia, Belize, Grenada, the Federated States of Micronesia, and Tonga. These reports evaluate the general preparedness for the impacts of climate change, mitigation and adaptation strategies, financing needs, and risk management capabilities. They examine the national processes in place to make key short- and long-term decisions, and suggest priority areas for action. From a macroeconomic standpoint, the emphasis is on fiscal policies and the impact on debt and financing with little, if any, attention paid to financial sector issues. It is worth noting that these assessments supplement the ongoing work of the IMF country teams and no extra internal budgetary resources have been made available for doing them. Typically, the teams working on these countries are small, so absent additional resources, producing such reports is difficult. The IMF's work has thus far focused on small island states where global climate change threats are most immediate and existential as sea levels rise.[303] In 2021, two FSAPs covered climate-related issues in detail. The Norway FSAP focused on transition risks while the Philippines FSAP did a deep dive into physical risk.

The IMF also periodically prepares financial system stability assessments for its member countries, which consider the financial vulnerabilities of the banking and other institutions. To date, these reports do not reflect the recent increase in attention of the financial community to climate issues. In the eleven assessments published between January and March 2020, no mention is made of the possible long-term effects of climate change on financial systems or of any short-term vulnerabilities. The report for the Bahamas makes some reference to disaster preparedness, while a background paper on the insurance industry in Switzerland notes possible vulnerabilities to large natural disasters in the US. It should be noted that these reports are complex undertakings that involve numerous teams of experts and, in developing countries, are done in consultation with the WB. From inception to completion, the analysis can take a year or longer so the report's policy emphasis changes only with a lag.[304]

Box 20: IMF must figure out how to implement its new thinking – a critical view from Recourse

In October 2020, the Dutch think tank, Recourse, published an analysis suggesting that the IMF's Article IV country reports do not take climate change seriously enough. Its detailed review of the reports on Indonesia, India, South Africa, the Philippines and Mozambique found that climate change was only identified as a macroeconomic risk for the last two. Recourse argued that the IMF analysis appeared to downplay the risks of South Africa and Indonesia's heavy reliance on export earnings from coal, and of Mozambique being on the cusp of becoming a big exporter of coal and natural gas. The report cites numerous instances where seemingly neutral IMF recommendations in areas such as tax or infrastructure would effectively lock in more dependence on fossil fuels. High-level models are well and good, but, as the Recourse report maintains, the details of implementation are what matters. That probably is not lost on Managing Director Georgieva, who stated, "Macro decisions have micro consequences," to Bloomberg Economics in a wide-ranging interview in October 2020.

Source: Bloomberg Economics, quoted in https://www.deccanherald.com/science-and-environment/the-imf-has-a-blueprint-for-helping-the-climate-without-hurting-economic-growth-903305.html

303 *Ibid.*
304 *Ibid.*

The public investment management assessment tool helps countries evaluate the strength of their public investment management practices. To date, over 64 countries have undertaken such an assessment with the IMF. Of nine assessments published in 2019 and two in 2020, the need for climate/green investment strategies figures only in the Maldives document, while some make little or no mention of the environmental impact and its consideration in public investments.[305] The IMF Fiscal Affairs Department is currently developing a climate change module of the tool to assess the robustness of the public investment management framework from a climate change perspective to strengthen the capacity of member countries to address climate-related risks in the public investment cycle. The finalised module is expected by mid-2021.

IMF's capacity development on climate change is expected to grow quickly from a low starting point. The IMF's spending in climate change capacity development is projected to increase from USD 0.5 million in FY20 to USD 2.5 million in FY21 and to reach USD 6.2 million by FY24. Whereas the share of climate change capacity development in the overall CD delivery in FY21-24 will increase by 50%, it will only account for 2.5% of the total capacity development delivery in FY24. These projections are likely to be further revised, as staff are currently exploring the scope for ramping up delivery plans.

Regarding focus, IMF capacity development will broaden the programme of climate change policy assessments, carbon taxation and energy subsidies, financial sector stress testing, financial regulation and supervision, green finance, and the integration of climate considerations into existing work streams such as public financial management, in addition to the PIMA climate module already mentioned. At present, the IMF Institute provides some training on climate change issues through its course offerings on inclusive growth and training on energy subsidy reforms including a full-fledged online course and public investment management regional workshops. Further climate-related training is being developed.

In Spring 2021, the IMF Executive Board will consider a new CCS, acknowledging the expectation that it will be mainstreaming climate change more into its analytical and client advisory work. Among other things, this means addressing the integration of climate into IMF surveillance as part of the comprehensive surveillance review – which will include a background paper on integrating climate into surveillance and the financial sector assessment programme review — also in the context of a background paper. Currently, the demand by country members for engagement on climate change issues exceeds the supply given the IMF's internal resource constraints. In order to prioritise, it plans to cover mitigation assessments in the world's twenty largest emitting countries, seen as "macro-critical at the global level." In addition, IMF will include climate mitigation of its macro and fiscal analyses in selected countries where emissions may be less important on a global scale, but where mitigation efforts are potentially macro-critical in the country's economy. In parallel, the intention is to scale up adaptation assessments in the most vulnerable nations and in small states such as the SIDS.

9.B.3 Incorporating COVID-19

The communiqué from the April 2021 WBG/IMF Annual Meetings commits to strengthening multilateral co-operation "to ensure an inclusive and resilient global economy." In line with the Paris Agreement, the IMF committed

> …strongly to addressing climate change through measures to accelerate the transitions to greener societies and job-rich economies, while protecting those adversely affected. These comprise a range of fiscal, market, and regulatory actions, mechanisms, and policy mixes, taking into account country-specific factors.

305 *Ibid.*

In addition, the communiqué noted that the "IMF has an important role in responding to members' diverse needs for guidance on the macroeconomic and financial implications of climate change issues." On over ten occasions between April and July 2020, Director Georgieva and senior staff made statements such as, "for our world to become more resilient—we must do everything in our power to promote a 'green recovery.'" IMF Deputy Managing Director Tao Zhang also emphasised that a green recovery should "promote a just transition…. That means assisting vulnerable households, workers, regions, and trade-exposed or fuel producing firms. And using carbon pricing revenues in broad tax reductions or public investments that boost growth and benefit all households." To back up these statements, the IMF's fiscal affairs department developed and published the special series on COVID-19, a set of guidelines to assist countries in their responses to the pandemic.

A Brookings Institute review found that the IMF is not conditioning its COVID-19 emergency relief on draconian austerity measures—yet. According to Brookings, as of October 2020, the IMF had financed over 100 COVID-19 recovery programmes at upwards of USD 88 billion. Aside from 13 of the programmes, there are few to no strings attached to the liquidity provision. Yet it is not at all obvious how both COVID-19 and climate change concerns can be accorded the needed fiscal space.[306]

IMF staff also point out that the initial focus of the response was (appropriately) not green. The initial response to the COVID-19 crisis included fiscal measures targeting various urgent needs, such as health care, small business support, and relief for the unemployed, which did not lend themselves to bringing in a climate objective. Thus, when discussing "greening" the COVID-19 response, what is really meant is "greening" the recovery part of the COVID-19 response by contrast to the immediate crisis response part of the COVID-19 response. Furthermore, the possibility of greening the COVID-19 recovery depended to a large extent on the counties' pre-crisis situation and the availability of "shovel ready" projects along with supportive policy measures. It would be unrealistic to expect MOs to reverse this situation in the short run.

9.C What IMF lessons can inform the MS response to the climate crisis?

Its reputation as a rigid, doctrinaire bureaucracy notwithstanding, the IMF very adeptly embraced climate change as a new area of work. Perhaps the most striking lesson emerging from this review is the impact of executive leadership and commitment. The history of the IMF's growing level of engagement in addressing climate change in its research and policy work can be divided into four stages: (i) pre-Lagarde (before 2011); (ii) her installation as managing director (2011-15), (iii) the IMF under Lagarde post Paris (2015-19), and (iv) the installation of Georgieva as managing director (2019-present). The acceleration of the IMF's activism on the climate change issue can clearly be linked to the commitment and pronouncements of the institution's leadership at the highest level, which appears to greatly exceed any pressure from the IMF Board (although the EU doubtless had a ready audience with Directors Lagarde and Georgieva) or from a detailed internal strategy formulation process.

306 https://www.brookings.edu/blog/future-development/2020/10/13/why-the-imf-needs-to-build-on-its-covid-19-record-not-backtrack/

When climate change issues are macro-critical, they are already within the IMF's mandate. Mark Plant, CEO of the Centre for Global Development, Europe, states it well.

> When it comes to climate change, many would initially say…that while climate change might be a pressing issue for some vulnerable countries and sectors, it does not have the global systemic macroeconomic and financial impact that merits the Fund's attention. But that would be wrong. Whether the global community fights to limit carbon emissions or not, there will be huge systemic implications. If we pursue decarbonisation consistent with the 2015 Paris declaration, we will need a fundamental restructuring of the world's production, trade, and finances. Whereas, continuing along the current carbon emission path will lead to a potentially uncontrollable degradation in global wellbeing and devaluation of assets. Either way large shifts will occur with unpredictable timing and impact, endangering global economic and financial stability. And that is squarely in the IMF's core mandate.[307]

This view is fully supported by Kristalina Georgieva's recent declaration that climate change is a macro-critical issue.

No institution is better placed than the IMF to understand climate change as a threat to economic growth and stability, and to provide guidance on how to balance the risks. It has the talent, scope, and bully pulpit to guide the global macroeconomic dialogue on carbon taxation, economic transformation, carbon-related financial incentives and risk taking, the macroeconomic and fiscal impact of adaptation strategies and the macroeconomic costs of inaction on climate mitigation. With its wide variety of modelling tools it can explore extreme events and tail risks to predict when economic tipping points might occur.[308]

The UNFCCC would do well to cultivate a closer relationship with the IMF. The UNFCCC bodies need to broaden their outreach and communication channels to develop stronger constituencies in national governments outside of ministries of environment, particularly in the recipient governments of the developing world. Finance ministries are at the apex of the national decision hierarchy for allocating resources, including for climate change, and should be willing partners for finding ways to green the budget and, where needed, make the short-term budgetary trade-offs among climate and other development imperatives. The IMF is in an excellent position to lay out the economic impact of climate change to presidents, prime ministers, ministers of finance and central bank governors, bringing to the fore what may be seen as peripheral issue.

Similarly, the IMF could strengthen its presence in global climate change discussions. Its recent affiliation with the Central Bank Network for the Greening of the Financial System and with the Coalition of Finance Ministers for Climate Action is a good start but needs to be extended. The IMF could play an important role in promoting coherence across the many global working groups and initiatives on green finance.

The IMF has a clear path to increasing its voice and effectiveness in combatting climate change, but will require more resources. While the quality and volume of its climate-related research output looks to match the importance attached to climate change by its top management, the application of policy findings and implications have yet to be mainstreamed in its macroeconomic and fiscal tools applied at country level. Under the current budget environment, integrating climate analysis tools will require resources that must either be diverted from other activities or added to the IMF's budget. The climate community can help make the case to IMF shareholders for the needed resources.

307 https://www.cgdev.org/blog/what-should-we-ask-imf-climate-change

308 *Ibid.*

A parallel challenge for the IMF will be to clearly delineate the boundaries of its own efforts and work with others. By setting clear expectations for its analysis, the IMF can best leverage its core expertise efficiently and rely on others to complement it. It does not need to build its own expertise in all aspects of climate change but will need to partner closely with others. The WB is always its first partner on issues straddling macroeconomics and structural/microeconomic issues. On climate finance, it will find collaborators at the MDBs and in the development finance institutions as key architects of green finance programmes. Bringing in outside scientific and political expertise will also be essential to its analysis.[309]

309 *Ibid.*

10. UNITED NATIONS DEVELOPMENT PROGRAMME

10.A How is UNDP responding to climate change?

10.A.1 How does UNDP adhere to the normative frameworks of the 2030 Agenda and Paris Agreement?

As the UN development agency, the UNDP is the face of the SDGs that drive all its work.

Climate change has underpinned UNDP's strategic plans for decades as a mainstreamed crosscutting issue. As such, the Paris Agreement did not lead to a strategic turn but to greater demand from developing countries for support to tackle climate change and the availability of international climate finance, which has increased the UNDP's level of investments and activity in this area.

In 2017, the UNDP formalised its energy strategy for the first time in response to the international normative frameworks agreed to in 2015, including the Paris Agreement.[310]

The UNDP Strategic Plan 2018-21 is anchored in the 2030 Agenda for Sustainable Development and related agreements such as the Paris Agreement.[311] It is articulated around six signature solutions, into which mitigating and adapting to climate change are woven, seeking to address complex, interconnected challenges.

10.A.2 How do UNDP responses to climate change cohere with the MS?

Collaboration with other MOs, organisations, and initiatives

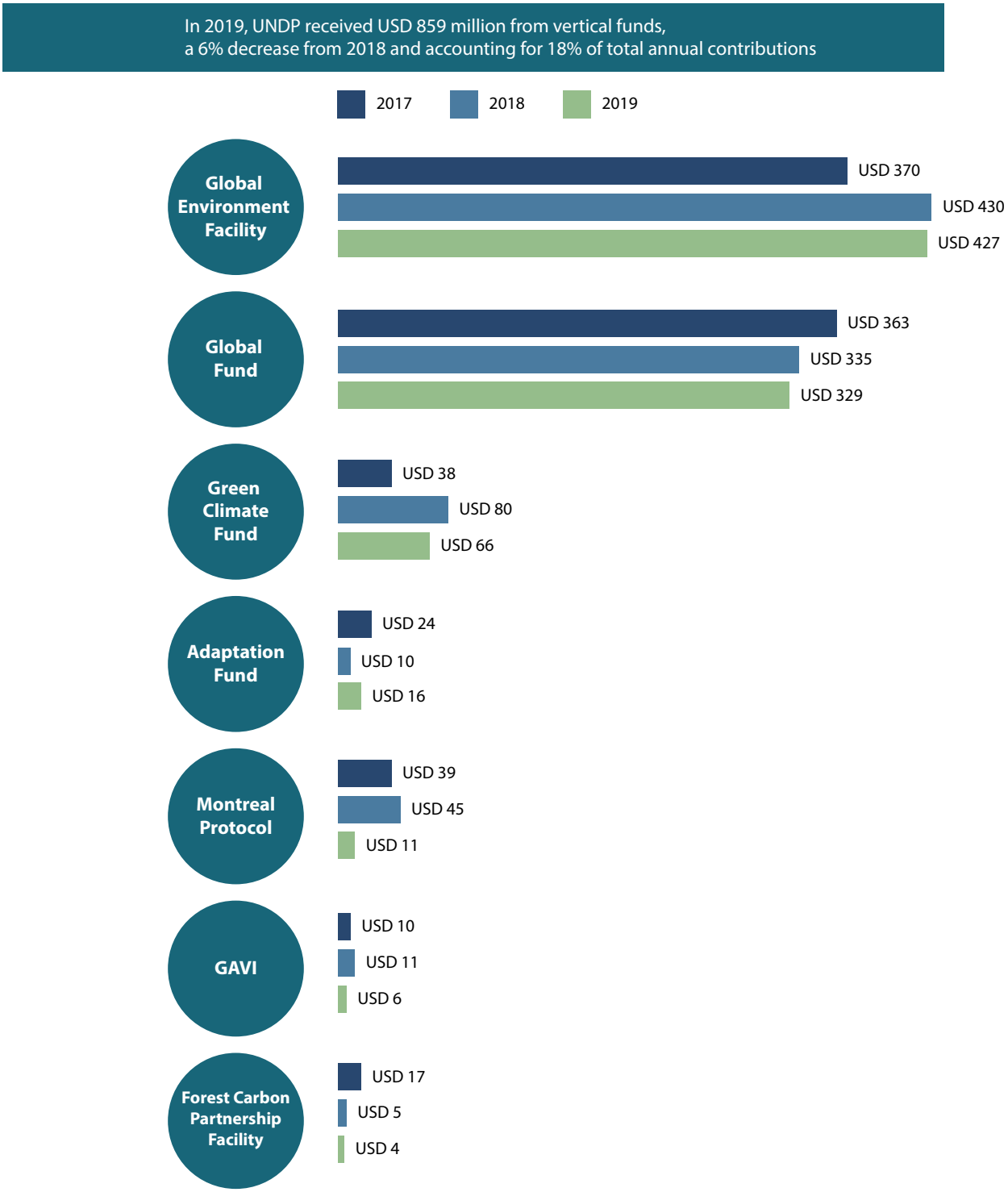
UNDP focuses particularly on partnering with vertical funds (VF) that represented 18% of its total budget (not limited to climate) in 2019.[312] This is particularly true for climate change, with the major GEF, GCF, and AF portfolios (see Figure 11).

310 https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/UNDP%20Energy%20Strategy%202017-2021.pdf

311 https://strategicplan.undp.org/

312 UNDP 2019 Funding Compendium

Figure 11: Funds received by UNDP



Source: https://www.undp.org/publications/undp-funding-compendium-2019

The UNDP also leads and participates in a range of climate relevant partnerships.

- The NDC partnership, which aims to leverage its members' resources and expertise to provide countries with the tools they need to implement their NDCs and combat climate change. The UNDP currently sits in the steering committee. It contributes through its Climate Promise and NDC Support Programme and contributions to the knowledge portal.
- The UNDP Climate Promise aiming to support 100 countries that are enhancing their climate ambition as part of the NDCs, (see section B), involves over 35 strategic partners including IRENA (energy), UNEP (energy, adaptation, resource efficiency, forestry and NbS), FAO (adaptation, forestry), ILO (green jobs and just transition), UNICEF (youth and social protection), WBG (adaptation, measurement, reporting and verification (MRV), UN-HABITAT (local and regional governance, cities), and Oxford University.[313]
- The African Adaptation Initiative, under the political leadership of the Committee of African Heads of State and Government on Climate Change and the AU, currently in phase three, aims to achieve transformative adaptation results for African countries throughout the decade of climate action (2020-30).
- Launched in 2008, the UN-REDD programme builds on the convening role and technical expertise of the FAO, UNDP and UNEP to support nationally led REDD+ processes.
- A wide array of energy-relevant initiatives at the global, regional, subnational and local levels, such as Scaling up Climate Ambition on Land Use and Agriculture (SCALA) with FAO, Climate Investment Platform with IRENA and Sustainable Energy for All, OECD, UNIDO, EIB, and WRI, and Climate Security with UNEP.[314]

Effectiveness of co-ordination mechanisms

Regarding partnerships with VF, positive outcomes have been mentioned: for example, the GEF required the implementation of high environmental and social safeguards, operational procedures first developed to comply and then expanded to the rest of the UNDP. In the same way, the GCF's Anti-Money Laundering and Countering the Financing of Terrorism Policy strengthened the relevant UNDP procedures.[315]

However, some tensions exist between VF expectations and some UNDP procedures, in particular, the national implementation modality were also mentioned and have been illustrated by the recent performance audit of the UNDP GEF management, which concluded that oversight was inadequate and received considerable media attention.[316], [317]

Regarding partnerships in general, it appears that the UNDP tends to move fast and first and partner later, building on its strong in-country presence. For example, the UNDP built its GCF portfolio impressively fast and is now keen to serve as a bridge for other UN or national and regional organisations.

It was also mentioned that partnerships and co-ordination come at a cost, and that the lack of core resources available was an obstacle to investing the time and energy required to foster, curate, develop, and nurture partnerships so that they have the desired impact at the country level.

313 https://www.undp.org/content/undp/en/home/climatepromise.html

314 See pp.40-42 of https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/UNDP%20Energy%20Strategy%202017-2021.pdf

315 https://www.greenclimate.fund/document/anti-money-laundering-and-countering-financing-terrorism-policy

316 https://www.thegef.org/sites/default/files/documents/Audit_UNDP_GEF_Final_Report_2020_12_01.pdf

317 See for example the FT: https://www.ft.com/content/054a529c-e793-489b-8986-b65d01672766 and FP: https://foreignpolicy.com/2019/08/14/greed-and-graft-at-un-climate-program-united-nations-undp-corruption/

10.A.3 How does greater global attention to climate change impact UNDB's work?

Targets

UNDP has no climate finance targets, as the vast majority of climate activities are carried out in response to growing country demands for programming assistance. UNDP's primary role is in supporting countries to access resources and assess their climate priorities, and as per the legal agreements with the various Funds, provide oversight services for the resources that are mobilised on behalf of countries. The expertise that sits in UNDP is therefore often used to ensure that the countries make use of the resources in a manner that meet the fiduciary expectations of the Funds concerned. Therefore, the absence of adequate co-funding constrains the deployment of core UNDP capabilities to support the Countries and on the ground activities on climate action. In 2019, the GEF ranked second among the most important UNDP Funding partners with USD 427 million, while it was number one in 2018 with USD 430 million. The GCF ranked 19th in 2019 with USD 66 million and 18th in 2018 with USD 80 million. In 2019, UNDP set a target of supporting 100 countries to enhance their pledges, or NDCs, under the Paris Agreement. With 35 partners as of March 2021, support is being extended to 118 countries.

Staffing and skills profile

According to its very decentralised model, the UNDP progressively invested to ensure that the workforce in regional hubs and country offices possess relevant climate change-related skills. For instance, using the Global Policy Network, UNDP has been setting up internal and external webinar series, data infrastructure, and skills exchange opportunities among country COs, regional hubs and HQ, which sometimes lead to South-South and triangular co-operation within projects. UNDP also makes use of knowledge platforms such as SparkBlue to share experiences and knowledge across a variety of different climate issues.

Financial commitments

The administrative budgets attributed to climate-friendly programmes are not tracked, but UNDP steadily increased its investments in climate programmes is recent major contribution to the Climate Promise attests. With all COs in UNDP managing climate projects, there is climate expertise in all COs, all regions and in the Headquarters. A point to note is that the majority of UNDP's support is funded through extra budgetary resources to respond to the rapidly increasing requests for assistance by countries for nature, climate and energy. The limited resources place a significant burden on existing staff to provide effectively organised policy advisory technical support in an urgent and flexible manner as extra budgetary resources are usually earmarked for specific results and are unpredictable. The significant increase in the past three years in the volume of requests received from countries means that existing capacities and skills are stretched. UNDP manages this constraint by seeking partnerships with other UN organisations (recent work plans with FAO and UNEP are cases in point) and others (for example, recent conversations with GIZ, the German Development Agency and working smart. However, additional investment will be required for UNDP to meet the scale of requests for assistance that continues to grow as UNDP's success in supporting countries (especially LDCs, SIDS) to access climate finance is increasingly evident, especially with the GEF and GCF.

How agile and effective is UNDP's reaction to growing demand?

The UNDP has reacted with agility to the increasing demand from recipient countries regarding climate change. UNDP Director of Nature, Climate and Energy & Executive Co-ordinator for Environmental Finance mentioned a start-up culture in the team at the beginnings of the GCF as UNDP created an agile, high

performance practice and culture to respond to country requests for assistance with the design of projects that met the investment criteria of the GCF. It currently operates at full capacity. Scaling up support to meet increasing demands requires additional investment.

10.B How have UNDP organisational strategies, operational activities, and resource plans incorporated climate change?

10.B.1 Organisational strategies

Under the umbrella of the UNDP Strategic Plan and UN-wide co-ordination, UNDP developed a CCS in the lead up to the Climate Action Summit in 2019. Likewise, it formalised its energy strategy for the first time in 2017, in response to the international normative frameworks agreed to in 2015, including the Paris Agreement.

Recognising that achieving sustainable development is only possible with climate action, the UNDP addresses climate change as a crosscutting development issue that affects every aspect of sustainable development and the entire 2030 Agenda. The UNDP Strategic Plan 2018-21 includes a suite of "signature solutions" that seek to address complex and interconnected challenges, including mitigating and adapting to climate change. For example:

- **Signature solution 3:** enhance national prevention and recovery capacities for resilient societies, which helps countries strengthen national capacities for disaster risk reduction and invest in new technologies, including those that help reduce emissions.
- **Signature solution 4:** NbS for development, which aims to help build the Paris Agreement and all environmental agreements into the heart of countries' development priorities.
- **Signature solution 5:** close the energy gap, which will focus on increasing energy access, promoting renewable energy and enhancing energy efficiency, in line with SDG7. Specifically, "the signature solution will support countries' transitions to sustainable energy systems by working to de-risk the investment environment and to attract and leverage private and public-sector resources. In contexts where energy is already available to most or all people, the focus will be on transitioning to renewable energy generation and energy efficiency measures and policies. In crisis and post-crisis situations, this solution will focus on re-establishing energy access where it has been lost, strengthening risk-informed zero-carbon development. In delivering this signature solution, UNDP will collaborate with other agencies under the UN-Energy framework and the Sustainable Energy for All initiative."

However, the mid-term review of the Strategic Plan 2018-21 notes that, "while this integrated approach is now the UNDP standard, evidence shows it is not being applied consistently; there is more to do, for example, to better integrate energy with other signature solutions or health with NDCs."[318] This is a core part of discussions to develop UNDP's next strategic plan.

318 https://digitallibrary.un.org/record/3861554/files/DP_2020_8-EN.pdf

10.B.2 Operational activities

Country level

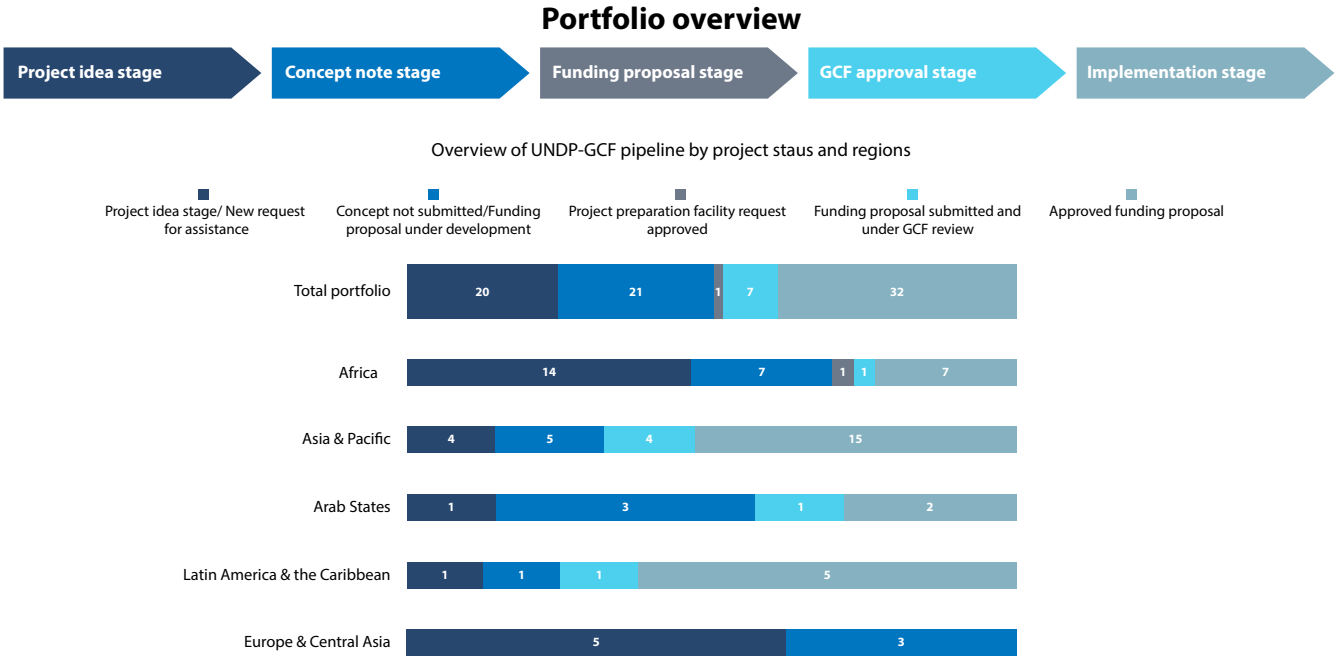
UNDP has a very strong country presence. It works in about 170 countries and territories through its country offices and five regional hubs. It has no country strategies but deploys its strategic plan in a country-driven manner. Since the UNDS reform, the UNDP contributes together with other UN agencies to the UNSDCPFs.

Projects and programmes

The UNDP has contributed to tackling climate change since the 1992 Earth Summit, the Rio conventions on biodiversity, climate change and desertification, and the creation of the GEF as the (then) principal vehicle for implementing the conventions. It has been a lead IA for the GEF since its establishment, and has expanded its role by participating in new funds established under the UNFCCC: LDCF, SCCF, AF (all established in 2001), and the GCF (established in 2010). Today, UNDP is the UN system's largest provider in climate change activities with activities in 140 countries.

The importance of these VF portfolios shows UNDP's heightened focus on climate change. Taking the GCF as an example, the UNDP was part of the very first batch of AE in March 2015. Its portfolio has grown steadily and is one of the most important portfolios among AEs (see Figure 12).

Figure 12: UNDP-GCF project pipeline



Source: UNDP GCF portal, portfolio on March 19, prior to the 28th GCF Board.

Selected country operations: Brazil, Ethiopia, India, Indonesia, Jamaica[319]

Brazil

The UNDP currently implements one GCF project and nine GEF project (all FAs). The GCF funds a USD 96.5 million REDD+ Results Based Payments projects that provide payments for results derived from reducing emissions from deforestation in the Amazon region in 2014 and 2015. Example of GEF financed projects are support to Brazil to prepare its fourth national communication and biennial update reports required to meet obligations under the UNFCCC and reduction of the iron and steel sector's GHG emissions from in the Brazilian State of Minas Gerais thanks to biomass based charcoal production.

Ethiopia

The UNDP currently oversees the implementation of nine GEF financed projects (all FAs) including capacity building under the CBIT, a project aiming to reduce Ethiopia's energy-related CO2 emissions by approximately 2 MtCO2e by promoting renewable energy and low GHG-producing technologies as a substitute for fossil fuels and non-sustainable biomass utilisation in the country and another implementing climate-resilient green economy plans in highland areas. UNDP's Climate Promise is also active in Ethiopia, where it is supporting the inclusion of seven sectors in the revised NDC to increase mitigation ambition while building the country's adaptive capacity and resilience.

India

The UNDP currently oversees the implementation of one GCF project designed to protect and restore the natural ecosystems of India's coastal zone to strengthen the climate resilience of coastal communities. It also oversees the implementation of eight GEF-financed projects, including support for preparing India's third national communication and other new information to the UNFCCC.

Indonesia

The UNDP currently oversees the implementation of one GCF project providing results-based payments for Indonesia's REDD+ results for 2014-16, with a total volume of 27 MtCO2e. It also implements nineteen GEF-financed project (all FAs), mostly regarding biodiversity. GEF-financed climate projects include capacity building under the CBIT, Advancing Indonesia's Lighting Market to High Efficient Technologies Project, which aims to strengthen the competitiveness of the Indonesia-produced Energy-efficient Lighting or Enhancing Readiness for the Transition to EVs in Indonesia. UNDP's Climate Promise also provides support to identify new sectors for the revised NDC and aligns the NDC with its work on the climate change fiscal framework.

Jamaica

The UNDP currently oversees the implementation of three GEF project (all FAs) including a project preparation grant to support the development of the Supporting Sustainable Transportation Through the Shift to Electric Mobility project, and another project seeking to advance a low carbon development path and reduce Jamaica's public sector energy bill by introducing renewable energy and improving energy efficiency in the health sector.

319 All data is from the UNDP transparency portal, visited on 18 March 2021.

Formulating and implementing NDCs

NDC Support Programme: Launched in 2017 at COP 23 and implemented in contribution to the NDC Partnership, the UNDP's NDC Support Programme helps countries advance integrated climate and development solutions. It currently serves 36 countries.

The Climate Promise: Building on the successes of the NDC Support Programme, UNDP launched the Climate Promise at the UNSG 2019 Climate Action Summit to help countries design and implement their climate pledges.

In response to growing demand for support from countries to enhance their NDCs under the Paris Agreement, the Climate Promise is UNDP's commitment to ensure that any country wishing to increase the ambition of its national climate pledge can do so. It complements and leverages the mandates, comparative advantages, and skillsets of a wide range of strategic partners. Specifically it is currently engaging with over 35 partners, including IRENA (energy), UNEP (energy, adaptation, resource efficiency, forestry and NbS), FAO (adaptation, forestry), UNICEF (youth and social protection), WB (adaptation, MRV, ILO (green jobs), UN-HABITAT (local and regional governance, cities) and others, as well as a global roster of climate change experts.

As of March 2021, the Climate Promise is supporting 118 countries to enhance their NDCs including 38 LDCs, 28 SIDS, and 14 high emitters.[320] To date, more than USD 14 million of UNDP core resources have been committed to the Climate Promise, and over USD 34 million in financing has been leveraged from VF and bilateral donors.

The Climate Promise menu offers five services tailored to each country's unique context.

1. Build political will and societal ownership at national and sub-national levels.
2. Review, align and update existing targets, policies and measures.
3. Incorporate new sectors and/or GHGs.
4. Assess costs and investment opportunities.
5. Monitor progress and strengthen transparency.

The Climate Promise is UNDP's contribution to the NDC Partnership's Climate Action Enhancement Package Initiative in 62 of its 65 countries, directly responding to requests for it from 24 countries, and complementing activities supported by other partners in the remaining 38 countries.

320 https://www.undp.org/climatepromise

Results shows that UNDP's integrated approach has an impact: 97% include gender-responsive activities, 75% link to youth, and nearly 90% have included the private sector (see Box 21).

Box 21: Mission 1.5 and the people's climate voice

In February 2020, as a part of the Climate Promise, UNDP launched Mission 1.5, a campaign based around a mobile game that educates people about climate policy and provides a platform for them to vote on the solutions they want their government to enact. Recognising that the gaming industry is bigger than the film and music industries combined, Mission 1.5 aimed to reach people who have not been traditionally involved in climate discussions and collect data to help policymakers better understand how citizens are envisioning their future.

A year later, Mission 1.5 had collected 1.2 million respondents making the peoples' climate vote the largest survey of public opinion on climate change ever conducted. Using a new and unconventional approach to polling, results span 50 countries covering 56% of the world's population. Compiled and analysed by researchers at the Oxford University, the peoples' climate vote is the first time that people in some countries have had access to such information on public opinion on climate change and policy solutions. Even for countries that understand overall public sentiment on climate change, it is often the first time that detailed questions have been asked about policy solutions on this scale.

Source: https://www.undp.org/stories/mission-15-game-changer

Project selection, quality-at-entry, GHG emission and adaptation impact measurement

All projects must comply with UNDP social and environmental standards that aim to ensure social and environmental sustainability are mainstreamed in all programmes and projects thanks to the social and environmental screening procedure.

However, the IEO's evaluation of UNDP support to CCA concluded (Conclusion five), "the changing climate has implications for most UNDP development programming, yet climate risk is not being systematically considered and mainstreamed," and pointed out,

> … significant and longstanding weaknesses in the application of this system, with a bias towards rating projects low risk, increasing the likelihood they will eventually do harm to people and the environment. Recognition of climate risk exposure has been noticeably absent in some of the largest crisis interventions activities in climate sensitive sectors.[321]

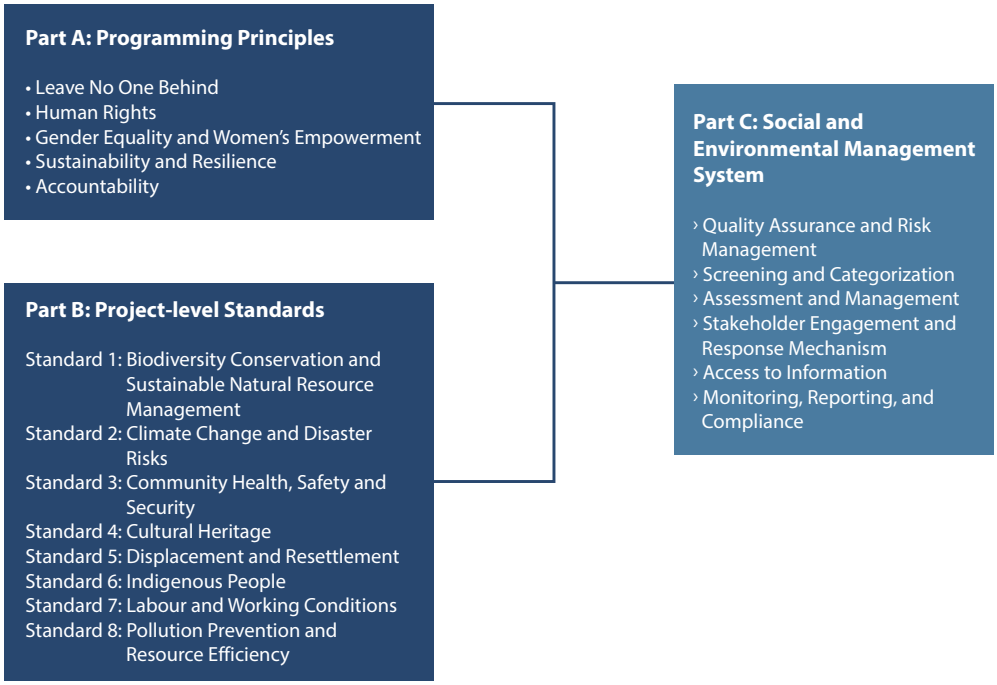
Management highlighted that both climate assessment and climate-risk screening are essential parts of the updated social and environmental standards and screening procedures, effective 1 January 2021. Both aim at the early detection of climate-related risks and impacts and finding appropriate mitigation measures if avoidance is not possible. The scope of standard two (climate change and disaster risk) has been broadened to allow for better integration of disaster risks and to encompass provisions to respond to climate-induced impacts. UNDP is also building a cadre of experts in the regional hubs to advise on standard two and on providing training and capacity building on climate-related topics to UNDP staff and implementing partners.

321 http://web.undp.org/evaluation/evaluations/thematic/climate.shtml

The updated social and environmental standards are articulated around five principles and eight project-level standards. The second standard objectives are to ensure the sensitivity of UNDP projects to climate change and disaster risks so as to strengthen resilience, to achieve sustainable development outcomes and to reduce project-related GHG emissions and intensity.

Regarding GHG emissions, UNDP ensures that relevant projects' emissions are tracked and reported in accordance with UNFCCC provisions and that GHG minimisation measures are implemented (see Figure 13).

Figure 13: UNDP social and environmental standards



Source : https://www.undp.org/publications/undp-social-and-environmental-standards

10.B.3 Incorporating COVID-19

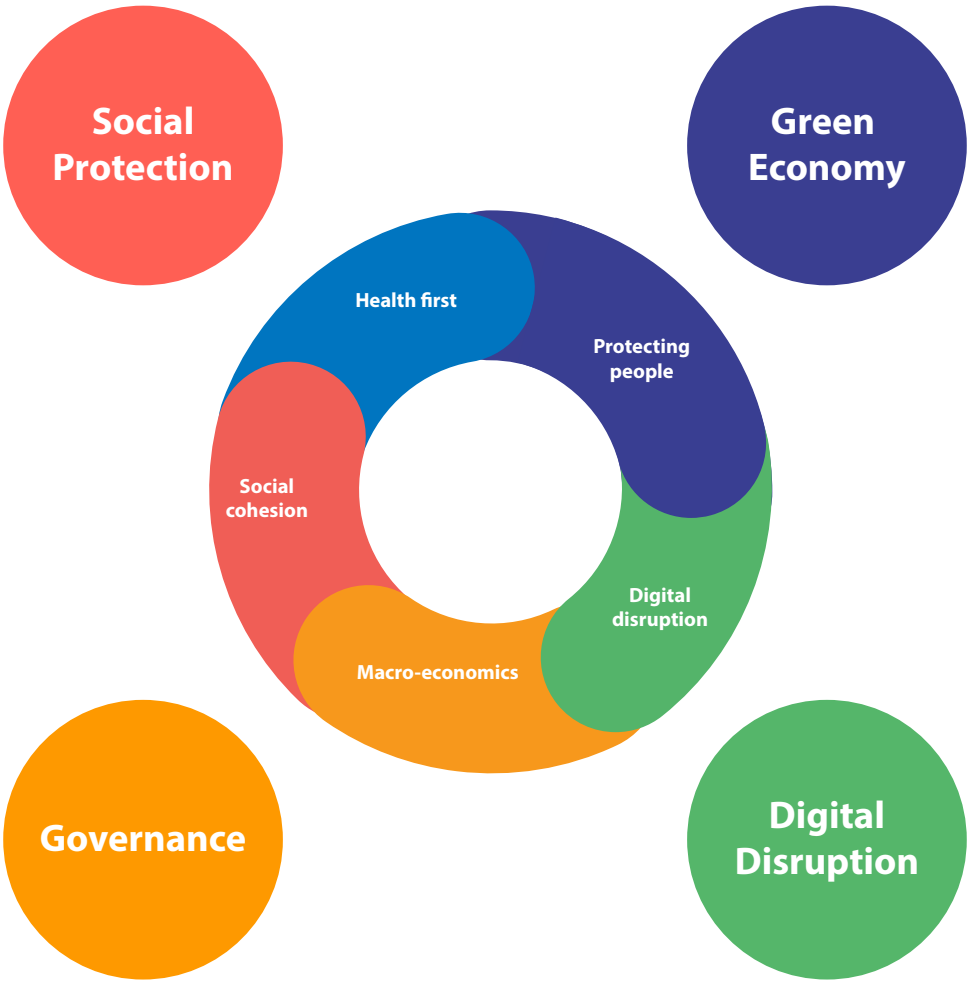
UNDP is the socio-economic lead for the UN system on COVID-19 recovery and quickly began to implement an integrated prepare-respond-recover response to COVID-19 focussing on three immediate priorities: health systems support, multi-sectoral crisis management, and socio-economic impact assessment and response.[322]

The next phase, Beyond Recovery: Towards 2030, is designed to help decision-makers make choices and managing complexity and uncertainty in four main areas: governance, social protection, green economy, and digital disruption (see Figure 14).[323]

322 https://www.undp.org/content/undp/en/home/librarypage/hiv-aids/covid-19-undp_s-integrated-response.html

323 https://www.undp.org/content/dam/undp/library/km-qap/undp-COVID-19_UNDP_2.0_Offer.pdf

Figure 14: Beyond recovery: Towards 2030 FAs



Source: https://www.undp.org/content/dam/undp/library/km-qap/undp-COVID-19_UNDP_2.0_Offer.pdf

On the green economy, UNDF focuses on the following, among other things:

- Working with UNEP, FAO, UNHABITAT and many other partners to boost green and resilient recovery by helping translate countries' NDCs and adaptation plans into urban planning, agriculture and land use climate solutions.
- Working with ILO and other partners to help countries explore green recovery grants to promote and protect nature-based jobs and livelihoods, including rural entrepreneurship.
- Promoting community-based and owned solutions and approaches, especially in indigenous communities.
- Working with UNEP, IRENA and other partners to accelerate a green energy transition as part of the COVID-19 response, including supporting countries on the political economy of fossil fuel subsidy reform.

As part of the recovery response, a funding window was established to provide a flexible funding mechanism for COVID-19 response over four themes: Poverty and inequality; governance, peace building and crisis; nature, climate and energy, and gender.

UNDP is also making a targeted effort to support countries in leveraging the NDC enhancement processes to guide and advance green recovery efforts through support under its Climate Promise. Over 80 countries are making links between NDCs and COVID-19 recovery through this. In addition, a new pilot initiative is providing specific top-up support to five countries (one in each region) to further strengthen these linkages and demonstrate the value of NDCs for green recovery.

10.C What UNDP lessons can inform the MS approach to the climate change crisis?

The second recommendation of the IEO evaluation of UNDP's work points out that it should better track investments with significant climate objectives. This would ensure they are supported to integrate the best available methods for incorporating climate science into project design and implementation and to enhance co-ordination between VF programming and other funding streams, including risk reduction personnel across the UNDP policy and crisis bureaus.

The IEO evaluation of UNDP's work in climate adaptation concludes, "the changing climate has implications for most UNDP development programming, yet climate risk is not being systematically considered and mainstreamed" (Conclusion five), but enhancements are currently being implemented.

Building on lessons learnt from the GEF and GCF pipelines and from multilateral and bilateral programming, UNDP is scaling up its abilities to share lessons learnt across the organisation. It is using platforms and tools to connect colleagues in country offices, regional bureaus, and at HQ. The green recovery is one example where UNDP has connected a cadre of economists with country offices and climate technical experts to align its support on the socio-economic aspects of the COVID-19 pandemic with NDCs at the country level. This drew upon lessons learnt from climate and environmental finance experiences from VF and other programming.

The IEO evaluation of UNDP's work on climate adaptation concludes that the short-term nature of its financing means it has, "struggled to ensure that the breadth of its support is equalled by the depth quality and longevity of engagement necessary to maximise policy and system impact that are required for successful adaptation to climate change." (Conclusion six). It sees the GCF as an opportunity to scale up its support.

It also concludes, "there are some persistent weaknesses in the identification of plausible pathways for leveraging policy and system changes and in systems for supporting learning and accountability", highlighting that,

> UNDP implementation of pilots as a mechanism for policy influence has often lacked strong justification or carefully designed steps to evaluate and communicate results and incorporate lessons in sector programmes, plans and decision-making. Achievement in such cases has usually been limited, with pilot projects not scaled up or replicated. (Conclusion seven)

Recommendation three advises that UNDP do the following:

> …increases attention to scalability in project selection and design and be more explicit in articulating how benefits will be realised beyond pilot project boundaries. UNDP should also seek to build on the success of its GEF international waters model, establishing more multi-phase projects working on the same geographic areas and sites, especially in cases where benefits can only be expected to become evident over longer time frames.

Alongside issues cited in the evaluation, UNDP continues to advocate for a portfolio approach bringing together integrated expertise in and across countries. For example, the climate information and early warning systems initiative developed a toolkit drawing upon successful experiences in packaging and communicating climate information and weather forecasts in Africa and shared it UNDP-wide and replicated it throughout the portfolio. Likewise, successes from UNDP's work in the social sector have informed its approach to the green recovery and a just transition of workforces from the fossil fuel industries.

Other lessons learnt

The following lessons learnt were highlighted during interviews.

- The importance of working at policy level, ensuring that framework conditions are being put in place to ensure a sustainable, resilient development pathway.
- The importance of working at the community, grassroots level, to ensure that no one is left behind and that different needs are identified and taken into account.
- The importance of using the power of the domestic private sector.

In its recent report, *Lessons from Evaluations: Learning from past crises for recovering from COVID-19*, the IEO highlights the following lessons on environment and nature management.[324]

- Environment projects benefit from broad stakeholder engagement to manage expectations, use local knowledge and integrate the rights and culture of local populations.
- Engaging the private sector on conflict of interest creates the opportunity for long-term sustainability of environmental interventions.
- Building effective crisis management and recovery systems requires an integrated, targeted approach to capacity and institutional strengthening.
- Environment and natural resources programmes taking a value chain approach including encompassing ecotourism benefits are likely to achieve more sustainable results.
- Adopting context-sensitive gender approaches and strengthening the resilience of women are crucial, especially in the aftermath of crises.
- Leveraging national and local resources and capacities is important for the success of DRM and CCA interventions in crisis contexts.
- Addressing global and regional environmental issues requires a multi-country and multi-sectoral approach with high-level co-ordination and management.

324 http://web.undp.org/evaluation/documents/reflections/book/reflections-crisis-series-02-21.pdf

11. UNITED NATIONS ENVIRONMENT PROGRAMME

11.A How is UNEP responding to climate change?

11.A.1 How does UNEP adhere to the normative frameworks of the 2030 Agenda and Paris Agreement?

UNEP uses, supports, and seeks to implement the principles of the normative frameworks of the 2030 Agenda and the Paris Agreement to guide its climate change response. Its 2018-21 MTS and (recently approved) MTS 2022-25 and programmes of work and budgets for 2016-17, 2018-19, 2020-21, and 2022-23 make this clear. The proposed 2022-25 MTS for example, declares that, in line with the Paris Agreement, the climate action sub-programme would work towards holding the increase in global average temperatures to well below 2°C above pre-industrial levels and increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low GHG emissions development. Climate change has been a UNEP priority for many years, and the first sub-programme was included in the 2010-13 MTS. It has become increasingly and intentionally aligned with the SDGs and the Paris Agreement over time.

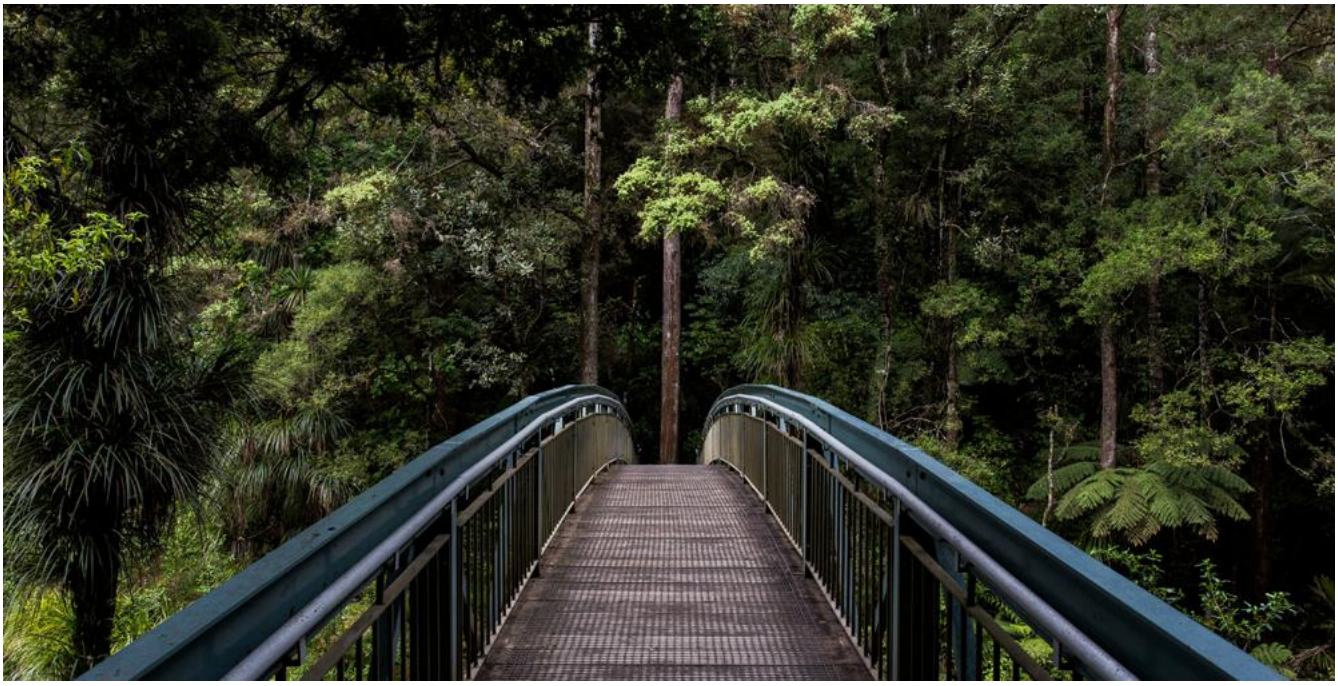
The currently applicable MTS for 2018-21, issued in May 2016, states that more than 86 targets in the 2030 Agenda are concerned with environmental sustainability, including at least one in each of the 17 SDGs. In addition, within this framework, the MTS was informed by relevant resolutions and decisions of the UN Environment Assembly, the UN General Assembly, and the UNEP Governing Council, as well as by the strategies and plans of multilateral environmental agreements and other internationally agreed environmental goals. UNEP's climate change work is also shaped by the decisions of the COPs to the UNFCCC and complements, "while being guided by sound science," particularly from the IPCC. More generally, its work is expected to contribute directly to achieving SDGs 7 (energy), 13 (climate change), and 15 (land). With these directives and priorities as starting points, UNEP seeks to exercise its mandated leadership role in the UN system and with other partners on environmental matters, including by promoting a coherent integration of environment into sustainable development. UNEP's work on climate change is organised around three results streams: adaptation and resilience, mitigation and clean energy, and REDD+.[325]

11.A.2 How do UNEP's responses to climate change cohere with the MS?

Collaboration with other MOs, organisations, and initiatives

UNEP collaborates extensively with and relies heavily on its partnerships with a range of donors, including the GEF and GCF, the EC, bilateral donors, and the private sector, as well as with other UN entities, national governments, academic and scientific research organisations, international and national environmental and other NGOs, and other civil society groups that participate in and/or help implement the projects and other activities for which it is responsible. In the MTS for 2022-25, moreover UNEP plans to further channel and scale up its actions through networks and partnerships, including as the GEF and GCF (the financial mechanism of the UNFCCC), and the CTCN under its climate action sub-programme to increase its impact. It will also seek to work more effectively across the broader UN system, including with UN country teams and other UN agencies, while following an integrated approach that seeks to link

325 Among its guiding objectives, the 2018-21 MTS counts on having countries be more resilient by 2030 "to the adverse impacts of climate change and greenhouse gas emissions are significantly reduced, including emissions from deforestation and forest degradation. …to realise this vision, national adaptation plans must be institutionalized and progressively implemented. At the same time, governments will need to adopt strategies to reduce their emissions and increase their investments in renewable energy and energy efficiency. Forest loss and forest degradation will need to be reduced, and forest conservation and restoration will need to be enhanced." Finally, it also affirms, "UNEP and its partners will lead global support to vulnerable countries, helping them transition from urgent and immediate adaptation responses to medium- and long-term national adaptation plans that integrate ecosystem-based approaches to adaptation."



the environment to the development, humanitarian, peace, and security pillars of UN's work. UNEP has key climate-related partnerships in many areas (e.g., science, finance, energy, industry, transportation, agriculture and forestry, adaptation, and short-lived pollutants), some of which are further described below.

The role of the partnerships with the GEF and the GCF cannot be overstated. They are still the main sources of UNEP's financial resources to support single and multi-country climate change projects for which UNEP is the IA. Earmarked resources presently finance around 90% of UNEP's climate sub-programme and most of these funds come from the GEF and GCF.[326] Other donors and funding sources, including the EC, other UN agencies, specific industrialised countries, the membership of the UNEP Finance Initiative and the private sector also contribute to this resource pool and to the Environment Fund, over whose allocation UNEP has greater control.[327]

UNEP's partnerships with FAO, UNDP, UNIDO, WHO, and WMO are also very important. For WMO, for example, UNEP was jointly responsible for establishing the IPCC Secretariat, currently overseen in part by UNEP's science division. In partnership with UNDP, in turn, UNEP has several important jointly administered GEF-financed global climate change-related TA and capacity building projects (see Box 22).

326 The main contributors to the earmarked funds for 2018-19 were GEF (USD 220.9 million), GCF (USD 118.5 million), other UN agencies (USD 65.4 million), and the EC (USD 57.6 million), while the private sector contributed USD 26.7 million. Germany (USD 99.4 million), and others were responsible for most of the rest.

327 The Netherlands (USD 17.8 million), Germany (USD 17.2 million), France (USD 15.2 million), the United States (USD 12.2 million), and Sweden (USD 10.2 million) were the five top contributors to the Environment Fund during 2018-19. Belgium, Canada, China, Denmark, Finland, Ireland, Norway, Ireland, Japan, the Russian Federation, Switzerland, and the United Kingdom were the others in one or both years . Many other countries also contribute but in even smaller amounts.

Box 22: Climate-related programmes jointly implemented by UNEP and UNDP

Global Support Programme for Preparation of National Communications and Biennial Update Reports for non-Annex I Parties under the UNFCCC, submitted 14 June 2014 with GEF funding of USD 7.15 million to improve the quality of non-Annex I Parties' (under the UNFCCC) National Communications and Biennial Update Reports, so that they are more widely used for national development planning, climate negotiations, and for funding low-emission, climate-resilient development projects, while also submitted to the UNFCCC in a timely manner, and to help countries prepare their intended NDCs for the Paris COP.

Capacity Building Initiative for Transparency (CBIT) Global Co-ordination Platform, planned start date 1 June 2017, planned end date 30 November 2018 with total financing of USD 1.4 million. The project supports overcoming the lack of national transparency capacities and limited co-ordination efforts on monitoring, reporting, and verifying GHG emissions through three pillars: (i) the centralisation of easy access to information through a web-based transparency co-ordination platform; (ii) co-ordination through events and platform, and (iii) the identification of gaps and needs for enhanced transparency systems.

CBIT Platform IIA: Unified Support Platform and Programme for Article 13 of the Paris Agreement, submission date 17 October 2019, GEF funding of USD 2.0 million to provide global streamlined support, capacity building and co-ordination to help developing countries meet enhanced transparency requirements under Article 13 of the Paris Agreement.

CBIT Phase IIB: Unified Support Programme for Article 13 of the Paris Agreement, submission date 20 October 2019, anticipated start date January 2021, with GEF funding of roughly USD 6.6 million. Its aim is to provide streamlined needs-based capacity building and technical support at the country, regional, and global levels, to enable Non-Annex I countries under the UNFCCC and developing countries under the Paris Agreements to better respond to reporting requirements and to catalyse increased action within country NDCs.

Source: https://www.thegef.org/project/global-support-programme-preparation-national-communications-and-biennial-update-reports-non

UNEP also maintains key partnerships with selected specialised academic and research institutions, including the World Conservation Monitoring Centre, based in Cambridge, England; the Danish Technical University, located in Kongens Lyngby, Denmark; the International Ecosystem Monitoring Partnership (IEMP), established with the Chinese Academy of Sciences in Beijing; and the WRI in Washington D.C. The UNEP-DTU partnership is particularly important for climate change as it provides research-based advisory services to help developing countries deliver on the SDGs and the Paris Agreement. It has four FAs: (i) climate planning and policy; (ii) climate transparency and accountability; and (iii) business models and markets. Together with WRI, moreover, it is largely responsible for the timely, February 2020 publication launched by UNEP and UNDP, *Implementing Nationally Determined Contributions*, as the Paris Agreement signatories are updating and, hopefully, raising the ambition of their initial NDCs in advance of COP 26 in Glasgow in November 2021.

UNEP's important, long-standing partnership with WRI dates to at least the late 1980s. UNDP also joined this partnership for the 1990-91 report featuring a special focus chapter on climate change as a global concern. These reports continued on a biannual basis until at least 2011 with the WBG joining WRI,

UNEP, and UNDP as of the 1996-97 report on the urban environment. The four contributing organisations moved the joint product online by establishing the *World Resources Report* website, including a downloadable version of the 2010-11 report, *Decision Making in a Changing Climate: Adaptation Challenges and Choices*. Relevant reports are still available on the website on topics related to climate change and other environmental issues with a focus on sustainable food, adaptation, and cities.

All UNEP flagship publications are multi-institutional collaborations, including its well-known *Global Environmental Outlook (GEO)* reports. The sixth edition of GEO subtitled "Healthy Planet, Health People" was published in 2019. Multiple partnerships are also involved in producing UNEP's annual climate change-related publications, *Emissions Gap* and *Adaptation Gap*. The most recent *Emissions Gap 2020* report, for instance, was jointly produced by UNEP and DTU with financial support from the governments of Denmark, Germany, the Netherlands, Sweden, and from two foundations. Like the GEO reports, it also had a multi-stakeholder project steering committee and a wide range of lead chapter authors, contributing authors, and reviewers from a great variety of institutions in developed and developing countries. For the purposes of this analysis, the *Emissions Gap*, annually updated since 2010, is defined as follows:

> …the difference between the GHG emission levels consistent with a specific probability of limiting the mean global temperature rise to below 2°C or 1.5°C in 2100 above pre-industrial levels and the GHG emission levels consistent with the global effect of the NDCs, assuming full implementation from 2020.

One noteworthy feature of the most recent report is its chapter on the role of equitable carbon lifestyles, which shifts the focus to higher income countries.

UNEP's most recent *Adaptation Gap 2020* report was published in January 2021 with financial support from the Governments of Canada, Denmark, Norway, and Sweden. This too is part of an annual series that began in 2014 and is a product of the UNEP-DTU Partnership. It counts with a project steering committee and numerous lead and contributing authors and reviewers from many institutions, including the UNFCCC Secretariat, the London School of Economics, NASA's Goddard Institute for Spaces Studies, and IFAD, among others. The series seeks to provide negotiators of the UNFCCC member states, the broader UNFCCC constituency, and the public with scientifically based assessments of global adaptation gaps and to inform the status and results of adaptation efforts, using the IPPC's definition of adaptation for this purpose. Finally, partnerships are key to UNEP's most recent major report called Making Peace with Nature. Based on UNEP's most recent global assessments, this synthesis report likewise had many section leaders, co-authors, a scientific advisory panel, research fellows, and reviewers from many organisations around the world. This report highlights the synergies and complementarities among UNEP three major priority areas going forward in the MTS 2022-25 and programme of work 2022-23.[328]

328 *UNEP, Making Peace with Nature: A Scientific Blueprint to Tackle the Climate, Biodiversity, and Pollution Emergencies*, Nairobi, 2021.

Box 23: Making peace with nature: A scientific blueprint for tackling the climate, nature, and pollution emergencies

Main Report: Tackling the planetary emergency and lighting a path to a sustainable future with new opportunities

Part I. Transforming Nature Puts Human Well-Being at Risk

- The current mode of development degrades the Earth's finite capacity to sustain human wellbeing
- Society Is failing to meet most of Its commitments to limit environmental famage
- The achievement of the SGS is threatened by environmental risks

Part II Transforming humankind's relationship with nature Is the key to a sustainable future

- Human knowledge, ingenuity, technology and co-operation can transform societies and economies and secure a sustainable future
- Earth's environmental emergencies must be addressed together to achieve sustainability
- Transforming economic, financial and productive systems can lean and power the shift to sustainability
- Keeping the planet healthy is a key to providing health and well-being for all
- All actors have a part to play in transforming humankind's relationship with nature

Source: https://digitallibrary.un.org/record/3901238?ln=en

11.A.3 How has greater global attention to climate change affected UNEP's work targets?

UNEP adopts specific results indicators and budget targets for its climate change and other sub-programmes in each of its biennial programmes of work. In addition, its MTS 2022-25 and programme of work for 2022-23 differentiates for the first time between its three "thematic" priority areas or sub-programmes -- Climate Action, Nature Action and Chemicals and Pollution Action -- and four other sub-programmes considered either foundational (i.e., science/policy and environmental governance) or enabling (financial and economic transformations and digital transformations) for the first three.[329] Both quantitative and qualitative indicators targets are associated with UNEP's specific objectives for the respective sub0programme, which in the programme of work 2022-23 for the climate action sub-programme include: (i) number of national, subnational and private-sector actors that adopt climate change mitigation and/or adaptation and disaster risk reduction strategies and policies with UNEP support; (ii) amounts provided and mobilised in USD per year in relation to the continued existing collective mobilisation goal of the USD 100 billion commitment through to 2025 with UNEP support; (iii) number of national, subnational and private-sector actors reporting under the enhanced transparency arrangements of the Paris Agreement with UNEP support; (iv) positive shift in public opinion, attitudes and actions in support of climate action as a result of UNEP action, and (v) positive shift among private sector actors in support of climate action as a result of UNEP engagement.

329 Prior to this, all sub-programmes appeared to have equal priority albeit with considerably different resource allocations.

Staffing and skills profile

As observed above, UNEP has made CCMA a high priority for at least the past several decades and even though the design of UNEP's project portfolio is a collective effort by counterpart governments, project donors, and other stakeholders and there are persisting budget constraints, the number of UNEP staff dealing with climate change issues has indeed increased significantly in recent years. Due to substantially increased demand, the adaptation team at UNEP HQ grew from three professional staff members plus long-term consultants four years ago to ten professional staff and two long-term consultants, three UN volunteers and one junior professional officer at present and in 2019, UNEP was able to fill a core-funded post for adaptation.[330]

Financial commitments

Climate change has become higher and higher priority but UNEP does not fully control the level and thematic allocation of the financial resources it manages. The actual and projected availability of these resources for climate change has therefore varied over time. However, some climate change-relevant projects and activities, particularly on the adaptation side and financed by the GEF, have been assigned to other sub-programmes, especially that for healthy and productive ecosystems; they are not therefore considered under the climate change budget allocations strictly speaking.[331] At the same time, these two sub-programmes have consistently counted for the largest shares of total financial resources managed by UNEP. Target budget allocations for the 2020-21 and 2022-23 programmes of work and actual allocations for earlier programmes are set out in Table 13.[332]

Table 13: Climate change sub-programme in UNEP's total expenditures 2014-19 budgets, 2020-23

Programme of Work	Climate expenditures/ budget (USD million)	Total expenditures/ budget (USD million)	Climate share from earmarked sources (%)	Climate share of total expenditures/ budget (%)
2014-15	272.8	795.8	90.7	34.3
2016-17	288.1	953.7	92.1	30.2
2018-19	223.7	793.7	90.7	25.9
2020-21	262.2	917.1	87.3	28.6
2022-23	227.4	872.9	85.5	26.1

Sources: UNEP PPRS, 2014-15, 2016-17, 2018-19, 2020-21, 2022-23 programmes of work

330 Permanent staff positions are funded by UNEP's core budget, which accounted for just 5% of its total funding in 2018-19. It is expected to remain roughly the same for 2022-23 and has essentially been frozen in recent years.

331 This is due in part to the fact that the GEF has supported projects involving more than one FA in recent years, so that a project that I relevant in terms of climate change may also be identified as pertinent in terms of biodiversity, land degradation, or even international waters, and, as noted above, the GEF has been by far the single largest funding source for UNEP projects over the past several decades.

332 The variations in total funding for UNEP operations – i.e., those across all seven sub-programmes – has also varied significantly over the period reviewed for at least two reasons: Funding declined significantly between 2016-17 and 2018-19 due in good measure to a loss of donor confidence in UNEP's leadership. This was resolved after the executive director resigned in late 2018. Second, the increased level of resources I for 2020-21 reflected in part renewed donor confidence in the organisation under new leadership that had begun to right the ship. The projected decline 2022-23 is due to the effects of COVID-19 on UNEP's funding level, still largely based on multi-year GEF and GCF commitments.

How agile and effective is UNEP's reaction to greater demand?

UNEP has reacted with agility to the growing global concern for climate change, as reflected in its recent MTS and programmes of work. UNEP clearly recognises that to effectively address global climate change challenges, the international community needs a transformative approach. The proposed MTS for 2022-25, which also presents theories of change for the climate action, nature action, and chemicals and pollution action priority sub-programmes identifies the proposed interventions for this period as being, direct, enabling or influencing an approach viewed as "paving the way for transformational change."[333],[334]

The effectiveness of UNEP's work is far harder to determine in part because many partners are involved in it. This is true for generating its knowledge products and financing and executing the donor-funded projects that it manages on the ground, even though UNEP publishes both biennial PPRs that track accomplishments with respect to its programme of work, and biannual evaluation synthesis reports that summarise the results of all project and programme evaluations carried out by its evaluation office.[335] The PPR for 2018-19 found, for example, that UNEP had successfully achieved 93% of its programme of work targets overall and 89% of those for the climate change sub-programme, having failed only to achieve the target for the number of countries expected to deliver multiple benefits from REDD+ interventions (21 for a target of 45). Past project performance as reported in the evaluation synthesis reports has been less positive. However, according to the 2018-19 report, only 50% of the completed projects in the entire portfolio evaluated were judged satisfactory or better in achieving their intended outcomes and 55% were judged to be effective overall, while only 36% were considered likely to be sustainable. Fifty-nine projects were evaluated, including 27% (16 projects) under the climate change sub-programme, whose specific outcomes were not identified, and 83% (49 projects) that were financed by the GEF.

The dissemination of UNEP's key flagship documents – another measure of effectiveness – can be assessed by the number of downloads. UNEP's communication division maintains this data. As of mid-October 2020, for example, the 2019 GEO 5 main report had been downloaded 112 117 times and its summary for policymakers had been downloaded separately 165 922 times. Regarding climate change more specifically, the Emissions Gap 2018 was downloaded 163 914 times and the Emissions Gap 2019 report was downloaded 205 269 times, suggesting growing interest. In any case, it is apparent that these flagship publications have a wide global audience and that UNEP works hard to disseminate them.

333 The theory of change for these three sub-programmes begins with a vision for 2050: "net zero carbon emissions and resilience towards climate change are achieved, humanity prospers in harmony with nature and pollution is prevented and controlled, while ensuring good environmental quality and improved health and well-being for all." There is also a desired outcome for the climate action sub-programme for 2030 that, "government and non-government development actions are compatible with the Paris Agreement long-term objectives of "holding the increase in global average temperatures to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C and increasing the ability to adapt to the adverse impacts of climate change," as well as for 2026-29, "science-driven change mitigation and adaptation actions at all levels are on a trajectory towards achieving the long-term goals of the Paris Agreement."

334 This is a significant improvement over previous effectiveness methods, which made no such differentiation and there made it impossible to determine the extent of its influence over the reported results, or, in evaluation terms, the extent to which the result could be attributed to UNEP compared to other relevant actors.

335 See, for example, UNEP's most recent reports currently available, *Programme Performance Report 2018-2019* and *Evaluation Synthesis Report 2018-2019*, both published in 2020. The evaluation synthesis mainly covers the results for terminal project evaluations completed during the period in question or just prior and which were in most cases designed and implemented during previous biennia.

According to the co-ordinator of UNEP's climate change sub-programme, moreover, both the Emissions Gap and the Adaptation Gap are part of UNEP's efforts to help member states improve the transparency of their reporting to UNFCCC as required by Article 13 of the Paris Agreement.[336]

11.B How have UNEP organisational strategies, operational activities, and resource plans incorporated climate change?

11.B.1 Organisational strategies

Climate change is a UNEP priority that has appeared in the MTS over the past decade. For example, the MTS for 2014-17 observed that during the 2010–13 period "UNEP aimed to strengthen the ability of countries to integrate climate change responses into national development processes with a planned budget of USD 162 million." Regarding the 2014-17 period, UNEP's climate change sub-programme aimed to enhance "the ability of countries to move towards climate-resilient and low emission pathways for sustainable development and human well-being."

UNEP's MTS for 2022-25 states that the climate action sub-programme will focus on interconnected actions and interventions to achieve two 2025 outcomes: (i) that decision makers at all levels adopt decarbonisation, dematerialisation and resilience pathways and, (ii) that global climate transparency and accountability be enhanced. It also pledges to do the following:

- To help cut emissions and adapt to climate change, UNEP will facilitate stronger interactions between science, policy, finance, and the economy. It will build public support for market and political strategies and decisions that are compatible with the latest scientific information, including social sciences, and promote sustainable consumption and production to achieve the largest impacts on mitigating climate change and increasing resilience. Getting the finance industry engaged will be key to shifting public and private investments towards sustainable choices and business models that are adequately incentivised to support the Paris Agreement and the SDGs.
- To advocate for rapid, comprehensive decarbonisation. UNEP's efforts will follow a value chain and take a multi-sectoral approach that advocates for deploying timely renewable energy and energy efficiency solutions at all geographic levels; halting deforestation and habitat loss; restoring degraded ecosystems and changing the way we produce and consume food; transitioning to the circular economy with higher resource efficiency, and redesigning our cities and transport sectors. UNEP will help all countries raise their mitigation ambitions, with a focus on high-emitting countries. In parallel, UNEP will continue to engage in adaptation action, while integrating aspects of human health and security, providing support particularly to the most vulnerable countries in need, such as disaster- and conflict-affected countries, LDCs and SIDS. This approach will run parallel to the collective aspirations of the NDCs and LTS under the Paris Agreement.

336 Article 13 of the Paris Agreement states: "In order to build mutual trust and confidence and to promote effective implementation, an enhanced transparency framework for action and support, with built-in flexibility which takes into account parties' different world capacities and builds upon collective experience, is hereby established."

11.B.2 Operational activities

Country level

UNEP has neither specific country partnerships nor assistance strategies. Rather, it now participates together with the other UNDS entities in elaborating and implementing the periodic UNSDCPFs, formerly UNDAFs. The semantic change was introduced in connection with the implementation of Agenda 2030 and the UNDS reform initiated in late 2017, which seeks, among other things, to focus UN assistance on helping countries achieve the SDGs and to harmonise, consolidate, and strengthen co-operation among the participating UN entities at the country, regional, and global levels. Many of these entities have a country presence, meaning that they have official representatives and technical specialists located in each of their beneficiary countries. UNEP does not, however, given its smaller size; it operates through six regional offices, five sub-regional offices, and six country offices. The headquarters in Nairobi collectively manages its operations, including investment and TA projects in 149 countries.

Projects and programmes

In addition to its key role in disseminating relevant knowledge products (see Partnerships above) UNEP's operational actions for climate change and the other sub-programmes mainly take the form of overseeing specific country, regional, or global level investment projects, many of which primarily involve TA and/or institutional capacity building. As indicated earlier, these projects are predominantly funded by external sources including the GEF, GCF, EC, and individual bilateral donors for which UNEP serves as the IA. They are carried out by a wide variety of partners on the ground, including national government agencies and NGOs. UNEP's evaluation office is responsible for carrying out (relying heavily on external consultants) the respective mid-term and terminal evaluations. Thus, as already suggested, multi-organisational collaboration and programmes play an essential role in financing and implementing UNEP projects as described by additional examples below.

The UNEP-UNIDO CTCN is one of the most important joint initiatives hosted by UNEP and UNIDO. Supported by numerous other entities including the GEF and GCF, the CTCN is the operational arm of the UNFCCC technology mechanism, which promotes the accelerated transfer of environmentally sound technologies for low carbon and climate resilient development at the request of developing countries (see Box 24).

Box 24: The UNEP-UNIDO CTCN

Established in response to UNFCCC COP 17 in Durban, South Africa, CTCN currently has 629 network members and has supported 329 technology transfer projects. It provides technology solutions, capacity building and advice on policy, legal, and regulatory frameworks tailored to the needs of individual countries by harnessing the expertise of a global network of technology companies and institutions. Its main functions are to: (i) manage and respond to requests from developing country nationally designated entities; (ii) foster collaboration and access to information and knowledge to accelerate climate technology transfer, and (iii) strengthen networks, partnerships, and capacity building for climate technology transfer.

According to its most recent activities report, the CTCN has collaborated with 102 developing country parties to implement technology development and transfer assistance since its inception. It has received 216 requests for TA, including 15 multi-country requests. Ninety TA requests have been completed while 44 were currently under implementation, 56 were in the response plan design phase, and 26 were under review. It also stated that countries have increasingly sought CTCN support (via AE UNEP and UNIDO) to use their readiness allocation for projects focusing on priority technologies and that 17 GCF TA proposals, developed with the CTCN's support have been approved for funding in 2020, and focus on revising technology needs assessments, appliances efficiency, and building codes.

The experience of the CTCN thus far has made it possible to identify the key trends in TA, particularly regionally, provide opportunities for learning replication, and scaling up for other countries with similar needs and goals. In 2020, these included: in Asia and the Pacific: low emission transport technologies and working with frontier markets on eMobility are emerging as priorities for programmatic approaches; in Africa multi-country requests on eMobility, energy efficiency, and GCF requests; in LAC, circular economy and NDC partnership requests are at the forefront.

Source: CTCN, Report on the Activities and Performance of the CTCN in 2020 and 2021

The UN-REDD+ programme, one of the three FAs of UNEP's work on climate change, is a second important initiative overseen jointly with UNDP and FAO. The most recent annual report describes progress on developing and implementing national REDD+ strategies or action plans, national forest, monitoring systems, forest reference emission levels/forest reference levels, and safeguards and safeguard information systems. It also describes its contributions to achieving the SDGs and results for 14 countries, including Indonesia. It also summarises knowledge management results regarding: (i) landscape approaches and planning; (ii) forest tenure and the rights of indigenous peoples; (iii) financing and the private sector; (iv) forest monitoring systems and measurement reporting and verification and, (v) REDD+ funding mechanisms, and (vi) crosscutting knowledge management and communications.[337]

The climate and clean air coalition (CCAC) is another significant multi-organisation partnership. Hosted by UNEP and headquartered in Paris, it also includes ADB, EIB, IDB, the WBG, FAO, UNDP, UNIDO, WHO, and WMO, among other organisations. CCAC also has 71 developing and industrialised country partners, including Ethiopia and India. Its objective is to help partners and stakeholders create policies and practices to deliver substantial reductions in short-lived climate pollutant emissions, including methane

337 UN-REDD Programme Fund, 11th *Consolidated Annual Progress Report of the UN-REDD Programme Fund for the Period 1 January-31 December 2019*, Geneva, 2020. Results are also presented for Argentina, Bangladesh, Chile, Colombia, Congo (Republic of), Côte d'Ivoire, Honduras, Mexico, Mongolia, Myanmar, Peru, Viet Nam, and Zambia. It also includes impact stories from Costa Rica, Côte d'Ivoire, Myanmar, Nigeria, Papua New Guinea, Paraguay, Peru, Uganda, and Viet Nam, and on gender.

together with hydro-fluorocarbons, black carbon, and tropospheric ozone. It focuses on four key strategies: (i) enable transformative action by providing knowledge, resources, and technical and institutional capacity to act and support the sharing of information, experience, and expertise; (ii) mobilise support for action to put short-lived climate pollutants on the policy map through advocacy at all levels of government, in the private sector, and in civil society; (iii) increase the availability of and access to financial resources to support the successful implementation of scalable, transformational action, and (iv) enhance scientific knowledge to help decision-makers scale up action and promote the multiple benefits of action on short-lived climate pollutants.[338]

Regarding its growing work with the private sector and climate finance, the UNEP finance initiative is also making an important contribution. This partnership with the global financial sector seeks to mobilise finance for sustainable development and presently works with more than 350 members, including banks, insurance companies, and investors, and over 100 supporting institutions to help create a financial sector that serves people and the planet while delivering positive development impacts. More generally, UNEP's *Sustainable Finance Progress Report* updates recent advances against seven options: (i) provide strategic policy signals and frameworks; (ii) promote voluntary signals for green/sustainable finance; (iii) expand learning networks for capacity building; (iii) support for developing local green/sustainable bond markets; (v) promote international collaboration to facilitate cross-border investment in green/sustainable bonds; (vi) encourage and facilitate knowledge sharing on environmental and financial risk, and (vii) improve the measurement of green/sustainable finance activities and their impacts. The report also contained inputs from IFC, IMF, OECD, and the WBG, among others.[339]

Organisational changes

UNEP has made no significant internal organisational changes regarding climate adaptation over the past half decade, except to move the lead director from the economy division to the ecosystems division. The climate change co-ordination team has an overall co-ordinator and sectoral co-ordinators for energy and transport on the mitigation side, and for nature and climate (primarily for adaptation activities), it liaises directly with the heads of the financial initiative and with CTCN, with co-ordinators in each regional office. The only minor change in its organisational arrangements occurred in 2020 when the overall co-ordinator for the climate change sub-programme was relocated from the ecosystem division to the policy and programme division with the six other sub-programme co-ordinators. This arrangement will presumably be maintained for the climate action sub-programme for implementing the MTS 2022-25. However, the ecosystems division, former home of the sub-programme co-ordinator, remains the lead director for this sub-programme. UNEP also stepped up its focus on monitoring adaptation efforts in 2014 with its first annual *Adaptation Gap* report.

Normative role

In addition to its knowledge products and the projects financed by multiple donors, UNEP works directly in its normative role with its member states through the biannual UNEA meetings where these countries are all represented, in most cases by their environment ministers, and more frequently through the CPR, comprised of all interested UNEA members.[340] Until recently, this meant predominantly representatives

338 For additional information, see CCAC, *Annual Report 2019-2020: Our Partners Actions and Coalition-Funded Results from August 2019-July 2020*, Paris, 15 November 2020.

339 See UNEP, *Sustainable Finance Progress Report*, Nairobi, March 2019.

340 UNEA is the highest-level decision-making body on the environment and the governing body of UNEP, with the participation of all 193 member states. It meets biennially to set priorities for global environmental policies and develop international environmental law. Through its ministerial declarations and resolutions, it provides leadership, catalyses intergovernmental action on the environment, and contributes to implementation of the 2030 Agenda.

with embassies in Nairobi, although others are also encouraged to participate.[341] COVID-19 restrictions on international travel have meant that more member states have been able to participate in virtual CPR meetings, which occur several times yearly.

Programme challenges

Two significant challenges going forward can be highlighted. Now that UNEP has clearly identified climate, nature, and pollution as its three interlinked priority areas, maximising co-ordination among and the effectiveness of its interventions for the three sub-programmes will be important. Acknowledging the challenge, UNEP has made it a principal focus of its "readiness activities' for implementing the new MTS and programme of work during the rest of this year.

UNEP regional offices are located in North America, Europe, and West Asia (Bahrain) and it receives financial support from OECD members and other higher income countries, but its projects are primarily located in Sub-Saharan Africa, Asia and the Pacific, and Latin America, for which it also has regional offices. Most of its knowledge products are intended for lower- and middle-income countries although it also seeks to promote more climate-friendly behaviour (i.e., production and consumption patterns and lifestyles) in higher-income nations, but is experiencing resistance from some key UNEA members.

Funding challenges

Obtaining more flexible funding remains a significant challenge for UNEP. The bulk of the financial resources that it manages are earmarked for specific national, regional, and global projects. The majority of these are financed by the GEF and, now, increasingly, also by GCF, for which UNEP is one of 18 and of more than 100 IA respectively. Especially for the GEF, which still accounts for the largest share of UNEP funding, resource allocation ultimately depends largely on the secretariat and the individual beneficiary countries themselves that must agree to use part of their GEF allocations to finance the increasingly multi-FA projects that UNEP has been selected to manage. UNEP's internal GEF co-ordinator therefore plays an important intermediary role in the project selection process and is also responsible for ensuring that the projects that UNET eventually implements are aligned with its own MTS and programme of work and with GEF priorities.

UNEP enjoys greater flexibility in how it allocates the much smaller volume of financial resources provided by bilateral donors for the environment fund, but this also varies with specific donors and their respective priorities, including across UNEP sub-programmes. However, UNEP has recently agreed with Norway and Sweden, for example, to apply a soft earmarking approach for allocating the resources they donate, but these are only a small part of the total. It is currently seeking to convince other bilateral donors to be similarly flexible and is actively trying to increase the share of total resources from private sector donors and financial intermediaries having recently adopted its first private sector engagement strategy and revising its partnership policy and procedures with this partly in mind.

341 The CPR was established in 1985 with responsibility for preparing UNEA meetings and regularly reviewing the implementation of UNEA decisions.

Selected country operations: Brazil, Ethiopia, India, Indonesia, Jamaica

UNEP's Open Data site currently lists 557 projects in 149 countries with a total budget of USD 2.83 billion. Of these projects, 406 or 72.9% of the total, in 147 countries involving commitments of USD 1.33 billion are identified as GEF projects, an indication of the importance of this funding source for UNEP. GCF operations have been increasing rapidly in recent years and now include 57 projects or 10.2% of the total, located in 40 countries and entailing a total budget of USD 210.58 million. The remaining 94 projects (16.9%), totalling USD 1.3 billion in commitments located in 129 countries, are identified as being in UNEPs programme information and management system and are therefore presumably financed by the EC and other non-GEF or GCF, mainly bilateral, donors.

Of the total, 82 of these projects, or 14.7%, are in or involve the five countries selected for more detailed consideration as part of this study: Brazil, 17; Ethiopia, 20; India, 18; Indonesia, 19, and Jamaica, 8. Not all of these projects are exclusively for climate change, however, as with other recent GEF projects, many cover multiple FAs in addition to climate change, including biodiversity, land degradation, and/or international waters. Some include two or more of the selected countries, especially among those approved in more recent years (see Box 25).

Box 25: Multi-country climate change-related operations implemented by UNEP

Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants, initiated in September 2012 (Brazil, Ethiopia, India, and Indonesia). The WB and UNDP are listed as executing partners together with many other organisations.

Stabilising GHG Emissions from Road Transport Through Doubling of Vehicle Fuel Economy: Regional Implementation of the Global Fuel Economy Initiative, initiated in June 2014 (Brazil, Jamaica, India), financed by GEF.

Sharing Knowledge on the Use of Char for Sustainable Land Management, initiated in May 2015 (Ethiopia, Indonesia), financed by GEF.

Building the Foundation for Forest Landscape Restoration at Scale, initiated in November 2015 (Ethiopia, India), financed by GEF.

Up-scaling Community Resilience through Ecosystem-based Disaster Risk Reduction, initiated in September 2018 (Ethiopia, India).

Providing Support to Countries and Cities in Improving Air Quality, initiated in July 2019 (Brazil, India).

No and Low Emissions Mobility, initiated in October 2019 (Ethiopia, India).

Source: UNEP Open Data

Many are also for individual nations among the five, including the following operations: (i) mitigation options for GHG emissions in key sectors in Brazil, initiated in May 2013; (ii) promoting sustainable cities in Brazil through the Integrated Urban Planning and Innovative Technologies Investment Project; (iii) the LGEE Promoting Energy Efficiency and Renewable Energy in Buildings in Jamaica, initiated in May 2013, and (iv) the India Mainstreaming Agro-biodiversity Conservation and Utilisation in the Agricultural Sector to Ensure Ecosystem Services and Reduce Vulnerability, initiated in November 2016. The GEF finances all of these.

For GEF-supported single country projects, the countries selected UNEP as IA. In multi-country projects, which are now the majority, both the GEF Secretariat and UNEP play a major role, although the participating countries must formally agree to use part of their GEF funding allocations for this purpose. Before a new project proposal is accepted for implementation by the GEF, however, UNEP staff seeks to ensure that it corresponds to and is therefore aligned with one of the priorities established in the pertinent programme of work. GEF recognises UNEP's comparative advantage as, "the only UN organisation with a mandate to co-ordinate the work of the UN in the area of environment for which the core business is the field of environment."[342] UNEP is also an accredited IE for the GCF. As observed above, UNEP reportedly has 57 single and/or multi-country GCF projects in 40 countries with a total budget of USD 210.58 million. Only one of these, Technology Needs Assessment for Implementation of Climate Action Plans in Brazil with a commitment of USD 644 00, is for a country selected for more in-depth analysis in the present study.

UNEP and the respective funding source carry out project quality assurance based on normal project design criteria and appraisal processes. For GEF-funded operations, for example, no new project can begin implementation before being approved by the GEF Council and the IA based on these criteria and processes. The respective IA is then responsible for overseeing the project's execution, including monitoring and supervising compliance with the respective procurement, financial management, environmental and social safeguards and other legal agreement clauses, and later evaluating its performance and results.[343] The same presumably applies to GCF projects and those financed by other agencies, for which UNEP is the IA.

Formulating and implementing NDCs

This is one of the purposes of UNEP's support to specific countries, as illustrated by some of the climate change-related results reported in its PPR for 2018-19, which states, for example, that UNEP: (i) helped ten countries (including Indonesia) create institutional frameworks to co-ordinate NAPs; (ii) helped 12 countries integrate ecosystem-based adaptation and other adaptation approaches; and (iii) assisted ten countries to access financial mechanisms and build project pipelines while four other countries received approval for adaptation projects through various funds. As concerns, low-emission growth, UNEP supported: (i) 35 countries (including Indonesia) to adopt low-emission development plans, strategies, or policies on energy efficiency, renewable energy, and clean technology, and (ii) countries and institutions to invest USD 100 million in clean energy and energy efficiency. Finally, in relation to REDD+, the report observes that UNEP supported 22 countries (including Indonesia) to secure finance for sustainable forest land management and, as previously noted, 21 countries (including Indonesia) to deliver multiple benefits from sustainable forest management and REDD+ interventions.

342 It adds, "UNEP also provides the GEF with a range of relevant experiences, proof of concept, testing of ideas, and the best available science and knowledge upon which it can base its investments [and] serves as the Secretariat to three of the MEAs, for which GEF is the/a financial mechanism."

343 In this regard specifically, UNEP also applies its own recently updated environmental and social sustainability framework approved by the executive director in February 2020.

11.B.3 Measuring the impact of GHG emissions reduction and adaptation

UNEP has mechanisms to estimate the GEG emissions avoided or reduced by the operations it implements as required by the GEF and GCF (and presumably other donors as well) for the projects they finance. Assessing adaption projects is more difficult, but project documents describe efforts to identify expected results up front and to observe them ex-post in project terminal evaluations.

11.B.4 Incorporating COVID-19

In 2020, UNEP released a COVID-19 response plan, which should be read in the context of the SG's report on the socio-economic impacts of COVID-19 and the UN Sustainable Development Group's framework for the immediate socio-economic response to COVID-19. The plan refers to linking recovery efforts with the clean energy transition, NbS, and the Paris Agreement and summarises four general UNEP responses to the pandemic: (i) the medical and human emergency phase; (ii) a transformational change for nature and people; (iii) investing to build back better, and (iv) modernising global environmental governance. Regarding the second of these, for example, UNEP states:

> A healthy planet is critical to our ability to rebound from the COVID-19 pandemic and to prevent future zoonotic diseases, which are passed between humans and animals. The deterioration of ecosystems and the biodiversity within them — from habitat loss and modification, agricultural development, climate change, pollution, and overexploitation of species — is increasing the risk of zoonotic disease pandemics. UNEP's response to these challenges will focus on: (i) improved science and policy options to better understand and respond to zoonotic threats; (ii) investment in nature for improved human health, sustainable socio-economic recovery, poverty reduction, and livelihood recovery; (iii) science and technical support and advocacy to ensure progress on environmental issues through global processes; (iv) raising awareness of the links between nature, health, and sustainable living; and (v) continued learning.

The pandemic led to a virtual biannual meeting of UNEP's governing body UNEA, which traditionally takes place in Nairobi. Also in response to COVID-19, UNEP partnered with the CGIAR and the International Livestock Research Institute to launch the report, *Preventing the Next Pandemic: Zoonotic Diseases and How to Break the Chain of Transmission: A Scientific Assessment with Key Messages for Policy Makers* in July 2020, which was presented as a special volume of UNEP's flagship *Frontiers* series. By mid-October 2020, the report had been downloaded, 57 671 times. The December 2020 *Emissions Gap* Report likewise includes a chapter entitled, "Bridging the Gap – Implications of Current COVID-19 Fiscal Rescue and Recovery Measures".

11.C What UNEP lessons can inform the MS approach to the climate crisis?

Adoption, replication, and scaling-up lessons learnt and good practices

UNEP sees a major part of its role and responsibility to help pilot and test new, innovative approaches through its knowledge products, sub-programmes and projects it implements, including for climate change. It is hoped that the demonstration of successful practices in CCM/A will be replicated and scaled up by other UN agencies — FAO, IFAD, and UNDP — and by multilateral and bilateral development assistances agencies including the WBG and by the regional development banks — AfDB, ADB, IDB — in

their respective areas of operation. UNEP has been a key IA for the GEF since 1991 and more recently for the GCF for this reason. Over the past three decades, it has attempted to do this at the individual country, regional, and global levels with a particular focus on helping to operationalise science-based policy initiatives and programmes. Among the most significant lessons and good practices identified by UNEP from the climate change-related interventions that it has supported are the following:

- **Climate change action must be closely tied to sustainable development and country socio-economic goals.** Positive communication works better than doom and gloom.
- **Close interaction between governments, private sector, and the public is critical for rapid, large-scale progress.** Governments need backing from the public and confidence that the private sector benefits from their policies. The private sector needs loud and clear market signals and enduring policies. Individuals and the public sector need policies and products and services that make it easy to opt for low carbon behaviour and lifestyles. Absent one of these elements, progress will be slow.
- **Partnerships are a good way for UNEP to expand its reach and impact, but earmarked funding creates piecemeal support efforts across MOs** (e.g., for maximum impact of the CTCN, further work is needed with donors [e.g., GEF and GCF] to facilitate the roll-out of new technologies [e.g., establishing regional import standards for cooling solutions]).
- **To promote an integrated approach on the ground, UNEP launched its flagship programme on climate, ecosystems, and livelihoods, which serves as the UNEP-IEMP's ten-year strategy (2016-25).** Its objective is to improve livelihoods by building climate resilience and restoring and conserving key ecosystems in developing countries. Through this programme, the climate-ecosystems-livelihoods nexus approach is being implemented in about 30 developing countries in Africa, Asia and the Pacific, and Central Asia, focusing on "protecting the most fragile ecosystems, such as drylands, river basins and coastal zones" according to its website, and thus on implementing the Paris Agreement and achievement of the SDGs.

Other lessons learnt

UNEP shares data, policy recommendations, and lessons learnt through its partnerships and its flagship *GEO* and *Frontiers*, *Emissions Gap*, *Adaptation Gap* and *Making Peace with Nature* synthesis and more specific thematic or sectoral reports (such as on zoonotic diseases). It also organises regional climate weeks with UNFCCC, UNDP, and the WBG and dedicated sessions with other organisations such as the EU Parliament and the UNEP Committee of Permanent Representatives and in connection with the biannual UNEA meetings. It also organises dialogues with sister agencies and other change agencies and partners such as the EC, FAO, UNDP, and WRI. UNEP highlights the following lessons learnt:

- Raising public awareness is critical to building a comprehensive social understanding of climate change, the opportunities presented by solutions, and the available options.
- Champions and goodwill ambassadors are important for enhancing public understanding and views of climate change and media partnerships, such as with New Scientist, Facebook, and Media 4 Planet, are also key to increasing the reach of sound, reliable science messaging.
- Emphasising and demonstrating the economic benefits of climate change-related interventions over the short- and longer-terms must also be an essential part of the messaging strategy.

12. WORLD BANK GROUP (IBRD/IDA)

12.A How is the WB responding to climate change?

The WBG is the largest multilateral financier of climate investments in the developing world. From 2016-20, the it provided USD 83 billion in climate finance to developing countries, an average of 26% of lending across the group as a whole. At the end of 2020, the WBG president pledged to increase the portion of WBG investments with climate co-benefits to 35% of the portfolio from 2020-25, the largest amount of any MDB, after the EIB, which includes most Part 1 donors and country clients.

12.A.1 How does WBG adhere to the normative frameworks of the 2030 Agenda and Paris Agreement?

The WB is not a signatory to the Paris Climate Agreement but its mission of reducing poverty and promoting shared prosperity throughout the developing world is consistent with the aim of "strengthening the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty" and with SDG 13 on climate. With support from the CIF, its NDC support facility and other trust funds, the WB (IBRD and IDA) has supported over 75 countries in this regard to date. It is also assisting countries in developing their long-term strategies detailing the challenges and pathways to achieve their NDC decarbonisation and adaptation goals. Given the overwhelming need for NDC financing — more than USD 1 trillion per year over the next 15 years—relative to supply (1.5% of demand, taking into account all current public sector finance), leveraging private sector financing and shifting global markets toward climate-friendly investments will be essential for bridging this gap and achieving impact at scale.[344]

Corporate commitments

The WBG adopted its first CCAP in 2016, on the heels of the Paris Agreement.[345]

The WBG CCAP is underpinned by five strategic shifts for its climate work: (i) implementation: the WBG focus will accelerate support for countries and companies to implement the plans they have developed; (ii) convergence: the WBG climate and development agendas will be fully integrated into strategies and operations, and global- and country-level action will be aligned; (iii) maximising impact: the WBG will increase its focus on impact at scale, including shaping national investment policies and programmes and mobilising private finance; (iv) resilience: the WBG climate portfolio will be rebalanced — putting a greater focus on adaptation and resilience, and (v) transformation: achieving global climate commitments will require a shift from business as usual.

A fundamental aim was to deliver transformational impact. The plan targets led to a rise in the share of WB projects having climate co-benefits from 25% in 2015 to 62% in 2020 for the group. The share of WB finance having climate co-benefits rose from 18% in 2015 to 29% in 2020 for the group.[346]

The action plan was prepared in collaboration with units across the WBG including the climate change cross-cutting solutions area, regions, global practices, the IFC, and the MIGA, the IFC Climate Change Implementation Plan and the Africa Climate Business Plan. Four top-level priorities are to, "(i) support transformational policies and institutions, (ii) leverage resources, (iii) scale up climate action, and (iv) align internal processes and work with others."

344 *Transformative Climate Finance*. World Bank, June 2020, and personal communication WB Q&A.
345 World Bank Group Climate Change Action Plan: 2016-2020. www.worldbank.org
346 WB personal communication.

12.A.2 How do the WB's responses to climate change cohere with the MS?

Collaboration with other MOs, organisations and initiatives

The WB is heavily engaged in partnerships with other MOs relevant to climate finance and building effective programmes in client countries for CCMA. The 2017 WBG annual report emphasises its role in crowding in private sector finance in co-ordination with development partners, an approach that gained broad support and was formally endorsed by the G-20 finance ministers and central bank governors. Ensuring that the private resources mobilised are truly additional is one of the G-7 principles on co-ordination by IFIs.[347] This role has expanded in the last four years regarding climate change, particularly in infrastructure and energy. The City Climate Finance Gap Fund, launched in September 2020, and implemented by the WB and the EIB is one example.[348] With an initial capitalisation of EUR 50 million, the fund seeks to identify and accelerate the preparation of climate-friendly projects in cities to increase urban resilience. The 2017 City Resilience Programme is an ongoing, parallel, multi-donor partnership involving the WB, the Global Facility for Disaster Reduction and Recovery, and the UN Office for Disaster Risk Reduction that has helped more than 90 cities in over 50 countries plan for and mitigate the adverse impacts of disasters and climate change, and mobilise private sector financing for resilient infrastructure.[349]

The WB has also been administering the CIF since 2008, mobilised through parties to the UNFCCC. Currently at a record high of USD 8.3 billion, CIF funds are jointly programmed and implemented by the WB and four other MDBs to help countries achieve their commitments under the UNFCCC and the Paris Agreement. The WB also holds in trust and partners with other MOs in implementing three independent agencies that support climate action: the GEF, the GCF and the AF. Implementation partners include UNEP, UNDP, FAO, the MDB, and the private sector, often in partnership with NGOs.

In 2018, the WBG established the Partnership Fund for the SDGs to advance the SDGs more broadly and especially SDG 17 on partnerships, as well as Agenda 2030. Essential to WB's twin missions of reducing poverty and increasing shared prosperity, the fund "leverages multi-stakeholder partnerships with more than 200 partners to share knowledge, experience, resources, and connections to achieve common goals" by 2030.[350]

These funds provide concessional finance in the form of grants and soft loans. The institutional partnerships, which often include TA, capacity building, innovation in low-cost, effective solutions, and mechanisms to take successful pilots to scale, are essential to the WB's work and to the alignment of principles identified in the joint framework for aligning MDB activities with the Paris Agreement.[351] They provide incentives for countries to borrow for sectors or programmes that may not yield immediate financial returns but that are fundamental to achieving progress in CMA. These strategic partnerships build on each agency's comparative advantage and help ensure alignment on key objectives, thereby maximising leverage and synergy.

The WB is also highly engaged with the private sector in mobilising new and substantial financing for investments in reducing GHG emissions in the energy and power sectors. The Central America and

347 The WBG *Annual Report 2017*. https://www.worldbank.org/en/about/annual-report/collaboration-engagement

348 The City Climate Finance Gap Fund is supported by Germany, Luxembourg, the Global Covenant of Mayors and city networks, including ICLEI - Local Governments for Sustainability and C40 Cities Climate Leadership Group. https://www.worldbank.org/en/news/press-release/2020/09/23/city-climate-finance-gap-fund-launches-to-support-climate

349 The WBG *Annual Report 2020*.

350 https://www.worldbank.org/en/programs/partnership-fund-for-the-sustainable-development-goals/overview

351 http://pubdocs.worldbank.org/en/784141543806348331/Joint-Declaration-MDBs-Alignment-Approach-to-Paris-Agreement-COP24-Final.pdf

Caribbean Catastrophe Risk Insurance Project (USD 19.5 million), launched in 2015 is one example of the WB's partnership with the insurance industry to help countries climate proof vulnerable infrastructure in the urban, transport and tourism sectors. Its goal is to make high-quality sovereign catastrophe risk transfer for earthquakes and climate-related events accessible to participating countries by helping them mitigate the short-term cash flow problems following major natural disasters and maintain basic government functions after catastrophic events.[352]

WB President Malpass recently announced that the WB is working with the IMF on ways to factor climate change into negotiations to reduce the debt burdens of some poor countries that are also struggling to meet their climate commitments.[353] These negotiations could involve the write-off of private sector debt in exchange for progress on mitigation by low-income countries. The WB and the IMF also collaborate on the FSAP and have revised it to include an assessment of climate and environmental risks and opportunities to reduce the likelihood for a financial crisis in the advent of such natural disasters.[354] Joint pilot missions have already been conducted in highly vulnerable countries, including the Philippines, several SIDS, and Bangladesh. Additional missions are planned in South America and West Africa.

Lending has increased steadily since 2016, in the wake of the Paris Agreement. **After COP 21, the WB laid out for the first time a five-year CAP identifying new ways of incorporating climate into its operations and setting targets for its development lending with CCMA co-benefits.** The CAP led to several key outcomes: 34GW of renewable energy to help communities, businesses and economies; adaptation funding going from 40% of climate finance in 2016 to 52% in 2020, in line with UNFCCC guidance to ramp up investments in adaptation; investments in early warning systems in over 50 countries affecting 120 million people to help reduce the loss of life and property before climate disasters; supporting the development and implementation of NDCs, and supporting 35 national or sub-national governments in their efforts to put a price on carbon. Lessons learnt from this first CCAP have been compiled and will inform the next five-year plan.[355]

During the 2016-20 action plan period, the WB surpassed its target of increasing climate finance from 20% of its lending portfolio in 2016 to 28% by 2020. It delivered over USD 83 billion in climate finance over this period, or more than 30% of its lending in the last three years. In 2020, the WBG committed USD 21.4 billion to climate-related investments, the largest amount in any single year in its history.[356] Its performance was "the result of an institution-wide effort to mainstream climate considerations into all development projects."[357]

352 This is the world's first regional fund to use parametric insurance, giving Caribbean member governments the unique opportunity to purchase earthquake, hurricane, and excess rainfall catastrophe coverage with the lowest-possible pricing. Between 2007 and 2020, a total of USD 193 814 574 was paid in claims to members. https://www.ccrif.org/about-us

353 https://www.reuters.com/article/us-world-bank-debt-climate/world-bank-imf-to-consider-climate-change-in-debt-reduction-talks-idUSKBN2AK01B

354 WB documents and Q&A.

355 These lessons include the importance of: (i) integrating climate change in WB projects and strategies (climate change considerations have been incorporated into all stages of project design and in 100% of country strategies); (ii) restoring landscapes and improving land-use practices (an increasing share of agriculture projects are climate smart); (iii) protecting the vulnerable from climate and other shocks (including the emergence of pandemics associated with environmental risk); encouraging the shift to low-carbon energy while expanding access (through support for renewables and energy efficiency); shifting to low-carbon transportation (including through higher fuel efficiency standards and e-mobility). www.worldbank.org

356 https://www.worldbank.org/en/news/feature/2020/08/30/world-bank-group-exceeds-2020-climate-finance-target-for-3rd-consecutive-year-214-billion-in-funding-for-climate-action

357 *Ibid.*

More ambitious targets have just been announced for the 2021-25 period. On average, 35% of the WBG's financing over the next five years will have climate co-benefits, and total investments institution-wide (including IFC) are expected to reach USD 200 billion for climate change.[358] Within IBRD and IDA, 50% of WB financing will support adaptation and resilience, up from 32% in FY14.

12.A.3 How has greater global attention to climate change affected the WBG's work?

Staffing and skills profile

In 2014, the WB established a climate change group with four units and approximately 150 staff to oversee new climate finance initiatives that deliver innovative, scalable climate and environmental action. Additional climate specialists are deployed throughout the 14 global practices and regions. WB staff includes three climate change specialists (mitigation/adaptation), climate finance specialists, and climate economists. Training in climate change has been incorporated into staff training and includes corporate commitments on mitigation and adaptation finance, metrics to assess emissions standards and apply carbon shadow pricing in project proposals, and climate clinics on county engagement to address climate in upstream development plans. Financial commitments, administrative budget shifts, and institutional leadership.

As noted above, the WB delivered over USD 83 billion in climate finance between FY16 and FY20, an average of 26% of lending with climate co-benefits over the five-year period. In December 2020, In December 2020, President Malpass announced an ambitious target of 35% of WBG financing to have climate co-benefits, on average, over the next five years, surpassing the average of 26% for FY16-FY20. Much of the investment in adaptation will be directed at Africa. The region has set new targets for the 2025 benchmark to support integrated landscape management of more than 60 million hectares in 20 countries, improve the livelihoods of 10 million farmers through CsA, and increase renewable energy generation capacity from 28GW to 38GW. As the region hardest hit by climate change, Africa has been the target of most of IDA funding for climate change during the last five years.[359] Climate resilience investments are a top priority: climate change intensifies drought, advancing desertification, infestations, food insecurity and fragile livelihoods. The COVID-19 pandemic has exacerbated these, creating huge health challenges and casting more people into poverty. Addressing the immediate fallout from the pandemic has drained public sector resources and put tremendous pressure on social safety nets and recovery plans (see Box 26).

358 WB Press Release, December 9, 2020 https://www.worldbank.org/en/news/press-release/2020/12/09

359 The Africa Climate Business Plan, launched in 2015, and the updated Next Generation Africa Climate Business Plan (2020) are grounded in the WBG's commitment to mainstream climate into development. As of December 2019, more than USD 30 billion of WB financing had been delivered for 312 projects, exceeding the plan's 2020 target for resource mobilisation.

Box 26: Accelerating the impact of CGIAR climate research for Africa (AICCRA)

In December 2020, the WB Board approved a new 3-year USD 60 million IDA grant for climate resilience and CsA in Africa for which CGIAR will be the major partner.[360] The aim is to provide climate advisory services and assess the effectiveness of climate smart interventions by farmers and livestock keepers to help them maintain productivity and avoid catastrophic losses. AICCRA activities will be concentrated in six countries — Senegal, Ghana, Mali, Ethiopia, Kenya, and Zambia – with regional benefits in terms of knowledge sharing on practical interventions to climate-proof productions systems and increase resilience. Mobilising science and innovation for agricultural development is an underlying theme. The director of regional integration for Sub-Saharan Africa and MENA states the following:

Knowledge generation and technology transfer are deserving of IDA regional support, because the benefits flow across national boundaries and therefore are unlikely to be supported adequately by individual governments acting alone…. CGIAR plays a unique catalytic role in strengthening global, regional and local capacity to combat the effects of climate change, in Africa and throughout the world.

Source: https://www.worldbank.org/en/news/press-release/2020/12/10/advancing-research-on-climate-change-world-bank-grants-60-million-to-help-strengthen-the-resilience-of-the-agricultural-sector-in-africa

To avert the worst impacts of climate change for the world's most vulnerable requires filling the massive gap that remains despite these increases in climate funding. Institutionally, the WBG acknowledges the need to mobilise significant new financial resources and to help shape economy-wide policies that can promote a green, equitable climate-smart recovery. At the regional and country level, the challenges are financial and political. For example, the political economy of introducing policy reforms to speed the transition from fossil fuels may run counter to economic development plans to accelerate energy access by the least costly means. Concessional financing and accessible technologies are needed to bring clean energy into the mix of options.

Aligning institutional policies and organisational strategies to meet these challenges has been a hallmark of WB leadership on climate change for over a decade. Engagement on climate change has been a major institutional priority from the managing director through vice presidents and global directors. WB leadership has translated into catalytic action across the MS by former WB staff and colleagues who now head agencies such as the IMF, UNEP, and the CGIAR. With the renewal of the US's commitment to the Paris Agreement and a new president who has pledged to make climate change a priority of his administration, leadership on climate change at the WBG is likely to grow even stronger.

360 https://www.worldbank.org/en/news/press-release/2020/12/10/advancing-research-on-climate-change-world-bank-grants-60-million-to-help-strengthen-the-resilience-of-the-agricultural-sector-in-africa

12.B How have WB organisational strategies, operational activities, and resource plans incorporated climate change?

12.B.1 Organisational strategies

The WB has mainstreamed climate change into its organisational structure and resource allocation planning and sector strategies institution-wide. Even before the Paris Agreement, it created a climate change department (and global director) within the vice presidency for sustainable development as part of its 2013-14 reorganisation. Since then, the WBG has ramped up its climate efforts through its CCAPs2016-20) and (2021-25), by mainstreaming climate change into sector strategies and budgeting for climate change in regions and global VPs, and by mobilising additional resources and private sector engagement on climate change.

WB commitments to addressing climate change in lending and other operations have increased steadily over time in scope (sectoral coverage) and amount/level. Just as WB finance for GHG emissions reductions in the most energy intense sectors has increased since Paris, overall investments in adaptation and resilience in the sectors most vulnerable to climate change have also grown and reached parity with mitigation spending in 2019. The WB has committed to maintaining this level for the next five years. The thrust to increase investments in adaptation and resilience has grown in response to greater client demand in some of the least developed countries that are experiencing greater vulnerability to climate impacts. The urgency of scaling up efforts in adaptation received a major boost with the formation of the Global Commission on Adaptation in 2018, led by eighth UNSG Ban Ki-Moon and co-chaired by Bill Gates and then WB Managing Director Kristalina Georgieva. Its mandate was to raise the political visibility of adaptation and, "to engage communities, cities and countries to proactively prepare for the disruptive effects of climate change with urgency, determination and foresight, and [access] the best, most cost-effective options, reduce risk and come out stronger."[361]

Along with its push to mobilise new climate resources for the most vulnerable countries, the WB launched the Next Generation Africa Climate Business Plan in September 2020.[362] This five-year plan is a blueprint for climate-smart development in Sub-Saharan Africa, and is grounded in the WBG's IDA-19 commitments and its CCAP. It has five strategic pillars to help countries achieve low-carbon, climate-resilient outcomes: (i) food security; (ii) environmental stability; (iii) clean energy; iv resilient cities, and (v) climate shocks. The food security pillar focuses on CsA (28 million famers) and livestock production (15 countries), landscape management, integrated weather and market information and new climate-smart policies that strengthen food and nutrition security (20 countries). The clean energy pillar focuses on expanding renewable energy supply and access to clean electrification for resilience.[363]

361 https://gca.org/about-us/the-global-commission-on-adaptation/

362 "World Bank. 2020. The Next Generation Africa Climate Business Plan: Ramping Up Development-Centred Climate Action. World Bank, Washington, DC © World Bank. https://openknowledge.worldbank.org/handle/10986/34098 License: CC BY 3.0 IGO.

363 Targets include: (i) provision of direct, indirect and enabling policy support for generation, integration, and for enabling infrastructure for at least 3.5 GW of renewable energy; and support to 25 countries to strengthen energy sector planning and execution linked to their NDCs. A core strategy of the business plan is to help countries leapfrog their way to clean energy and resilience.

12.B.2 Operational activities

Climate considerations are incorporated into all WB CPFs, which increasingly include NDC planning and developing LTS to implement them. In 2016, the WB established an NDC Support Facility to support these efforts.[364] The facility also supports the Coalition of Finance Ministers for Climate Action to help countries mobilise and align the finance needed to implement their national CAPs and NDCs[365] Established in 2019, this coalition has also created the space to align climate policies and investment decisions with the Paris Agreement, including fiscal reforms such as environmental taxes and DRM strategies, and the adoption of the Helsinki Principles.[366],[367] The Climate Support Facility further extends the mandate and reach of the NDC-SF. This new USD 52 million flagship trust fund was launched in December 2020 to "to align green economic recovery efforts with countries' national climate goals and long-term, low-carbon, climate-resilient strategies."[368]

Higher IDA allocations for climate action has been one of the most visible ways in which WB assistance programmes have responded to the challenges of climate change for some of the world's most vulnerable people. As a requirement for IDA support, all IDA country strategies must incorporate climate and disaster risk into the analysis of a country's development challenges and priorities.[369] As noted earlier, IDA funding to help climate-proof development in the poorest countries has grown significantly since the Paris Agreement and includes interventions in both mitigation and adaptation.[370]

Sectoral alignment

Agriculture may be the best example of sectoral alignment with the Paris Agreement. Over the last decade, the WB has been investing heavily in climate proofing the agricultural sector. A look at operations by sector shows that the percentage of agriculture projects and programmes identified as climate-related has steadily increased in the last five years. In fact, its agriculture global far exceeded its target of 28% of climate finance by 2020, reaching 100% of operations in the sector for the last three years. This outcome is the result of dedicated leadership on the part of senior management and a longstanding and highly effective partnership with CGIAR. Through the WBG's support for the CGIAR system, best practice based on cutting edge research and on the ground TA have yielded impressive breakthroughs in livestock and farming yields as well as risk climate reduction and greater resilience in small-holder farms.[371] This partnership to bring the best available science to bear on climate and other environmental challenges poor farmers and pastoralists face will continue under the new AICCRA.

The effects of climate change on agriculture have long been recognised, especially for poor, agriculture-based economies. However, the full extent of agriculture's major contribution to climate change

364 Activities of the NDC-SF are implemented in close co-ordination with and in support of the country engagement process of the NDC Partnership whose members are now working together in 70 countries to mobilise financial and technical support to achieve countries' climate goals and enhance sustainable development. https://www.worldbank.org/en/programs/ndc-support-facility

365 https://www.cape4financeministry.org/coalition_of_finance_ministers

366 Fiscal Policies for Development and Climate Action The World Bank 2019.

367 http://pubdocs.worldbank.org/en/600041555089009395/FM-Coalition-Principles-final-v3.pdf

368 https://www.worldbank.org/en/topic/climatechange/brief/the-climate-support-facility

369 https://ida.worldbank.org/theme/climate

370 See *The ABCs of IDA—Climate Change* for a complete list of projects at http://ida.worldbank.org/results/abcs/abcs-ida-climate-change

371 The latest reorganisation in leadership and strategic priorities within the CGIAR system has tapped 3 former WB staff who championed climate proofing in the agriculture sector to serve as new managing directors. Together with the new AICCRA IDA-funded programme, this suggests that CGIAR will continue to focus on climate change for the foreseeable future.

— to atmospheric CO2 levels from livestock methane, poor soil cultivation, land clearing practices (estimated at 25% of anthropogenic emissions) — was not fully appreciated until far later. Recognising that poor countries' NDC commitments include emissions reductions, the WB and CGIAR are supporting cost-effective ways to reduce the carbon footprint of small-scale agriculture (see Box 27).

Box 27: LED of CsA

The CGIAR Climate Change, Agriculture and Food Security (CCAFS) Programme includes a LED programme to reduce emissions by reducing deforestation, converting carbon rich peat lands and wetlands, and sequestering carbon in smallholder farming systems.[372] The programme focuses on supply chain governance related to agriculture and collaborates with the CGIAR research programme on forests, trees, and agroforestry in high value supply chains related to oil palm and rubber to lower their carbon footprint. These activities are being implemented in the Brazilian Amazon, with plans to extend them to Indonesia and the Congo Basin. "CCAFS is providing decision-makers with ex-ante analysis and tools to identify targets, LED options, and the suitability of options for different production systems."

Key outputs include:

Global and country mitigation targets and potentials, and NDC analysis to improve countries' capacities to meet UNFCCC, SDGs, and other commitments. Includes policy impacts on mitigation potentials and ex-ante assessment of LED pathways to meet targets.

Identification of viable LED technical practices, and evaluation and comparison of their impacts and trade-offs for livelihoods, gender equity, food security and mitigation. Includes analysis of multi-year field trials, spatial analyses of the suitability of different LED practices, tools and synthesis of evidence for existing and emerging LED options.

Energy

The WBG 2013 energy sector directions paper estimates that over 1.2 billion people, or nearly one-fifth of the world's population, lack access to electricity. Most of these people are concentrated in Africa and Asia. Its response is to "support development of energy systems based on least-cost options with an emphasis on renewable sources, such as hydropower, wind, solar and geothermal, while also promoting energy efficiency." The WBG has not financed a new coal-fired power plant since 2010 and has no active coal-fired power generation in its pipeline. It will support countries transitioning from coal by helping to close coal mines and to ensure a just transition for affected communities. A new CIF programme, Accelerating Coal Transition, will support countries transitioning. As of 2019, the WBG stopped financing upstream oil and gas. "Only in exceptional circumstances will consideration be given to financing upstream gas in the poorest countries where there is a clear benefit in terms of energy access for the poor and the project fits within the countries' Paris Agreement commitments."[373]

Climate Investment Funds

In 2008, the UNFCCC mobilised special climate funds to channel concessional finance to developing countries for both upstream advisory and downstream investment activities. WBG's climate change

372 https://ccafs.cgiar.org/research/low-emissions-development
373 https://www.worldbank.org/en/topic/energy/overview#2

group administers these CIFs. Although initially set up as a pilot for a future GCF, the CIFs have grown to some USD 8.3 billion and now operate in parallel with the GCF.[374] Since coming on line in 2015, the GCF has committed USD 5.2 billion to 111 projects in 99 countries, of which only USD 2.8 billion is currently under implementation.[375] In contrast to the GCF, which requires that applicants be accredited (with 74 of 103 accredited to date), the CIF is jointly programmed and implemented by the five MDBs. This streamlines the process for accessing concessional finance, allows co-ordination among MDBs in upstream discussions with countries to align policies with NDCs and prioritise investments, facilitates harmonisation of monitoring and reporting, and creates the space for synergy and impact. CIFs operate in 72 developing and middle-income countries and include four funds:

Clean Technology Fund (USD 5.74 billion) helps scale up promising low-carbon technologies with transformational potential. The CTF is a leader in financing concentrated solar power technology in countries like Morocco, South Africa, and Chile, and responsible for deploying 750 MW of new power to date, with more than 800 MW expected to come online.[376]

Under the special climate funds, **the Pilot Programme on Climate Resilience (PPCR)** (USD 1.1 billion) aims to (i) integrate climate risk and resilience into development policies and planning; (ii) strengthen such capacity at national and regional levels; (iii) scale up and leverage climate resilient investment; and (iv) support knowledge management and dissemination of good practices.

The FIP (USD 736 million) provide low-interest loans and grants to foster direct investments in stopping the drivers of deforestation and improving natural forest management with multiple national and global benefits: "good for forests, good for development, and good for the climate."

Scaling Up Renewable Energy Programme Funds (USD 765 million) empower transformation in the world's poorest countries by demonstrating sustainability benefits from investments in renewable energy. It is one of the biggest global funders of mini-grids with over USD 190 million for projects in 14 countries. In 2020, Germany contributed USD 100 million to CIF's global energy storage programme and an additional USD 25 million was committed by the governments of the United Kingdom, the Netherlands and Switzerland for a COVID-19 TA response initiative for green and climate-resilient recovery in low- and middle-income countries.[377] In 2021, the CIF will launch five new strategic investment programmes focusing on accelerating the coal transition, renewable energy integration and storage, NbS, climate-smart urbanisation and the decarbonisation of hard-to-abate industries for which a target of USD 5 billion in support has been set.

Other partnerships and funds

The Partnership for Market Implementation is the successor to the Partnership for Market Readiness and will become operational in early 2021.[378] Its goal is to assist participant countries to design, pilot, and implement explicit carbon pricing instruments aligned with domestic development priorities. With a capitalisation target of USD 250 million, the implementation phase aims to assist 30 countries and jurisdictions

374 https://www.climateinvestmentfunds.org

375 GCF MO Report, this study.

376 https://www.climateinvestmentfunds.org/topics/clean-technologies

377 https://www.climateinvestmentfunds.org/news/bold-new-initiative-aims-ensure-green-recovery-covid-19

378 The PMR, launched in 2011, helped emerging economies and middle-income countries with high emissions, design and implement carbon pricing and market instruments to reduce their GHG emissions. It has provided technical assistance to 23 countries, accounting for nearly 50% of global GHG emissions. Among its many services to generate and disseminate guidance on technical aspects of carbon pricing are: (i) technical trainings; (ii) technical notes and guidance documents; (iii) webinars, e-leaning and, (iv) annual operational reports providing detailed information on PMR performance at partnership and country levels. https://www.thepmr.org/content/knowledge-center

in "the development and implementation of carbon pricing instruments to meet their NDC targets and long-term decarbonisation strategies." Specifically, the new partnership will do the following:

- Enable countries to participate in operationalising Article 6 of the Paris Agreement to facilitate international co-operation on carbon markets and the convergence of national carbon pricing tools.
- Assist countries in identifying and implementing best practice approaches and, where relevant, helping them achieve compatibility in design with other carbon pricing efforts and markets.
- Inform the national and international policy discussions on GHG mitigation by sharing lessons learnt and providing a platform for collective innovation on carbon pricing.
- Develop a comprehensive knowledge base on carbon pricing instruments and market mechanisms and facilitate information exchange through technical discussions and knowledge management.

The SDG Partnership Fund currently supports 47 innovative pilots in 35 countries.[379] The WB is helping countries in Africa with low access to electricity and ample sources of renewable energy such as wind and solar to develop these for new power generation. In other countries, it is supporting a fast-track transition from fossil fuels to solar and wind that includes:

- USD 1.3 billion for off-grid, rural electrification in 24 countries over the last eight years. Of these projects, 90% were based on renewable energy, mostly solar.
- Energy sector management assistance programme's Rooftop Solar PV Mapping and Market Facilitation Project.[380] This joint WB-IFC activity focusing on Mexico City will support the scale-up of affordable, clean solar energy in cities where demand for cleaner air and renewables is high. Other cities have since signed on to the programme.[381]

Adaptation

In FY18, finance in investments with adaptation and mitigation benefits reached USD 20.5 billion of which USD 15.7 billion was provided by IBRD and IDA.[382] As noted earlier, the scope and volume of investments in climate change (and between climate mitigation and adaptation) have shifted since the Paris Agreement. Figure 16 shows the allocation of these investments between mitigation and adaptation across regions and sectors that year.

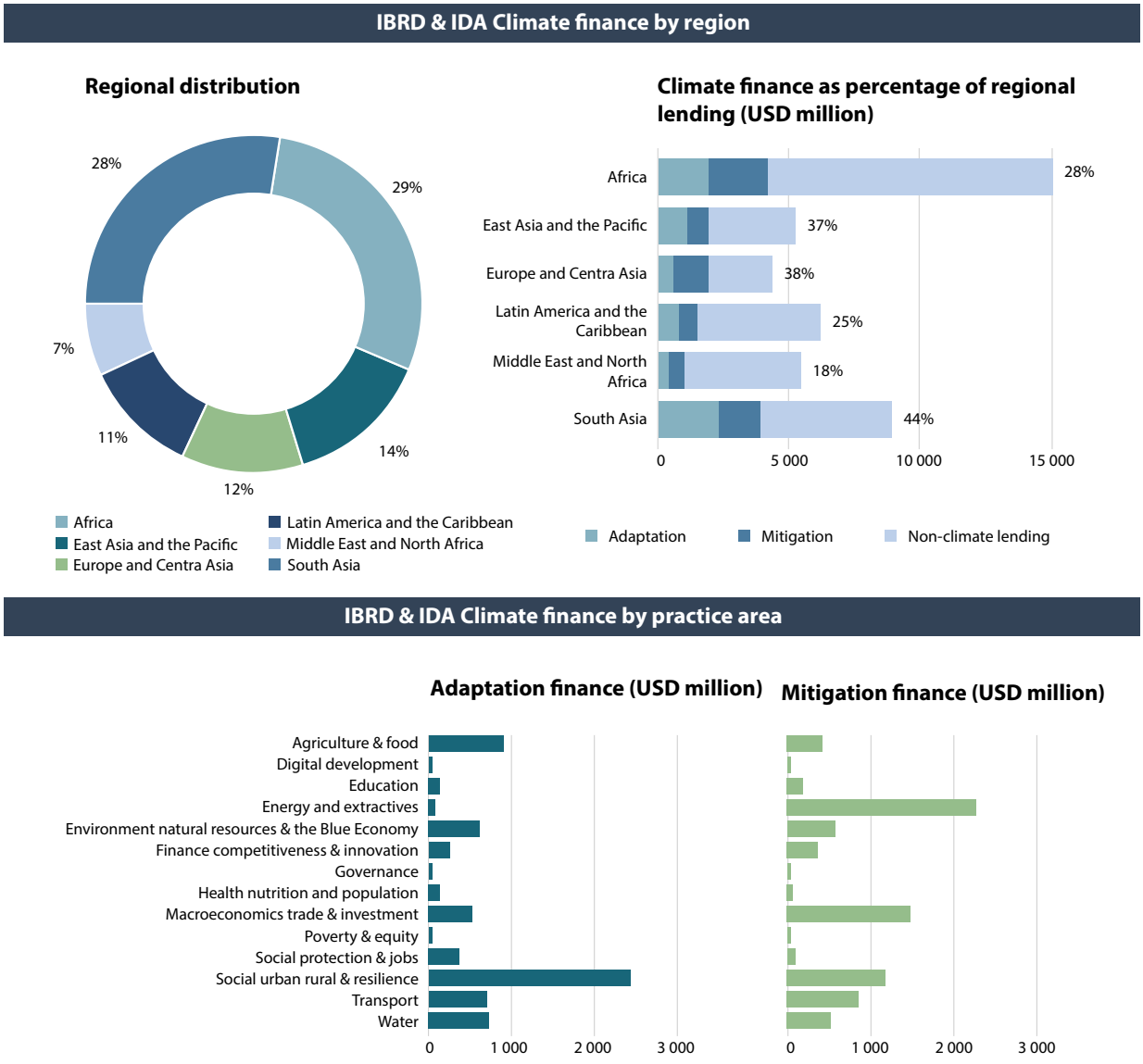
379 *WBG Partnership Fund for the Sustainable Development Goals: 2019 Report.*

380 ESMAP informs much of the WB's investment lending on energy access. For example, in Tanzania, an analysis of the country's policy framework for mini-grids and private sector operators informed the design of a USD 1.4 billion rural electrification project using USD 32 million in IDA funding to leverage an additional USD 155 million in public and private funds and build over 280 new mini grids by 2022.

381 *WBG Partnership Fund for the Sustainable Development Goals: 2019 Report.*

382 The most recent data show that even with COVID-19 lending, WBG surpassed its climate finance target for FY20, allocating nearly USD 21.4 billion to climate-related investments.

Figure 15: Climate finance



Source: https://thedocs.worldbank.org/en/doc/592361596711415924-0020022020/original/WorldBankFY19CFData0803.pdf

The WBG also announced a dedicated adaptation and resilience action plan, making adaptation and resilience a key priority that is equal to mitigation.[383] "The Action Plan has three core objectives: (i) Boost Adaptation Financing; (ii) Drive a mainstreamed, whole-of-government approach; (iii) Develop a new rating system to better incentivise and improve the tracking of global progress on adaptation and resilience."[384] The arguments for ramping up investments in adaptation are compelling, and include the mounting economic costs of climate impacts (estimated at USD 320 billion in losses in 2017 alone) pushing more people into poverty, primarily in Sub-Saharan Africa. That the world is not yet on track to meet even the emissions reductions targets for a 2°C rise in temperature means that a greater emphasis on helping countries adapt to the unavoidable impacts of a warmer, disaster-prone world is necessary.

383 *WBG Adaptation and Resilience Action Plan: Managing Risks for a More Resilient Future. 2019.*

384 http://documents1.worldbank.org/curated/en/519821547481031999/The-World-Bank-Groups-Action-Plan-on-Climate-Change-Adaptation-and-Resilience-Managing-Risks-for-a-More-Resilient-Future.pdf

This shift in emphasis was borne out in the WB project portfolio. In 2018, it saw an increase in adaptation funding in agriculture, health and nutrition, social protection and labour, social, urban-rural and resilience, and water totalling USD 7.6 billion and reaching parity with mitigation at USD 8.0 billion.

Selected country operations: Brazil, Ethiopia, India, Indonesia, Jamaica

Brazil

Brazil is the world's fifth largest country in terms of area and the sixth largest in terms of population. It currently ranks 14 in its GHG emissions, the bulk of which are attributed to deforestation (which has risen from 4 000 km2 in 2012 to 11 000 km2 in 2020) and land use change. The expansion of cattle ranching and soybean cultivation into primary forests are the immediate drivers of this degradation, leading to huge losses of biodiversity in the Amazonas and Cerrado regions, in addition to rising emissions. But root causes are international demand for beef and soy and Brazil's heavy reliance on export earnings for foreign exchange and balance of payments. This has been exacerbated by recent de facto policies to allow for agricultural expansion to fuel economic growth. Brazil's CPF with the WB seeks to address challenges to reducing deforestation while also enhancing adaptation and resilience through an integrated landscape management approach. In the past, the WB mobilised concessional finance through the FIP to support Brazil's low carbon agriculture programme in the Cerrado and with GEF resources to finance the Amazon region protected areas programme.[385] Today's focus remains on land use, reducing fires to clear new lands in the Cerrado region and intensifying agriculture through better access to CsA for smallholders to increase yields. The WB is also helping mobilise concessional financing to improve the environmental stewardship of the Amazon through the Amazon sustainable landscapes programme (USD 60.33 million in GEF funds) and accessing the BioCarbon Fund and FIP resources to enhance Brazil's environmental governance and landscape management, including monitoring deforestation, land degradation, and forest fires.

Ethiopia

Ethiopia is an agriculture economy: 80% of its population is rural. Agriculture and livestock account for over 30% of GDP, 65% of employment, and 75% of exports. Ethiopia's GHG emissions account for only 0.3% of global emissions, and 88% of the country's emissions are from livestock, agriculture, forestry and land-use, with enteric methane emissions from livestock accounting for nearly half of these. Reducing emissions from livestock is a significant issue in the livestock industry. Ethiopian pastoralists own some 61 million head of cattle, or about 18% of Africa's total cattle population. Ethiopia is one of the countries benefitting from the programme for climate-smart livestock under CGIAR's umbrella CCAFS in partnership with the WBG.[386] The programme "supports interventions to increase the contribution of livestock to three key pillars of CSA: increased productivity, mitigation of GHG emissions, and adaptation to climate change." The Ethiopia Country Stocktake report noted, "wide scope in livestock systems for substantial improvements in both productivity and GHG emission intensities." Surprisingly, no mention is made of the role of methane-reducing feed additives, and the rapid advances being made with red algae of the genus Asparagopsis to lower emissions from enteric gas release by up to 80%. Such promising innovations are being developed at the Commonwealth Scientific and Industrial Research Organisation in Australia and by private R&D enterprises.[387] Although such feeds are already being incorporated into commercial cattle operations in Australia and the US, they have yet to be introduced in cattle raising operations in countries like

385 See John Redwood III, "World Bank Approaches to the Brazilian Amazon" and the Brazil Country Report.

386 Programme for Climate Smart Livestock Systems: Country Stocktake: Ethiopia, 2019. International Livestock Research Institute.https://cgspace.cgiar.org/bitstream/handle/10568/106291/Ethiopia%20stocktake%20report.pdf?sequence=1&isAllowed=y

387 https://www.csiro.au/en/Research/AF/Areas/Food-security/FutureFeed

Ethiopia, India, and Brazil, with even larger cattle populations and high enteric methane emissions. Tapping into the kinds of low-cost, scientific breakthroughs that can drive transformative change in GHG mitigation in agriculture while improving food security will require stronger links with the scientific and R&D community.

India

India is the world's third highest emitter of GHG after China and the United States. "In 2014, 75% of India's electricity was generated by coal, 11% by hydropower, 5% by natural gas, 3% each by nuclear and wind, and 2% each by fuel oil and biofuels, although the share of renewables has increased subsequently. Emissions from the Power sector contributed 68.7% of the total in 2014. Agriculture was the second largest single sectoral source of CO2 emissions, responsible for 19.6% of the total, with enteric fermentation contributing 45% of this subtotal."[388] The agriculture sector is also one of the most vulnerable to climate change impacts. Climate variability, leading to frequent droughts and floods, and unpredictable water supply, puts the two-thirds of India's population who are employed in the sector and the nation's food supply at great risk. Other risks include coastal inundation, soil salination from tropical storms, and sea level rise along India's 7 517 km of coastline. In response to India's NDC to reduce the carbon intensity of the economy, source 40% of its electric power from renewable energy by 2030 and create carbon sinks to absorb an additional 2.5 to 3 BtCO2e through reforestation and agroforestry by 2030, the WBG pledged to "support India's efforts to address climate change through a mix of climate-focused operations and advisory services and analytics." Six climate change operations totalling USD 1.36 billion were approved in the aftermath of the Paris Agreement (2016-20), mostly in adaptation projects in the agriculture and water sectors. Prior to 2016, India benefitted from a series of DPL for inclusive green growth and sustainable development, energy efficiency in the transport sector, and projects in renewable energy, including hydropower. With support from the CTF, India was able to generate over 3 GW of new installed solar power capacity and transmission infrastructure, with enough to power one million homes and reduce GHG emissions by 25 million tonnes.[389]

Indonesia

Indonesia is the world's tenth largest GHG emitter, largely as a result of burning peat lands and forests to clear them for palm oil cultivation, and from the combustion of fossil fuels for energy. On the vulnerability side, a joint WBG and ADB CRCP for Indonesia, ranks it in the top third of countries for climate risk, with high exposure to all types of flooding and extreme heat. "Without adaptation, the number of people exposed to extreme river floods could grow by 1.4 million by 2035-44 and those exposed to permanent flooding from sea level rise the total population likely to be exposed to permanent flooding could reach over 4.2 million between 2070-2100."[390] The WB's response over the last ten years has been two DPL (the first for USD 175 million) to support reforms in the energy sector to: (i) pave the way for more renewables including expansion of geothermal energy, and to draft agreements to purchase renewable energy, and (ii) the second (for USD 500 million) to reduce subsidies on fossil fuel power tariffs, remove licensing and regulatory constraints to renewables development, and facilitate the substitution of natural gas for coal as a transition fuel to renewables. Several other CIF projects were implemented with the ADB to further enhance the introduction of renewables and reduce coal use in the energy sector.[391]

388 India Country Report, MOPAN Climate Change Study.

389 Ibid., and WB Clean Technology Fund website.

390 Indonesia Country Report, MOPAN Climate Change Study, and WBG and ADB, *Climate Risk Country Profile: Indonesia*, Washington D.C., 2020, pg. 6.

391 Indonesia Country Report, MOPAN Climate Change Study.

Jamaica

In Jamaica, the key challenges are reducing vulnerability to natural and climate related disasters in this SIDS productive sectors (e.g., tourism infrastructure, mining and agriculture) and enhancing overall resilience for fast-tracked, sustainable economic growth. A secondary challenge is reducing Jamaica's heavy dependency on imported fossil fuels and introducing renewables into the country's energy mix to help it meet its commitments under its NDC. The WB has responded by helping to stabilise the economy and improve Jamaica's debt service to GDP ratio through a USD 70 million DPL (Jamaica First Economic Resilience DPL) approved in 2020. The loan includes a specific component to enhance fiscal and financial resilience against natural disaster risks as part of the overall objective of buffering the country against environmental risk while growing the economy. To further reduce risk, the WB has partnered with the private sector to help Jamaica access catastrophic risk insurance, including a new (2021) USD 16.3 million catastrophe bond for increased financial resilience to natural disasters and climate shocks. The WB has been less engaged on climate mitigation. An early project (USD 15 million, 2014) was designed to help modernise and implement the ministry of energy and mining's new energy policy, including increased private investment and a transition to cleaner fuels.

Project selection criteria

Per the WBG's first CCAP (2016-20), all new WB projects are screened for climate risk. Climate change considerations are taken into account at every stage of project design and have been integrated into all Bank CPS with clients. In the words of the climate change group's lead economist, "this mainstreaming of climate into everything we do is what really changes everything…. It puts climate-informed development on the table in a systematic manner and helps our clients unlock the opportunities of low-carbon, resilient development."[392]

As of FY14, in compliance with the guidelines of the WB environment department, GHG accounting was phased into energy, transport and forestry investment projects and extended to the agriculture sector in 2016, along with disaster and climate risk screening.[393] In 2017, to heighten transparency around its operations' carbon footprints, the WBG agreed to: (i) report on the GHG emissions from the investment projects it finances in key emissions-producing sectors and publish these annually from 2018 onward, and (ii) apply a shadow price on carbon in the economic analysis of all IBRD/IDA projects in key high-emitting sectors where design has begun since July 2017.[394]

In January 2021, the WBG introduced a new resilience rating system to support the design and scale-up of climate adaptation actions that will measure a project's climate risk and the degree of resilience it confers on a community or systems. This quality-at-entry rating will promote the design of projects that build wider systemic resilience and create "a global standard for financial markets," including other MDBs, to increase resilience outcomes on the ground."[395]

392 https://www.worldbank.org/en/news/immersive-story/2020/09/08/5-years-of-climate-leadership-the-world-bank-groups-first-climate-action-plan

393 https://www.thegpsc.org/sites/gpsc/files/partnerdocs/anne_schopp_ghg_accounting_at_the_world_bank_gpsc_april_24.pdf

394 https://www.worldbank.org/en/news/press-release/2017/12/12/world-bank-group-announcements-at-one-planet-summit

395 Resilience Rating System: A Methodology for Building and Tracking Resilience to Climate Change. WBG, January 2021. The first measure a project's level of climate-risk management. The second assesses whether the project's objective will enhance climate resilience as a direct or co-benefit.

Organisational changes

The WB reorganised in 2013-14 under then-President Jim Kim and created a new department for climate change within the sustainable development global practice. The global director for climate change oversees commitments to Bank-wide targets on climate change, and at the sectoral and regional levels. Tagging projects with climate change themes and incorporating climate change into risk assessments in project preparation and as key project indicators in implementation and evaluation have been instrumental in the WB's ability to set and systematically surpass targets in the last five-year period.

New thematic work streams for CMA

The WB has launched two new initiatives. One on NbS is designed to lower risk and enhance resilience to climate impacts in the water sector; the other addresses the marine realm as one aspect of the blue economy (see Box 28).

Box 28: PROBLUE and the blue economy

The WBG has been incorporating a coastal and marine agenda into in its policies and operations for more than 25 years. The result is a programme on the Blue Economy, in response to increasing client demand, and to the recognition that the ocean plays an important role as an engine for economic growth and that its ecosystem goods and services are the basis for cost-effective CMA. The programme takes a multi-pronged, co-ordinated approach to ensuring the protection and sustainable use of marine and coastal resources. Its active portfolio value is USD 5 billion with a further USD 1.65 billion in the pipeline. Projects range from implementing large regional fisheries programmes in Africa and the Pacific, to tackling marine (plastic) pollution, supporting coastal development with an emphasis on addressing erosion and the other effects of climate change.

PROBLUE is fully embedded in the WBG blue economy programme, a new umbrella multi-donor trust fund housed at the WB to support healthy, productive oceans. With USD 150 million in trust funds from bilateral donors.[396] PROBLUE supports the implementation of SDG 14 to Conserve and Sustainably Use Ocean and Marine Resources for Sustainable Development.[397] PROBLUE focuses on four key themes: (i) the management of fisheries and aquaculture; (ii) the threats posed to ocean health by marine pollution, including litter and plastics; (iii) the sustainable development of key oceanic sectors such as tourism, maritime transport and off-shore renewable energy, and (iv) building the capacity of governments to manage their marine and coastal resources in an integrated fashion for long-lasting benefits to countries and communities, including the use of NbS to climate change.

Source: https://www.worldbank.org/en/topic/environment/brief/the-world-banks-blue-economy-program-and-problue-frequently-asked-questions

These initiatives build on the power of well-managed natural systems to deliver both mitigation and adaptation benefits along with biodiversity and pollution abatement benefits. The WB has been supporting investments in NbS for over a decade, and has integrated it in approximately 100 projects across 60 countries.[398] These natural solutions include urban flood protection through wetlands in Sri Lanka and restored mangrove forests to enhance fisheries and prevent coastal flooding and erosion in Vietnam.

396 https://www.worldbank.org/en/topic/environment/brief/the-world-banks-blue-economy-program-and-problue-frequently-asked-questions

397 PROBLUE is supported by Canada, Denmark, the EC, France, Germany, Iceland, Norway, Sweden and the US.

398 *Convenient Solutions to an Inconvenient Truth* highlighting ecosystem-based solutions was published by the WB Environment Department in 2009.

Formally integrating NbS into the infrastructure sector has been a work in progress for the WB and its NGO partners. A key challenge is to demonstrate and quantify revenue streams that would drive private investment in the provision of NbS. This effort got a boost recently from the WBG, the GDRRI and the WRI collaborating. *Integrating Green and Gray – Creating Next Generation Infrastructure* is a joint report from this partnership that builds on the analytical and technical expertise of the WBG and WRI to identify cost-effective natural solutions accessible to poor countries.[399] The CIF will launch a new NbS strategic investment programme later this year.

Enhancing coastal ecosystem services to build resilience along highly exposed coastlines, where coastal economies depend on proximity to and the productivity of marine resources is the focus of a new West Africa coastal areas management programme.[400] About 56% of West Africa's GDP is generated in coastal provinces, home to one-third of the population. The cost of coastal erosion, pollution and flooding damage to countries along the exposed Gulf of Guinea (Togo, Benin, Senegal and Côte d'Ivoire) is estimated at USD 3.8 billion per year, and 13 000 related deaths. To reduce exposure and vulnerability to these risks and help bridge financing gaps, the programme is partnering with the WB's Infrastructure Finance, PPPs & Guarantees Global Practice. The arrangement is helping the programme team integrate wetlands restoration and other cost-effective NbS along with more traditional infrastructure development to lower risk for private sector investment in resilient and sustainable coastal development in West Africa.

Incorporating COVID-19

In response to the COVID-19 crisis, the WBG is providing countries with USD 160 billion in financing, including USD 50 billion in IDA grants and other concessional financing from February 2020 through June 2021. Like other MOs and the MS, the WBG sees the economic recovery as an opportunity to build back better on a green, resilient, and inclusive path to growth. Examples of this include additional financing for renewable energy powered cold storage and transport of vaccines (Ghana, Mongolia and Sri Lanka); in Egypt, a USD 200 million operation to reduce air pollution through more efficient incineration of medical waste in the Greater Cairo region; in Mexico, a development policy financing loan worth USD 750 million was approved in November 2020 to support the government in forest conservation, in implementing a GHG emission trading system, and introducing a system of standardised urban air quality monitoring accessible to the public. A second policy loan supports climate change budget tagging in the federal budget, making it possible to better monitor and track NDC actions.

399 https://www.worldbank.org/en/news/feature/2019/03/21/green-and-gray

400 https://blogs.worldbank.org/ppps/maximising-innovation-and-finance-coastal-resilience-west-africa and https://www.wacaprogram.org/

12.C What WB lessons can inform the MS response to the climate crisis?

The WB's commitment to addressing climate change under SDG 13 and to supporting countries to achieve the Paris Agreement goals appears to be systemic and substantive. Its convening power and resource mobilisation for climate finance is evident. Both in terms of mobilising external finance and directing its own resources to address climate change in developing countries, the WB has led MOs in total commitments.[401] Mainstreaming climate change across IBRD, IDA, and IFC and partnerships with other MOs and agencies in the climate landscape has resulted in a wealth of experience and good practice, which WB shares through data tracking, knowledge management, annual reports and hundreds of technical publications each year, and through its global convening of partners.[402] Some lessons are noted below.

Effective institutional leadership on climate change can transform MO commitments under the Paris Agreement from obligations to sustained, strategic organisational targets that can increase impact beyond the institution. Among MDBs, the WBG has been on the front lines of climate action since the early 1990s. This commitment has grown under the leadership of climate champions in the institution. The WB's pivot to CsA, its ramping up of IDA investments in green electrification in Africa, its support for decarbonising the energy sectors of middle-income countries through renewables and greater efficiency and, most recently, bringing investments in adaptation on a par with mitigation, are examples of the WB's agility in aligning its priorities with the changing demands of the times.

Concessional resources are key to unlocking significant co-financing in the form of loans, impact investing, venture capital, and equity investments. The WB has been extremely successful at using such concessional resources to leverage its own corporate funds to increase its targets and commitments to climate action. In partnership with other MOs, the GEF, the GCF, and the special CIF, the WB has succeeded in introducing innovation in the power and transport sectors to increase energy efficiency and reduce GHG emissions. It has replicated CsA, integrated landscape approaches to reduce land degradation and deforestation, and piloted NbS for coastal resilience and carbon sequestration. Using these grant funds to demonstrate the financial and technical feasibility of innovation serves to de-risk future investments and attract the private sector engagement that will be needed to achieve the necessary scale for transformational impact.

Using grant funds for upstream policy planning as part of policy reform operations can help build trust and support less attractive elements for which countries may find it difficult to borrow. Aligning these policies with international best practice can help set industry standards and level the playing field for direct foreign investments or through PPPs that are climate-friendly, financially viable, and sustainable.

Metrics to monitor and assess climate investments should be standardised across MOs and go beyond inputs and outputs to assess outcomes. This is essential if institutional investment targets are to result in meaningful impact for SDG 13 and the goals of the Paris Agreement. Increased rigour and harmonisation of metrics in mitigation and adaptation and tracking performance over time (as with the WB's new resilience rating system) are part and parcel of alignment with the Paris Agreement.

Better co-ordination with other MOs, particularly at country level, can help optimise support for NDC implementation. This is particularly true in co-ordinating policy dialogue on issues like removing energy sector subsidies , identifying alternatives to upstream fossil fuels development, harmonising industry standards for investment, and in the case of post-COVID-19 recovery, incorporating opportunities to build back better into the country's LTS for updating and achieving its NDCs.

401 MDB Climate Finance Tracking System.

402 CGIAR, WRI, etc.

Reducing emissions in line with the latest IPCC models to avoid catastrophic climate impacts under a 2°C world between now and 2030 will require transformational change. This cannot happen without significant investments in R&D and science and technology to nurture the breakthrough technologies that will allow countries to leapfrog business-as-usual models to greener, climate-friendly growth paths. Setting aside trust funds for global public goods and partnerships with the scientific and engineering communities to catalyse innovation and out-of-the-box solutions could accelerate this trajectory. Strengthening collaboration with institutions within the MS that support science and innovation and reaching out to thought leaders and accelerators of change outside the MS such as universities and engineering R&D firms to commercialise promising carbon capture and storage models will be essential to achieving transformation at the pace and scale required. Engaging civil society is also key for creating the demand for greener products that help drive market transformation.

Bridging the financing gap between NDC demand and public resources remains a huge challenge. MDBs can provide only a fraction (less than 1.5%) of this USD 1 trillion in annual demand, which puts a premium on leveraging every dollar spent to access new and additional finance. In partnership with other IFIs, the WBG can use its expertise and convening power to help green the asset portfolios of private investors and other banks. Examples include building on the concept of green bonds piloted by IFC in 2010; USD 10.387 billion have been issued across 172 bonds in 20 currencies to create climate-friendly index funds of corporations that have aligned their practices with the Paris Agreement. By publicising green investors and funds and using scorecards or other rating systems to identify bad actors, it may be possible to steer larger volumes of investment toward emerging markets in renewable energy, circular economy business models, and NbS that deliver multiple economic, social and environmental/climate benefits. The UNEP-Financial Investment partnership with the global financial sector to accelerate the decarbonisation of investments (Net Zero Owners Alliance) and transform financial markets to become fully aligned with the Paris Agreement is an excellent example.[403]

403 https://www.unepfi.org/

www.mopanonline.org
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