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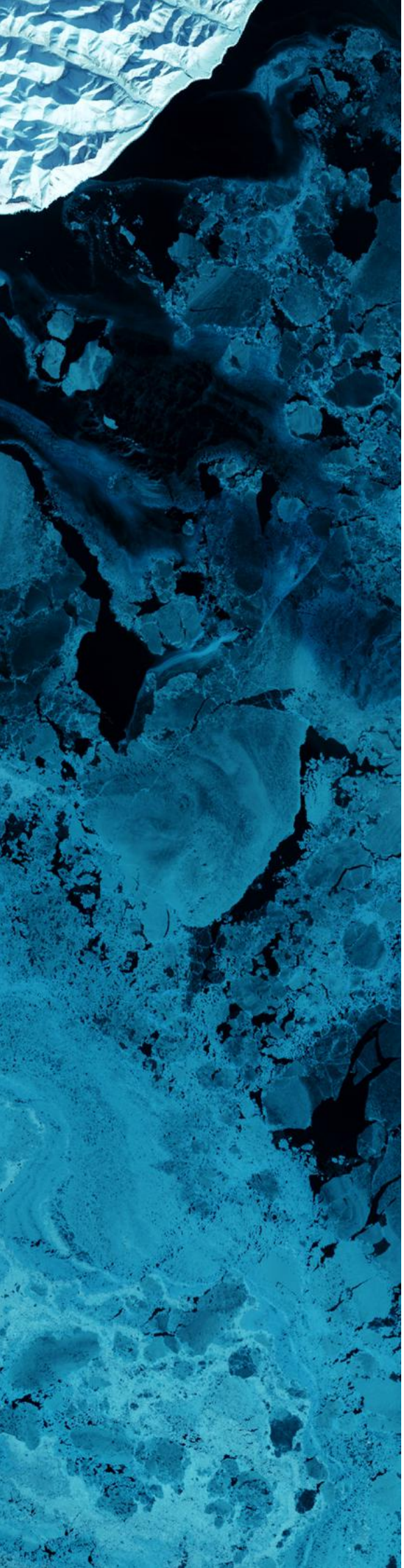
LESSONS IN MULTILATERAL EFFECTIVENESS

Pulling Together: The Multilateral Response to Climate Change

VOLUME I

MOPAN



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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
AsDB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
AU	African Union
BINGO	Business and Industry Non-Governmental Organization
CAN	Climate Action Network
CBD	Convention on Biological Diversity
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
E3G	Third Generation Environmentalism
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
ENGO	Environmental Non-governmental Organization
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
GAVI	Global Alliance for Vaccines and Immunization
GCF	Green Climate Fund
GCIP	Global Cleantech Innovation Programme
GEF	Global Environmental Facility
GEO	Global Environmental Outlook Report
GF	Global Fund to Fight AIDS, Tuberculosis and Malaria
GGWI	Great Green Wall Initiative
GHG	Greenhouse Gas

IA	Implementing Agency
ICARDA	International Centre for Agricultural Research in the Dry Areas
ICIs	International Cooperative Initiatives
ICUN	International Union for Conservation of Nature
IDB	Inter-American Development Bank
IDBG	Inter-American Development Bank Group
IDDRI	Institute for Sustainable Development and International Relations
IDFC	International Development Finance Club
IEA	International Energy Agency
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
IGO	Intergovernmental Organization
IISD	International Institute for Sustainable Development
IMF	International Monetary Fund
IMO	International Maritime Organization
INDC	Intended Nationally Determined Contributions
IP	Impact Programme
IPCC	Intergovernmental Panel on Climate Change
IPO	Intellectual Property Office
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
LGMA	Local Government and Municipal Authorities
LNG	Liquefied Natural Gas
LTS	Long-Term Strategies
LULUCF	Land Use, Land Use Change and Forestry

MDB	Multilateral Development Banks
MEF	Major Economies Forum
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
RINGO	Research and Independent Non-governmental Organisations
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
TUNGO	Trade Union Non-Governmental Organization
UNCCC	United Nations Convention on Combatting Climate Change
UNCCD	United Nations Convention to Combat Desertification
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
YOUNGO	Non-governmental Youth Organisation

OVERVIEW

The Multilateral Organisation Performance Assessment Network (MOPAN) is an independent network of 20 countries[1] **sharing a common interest in improving the effectiveness of the multilateral system.** *MOPAN commissioned this analytical study to build upon its well-established performance assessments, adding value by offering a contribution to system-level learning about the multilateral response to climate change. This study is one of the first in a series of Lessons in Multilateral Effectiveness being conducted by MOPAN on a range of salient topics related to the multilateral system.*

Climate change is the defining challenge of our time

Growing concerns over climate change have led the international community to increase commitments to reducing greenhouse gas emissions. Such concerns culminated in 2015 with the adoption of the Paris Agreement at COP 21, which set the triple long-term goal of limiting global warming to well below 2 degrees Celsius, pursuing efforts to limit it to 1.5 degree Celsius, and increasing the ability to adapt, and aligning finance flows with a pathway towards low greenhouse gas emissions and climate-resilient development. The same year, governments signed the 2030 Agenda for Sustainable Development, comprising 17 Sustainable Development Goals (SDGs) including SDG 13 on Climate Change. **Multilateral Organisations (MOs) and the Multilateral System (MS) are key actors and partners in supporting countries achieve these goals.**

The level of country commitment presently varies. The world is not currently on track to limit global warming to under 2 degrees Celsius, and far off track for the 1.5 degree Celsius goal. G20 countries, which currently account for about 72% of GHG emissions, have a key role to play in reaching the Paris climate goals. The picture is changing rapidly and not all data are reliable, but in 2018, the developed G20 countries accounted for about 14% of the global population and 25% of GHG emissions, while the emerging G20 countries accounted for about 49% of the global population and 47% of GHG emissions.[2] The developed countries have the greatest capacity to reduce emissions rapidly, to pilot and scale up carbon neutral and climate resilient approaches to development, and to work with developing countries to grow their economies on inclusive, low carbon, sustainable growth paths. At the same time, the large G20 emerging economies such as India, Indonesia, Brazil, and above all China, which now accounts for about one-quarter of global GHG emissions, can also significantly contribute by scaling up their levels of ambition. The MS, for its part, has broadly responded through partnerships, research, capacity building, knowledge and information sharing, and advocacy. MOs have also responded by scaling up their financial and technical support for climate adaptation and mitigation in both low- and middle-income countries.

To mobilise resources at a scale commensurate with the challenge requires significantly scaling up domestic resource (public and private savings) mobilisation, tapping the vast global savings pool, and leveraging private sector investment. A far greater effort is needed. This includes engagements reflecting a "whole-of-government" and "whole-of-society" approach that involve enabling policies and broad stakeholder engagement and greatly increased investment at every level from local to global. Country and organisations leadership can play a key role in moving the climate agenda forward with clearly articulated

1 As at 1 July 2021: Australia, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Korea, Luxembourg, the Netherlands, Norway, Sweden, Switzerland, the United Arab Emirates, the United Kingdom and the United States; Qatar is an observer.

2 Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute (Available at: https://www.climatewatchdata.org/ghg-emissions); FAO 2020, FAOSTAT Emissions Database; CO_2 Emissions from Fuel Combustion, OECD/IEA, 2019; World Development Indicators, The World Bank, These estimates include LULUCF, of which most G20 countries are "net sequesterers."

messages, support for operationalising pertinent actions, and "soft power" including convening capacity and advocacy. But broader support is needed to pursue truly transformational change that includes strong civil society participation and effective partnerships among researchers, private industry and governments.

MOPAN examined the climate response of multilateral organisations

The impacts of global warming that have driven a growing response from the MS are the background for this study. The United Nations Convention on Climate Change (UNFCCC) entered into force in 1994, ratified by 197 parties, including all United Nations member states. It sought to stabilise greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system.

The purpose of this study is to review how MOs and the MS more generally are responding to climate change within the context of the Paris Agreement and SDG 13, and the upcoming COP 26. More precisely, the study seeks to provide insights into the "direction of travel" of MOs and, through them, the MS, by studying how selected MOs work with countries to address the challenge of climate change. The study provides key lessons and policy options for acceleration of climate action as the international community prepares for COP 26.

This study is a learning exercise as it seeks to provide insights into the constraints and opportunities faced by the MOs, countries, and the broader MS in addressing climate change. It is not an evaluation and does not specifically assess the effectiveness of the different MOs as regards Paris alignment, nor does it compare the performance of various MOs.

The study builds on 11 MO analyses and five country analyses that are complemented by global perspectives. The MOs selected for analysis represent the variety of roles in tackling the climate change agenda and include international financial institutions (IFIs) – the African Development Bank Group (AfDB), the Asian Development Bank (ADB), the European Investment Bank (EIB), the Inter-American Development Bank Group (IDBG), and the World Bank Group (WBG) including the International Finance Corporation (IFC), as well as the International Monetary Fund (IMF) – UN agencies including the United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), and the International Fund for Agricultural Development (IFAD), and two vertical funds – the Global Environment Facility (GEF) and the Green Climate Fund (GCF). As climate action occurs at country level, any MO response is largely shaped by the "demand" of developing countries for assistance. The country analyses therefore review in greater depth the response of the MS to the climate action priorities of five countries representing a variety of climate change contexts and challenges – Brazil, Ethiopia, India, Indonesia, and Jamaica. The MO and country analyses relied primarily on a review of MO climate-related strategies, MO country programmes, and country-specific documentation. The MO analyses benefited from feedback from MO staff members who were interviewed by the study team from Centennial Group International and reviewed draft versions. Finally, the global perspective was gathered from reviewing broader climate related studies and research undertaken by international institutions and the research and NGO communities. Interviews were also conducted with experts from the Organisation for Economic Co-operation and Development (OECD) and the Subsidiary Body for Scientific and Technical Advice (SBSTA) of the UNFCCC, as well as from global partnerships and think tanks, the Institute for Sustainable Development and International Relations (IDDRI), the NDC-Partnership, and the World Resources Institute (WRI). A reference group of MOPAN members from Denmark, Germany and Sweden guided and advised the study team.

The response has many positive facets

Integrating climate action into strategies and country programmes

All the MOs being studied have adopted goals consistent with the mandates of SDG 13 and the Paris Agreement. Most have incorporated climate change explicitly into their development strategies, policies, and safeguards. Most MOs have been working on climate change for two or more decades. Since 2015, they have accelerated their "direction of travel" by raising the level of ambition of their strategies and action plans. The IMF will publish its first climate change strategy in June 2021. MOs have integrated the principles of the Paris Agreement into their policies, safeguards, and project appraisal criteria; most now incorporate climate risk profiles in their country strategies and project reviews and support climate action through country programmes. In addition, using common methodologies, they estimate the impact of their projects in terms of GHG emissions avoided or added, or adaptation benefits. Impact methodologies are less well defined for adaptation than for mitigation, in part because adaptation benefits are often hard to distinguish from "good development". The EIB and WBG routinely use carbon shadow pricing in project economic appraisals and a number of other IFIs are doing so for GHG-intensive sectors.

No MOs still support new investments in coal-powered energy and most will only support investments in gas under limited conditions. Some MOs note that gas as a transition fuel can provide important local economic, health, and environmental co-benefits, including as a substitute for wood fuel or kerosene. The EIB, working primarily with developed countries and operating within the framework of the European Union Green Deal, has gone the furthest of the IFIs: it will support no new investments in gas after 2023.

All MOs have strengthened their capacity to address climate change. Most have organisational units dedicated to climate, some of which are part of broader environment and/or green growth departments. Some have also increased the number of climate specialists in relevant sectors and in country offices, and have provided climate training to non-specialists. Several also have brought dedicated climate finance specialists on board. Most argue, however, that staffing is still a constraint.

MO support for climate action differs by the nature of the organisation. Multilateral development banks (MDBs) are investment-focused but they also support policy dialogue and capacity building. Although many of their investments are leveraged by climate funds, the majority of the MDBs' climate finance comes from their own resources. IFAD focuses on climate-smart agriculture with a particular emphasis on adaption. UNDP operations, supported largely by the climate funds, finance a range of investment and capacity building projects. UNEP programmes focus on technical innovation and multi-country partnerships, supported by bilateral donors as well as the vertical funds. The climate funds provide financial resources to support climate action by all MOs except the IMF, which supports climate action through analysis, policy advice, and knowledge products.

Country development and climate priorities underlie the MO response in all countries. Ethiopia, for example, has incorporated green, resilient growth into its broad development strategy for a decade, and there are strong synergies between climate action on adaptation, low-carbon development, and poverty alleviation. Indonesia, on the other hand, is using its ample domestic coal resources increasingly, although some progress has been made, with support from MOs, in switching to renewables such as geothermal energy. However, the rising international demand for palm oil combined with weakly enforced regulations has led to the ongoing clearing and burning of forests and peatlands, increasing GHG emissions, and local air pollution.

All MOs are increasingly prioritising climate change action in their country strategies and there has been co-operation around large-scale programmes. For example, in Jamaica, a country highly vulnerable to catastrophic tropical storms whose economy depends on beach tourism, joint support by the IDB, the WBG and the IMF, and the use of climate funds have helped strengthen the country's disaster response capacity. Climate-related MO action in Ethiopia, vulnerable to drought and where 80% of the population lives in rural areas, focuses on large sustainable land and water management, climate-smart agriculture programmes, and improving access to clean energy.

Many MOs also measure and account for the climate impacts of their own internal operations as part of their commitment to corporate social responsibility. Most MOs began reporting these emissions before 2010; the AfDB is currently estimating its baseline. Most MOs also have demonstrated net carbon neutrality over the last ten years by offsetting their emissions through a variety of instruments. These include investments in climate-neutral or net negative projects such as forestry or green energy, renewable energy credits (RECs), certified emissions reductions (CERs), and emissions trading with other organisations.

Scaling up climate finance

Since 2015, MOs have substantially increased the share of climate finance in their operations and the proportion dedicated to adaptation. MDBs have used a common methodology to track adaptation and mitigation finance since 2011, and the 2018 Joint Declaration on Paris Alignment has given further impetus for closer collaboration. They have set and mostly met annual targets for climate finance although the picture is more mixed for 2020 when resources had to be diverted to tackle the impacts of the COVID-19 pandemic. Climate finance as a share of MDB operations has risen from an average of around 20% in 2015 to roughly 33% in 2019, representing a total of USD 50 billion.[3] The share of adaptation in climate finance has increased substantially for some MOs, to 40% in 2019 for the IDB and the WBG, and over 50% for the AfDB. Some MOs have noted that increasingly demanding targets for climate finance in a resource-constrained environment may have, in some cases, resulted in skewing resource allocation towards climate at the expense of other development priorities (for example, education or improved public sector financial management). Many interventions address both climate and broader environmental and development objectives that are best addressed in a more integrated way.

The three largest dedicated climate funds – GEF, the Climate Investment Funds (CIFs) and the GCF – had provided a key role in leveraging investment for the other MOs under study. Since 1992 the GEF has provided a total of USD 8.5 billion in climate finance and leveraged USD 66 billion in co-financing.[4] It has enabled MOs to pilot new approaches in mitigation and in adaptation in a range of areas. Since 2008 the CIFs have provided a total of USD 8.6 billion in grants and concessional loans, leveraging USD 53 billion of co-financing, 57% public and 43% private.[5] They include dedicated programmes for clean technology, climate resilience, renewable energy in less developed countries, and improved forest management. Since 2011, the GCF has committed USD 8.3 billion, leveraging USD 30 billion in co-financing, including from the private sector.[6] Its funding is split 50:50 across adaptation and mitigation, including programmes with cross cutting benefits. Half of the adaptation funds are earmarked for particularly vulnerable developing countries.

Climate financing needs present major challenges. Needs change over time. Solar energy costs, for example, are now far lower than they were even a decade ago, and directly competitive with most fossil

3 MDB Climate Finance Annual Reports.

4 Report of the GEF to the 26th Session of the Conference of the Parties.

5 https://www.climateinvestmentfunds.org/

6 https://www.greenclimate.fund/

fuel-powered energy. Views diverge on how to count the commitment to deliver USD 100 billion of climate finance annually to developing countries, as highlighted by the independent expert group on climate finance in their recent report.[7] The enabling policy environment also influences costs. However, estimates of global annual climate financing needs currently range between USD 1 to USD 4 trillion, while the current annual provision of MO climate finance is USD 55 billion and of climate funds USD 3 billion.[8]

These figures highlight three challenges. First, the mobilisation of resources at the required scale will need massively scaled-up domestic resource (public and private savings) mobilisation, tapping the global savings pool, and leveraging private investment. Scaling up domestic resource mobilisation has implications in turn for increasing tax and other revenues. Second, policy reforms are required to motivate economy-wide climate-friendly actions and to enable private investment in climate change. Third, transformational change, including through new technologies and techniques, is needed. The figures on climate financing needs can be compared with annual spending on energy in 2019, which totalled USD 3.7 trillion (oil), USD 2.7 trillion (power, all sources), USD 0.6 trillion (gas) and USD 0.2 trillion (coal), for a total of USD 7.2 trillion, which is far greater than the "highest" estimate of annual climate finance needs.[9]

Supporting countries beyond financing: knowledge, capacity building and partnerships

All MOs support and disseminate climate-related analysis and other knowledge products that can help build consensus for climate-friendly policy reforms. The focus of these knowledge outputs, often prepared through partnerships with countries and/or scientific institutions, varies according to the MO and covers a very wide range. UNEP produces flagship publications such as the annual Emissions and Adaptation Gap Reports. The regional IFIs focus on areas that are of particular interest to their developing member countries. The IMF produces knowledge products that assess the impact of climate change on the macro-economic and financial sectors. MOs share good practices through a multitude of partnerships, learning events, investment and technical assistance operations, and through their knowledge work and policy dialogue.

Climate advocacy requires co-operation among multiple stakeholders. These include civil society and local communities as well as NGOs, local and national governments, think tanks, private corporations, and the MOs that work with many of these same stakeholders through their operational programmes. While the WBG and regional development banks engage widely with ministries across sectors on the climate and development agenda, the IMF has a particular role to play with ministries of finance and economic planning in explaining the fiscal and macro-economic risks of climate change and the benefits of policy reforms in favour of low-carbon, climate-resilient growth. Understanding and influencing public opinion more broadly is also important. While international NGOs play a role in advocating for greater climate action by MOs and developing country governments, they have more scope to work at country and sub-national levels in developing countries to help build support for climate friendly policies.

All MOs support member countries in fulfilling their NDCs and broader Paris Agreement commitments. Many countries lack GHG inventories or accurate means of estimating adaptation or mitigation costs. There is a multiplicity of grant-funded channels but one of the largest, the GEF Capacity-Building Initiative for Transparency (CBIT), aims to strengthen transparency-related activities under Article 13 of the Paris Agreement. The NDC Partnership, hosted by WRI, is a coalition of governments and international institutions

7 https://www.un.org/sites/un2.un.org/files/100_billion_climate_finance_report.pdf

8 "Vivid Economics" 2020 Transformative Climate Finance Options https://www.vivideconomics.com/casestudy/transformative-climate-finance-a-framework-to-enhance-international-climate-finance-flows-for-transformative-climate-action/

9 https://www.iea.org/reports/world-energy-investment-2020/key-findings

that aim to support countries to achieve climate and SDG targets. Overall, there is room for consolidating the number of NDC co-ordination and support instruments, as each comes with its own administrative costs and reporting requirements. Long-Term Strategies (LTSs) have attracted less attention and demand, despite the important contribution they can make to driving and shaping the short-term actions outlined in NDCs and in integrating climate action into broader development strategies. Thus far, only 29 countries, of which six are developing countries, have submitted LTSs.

While all MOs are in favour of innovation and new technologies in principle, their operating frameworks constrain practical support, especially by IFIs. These frameworks include stringent procurement policies, concerns about operations perceived to be "safeguards risky," especially those involving restrictions on land use or resettlement, and pressure to deliver rapid results. Furthermore, research and development (R&D) is not within the core mandate of most of the MOs under study; but support for testing and piloting innovations, and accepting that some will fail, is a key element in meeting global climate goals. To accelerate technological change in support of increased climate action, co-operation between publicly funded researchers and private corporations is often necessary. Yet public budgets in areas such as energy research and low-carbon industrial processes have not kept pace with their critical importance as a means for tackling the climate change challenge.

The response does not, however, meet the scale of the challenge – some key lessons for acceleration

While MOs and the MS more broadly have responded to the challenge of climate change in their work in developing countries, meeting Paris goals requires that the current pace of country engagement accelerate. Despite ongoing efforts, the challenge of slowing and reversing climate change remains greater than ever. Current trajectories indicate that the goal of keeping the rise in global temperature below 2 degrees Celsius is highly unlikely to be met; the goal of 1.5 degree Celsius is even less likely to be met.[10] NDCs vary widely in their level of ambition and few in developing countries are supported by LTSs. The COVID-19 pandemic has resulted in a temporary reduction in global GHG emissions however, it is already apparent that carbon emissions are rebounding as result of the short-term crisis response.[11]

10 IPCC, UNEP, Emissions Gap Report 2019; BCG Analysis.

11 See, for example, https://www.nature.com/articles/s41558-020-0797-x

Lesson 1: Lack of "whole-of-government" NDCs and LTSs hinders progress on the climate change agenda.

Countries drive the development and climate change agenda but NDCs are not always owned by the "whole-of-government." Commitments to addressing climate change vary across countries, but they require full national ownership, including in the ministries of finance and economy that control resource allocation and sit at the apex of decision making. However, in a good number of countries, ministries of the environment are the ones that often primarily develop NDCs.

LTSs are optional under the Paris Agreement but essential for addressing short- and long-term climate and development goals. LTSs can allow for development of MO Paris Agreement-aligned pathways, based on sectoral plans and fully embedded in the broader national development agenda. They can help governments to: (i) plan for climate resiliency and net-zero carbon emissions informed by science; (ii) sequence and update their NDCs; (iii) anticipate and better manage trade-offs, and (iv) design the policy and investment roadmaps needed to make it possible to achieve their climate goals in line with the Paris Agreement objectives. However, the LTSs' response to date has been limited, suggesting that MOs need to step up and co-ordinate their support for LTSs formulation, including policy formulation, structuring financing, and implementation.

MO influence over policy varies by country and may be limited in the larger middle-income countries. Until recently, the Brazilian government, for example, was committed to reducing deforestation in the Amazon and the Cerrado. The current federal administration, however, makes short-term export revenues for large-scale commercial farming and ranching activities a priority, even at the cost of increased forest clearing and burning. In Indonesia, bilateral agencies as well as the WBG and the ADB have co-operated around a USD 2 billion long-term programme to assist the country in transitioning to a more inclusive, sustainable energy sector. However, the programme has had mixed success, due in part to changing government priorities and frequent changes in ministerial responsibility.

The current leaders of several key MOs that have been effective in transforming the climate agenda in their organisations could strengthen the dialogue. These leaders have clearly expressed their commitment to the goals of the Paris Agreement and the 2030 Sustainable Development agenda, as illustrated by the recent IMF-World Bank Spring Meetings, and have highlighted the urgency of the need to address the climate change challenge in key international fora. Such leadership could be usefully deployed in country dialogue with governments to raise the visibility of climate issues and the urgency of developing strategies and action plans to align the most energy intensive and "climate unfriendly" sectors of the economy with mitigation and adaptation pathways consistent with the Paris Agreement.

Opportunities moving forward

- **Recognising that countries drive the climate agenda, MOs and other parts of the MS need to focus on support for developing NDCs and LTSs that are integrated into broader country development strategies.** The engagement of key sector ministries and ministries of finance and planning in this process is essential. The IMF could usefully engage directly with governments and other MOs in articulation of LTSs. It is in an excellent position to lay out the economic impact of climate change to country leaders, ministers of finance, economics, and planning, and central bank governors to bring climate issues to the foreground and build commitment of core government agencies to LTSs.
- **Country commitment at the central leadership level is vital. Where it is lacking, MOs should look for other entry points and use opportunities to remain engaged.** Examples include enhancing policy dialogue and maintaining a consistent message together with, or by supporting actions specific climate

relevant sectors or at the sub-national level, including in cities. Co-ordination among MOs, including around policy advocacy, is especially important in countries like India, China, Indonesia, and Brazil, where there is the most to gain from realigning broad sectoral policies with NDCs and LTSs consistent with a 1.5 degree Celsius target. More generally, MO leaders need to engage not only at the global level but also at country level, and particularly with leaders in those countries where ambition for addressing climate change is lagging.

- **Recognising that MOs can only influence countries to a certain extent, there is scope for stronger engagement between MOs, NGOs and civil society at country level.** MOs should work with NGOs and civil society to engage more on enhanced climate-related awareness-raising and advocacy, including on such crosscutting issues as the public health and welfare impacts of climate change and different policy approaches. But civil society itself, as an important element in the broader MS, has a key role to play in creating demand for reforms and inter-generational equity on climate change. There is room for stronger partnerships between international and local NGOs.

Lesson 2: The focus on measuring climate finance may distract from thinking climate as part of broader development.

Climate finance has been scaled-up and shifted towards adaptation, but financial flows for adaptation and mitigation are not directly comparable. As a share of total climate finance, adaptation has increased and covers a broad range of areas from disaster risk reduction, improved weather and climate forecasting and coastal resilience, adaptation in agriculture, land and water resource management, to climate resilient infrastructure, flood management and improved urban planning. The challenge is that these interventions are generally part of broader development programmes and there are differences between the way mitigation and adaptation flows are calculated. Mitigation flows are assessed on the basis of total cost, as the intervention normally implies a switch in technology or fuel affecting the whole investment; adaptation flows are evaluated on the basis of the incremental cost of augmenting the design of an infrastructure or landscape intervention to make it climate resilient. Furthermore, many climate-friendly investments, including in improved land and water management, climate-smart agriculture and city greening, contribute to both adaptation and mitigation. Adaptation flows may therefore be "undercounted" if narrow definitions of climate finance are used.

"Good development" can improve the enabling environment for climate action and needs to remain a priority. Improved public sector financial management, for example, although not generally "mapped" to climate action, can help mobilise domestic resources for adaptation and there must be a greater focus on mobilising domestic resources. Moving forward, concessional financing could usefully be focused largely on adaptation and building climate resilience, where the public good benefits outweigh direct revenue earning benefits and are long-term, as well as on lower income, vulnerable low-emitting countries and the small island developing states (SIDS). It should be recognised, however, that some MOs, especially the MDBs, have a limited appetite for adaptation investments perceived as risky, especially those which carry reputational or safeguards risks involving restrictions in land use, for example in areas such as urban flood management. For mitigation, concessional finance could focus on "pushing the envelope" on the introduction of new and innovative technologies.

Support for adaptation is best provided through systemic, long-term interventions that take into account the current trends in global temperature rises. It would useful for support provided to individual, small-scale interventions to include elements for testing scalability and transformative impact. There are several examples of small-scale adaptation projects that have succeeded over time in leveraging support for much larger scale programmatic efforts. Examples include sustainable land management programmes in

Ethiopia, coastal zone management in India, disaster preparedness in Jamaica, and the Great Green Wall of the Sahel. Nevertheless, countries and MOs alike need to prepare a "Plan B" that explicitly recognises and models the impact of a greater than 2 degrees Celsius temperature rise and the corresponding needs for increased adaptation in the relevant timeframe.

The COVID-19 pandemic reduced resource availability for climate action in 2020 for some MOs but opportunities exist moving forward to focus on a green recovery. Governments and MOs responded rapidly to the pandemic with programmes focusing first on the health emergency and then on protecting livelihoods as economies contracted. MOs argue, moreover, that the pandemic offers an opportunity to build back better, and to promote a green, resilient transition, and some have established technical-assistance support facilities in this regard. However, one analysis of support packages in 50 countries illustrates that "green spending" comprised only 18% of total outlays of nearly USD 2 trillion through end-2020.[12]

Opportunities moving forward

- **The broader MS should focus more on moving beyond measuring "inputs" (climate finance) to assessing results for greater long-term resilience or transitions to carbon-neutral growth.** This should include the result of policy reforms as much as investments.
- **The focus on climate finance should not come at the expense of broader climate-friendly development.** Investment in policies and programmes with benefits in health, education, reduced workloads, better water quality, broader ecosystems health, and more liveable cities as well as broader governance and public sector management reforms should continue to be the focus; many of these will also have broad crosscutting climate benefits.
- **Domestic resource mobilisation has an important role to play in climate finance.** MOs should work jointly with countries on identifying specific policy actions in this regard including improving the efficiency of taxation systems and revenue capture and measures to increase domestic savings.
- **The authorising environment of MOs to invest in areas perceived to be "safeguards risky" needs to be improved.** MOs are particularly reluctant to engage in programmes that may involve resettlement, despite the safeguard processes that exist, because of potential reputational risks. But support in complex areas such as flood management and protection, urban and coastal land use and transport planning, needs to be scaled up to increase investment in adaptation and resilience.
- **The COVID-19 recovery period offers an opportunity for a greater integration of climate action and transition to greener, more resilient, inclusive development paths into broader development strategies.**

Lesson 3: The Paris goals cannot be achieved without a massive scale-up of private sector-led investment in climate change.

MOs can supply only a fraction of the demand for climate finance. Domestic resource mobilisation is important and more likely if NDCs/LTSs are mainstreamed into broader government programmes. There is also a premium on leveraging every dollar spent to access new and additional finance. Crowding-in private sector finance through equity investments at the project level or nudging large-scale investments in climate-friendly and well-performing portfolios at the industry level will be essential to meet the Paris climate targets. The IFIs can use their expertise and convening power to help "green" the asset portfolios

12 https://ourworldindata.org/policy-responses-covid; UNEP/Global Recovery Observatory, 2021.

of private investors and others, including commercial banks. Examples include building on the concept of Green Bonds, for which EIB, IFC and the WBG and the AfDB have played leading roles in market creation, and establishing climate-friendly index funds of Paris-aligned corporations.

For private investors, clarity on both climate policies and the broader private sector investment climate is necessary. NDCs need to be accompanied by clear sectoral implementing regulations, standards, and policies, including in pricing fossil fuels, performance standards and incentives to reduce uncertainty, and levelling the playing field for private investment. Consultations with the private sector are necessarily a key part of this process. A supportive investment climate and robust banking sector are also important "enablers," along with property rights regimes, frameworks for public-private partnerships, and incentives to reduce risk for investment in new areas.

Concessional public finance provided through a variety of mechanisms, such as blended concessional finance, risk-sharing facilities and pre-investment financing, can play a significant role in unlocking private finance. "Brute force" subsidisation approaches are generally disfavoured for a variety of reasons. This argues for the internalisation of environmental costs and benefits in climate-sensitive markets through pricing, taxation, and regulatory approaches. A lack of adequate pre-investment and feasibility study financing hinder project pipeline development.

Climate finance needs to be responsive to private sector investment criteria. Climate financing mechanisms must be agile and quick-reacting, willing to tolerate substantial risk, able to commit funds in substantial size blocks to drive market transformation, support a wide range of instruments, and feature transparent and predictable decision-making. The private sector's project cycle normally operates at a faster pace than most external public funding decision, with most investments moving from identification to approval in nine to 15 months.

A remaining challenge is to ensure that investments provided through financial intermediaries are climate friendly. These institutions cannot easily be subject to the same levels of scrutiny as the primary lending organisations. This is especially true for on-lending to micro, small, and medium-size enterprises (MSMEs). Nonetheless, relatively straight forward screening criteria and reporting requirements can ensure the application of "do no harm" principles.

Opportunities moving forward

- **NDC/LTS formulation needs to engage more with the private sector to identify and help alleviate key constraints to up-scaling private investment in climate action.** LTSs need to include support for enabling policy environments for the private sector as well as public investments. Carbon pricing may be a highly effective policy option and the MOs should encourage its adoption, although at the country level, there is little consensus for this as yet. Climate finance needs to scale-up the leveraging of private sector finance by using grant and concessional resources strategically to support project development, de-risk, and aggregate investments, strengthen capital markets, and address policy, regulatory and pricing bottlenecks.
- **Effective private sector investment at scale also requires improvements in the enabling environment that go beyond what is typically addressed in NDCs.** These include removing price subsidies for fossil fuels, full cost-reflective purchase tariffs as necessary to encourage investment in renewables, development of a robust banking sector, a favourable environment for "doing business," including clarity with respect to property rights and contract enforcement, and clear sector regulations. By publicising green

investors and funds and using scorecards to identify non-compliant actors, it may be possible to steer larger volumes of investment from the global savings pool toward emerging markets for sustainable energy, circular economy business models, and nature-based solutions.

Lesson 4: Transformational technology is key for moving towards a carbon neutral world but the R&D required lies outside the mandate of the MOs.

Estimates of the costs of keeping temperature rise below 2 degrees Celsius have emphasised the financing gap but have not focused sufficiently on the potential of transformative technologies. Solar power is one good example. A mix of advances in technology, greater competition, changes in government policies, and support for investment in large markets such as China and India have helped to drive down costs so that solar powered energy is now becoming competitive with fossil fuel-powered energy. In a different sector, the rapid development of COVID-19 vaccines is another example. Public resources for the R&D of climate-beneficial technologies, such as new energy solutions, remain modest in many countries. This calls for strategic partnerships with R&D, science and technology and engineering enterprises to accelerate innovative, breakthrough technologies on the cusp of feasibility. Creating viable new technologies and realising significant market uptake is typically a lengthy process, and there needs to be commitment and tolerance for failure at every step from basic research, to testing, applied research, development, field testing, piloting, demonstration and commercialisation.

The early phases of the R&D cycle are outside the core mandate of the MDBs, but they can usefully support piloting new approaches and the transfer of technologies ready for commercial demonstration and scale-up in developing country environments. While IFI procurement policies generally favour mature technologies and widely available goods and services packages, there have been promising results in some areas. The IFIs' long partnership with the Consultative Group for International Agricultural Research (CGIAR), which was largely responsible for sparking the "green revolution" in agriculture, has more recently helped to test, develop, and roll out new technologies in the area of climate-smart agriculture.

Programmes focusing on "nature-based solutions" offer promising results that could benefit from greater focus and support from countries and MOs. Research and experience with earlier programmes of watershed restoration have highlighted the importance of solutions adapted to local ecosystems and that deliver multiple benefits for adaptation, mitigation and biodiversity recovery. Interest has grown in investments in green infrastructure, for example, such as coastal dune, mangrove, and wetland restoration in coastal areas. Healthy coastal ecosystems can also sequester vast amounts of carbon – up to 10 times the amount of carbon per hectare in terrestrial forests – in the form of "blue forests" and submerged organic sediments that have built up over millennia.[13] These need to be protected and accounted for. There is progress. Recent work has highlighted the potential of blue carbon certificates,[14] and Kenya, for example, has now included blue carbon in its NDC.[15]

Opportunities moving forward

- **There is scope for greater public sector support for innovation in both mitigation and adaptation.** The experience with solar energy provides one example. In a different sector, the rapid development of vaccines in response to the COVID-19 pandemic offers another. Investing in innovation is not, however,

13 https://oceanservice.noaa.gov/facts/bluecarbon.html, https://doi.org/10.1038/s41586-021-03371-z

14 https://mpanews.openchannels.org/mpanews/issue/july-august-2020-221

15 https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Kenya%20First/Kenya%27s%20First%20%20NDC%20(updated%20version).pdf,

an area of comparative advantage for many MOs, including the IFIs, given their generally modest appetite for risk. This requires the use of public sector resources as well as partnerships with research organisations, academia, and private industry.

- **There is also scope for more engagement in well-designed, integrated, nature-based solutions,** including in coastal and marine ecosystems. High value carbon sinks on land and sea must be targeted and protected from destructive practices that release these stores of carbon. They must be restored at scale to deliver sustained global and local benefits for climate, biodiversity, and food security.[16]
- **Greater involvement and innovative investment in "green and liveable cities" are needed.** The work on green buildings and e-mobility needs to be scaled up and complemented by better, more effective climate resilience-oriented land use and transportation planning.

Lesson 5: Well-designed partnerships are important. Their co-ordination and consolidation are essential.

The effectiveness of country mechanisms for co-ordinating development partners varies. Some countries have well-established systems led by ministries of planning and with sectoral sub-committees, while co-ordination is less well organised in others. This can occasionally lead to a duplication of effort and to competition, especially for scarce concessional climate finance.

MOs do co-operate through international networks and through country level work. The CIFs and the MDB Climate Finance Paris Alignment platforms have been a particularly useful means for MDBs to collaborate, including on country programming. There has also often been good MO collaboration around key large-scale climate action programmes at country level. The GEF has financed useful pilots, and some have been scaled up. However, there may be greater scope for the IFIs to work more closely at country level with UNDP and UNEP and other GEF implementing agencies to identify and scale up opportunities derived from recent innovative pilot activities for climate change mitigation and adaptation.

Multiple partnerships stretch administrative capacity at country and MO levels. Consolidation is essential. Many donor-supported facilities exist for advancing NDCs and LTSs, for example, but they are not well co-ordinated. The efforts generally involve capacity building for NDC development, costing, and reporting requirements, or facilitating the sharing and dissemination of progress regarding NDC implementation. There are multiple partnerships around NDC capacity building and multiple international partnerships, but they can occasionally crowd out the focus on country level action.[17] With the growing integration of climate considerations into the mainstream development agenda, present aid co-ordination framework agreements become increasingly relevant for co-ordinating climate action. The UNFCCC's 2023 Global Stock-take could provide political space to strengthen co-ordination and consolidation of climate-related partnerships going forward.

16 Sala, E., Mayorga, J., Bradley, D. et al. Protecting the global ocean for biodiversity, food and climate. Nature 592, 397–402 (2021). https://doi.org/10.1038/s41586-021-03371-z

17 They include NDC Advance, Africa NDC Hub, NDC Invest, NDC Support Facility, Climate Promise, NDC Action Project, and NDC-P (NDC Partnership). Some partnerships focus on support for meeting broader transparency requirements, including the Initiative for Climate Action Transparency (ICAT) and the Capacity-building Initiative for Transparency (CBIT). Each facility comes with transaction costs and reporting requirements.

Opportunities moving forward

- **There is room for better co-ordination and consolidation of partnerships, including on NDCs, at both the international and country levels.** MDB co-ordination and harmonisation with respect to Paris alignment is a good model.
- **Reaching a common definition among MS members of land use change (LUC) is an area where progress remains to be made.** As UNEP has highlighted, IPCC has articulated a definition and methodologies, but no a globally consistent, widely accepted country-level data set of LUC emissions seems to exist.[18] The issues are two-fold: first, definitions vary; second, country-level data are not robust and may not accurately measure year-to-year variations or carbon dynamics. Consequently, not all global databases include emissions from LUC, whereas in some countries they are a growing source of emissions. While the difficulties of data quality are recognised, FAO together with the research community and the SBSTA could foster an agreement on a common, easy-to-measure approach for LUC within Land Use, Land Use Change and Forestry (LULUCF) at the country level for inclusion in GHG databases, consistent with IPCC methodologies.

Lesson 6: Reducing support to fossil fuels brings challenges for transition that must be recognised.

MOs have sharply scaled down support for new fossil fuel power and policies have evolved, but trade-offs remain. None of the MOs studied support investment in new coal-fired power plants. Natural gas investments used to be but are no longer considered climate finance despite the lower carbon content and higher efficiency of gas relative to coal. Some MOs still provide support to gas distribution and power generation under certain circumstances. For example, in rural and peri-urban areas, gas provides a clean alternative to wood as a cooking fuel; it reduces the workload for women, who are usually responsible for collecting wood, and can benefit health by reducing exposure to indoor air pollution and climate co-benefits by reducing forest and land degradation from excessive cutting for fuel.

Energy transformation requires a major shift in pricing, regulation, competition, and investment climate. MO support to the required policy reform is especially important. Some external critiques of the Paris alignment of MDB financing regard support for reforms promoting greater efficiency, full-cost pricing, and private sector resource mobilisation in countries where fossil fuels predominate as supporting the use of fossil fuels. On the contrary, these reforms support lower consumption, increase the overall operational efficiency of the energy and energy-intensive sectors, and improve the enabling environment for the shift to renewables. Furthermore, experience has shown that in a favourable policy environment and after an initial government-led demonstration phase, renewables can become a predominantly private sector business. Energy transformation will not go forward without a major underlying shift in pricing, regulation, competition, and investment climate.

Investments in gas-fired power generation projects, liquefied natural gas (LNG) import facilities, and gas distribution represent an area of growing challenge. MOs recognise the risk of "stranded assets" if and when demand for fossil fuels shrinks as a result of increased international commitments to limit the rise in global temperatures.

18 UNEP Emissions Gap Report 2020, https://www.unep.org/emissions-gap-report-2020

Opportunities moving forward

- **MOs should provide greater clarity on the conditions under which they would support new midstream and downstream investment in gas**, given its contribution to GHG emissions and the long-term risks of stranded assets.
- **In the absence of a pathway for gas phase-out defined under LTSs, a number of criteria could be applied to limit consideration, on an "exceptional" basis, of natural gas investment activities.** For some countries, for example, gas provides a clean energy alternative to fuel wood for cooking, with environmental and health benefits, especially for women.

Looking beyond the lessons – questions for further enquiry

As the international community looks to boost climate action and builds on the policy proposals presented thus far, many additional questions would merit further enquiry to provide insights and ideas in support of the policy discourse and agenda to accelerate climate action. The following seven questions are presented for consideration and to be taken up by stakeholders going forward:

1. How could MOs provide further support in getting to 1.5 degree Celsius, recognising that countries must make most of the effort?
2. How can MOs more effectively address the most difficult adaptation challenges, especially in urban areas?
3. How can MOs be more effectively engaged in country-level policy reform?
4. What does it mean, in practical terms, to build back better post COVID-19? How can MOs support the effort effectively?
5. How can MOs effectively align their metrics to get more fine-grained reporting on results in terms of adaptation, mitigation, and overall resilience, moving from inputs to outcomes and impact?
6. How can the MOs take advantage of the shift toward demands for greater transparency and accountability in corporate and investor asset holdings that are not aligned with the Paris Agreement? Can MOs provide some synergistic incentives to catalyse a further shift towards green investing?
7. How can SDGs, Paris and Addis (and other relevant normative agendas) be harmonised better for coherent action?

1. INTRODUCTION

1.1 Purpose of the study

MOPAN's study series on Lessons in Multilateral Performance aims to provide learning opportunities on issues cutting across the multilateral system. These studies build on MOPAN's unique position within that system, and the well-established body of knowledge and expertise developed through its assessments of organisational performance. In contrast to MOPAN assessments, these studies do not have an accountability objective but rather are focused on learning.

The overall aim of this study is to review how Multilateral Organisations (MOs) and the Multilateral System (MS) more generally are responding to climate change. The 26th UN Climate Change Conference of Parties (COP 26) is planned for November 2021 in Glasgow, Scotland. Country leaders will report on progress towards meeting commitments made to address climate change since the COP 21 Paris Agreement in 2015 and discuss new pathways to limit global warming. The study seeks to provide insights into the "direction of travel" of selected MOs and countries as well as into the cohesiveness of the multilateral system in addressing one of the major global challenges of the 21st century. More specifically, it reviews how selected MOs are helping countries respond to climate change challenges at the policy, programme, and project levels and how well they are working together in conformity with the normative principles underlying the 2030 Agenda and the Paris Climate Agreement. The findings of the study are intended to inform preparations for COP 26, and more generally the policy discussions about the role of the multilateral system in responding to climate change. The report has benefitted from feedback from a Reference Group (RG) guiding this study, which included experts from Denmark, Germany and Sweden, as well as from the MOPAN Secretariat.

1.2 Structure of the report

Chapter 2 provides a brief overview of the climate change challenge, of the main international normative frameworks that guide the multilateral response to this challenge, and of the multilateral architecture delivering this response. It presents the key questions that the report seeks to address regarding the response of MOs and the MS to climate change, and provides the approach to the study including the rationale for the selection of the sample of 11 key MOs and 5 countries that are the subject of more detailed study in the report.

Chapter 3 addresses the organisational response of the selected MOs in more detail. It examines the extent to which the normative frameworks of the Paris Agreement and SDGs are reflected in MO strategies and policies, including safeguards, methodologies for accounting for climate mitigation and adaptation in operations, and support for fossil fuels. It also looks at the extent to which the climate change agenda has affected organisational frameworks and staffing, including a specific focus on the extent to which MOs are measuring the carbon footprint of their own operations.

Chapter 4 examines climate finance and how MOs are operating and co-ordinating at country level. It reviews the evolving focus of MO operations on climate, both adaptation and mitigation, the use of MO resources, and the various climate finance instruments including the contribution of the dedicated climate funds and private sector finance. It also provides practical examples of MO support to mitigation and adaptation, emphasising the role that climate action plays in broader development and growth.

Chapter 5 looks at the different roles of the multilateral system beyond financing, including knowledge products and policy dialogue, capacity development, innovation, and application of technology.

Chapter 6 addresses the extent to which COVID-19 recovery responses have incorporated resilience and climate action into their support programmes.

Chapter 7 provides a synthesis of lessons learnt, and some opportunities moving forward.

The Annexes provide more details on the criteria for selecting the MOs and countries. They provide summaries of the findings on each of the 11 MOs and five countries, as well as statistical tables and references. More detailed MO and country analyses are provided in Volume 2 and 3.

Partnerships are addressed as a cross-cutting theme throughout the report. They play a key role in climate finance and country operations, in sharing good practices, in supporting implementation of Nationally Determined Contributions (NDCs) at country level, and in knowledge and advocacy work.

2. POSITIONING AND APPROACH

2.1 Climate change: A defining challenge

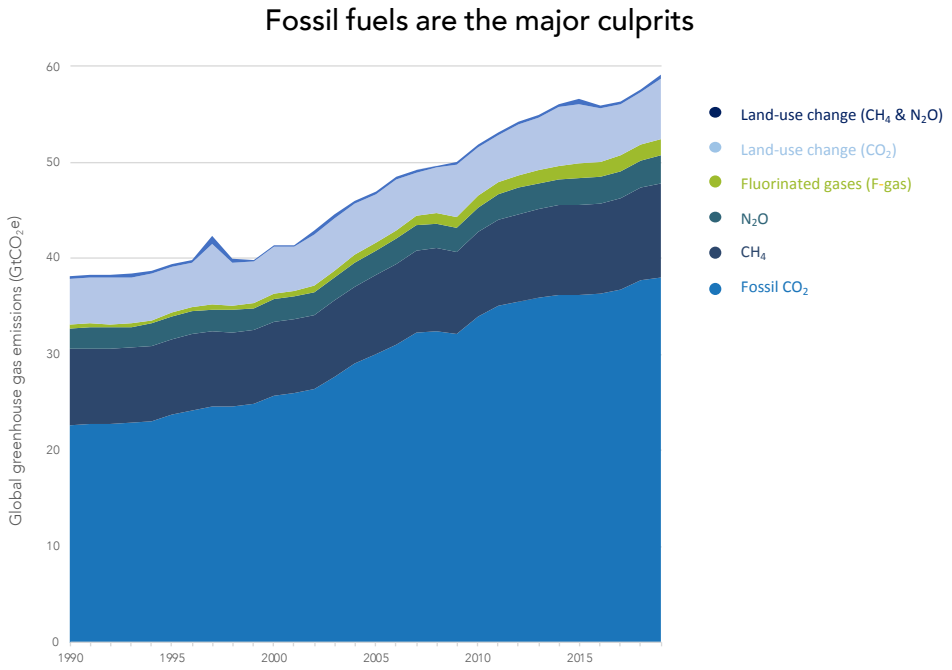
Global temperatures are currently on course to rise by significantly more than 2 degrees above pre-industrial levels by 2100. The social and economic impacts will be especially severe for the least developed and lower middle-income countries as well as the Small Island states, and there is a serious risk that recent progress in human and economic well-being will be reversed. The G20 countries currently account for 72 per cent of GHG emissions, so enhanced action on their part is critical. But emissions are growing in most countries including some of the G20. While fossil fuels, used in the power generation, transport, building and industrial sectors, are the main source of GHG globally, agriculture, land use change and forest degradation (LULUCF) are the primary source of emissions for most of Sub-Saharan Africa and much of Latin America and are substantial for some Asian countries.

Progress on climate action has been uneven. The level of ambition of Nationally Determined Contributions (NDCs) must increase rapidly to meet the Paris goals of maintaining temperature rises under 2 degrees Celsius and moving towards the 1.5 degree Celsius target. There needs to be much more focus on complementing NDCs with Long-Term Strategies (LTSs) which integrate climate action into broader country development strategies but which are optional under the Paris Agreement. In recent months a number of key countries have committed to more ambitious targets, including achieving carbon neutrality by 2050, and the political landscape is rapidly changing in the run-up to COP 26.

Climate change has been described as the defining challenge of this century. The most recent assessment of the Intergovernmental Panel on Climate Change (IPCC) states that "warming of the climate system is unequivocal, and … it is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century." Average temperatures have risen globally since the start of industrialisation, associated with the emission of greenhouse gases (GHG) from increasing use of fossil fuels for energy and transport, and with increasing demand for natural resources. The main focus of this report is on the multilateral response to climate change, rather than on a detailed analysis of climate change issues; but the graphs below display recent trends. Figures 1 and 2 illustrate that, despite the efforts of some countries, global GHG emissions continue to grow. CO_2 emissions from fossil fuel combustion continues to account for the majority of emissions, followed by methane (CH4). Population increase and economic growth have contributed in part to these increases. Furthermore, the rate at which the planet is warming is increasing. According to the 2020 Annual Climate Report of NOAA (the US National Oceanic and Atmospheric Administration),[19] the combined land and ocean temperature has increased at an average rate of 0.08 degree Celsius per decade since 1880; however, the average rate of increase since 1981 (0.18 degree Celsius) has been more than twice that rate.

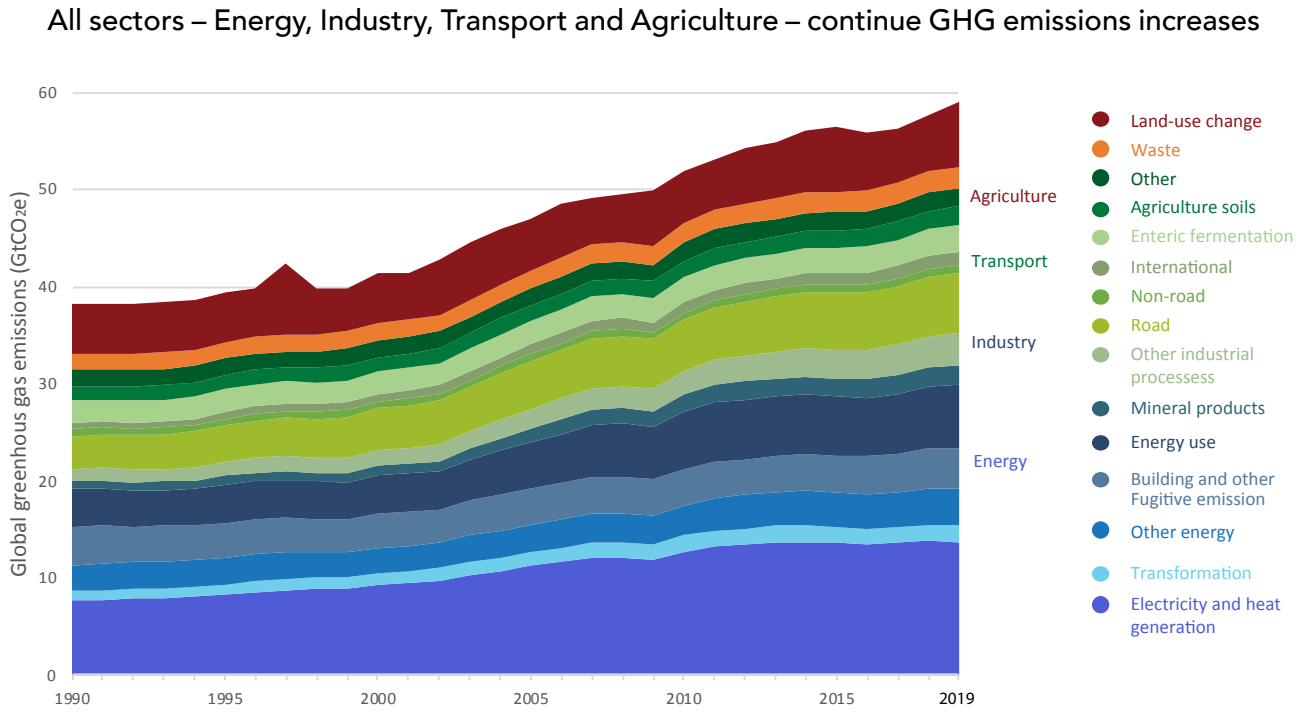
19 https://www.climate.gov/news-features/understanding-climate/climate-change-global-temperature

Figure 1: Global GHG emission trends by sources



Source: UNEP Emissions Gap Report 2020

Figure 2: GHG emissions trends by sector



Source: UNEP Emissions Gap Report 2020

GHG emissions have increased globally by about 1.5 per cent per year since 2010, with variations from year to year, and, based on current trends, the Paris goals are unlikely to be met. In 2020 there were reductions in GHG emissions of about 6 per cent linked to the COVID-19 pandemic; however, these are expected to be temporary[20] and are not enough materially to slow climate change. GHG emissions would have to decline to zero by 2050 to keep temperature rises to below 1.5 degree Celsius. Figure 3 illustrates the estimated "emissions gap" between current trends, which could lead to temperature rises of 3t or more by 2100, the Paris Agreement pledges as of May 2021, which would result in global temperature rises of 2.4 degrees Celsius and what is needed to keep temperature rises below 2 or 1.5 degree Celsius.[21] The impacts of global warming are well known and include increasing frequency of extreme weather events, including floods, droughts, wind and dust storms, and periods of extreme heat, water resource scarcity in some regions, sea-level rise, storm surges, coastal erosion, coastal flooding, and broad ecosystem degradation also leading to loss of critical biodiversity. The pattern of precipitation is becoming more unpredictable, often with more rain falling in a few heavy storms, more prolonged dry spells, and changing seasonal weather patterns. The economic and social impacts in general are felt most severely by those countries that have contributed least to past global warming, are more dependent on rain-fed agriculture, less industrialised, and have fewer resources to mitigate the impacts.[22] A recent study by UNEP,[23] "Making Peace with Nature," highlights the interlinkages between climate change, degradation of the natural environment and broader social and economic development challenges.

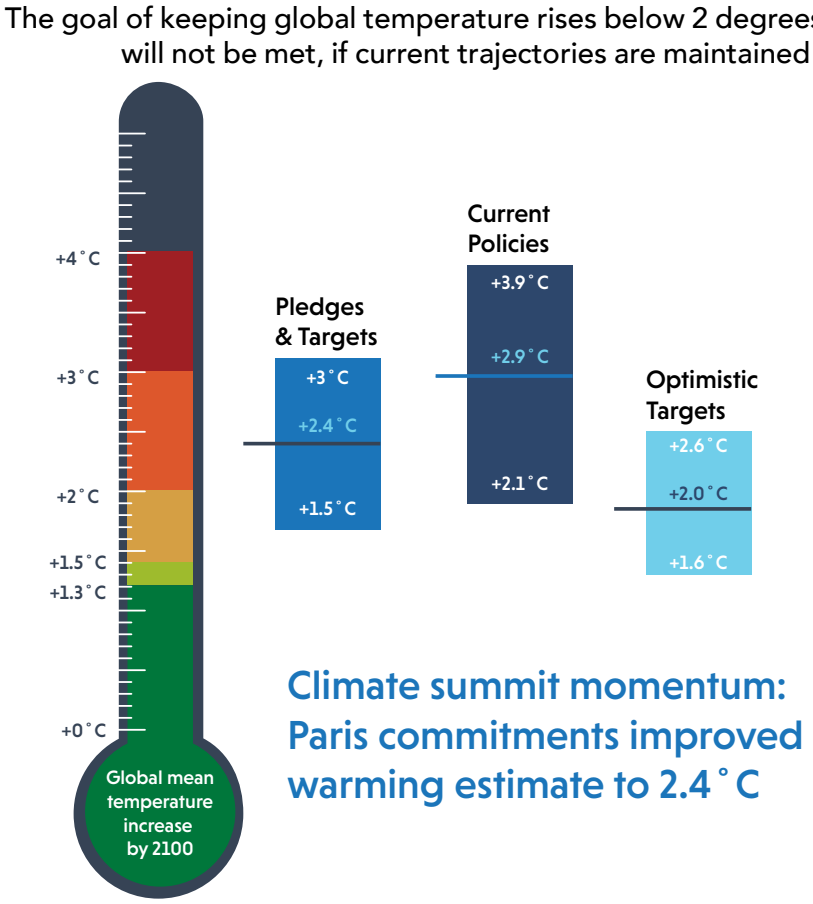
20 UNEP Emissions Gap Report 2020

21 file:///C:/Users/Marjory%20Bromhead/Documents/CAT_2021-05-04_Briefing_Global-Update_Climate-Summit-Momentum.pdf

22 Impact analyses for individual countries are available from a variety of sources, including country NDCs and country climate risk profiles. Global impact studies are available from a variety of sources including the Intergovernmental Panel on Climate Change; recent reports issued include "The Ocean and the Cryosphere in a Changing Climate" September 2019 https://www.ipcc.ch/report/srocc/ and "Climate Change and Land" August 2019 https://www.ipcc.ch/report/srccl/. The series of reports produced by the WBG and Potsdam Institute "Turn down the heat" also provides a useful perspective of the impact on regions https://www.worldbank.org/content/dam/Worldbank/document/Full_Report_Vol_2_Turn_Down_The_Heat_%20Climate_Extremes_Regional_Impacts_Case_for_Resilience_Print%20version_FINAL.pdf

23 https://mail.google.com/mail/u/0?ui=2&ik=7290244ba3&attid=0.1&permmsgid=msg-f:1698332059729458264&th=1791b0029ad4f458&view=att&disp=inline&realattid=f_ko254q2h0

Figure 3: Emissions gap



Source: https://climateactiontracker.org/documents/853/CAT_2021-05-04_Briefing_Global-Update_Climate-Summit-Momentum.pdf The 131 countries included in this analysis account for 70 per cent of GHG emissions.

The G20 countries[24] currently account for 72 per cent of global emissions (including land use),[25] so their targets and achievements are critical. Some countries/regions have set ambitious goals for reducing GHG emissions. The EU member countries have committed to reduce net GHG emissions to zero by 2050 and to a 40 per cent reduction as compared with 1990 by 2030,[26] and China is committed to net zero emissions by 2060. However, other major emitting countries have lower levels of ambition. Estimates are subject to considerable uncertainty but according to a recent study two-thirds of G20 countries are currently not on track to meet their NDC commitments.[27] It should be emphasised also that the situation is dynamic in the lead-up to COP 26. A number of countries have announced their intention to raise the level of their NDC

24 The G20 countries are Argentina, Australia, Brazil, Canada, China, Germany, France, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom, the United States and the European Union. https://climate-diplomacy.org/events/g20-leaders-summit-2021#:~:text=The%2019%20countries%20are%20Argentina,the%20UK%2C%20and%20the%20US.

25 Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute (Available at: https://www.climatewatchdata.org/ghg-emissions); FAO 2020, FAOSTAT Emissions Database; CO_2 Emissions from Fuel Combustion, OECD/IEA, 2019.. If Land use, land use change and forestry (LULUCF) is not included, the G20 contribution is higher (75 per cent) since most G20 countries are net sequesterers of carbon from reforestation. (Brazil and Indonesia are the major exceptions).

26 https://ec.europa.eu/clima/policies/strategies/progress_en#:~:text=The%20EU%20has%20put%20in,contribution%20to%20the%20Paris%20Agreement.

27 https://ec.Europa.eu/jrc/en/publication/are-g20-economies-making-enough-progress-meet-their-ndc-targets

commitments,[28] and under the new Administration the US has re-engaged in climate action. In April 2021 President Biden hosted a virtual Climate Summit[29] in which 40 world leaders participated.[30] The summit stressed the need for the world's major economies to strengthen their climate ambition and for scaled up public and private sector climate finance. It highlighted resilience and adaptation challenges faced by all countries, especially the most vulnerable, as well as the global security challenges posed by climate change. It emphasised the importance of actors at all levels, including subnational and non-state actors, in addressing climate change, as well as the critical role of nature-based solutions, of clean energy, transport and transformational technologies. The summit also underlined the importance of international co-operation, and the broad economic and job creation benefits of climate action, including in a green recovery from the COVID-19 pandemic.

The contributions to GHG emissions by region and country and by emission source vary widely, as do GHG emissions per capita. Detailed figures on regional GHG emissions are presented in Annex 4 and summarised in Figures 4 and 5. For example in 2018 Sub-Saharan Africa, with 14.4 per cent of global population and South Asia with 24 per cent, contributed only 7.7 per cent and 8.6 per cent of global GHG emissions respectively, while North America, with 4.8 per cent of population, contributes 13.4 per cent of emissions. The shares of East Asia and the Pacific, and Latin America, are broadly consistent with their shares of global population. Emissions by country and source also vary. For the US, for example, net per capita emissions are estimated at 18 tons CO_2e, of which 95 per cent from energy, industry, transport and buildings,[31] with transport being the single largest source, but there was net sequestration from revegetation of land and recovery of forests. For Ethiopia on the other hand, with a much lower level overall of emissions (2.4 tons CO_2e per capita), 88 per cent of emissions are from agriculture, livestock, land use change, and forest degradation.[32] China alone now accounts for about one-quarter of total emissions, and its per capita emissions are higher than those of the EU average. India, Indonesia and Brazil are also major global contributors to GHG, although their per capita emissions are much lower than those of China. Of the G20, the industrialised countries, with 13.5 per cent of population, account for about 25 per cent of emissions in 2018, while the G20 emerging economies, with 49 per cent of population, accounted for 47 per cent of GHG emissions. As UNEP has noted,[33] one issue with emissions reporting is that criteria measuring emissions from land use change (LUC) differ even though they are a significant source of emissions for some countries; as a result some reports and data sources include them, and some do not. Therefore, emissions data from one report are not always directly comparable with data from another.

28 https://www.wri.org/ndcs

29 https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/23/fact-sheet-president-bidens-leaders-summit-on-climate/

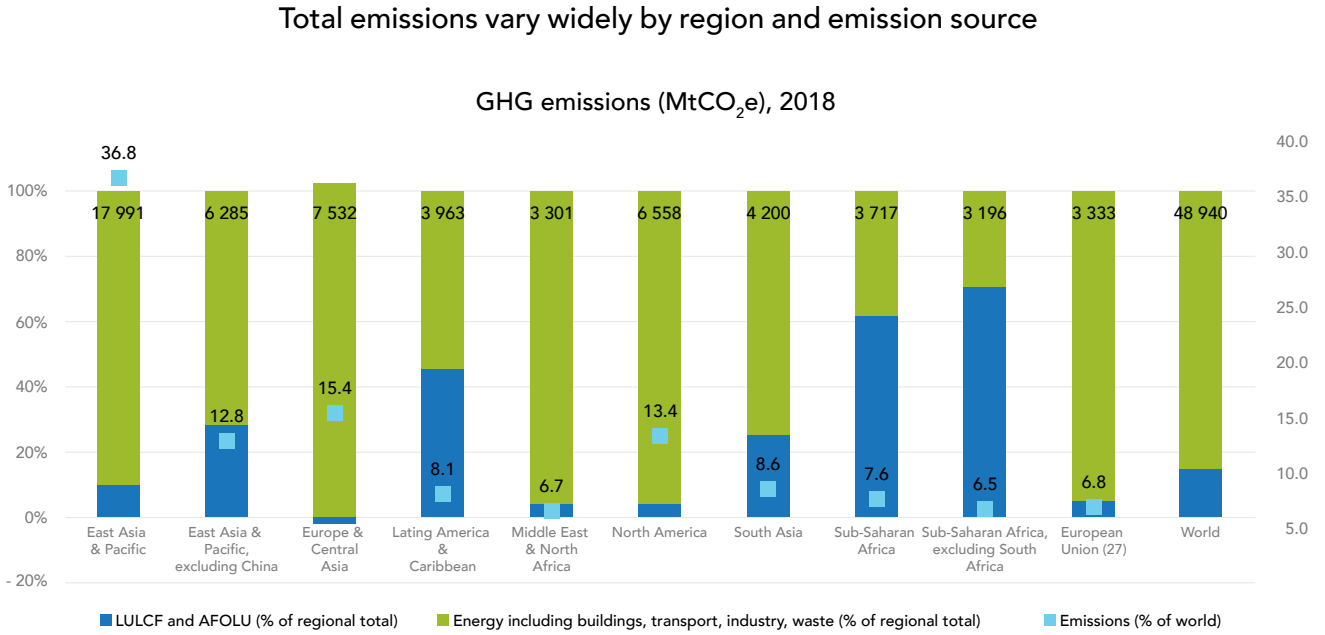
30 https://www.google.com/search?safe=strict&rlz=1C1OPRA_enGB706GB706&lei=_SuMYNC2Btqv5NoPus22mAk&q=-global%20climate%20summit%202021&ved=2ahUKEwiQqdvRrabwAhXaF1kFHbqmDZMQsKwBKAN6BAgYEAQ, /

31 https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions

32 https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Ethiopia%20First/Ethiopia%27s%20NDC%20update%20summary%202020.pdf

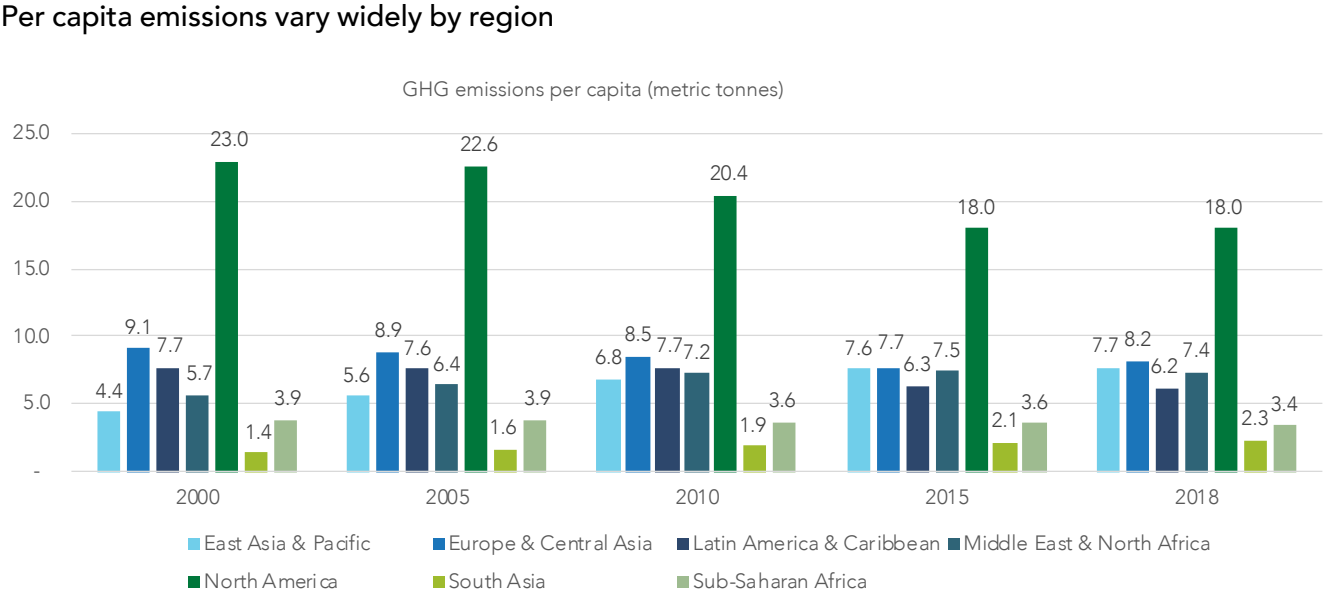
33 UNEP Emissions Gap Report 2020, https://www.unep.org/emissions-gap-report-2020

Figure 4: Regional GHG emissions, 2018



Source: Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute (Available at: https://www.climate-watchdata.org/ghg-emissions); FAO 2020, FAOSTAT Emissions Database; CO_2 Emissions from Fuel Combustion, OECD/IEA, 2019.

Figure 5: GHG emissions per capita by region



Source: Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute (Available at: https://www.climatewatchdata.org/ghg-emissions); FAO 2020, FAOSTAT Emissions Database; CO_2 Emissions from Fuel Combustion, OECD/IEA, 2019; World Development Indicators, The World Bank

GHG emissions of lower-income developing countries are likely to rise rapidly as incomes and populations increase unless there are opportunities for low emissions growth pathways integrated into long-term strategies. At the same time, especially in the poorer countries, which have fewer coping mechanisms, and in small island states, which are particularly exposed, adaptation challenges will become more acute as the climate continues to change. The expectation was that NDCs would be supplemented in 2020 by Long-Term Strategies (LTSs),[34] and with 30-year time horizons. These would facilitate a whole-of-society transformation and a link between shorter-term NDCs and the long-term objectives of the Paris Agreement. Such strategies in principle could help countries avoid "locking in" investments in high-emissions technologies, support equitable transitions, promote technological innovation, plan for climate resilient infrastructure and broader climate change adaptation, including in agriculture and land use, urban planning and coastal zone management and disaster resilience, and prepare society for change.[35] They would also be integrated into broad country development strategies. As of March 2021, 29 countries and the EU had LTSs but not all of these had been updated past 2016.[36] Most LTSs submitted were from G20 countries, with South Africa, Ukraine, Benin, Mexico, Costa Rica and two small island states being the exception.

2.2 Key normative frameworks: SDGs and the Paris Agreement

2015 was a landmark year in multilateral mobilisation to set the world on the transformational path necessary to achieve sustainable development. Governments committed to series of key normative frameworks; the Paris Agreement on Climate Change and SDG 13 on Climate Change under the Agenda for Sustainable development are the focus of this study. Countries committed to addressing climate change through Nationally Determined Contributions (NDCs) which laid out key adaptation and mitigation programmes. They also agreed to report periodically on progress to the UNFCCC.

In 2015 governments signed five complementary Global Agreements. These were the Sendaï Framework for Disaster Reduction,[37] the 2030 Agenda for Sustainable Development,[38] the Addis Ababa Action Agenda on Financing for Development,[39] and the Paris Agreement on climate change,[40] and (in 2016) the Kigali Amendment to the Montreal Protocol.[41] This report focuses in particular on the Paris Agreement, and on SDG 13 on Climate Change of the 2030 Agenda for Sustainable Development, and their key elements are summarised below. There are synergies between these two agreements and with other normative frameworks such as the Global Convention on Biodiversity and the United Nations Convention on Combatting Desertification as well as with the Kigali Amendment.

34 https://news.un.org/en/story/2019/11/1052171

35 Adaptation goals are summarised in Article 7 of the Paris Agreement (see https://unfccc.int/topics/adaptation-and-resilience/the-big-picture/new-elements-and-dimensions-of-adaptation-under-the-paris-agreement-article-7#:~:text=The%20Paris%20Agreement%20aims%20to,change%20and%20foster%20climate%20resilience).

36 https://unfccc.int/process/the-paris-agreement/long-term-strategies

37 https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030

38 https://sdgs.un.org/2030agenda

39 https://sustainabledevelopment.un.org/content/documents/2051AAAA_Outcome.pdf

40 https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

41 https://sdg.iisd.org/news/kigali-amendment-enters-into-force-bringing-promise-of-reduced-global-warming/ The Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer entered into force on 1 January 2019, following ratification by 65 countries. The UNEP noted that it will help reduce the production and consumption of hydrofluorocarbons (HFCs), potent greenhouse gases (GHGs), and thus to avoid global warming by up to 0.4degree Celsius this century.

The Paris Agreement

The second article of the Paris Agreement establishes three long-term goals:

- Holding the increase in the global average temperature to well below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 degree Celsius above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change;
- Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and
- Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

Sustainable Development Goal 13

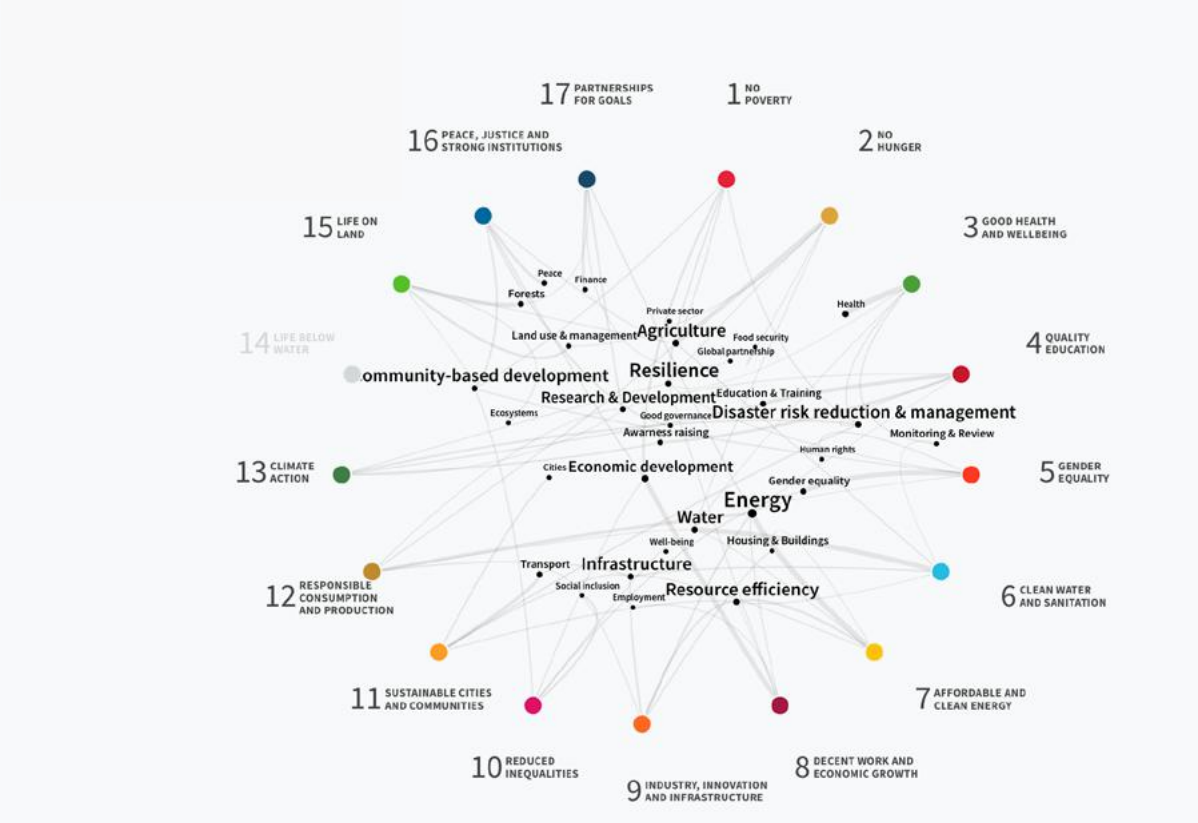
Goal 13 aims to take urgent action to combat climate change and its impacts and sets five targets:

- 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries;
- 13.2: Integrate climate change measures into national policies, strategies, and planning;
- 13.3: Improve education, awareness-raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning;
- 13.A: Implement the commitment undertaken by developed country parties to the United Nations Framework Convention on Climate Change (UNFCCC) to a goal of mobilising jointly USD 100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalise the Green Climate Fund (GCF) through its capitalisation as soon as possible; and
- 13.B: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries (LDCs) and small island developing States (SIDS), including focusing on women, youth, and local and marginalised communities.

Progress towards these targets is assessed through eight indicators on which countries report regularly. The SDGs are envisioned to be implemented by "all countries and all stakeholders, acting in collaborative partnership."

This report emphasises that climate change is a cross-cutting development theme. It can also be pursued through several of the other SDGs, including in particular SDG 2 – Zero Hunger, SDG 5 – Clean Water and Sanitation, SDG 7 – Affordable and Clean Energy, SDG 9 – Industry, Innovation and Infrastructure, SDG 11 – Sustainable Cities and Communities, SDG 12 – Responsible Consumption and Production, SDG 14 – Life below Water, SDG 15 – Life on Land and SDG 17 – Partnerships. The Stockholm Environment Institute (Figure 6 below) provides useful insights into the linkages between the themes most commonly found in Nationally Determined Contributions (NDCs) and the SDGs.

Figure 6: Linkages identified between key NDC themes and SDGs



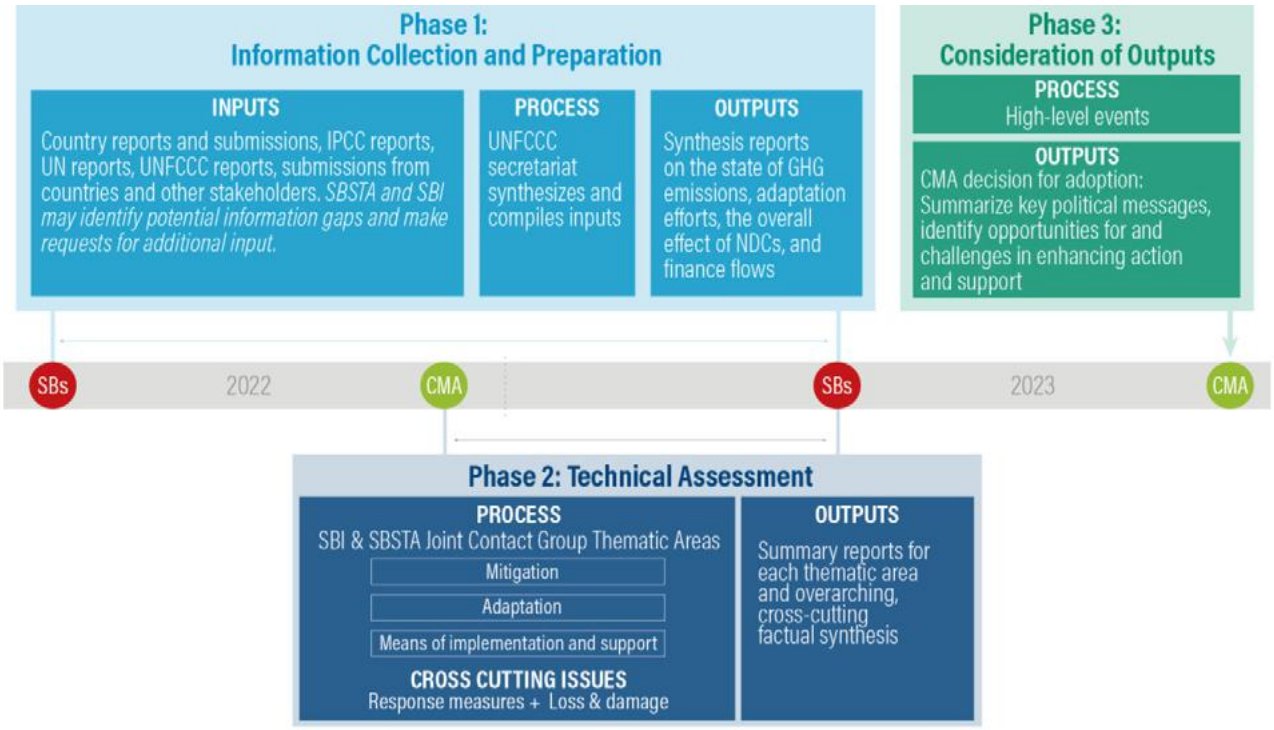
Source: Stockholm Environment Institute 2018 https://www.sei.org/publications/connections-between-the-parisagreement-and-the-2030-agenda/

NDCs embody country commitments to meeting the Paris Agreement goals. At COP 21 it was agreed that countries would periodically submit and update their NDCs and, for developing countries, the support they may need to achieve them. This process is intended to be informed by a five-yearly global stock-taking which assesses collective progress and offers the opportunity to evaluate the need for enhanced action and support. The stocktaking informs the next round of NDCs, encouraging countries to raise their level of ambition through trust building, transparency and co-operation, and the first is planned for 2023. According to the implementation modalities agreed in Katowice,[42] the stocktake follows a three-step approach summarised under Figure 7 below, which separates the technical assessment from the political decision-making process. The technical assessment led by the Subsidiary Bodies (Subsidiary Body for Implementation (SBI) and Subsidiary Body for Scientific and Technical Advice (SBSTA) of the UNFCCC produces a report on the thematic areas agreed on in the Paris Agreement (mitigation, adaptation), means of implementation (finance, technology, capacity building), and cross-cutting issues (response measures and loss and damage), with sources of information for each. This will provide a basis for the Conference of Parties (CMA)[43] to take political decisions.

42 Decision 19/CMA.1

43 CMA is the short form for the group of the countries which have signed and ratified the Paris Agreement. The full name of this governing body is "Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement". https://unfccc.int/process/bodies/supreme-bodies/conference-of-the-parties-serving-as-the-meeting-of-the-parties-to-the-paris-agreement-cma

Figure 7: Towards 2023: A global stock-take on progress with the Paris Agreement



Source: Navigating the Paris Rulebook, WRI 2019 https://www.wri.org/paris-rulebook/global-stocktake

While COP 21 laid the political foundations for the collective response to climate change by adopting the Paris Agreement, subsequent COPs have focused on developing the concrete modalities of its implementation. COP 24 adopted the Katowice Rulebook, which sets out the procedures and mechanisms allowing the Paris Agreement ambition mechanism to function and to facilitate understanding of NDCs, including transparency guidelines and details on proposals for the stock-taking.[44] In 2019, COP 25 and the United Nations Secretary General (UNSG) Climate Action Summit focused on renewing political momentum, and 2020 was set to be an important year when Parties were to submit updated NDCs. Even though the timeline was affected by the COVID-19 pandemic, COP 26 is likely to focus on how countries are proposing to raise the level of ambition of their NDCs to meet the Paris Agreement goals. The agenda is still being worked out, but according to a statement released by the UK in April the focus will be on five areas: finance, clean road transport, adaptation and resilience, the energy transition, and nature.[45] Furthermore, as many countries look to rebuild their economies in the wake of the pandemic, there has been an emphasis in strategic statements on 'building back better' through a green recovery.[46]

44 https://unfccc.int/topics/science/workstreams/global-stocktake-referred-to-in-article-14-of-the-paris-agreement

45 https://www.cnbc.com/2021/04/14/lets-make-it-count-world-leaders-gear-up-for-cop26-.html#:~:text=COP26%20represents%20an%20opportunity%20for,the%20energy%20transition%20and%20nature.

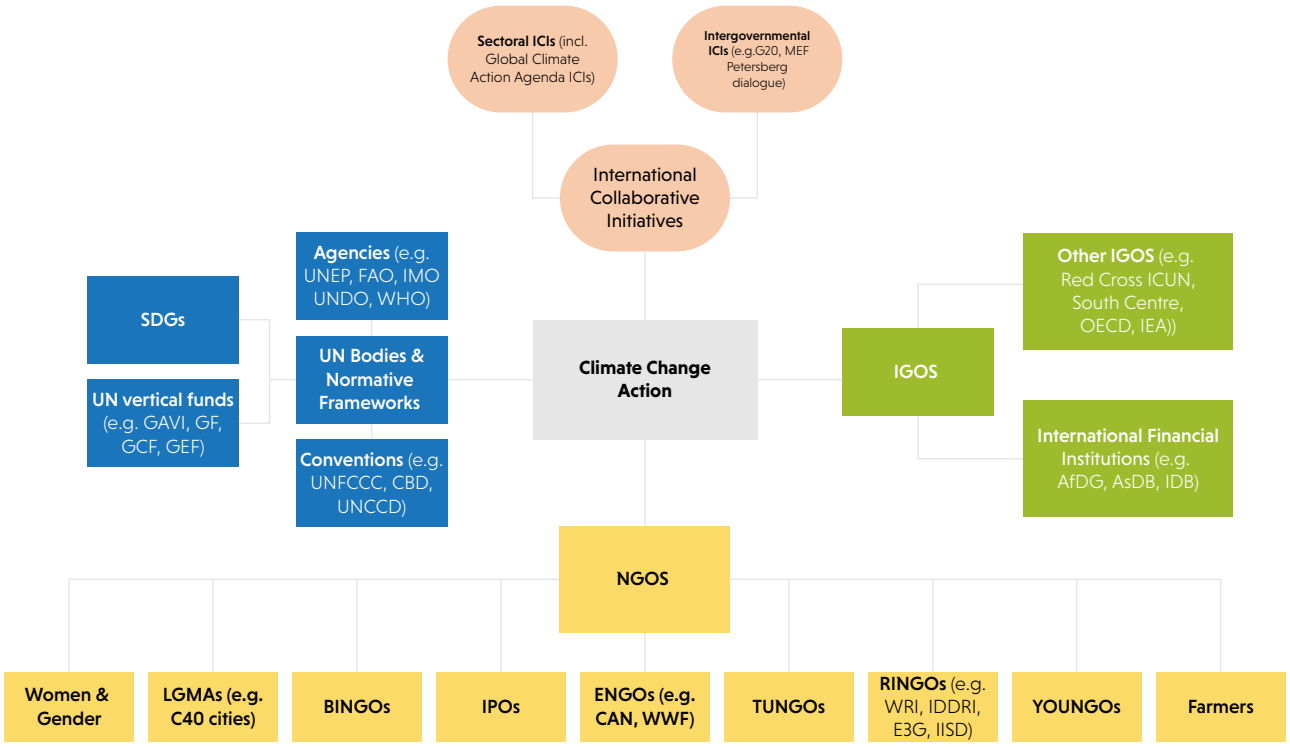
46 https://www.Euronews.com/living/2021/02/27/what-is-cop26-and-why-is-it-so-important

2.3 Overview of the Multilateral System for responding to climate change

The multilateral system for climate action is extensive and complex. In addition to countries, it includes UN bodies and normative frameworks, international collaborative initiatives, inter-governmental organisations and non-government organisations.

Climate Change action is tackled not only by Parties to the UN (SDGs) and the UNFCCC, but also by an extensive and complex landscape of actors. Countries are key actors. Figure 8[47] seeks to provide a general, non-exhaustive overview of the other elements of this landscape, or multilateral system.

Figure 8: Climate change landscape



Source: adapted from IAE and OECD (2014). Taking Stock of the UNFCCC Process and its Inter-linkages
Note: The acronyms for the yellow boxes are explained in the following paragraphs. The acronyms for the blue, green and pink boxes are provided in the list of acronyms section at the front of this report.

This landscape can be broadly categorised into four main groups. The UN bodies and normative frameworks developed through their auspices are represented in the chart by the blue boxes, related international collaborative initiatives by the pink ellipses, inter-governmental organisations by the green boxes and non-government organisations by the yellow boxes. This complexity can be explained by Article 7, paragraph 2(l), of the UNFCCC, which states that "the COP shall seek and utilise the services and co-operation of, and information provided by, competent international organisations and intergovernmental

47 https://www.oecd.org/env/cc/(2014%20)4%20Inter-linkages%20paper-%20revFinal.pdf

and non-governmental bodies." Stakeholder engagement has been broadening and deepening over time. In the same way, the SDGs are to be implemented by "all countries and all stakeholders, acting in collaborative partnership."

Non-government organisations are admitted as observers. They have grouped themselves into nine "constituencies" with diverse but broadly clustered interests or perspectives:

- Business and industry NGOs (BINGOs),
- Environmental NGOs (ENGOs),
- Farmers,
- Indigenous peoples' organisations (IPOs),
- Local government and municipal authorities (LGMAs),
- Research and independent NGOs (RINGOs),
- Trade union NGOs (TUNGOs),
- Women and Gender, and
- Youth NGOs (YOUNGOs).

The nine constituency focal points facilitate the exchange of information between the UNFCCC Secretariat and the admitted observer NGOs. They mirror the nine "Major Groups" identified as stakeholders in Agenda 21. In addition, International Collaborative Initiatives (ICIs), represented by the pink ellipses, contribute to this landscape of actors. The Global Climate Action Agenda, for example, has been facilitating collaboration across organisations (including NGOs, MOs, and the private sector). To date (March 2021), the UNFCCC Non-state Actor Zone for Climate Action (NAZCA) Platform has registered 27,782 actions in 191 countries, 10,693 cities, and 243 regions by 4,549 companies, 1,149 investors, and 1,983 organisations involved in 149 Collaborative initiatives.[48] It is helpful to distinguish between international NGOs, which may be represented in international fora, and national and sub-national NGOs, which play an important part in local advocacy and in building country-level and local ownership for climate resilient development. Local NGOs, including those in the nine categories mentioned above, are often key players in the implementation of climate adaptation or mitigation programmes.

MOs, including those within the UN System (the blue boxes) and Intergovernmental Organisations, among which International Financial Institutions (IFIs: the green boxes), are admitted as observers to the UNFCCC.[49] They represent what can be considered as the Climate Multilateral System; the main focus of this report is on these elements. They can be divided into three main categories: UN Agencies, such as the UNDP, UNEP and FAO, which are represented in blue in Figure 8; inter-governmental organisations, including the IFIs, which are represented in green; and vertical funds, also represented in blue. These organisations play an important role in working with developing countries to assist them in addressing climate change challenges and transitioning to climate resilient carbon neutral growth paths and are the main focus of the study. Its purpose and approach are described in the following section, which also provides the rationale for the selection of the 11 MOs and five countries that are the subject of more detailed study in the report.

48 https://climateaction.unfccc.int/

49 https://unfccc.int/process/parties-non-party-stakeholders/non-party-stakeholders/admitted-igos/list-of-admitted-igos

2.4 Objectives and scope of the study

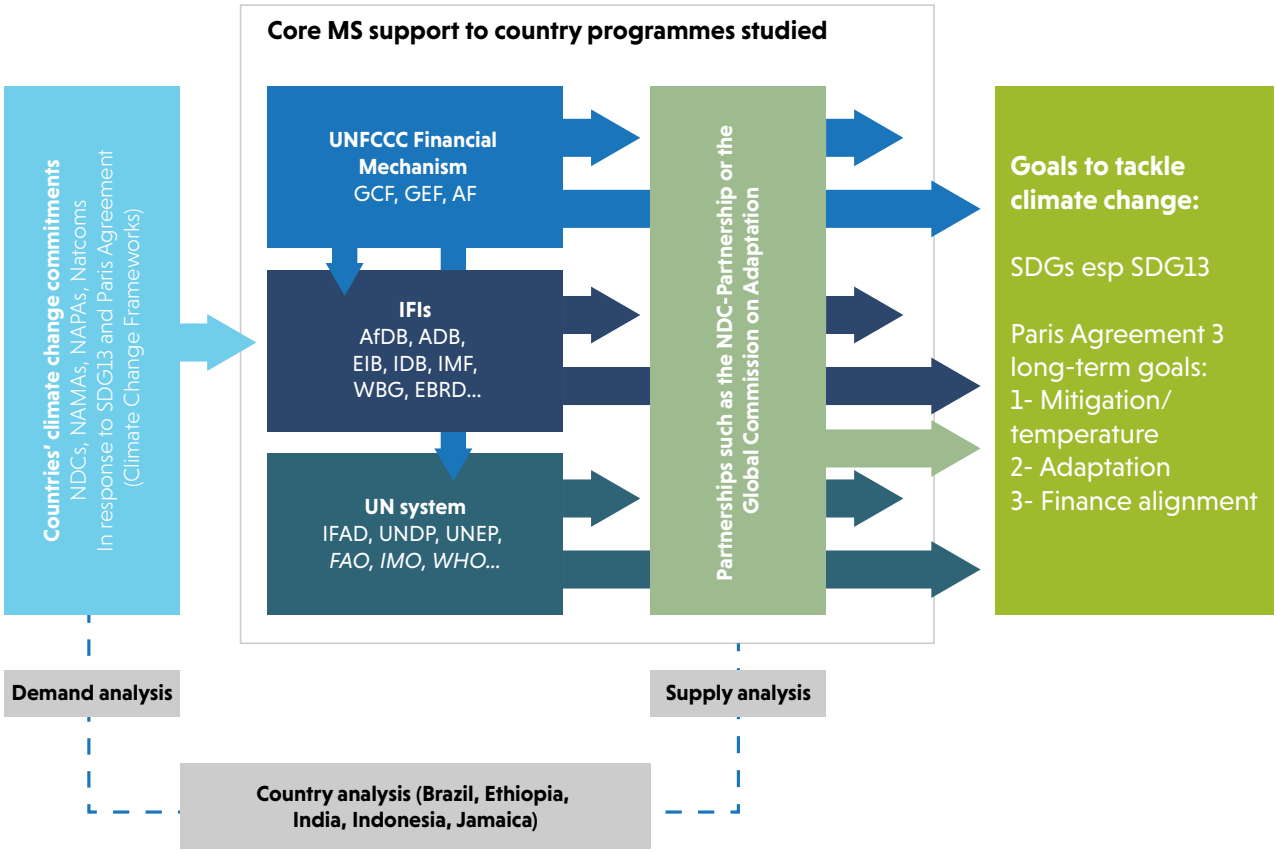
This study aims to review how Multilateral Organisations (MOs) and the Multilateral System (MS) more generally are responding to climate change within the context of the Paris Agreement and SDG 13, and the upcoming COP 26. It does this by examining the work of 11 key multilateral organisations, and reviews their strategies, policies and organisational frameworks, country programmes and partnerships. It also reviews in more depth the climate challenges and MO responses in five countries with differing development, adaptation and mitigation challenges. The study addresses the response of the broader MS through these reviews. The study is not an evaluation. It seeks, rather, to provide insights into the "direction of travel" of MOs and countries and lessons which may be useful to inform preparations for COP 26.

The key objective of this study is to review how Multilateral Organisations (MOs) and the Multilateral System (MS) more generally are responding to climate change within the context of the Paris Agreement and SDG 13, and the upcoming COP 26. More specifically, the study seeks to respond to three broad questions:

1. **How is the MS responding to climate change?** The study looks at the impact of partnerships, at collaboration between MOs and other elements of the MS, and at the cohesiveness of the response. It addresses climate finance, including the scale, targets, and co-operation between MOs on programmes, and the balance of support between mitigation and adaptation. It also summarises recent work on policy dialogue, knowledge, advocacy, capacity building, and partnerships.
2. **How are MOs incorporating climate change into their organisational strategies, operational activities and resource plans?** The study reviews in particular the extent to which increased global attention on climate change and the Paris Agreement have influenced the work of the MOs studied in their visions, policies, and strategies. It examines the "direction of travel" of the MOs; more specifically, it looks at the extent to which and how their focus on climate change has evolved in recent years, especially since the Paris Agreement. It examines MO policies and safeguards, including incorporation of climate risk into country strategies and projects, GHG accounting in projects, and policies regarding fossil fuels. It looks at organisational frameworks and staffing. Finally, it addresses the extent to which MOs have incorporated "green recovery" into their COVID-19 responses, and it looks at how MOs monitor and mitigate their own climate footprint.
3. **What lessons learnt and good practices can help strengthen the MS in tackling the climate crisis?** The report summarises lessons learnt, and presents opportunities moving forward. The findings are intended to inform preparations for COP 26.

Figure 9 summarises the scope and focus of the study. The MOs included are represented by the grey, green and blue boxes in the figure. They correspond to selected agencies among the groups of organisations within the MS represented by the green and blue boxes of Figure 9.

Figure 9: Scope and focus of the study



The study includes 11 of the very broad range of MOs involved in supporting the climate change agenda. These are:

- **Six International Financial Institutions.** These are the African Development Bank (AfDB), the Asian Development Bank (ADB), the European Investment Bank (EIB), Inter-American Development Bank Group (IDBG), and the World Bank Group (WBG) including IBRD/IDA and (as a separate analysis) the International Finance Corporation (IFC). The International Monetary Fund (IMF) is also included both because of the scale of support that it provides, and because of its particular relationship with the core country Ministries of Finance and Economic Planning.
- **Three UN agencies** for which climate action is a core part of their work: the United Nations Development Programme (UNDP); the United Nations Environment Programme (UNEP); and the International Fund for Agricultural Development (IFAD).
- **Two Vertical Funds** which are part of the UNFCCC Financial Mechanism and play a central role in facilitating and financing climate change action: the Global Environment Facility (GEF) and the Green Climate Fund (GCF).

This study uses as building blocks analyses of the response of each MO to the climate change agenda.

Climate change action takes place at country level and MO response is shaped to a great extent by the "demand" of developing countries for MO assistance. Therefore, the study reviews in more depth the climate action priorities of five countries and the response of the MS. The countries selected vary widely in terms of incomes, geography, development and climate challenges but have some common features:

- **Brazil** is an upper middle-income country, highly urbanised but with high emissions from one key sector, LULUCF, with deforestation driven by agricultural land expansion. It has growing climate vulnerabilities, largely from drought, in some regions, and prevailing high levels of poverty and inequality.
- **Ethiopia** is a least developed country, highly vulnerable to drought, with a high energy gap, low access to transport infrastructure and still high levels of poverty. Emissions are largely from the land use sector.
- **India** is a lower middle-income country with still high levels of poverty, the most populated in the world and with the third highest level of global emissions, primarily from coal powered electricity generation but also from agriculture. It is vulnerable to floods and droughts as well as to coastal flooding from sea level rise.
- **Indonesia** is also a large lower middle-income country and a major source of GHG emissions, both from burning coal and from deforestation connected with oil palm expansion. It is highly vulnerable to tropical storms and sea level rise.
- **Jamaica** is a small island developing state with a historic dependence on beach tourism. Jamaica's natural assets and economy are highly vulnerable to climate change, including not only more intense hurricanes but also seawater warming, affecting water quality and fisheries. Bauxite mining, fossil-fuelled power generation and transport are the principal sources of GHG emissions.
- Both **Indonesia and Brazil** have exceptionally high levels of biodiversity, mostly in their extensive tropical forests but also, for Indonesia, in marine ecosystems. Deforestation, especially in the Amazon, has systemic global as well as local climate impacts.
- Although because of their size **India, Brazil and Indonesia** are significant contributors to global GHG emissions, per capita emissions in all five of these countries (under 3 tons CO_2e per capita) are currently less than half the global average (6.4 tons CO_2e per capita).
- **Finally, none has submitted an LTS.** All emphasise the need for technological transformation and for financial and technical assistance to achieve this transformation. Especially for Ethiopia but to a considerable extent also for Indonesia, India and Brazil there are strong inter-linkages between mitigation and adaptation.

The country analyses address climate change challenges, NDCs, and the extent to which these are integrated with broader country development priorities. They complement the MO analysis by considering the responsiveness of MOs to the countries' needs. They examine the five countries' specific climate change challenges and "demand" for climate action, as expressed through their broad country strategies and the adaptation and mitigation priorities of their NDCs. The analyses compared these sets of priorities with the most recent respective MO country partnership/assistance strategies (IFIs), sustainable development strategies (UN agencies), and vertical fund strategies, representing the "supply" or MO response side for the selected countries. The analyses also identified key relevant partnerships in which the countries and MOs participate, and priority programmes related to climate change. This helped to assess the extent to which the pertinent MOs for a particular country are co-ordinated or "harmonised" in their strategic approaches to support it. Chapter 4 sheds light on how the MS works from a country perspective.

The Annexes provide more details on the study approach and criteria for MO and country selection. Annex 1A provides more details on the framing questions and Annex 1B on the lines of evidence used. Annex 1C provides more details on MO selection and Annex 1D on country selection. Annex 2 summarises the climate change response by MO and country. Annex 3 provides a summary of the key climate change challenges, NDC commitments and MO interventions for each country, and includes a synthesis of key lessons learnt and good practices, also country by country.

The study relied on an extensive review of documents and selected interviews with key stakeholders. In addition to strategic and policy documents of the MOs, country-specific MO strategies and operations were reviewed, as well as the NDCs, broader development plans, and recent climate related projects of the five countries selected for more detailed study. Interviews with key climate staff from each MO complemented the MO and country analyses. All MOs except the EIB and the GCF responded to the request for an interview and all except the EIB provided feedback on their draft MO analysis. The analysis also included a review of a broad range of research, scientific, policy and advocacy documents related to climate change. Interviews with key stakeholders in a limited number of other important organisations within the MS further informed the broader perspective on multilateral climate action. These included experts from the OECD and the Subsidiary Body for Scientific and Technical Advice (SBSTA) of the UNFCCC, as well as from global partnerships and think tanks IDDRI, the NDC-Partnership, and WRI. The interview participants are listed in Annex 5. The documents consulted are listed in Annex 6. It should be noted that there is a very large number of climate related publications, many new reports are being issued in the run-up to COP 26, and new country commitments are still being firmed up. The landscape is very dynamic.

This study is not an evaluation. It does not seek to compare the performance of one MO against the other. It is, rather, a learning exercise which seeks to provide insights into the constraints and opportunities faced by the MOs, countries and the broader MS as they address climate change, and to provide lessons which may be useful to inform preparations for COP 26. Furthermore, while the study seeks to shed insights into the "direction of travel" of the MOs studied, it does attempt to address longer-term impact, effectiveness and attribution. The study was facilitated by guidance from a reference group composed of experts from Denmark, Germany and Sweden who provided valuable feedback at various stages of its execution.

The overall limitations of the study should finally be noted. Country-level analyses were based only on a review of MO and country documentation, supplemented by interviews with MO climate staff. It was not possible, given the time and resource constraints, to supplement these with discussions with country level MO representatives or with government agencies, or do justice to the in-country work of MOs not covered by this study. Furthermore, most countries have MO co-ordination mechanisms, both at Ministry of Finance/Planning and at Sectoral Ministry level. It was not possible to examine how well these work in practice. Except through the private sector arms of the MDBs, the study does not include a sample either of companies or of investment banks, although these play a strong role in the country climate investment landscape. Nor did it include interviews with key private sector enterprises or investors although their perspective is important given the role of the private sector, especially in climate change mitigation activities such as renewable energy. And, given the scope of the work and interviews, the study sheds only limited light on the role of organisations which may not be formally part of the MS, including their role in some large-scale infrastructure investments.

3. RESPONDING TO CLIMATE CHANGE INDIVIDUALLY: POLICIES AND STRATEGIES OF MULTILATERAL ORGANISATIONS

3.1 Use of normative frameworks

Climate change is well incorporated into the strategies, of all the MOs under study, with the exception of the IMF, which is currently preparing its first Climate Change Strategy. Furthermore, the substantive work of some MOs on climate change substantially pre-dates the articulation of formal strategies. Climate action has become increasingly "mainstreamed" into broader development work at country level. The overall "direction of travel" is positive and while climate action both by MOs and countries pre-dates 2015, it was given an added impetus by the Paris Agreement.

The core mandates of the MOs vary, and so do the ways in which they incorporate the climate change normative frameworks. The goal of the WBG, for example, is to end extreme poverty and boost shared prosperity, while that of IFAD is to eradicate poverty and hunger by investing in poor rural people through financial and technical assistance to agriculture and rural development. ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. The UNDP aims to support countries in their development path and help co-ordinate the UN System at the country level, and the IMF's mandate is to oversee the international monetary system and monitor the economic and financial policies of its 190 member countries.

The goals of all the MOs under study are consistent with the mandates of the SDGs, including SDG 13 and the Paris Agreement, and most MOs have incorporated climate change explicitly into their core development strategies. For the IDBG, for example, while the core mandate is to foster the economic and social development of its borrowing member countries, both individually and collectively, the Paris Agreement formed the basis for the Governor's resolution of 2016, which instructed the Bank to increase the financing of climate change-related projects in Latin America and the Caribbean (LAC). UNDP is "the face of the SDGs" and the EIB is committed to becoming "the EU's climate Bank." UNEP's core mandate is to set the agenda and advocate for the global environment, including climate change. For some of the other MOs the incorporation is more implicit; for example, for the IMF, recognition is growing that in the long-term national and global financial stability requires environmental and social stability, while IFC recognises climate change as a threat to global development and emphasises that climate action is an important investment opportunity for the private sector. Commitment to SDG 13 and the Paris Agreement is articulated in operational terms through reflection in the strategies and policies of the MOs. The goals of the multilateral development banks are also broadly consistent with the Addis Agenda, as noted by a recent UN report.[50]

Climate change strategies are integrated into the MOs' development priorities.[51] AfDB highlights the links between climate change and sustainable economic and social development in its Green Growth Framework (2014), developed as part of its broader 2013-2022 Strategy. The strategy seeks to place the Bank at the centre of Africa's transformation towards inclusive and green growth, and the 2016 High-5 agenda[52] also builds on this integrated strategy. Climate change has been a UNEP priority for many years. It has published Emissions Gap Reports since 2010 and the climate sub programme for this purpose was first incorporated in the Medium-Term Strategy (MTS) for 2010-2013. And UNEP's Climate Change subprogram aims at enhancing "the ability of countries to move towards climate-resilient and low emission pathways for sustainable development and human well-being." IFAD has focused on the particular challenge of climate

50 https://sustainabledevelopment.un.org/content/documents/2051AAAA_Outcome.pdf

51 These strategies, and source material, are described in Annex 2B MO summaries as well as in Volume 2.

52 https://www.afdb.org/en/news-and-events/african-development-bank-accelerates-pace-with-high-5-priorities-15879. The five priorities under the H5 are Light up and power Africa, Feed Africa, Industrialise Africa, Integrate Africa, and Improve the quality of life for the people of Africa.

change adaptation for small farmers since 2012. The UNDP's Strategic Plan 2018-2021 includes a suite of "signature solutions" anchored in the 2030 SDGs and related agreements such as the Paris Agreement. Three of these solutions are directly related to climate change: disaster resilience, nature-based solutions and closing the energy gap. The IMF does not yet routinely include an assessment of climate risks in its country level assessments, but this is changing.

Commitment to addressing climate change of the MOs under study has evolved and increased over time. MDBs, for example, have supported countries in addressing the impacts of floods and droughts on a project-by-project level for decades and the IFC's support for energy efficiency dates from the 1980s. However, all IFIs, with the exception of the IMF, now incorporate support for addressing climate change, including implementation of the UNFCCC and most recently of the Paris Agreement, into their core corporate strategies and policies. Table 1 below summarises the extent of reflection of climate change in MO strategies, country risk profiles, safeguard and other policy documents and in methodologies for assessing mitigation or adaptation benefits.

Table 1: MO inclusion of climate change considerations in country strategies, risk assessments,results frameworks and safeguards

Organisation	Country strategies	Country climate risk profiles	Project-specific climate risk /safeguards assessment	Climate mitigation/adaptation & GHG emissions tracking
ADB	Present in most recent country strategies in a general way, but much less so in their results frameworks	Jointly with WB for Asian and Pacific countries	Yes, Climate Risk and Vulnerability Assessments (CRVAs) since 2014	Yes, GHG emissions reduction/avoidance estimates up-front for pertinent projects
AfDB	Results frameworks mapped against High Fives; some also support NDCs explicitly	Climate risks included in country strategies	Safeguard procedures (ESAPs) integrate climate change and into project review	Tracked for projects using climate finance and some key sectors, but not yet routinely integrated. Carbon shadow pricing not yet incorporated
EIB	N/A: Investment deal-flow responds to private sector proposals and financial intermediary demand. Programming is sector-strategy based.	Country-and sector-specific climate change risk scores, modelling both physical and transition risk, are under development.	Climate Risk Assessment (CRA) system provides a systematic assessment of the physical climate risk in direct lending.	Project level data reporting of both absolute and relative emissions began in 2012. Carbon value of Euro 80 per tonne of CO_2 equivalent (in 2016 Euro) used in investment economic evaluation.
GCF	N/A, country driven approach	N/A, but specific targets for LDCs, SIDS and African countries for adaptation	Accreditation system ensures that Accredited Entities can fully implement GCF's Environment and Social Management System (ESMS)	Required for all projects according to defined indicators. Specific methodologies are left up to AEs.
GEF	N/A	N/A	Depend on las to do this	CC Focal Area Program mitigation and GHG emissions tracking required for GEF project component; SCCF and LDCF have separate adaptation and resilience indicators

Organisation	Country strategies	Country climate risk profiles	Project-specific climate risk /safeguards assessment	Climate mitigation/adaptation & GHG emissions tracking
IDBG	Present in most country strategies	No	Yes, at least since 2018	Yes, for climate finance projects
IFAD	NDC implementation incorporated into country strategies (COSOPs)	Climate risks incorporated into COSOPs	Procedures (SECAPs) incorporates climate into projects review	Uses FAO GHG accounting tool to estimate GHG emissions/sequestration from projects Tracks incremental adaptation benefits
IFC	See World Bank; IFC contributes to World Bank CPSs.	Assessments of climate risk have been conducted for specific country sectors on a selected basis	IFC identifies climate risks and impacts under its Performance Standard 1 but there are not yet detailed requirements on climate risks in particular investments	See World Bank

Source: MO Analyses (see volume 2 for details)

Substantive work on climate change pre-dates development of formal corporate strategies for some MOs. The WBG, for example, adopted its first Climate Change Action Plan only in 2016, followed by an Adaptation and Resilience Action Plan in 2018. However, its work on climate change pre-dates these plans by two decades and it is currently the largest multilateral financier of climate investments to the developing world. A first evaluation of the WBG's climate related work on energy was undertaken in 2008,[53] and the WBG was instrumental in establishing the Climate Investment Funds (CIFs), also in 2008. The CIFs raised over USD 8 billion and facilitated partnerships between the regional MDBs, the WBG and member countries in supporting plans and leveraging investments to address low carbon transitions and climate resilience. They also provide lessons for the modus operandi of UNFCCC Green Climate Fund, established in 2012. The WBG piloted work on carbon finance including forest carbon finance from the late 1990s[54] and, together with FAO and the Government of the Netherlands argued for scaled up climate smart agriculture approaches from 2010.[55] It facilitated publication of the Flagship Report "*Turn Down the Heat*" in 2012, based on work undertaken by the Potsdam Institute.[56] Recognising the particular climate challenges of Africa, it launched the "*Next Generation Africa Climate Business Plan*"[57] in September 2020. Its second Climate Change Action Plan,[58] approved in April 2021, includes far more ambitious targets for climate related finance across the WBG's portfolio and a commitment to 50% of this support for adaptation between 2021-2025. On the other hand the IMF has addressed climate change largely through analytical and policy work, including assessment of the macro-economic and fiscal impacts of energy policies at country level. Its broader analytical work has included studies on the implications of carbon taxation.

53 https://openknowledge.worldbank.org/handle/10986/10594 Climate Change and the World Bank Group - Phase I: An Evaluation of World Bank Win-Win Energy Policy Reforms

54 https://www.worldbank.org/en/topic/climatechange/brief/world-bank-carbon-funds-facilities

55 http://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/421744/

56 https://openknowledge.worldbank.org/handle/10986/11860

57 "World Bank. 2020. The Next Generation Africa Climate Business Plan: Ramping Up Development-Centered Climate Action. World Bank, Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/34098 License: CC BY 3.0 IGO."

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

Most MOs agree that the Paris Agreement facilitated an acceleration in the "direction of travel" towards mainstreaming and specific support for NDCs. NDCs incorporate Nationally Appropriate Mitigation Actions (NAMAs) and National Adaptation Plans (NAPs),[59] which MOs also support. According to the IDBG, for example, the Paris Agreement prompted the Bank to increase its focus on long-term consistency with global climate objectives across all the IDBG's work, building on earlier dedicated "green" projects, and for the ADB the SDGs and the Paris Agreement had a "catalytic effect" in scaling up country support and also in aligning internal processes to better track and report climate finance. IFAD's country strategies approved under IFAD-11 (2019-21: 11 to date) include the main NDC priorities classified according to MDB methodologies, with adaptation sectors referenced – crop and food production being the most commonly mentioned. Three of these countries (Burkina Faso, Rwanda and Senegal) have already approved IFAD-11 investments, including climate finance investments that build on priorities expressed in their NDCs. The example of Rwanda is illustrated in Box 1 below. MO country strategies, developed in co-operation with governments, include support for mitigation, adaptation and cross cutting actions and policies. Examples are provided in Chapters 4 and 5. Nevertheless a recent OECD report argues for further integration of climate action into development co-operation and MO mandates.[60]

59 https://napglobalnetwork.org/2019/12/the-national-adaptation-plan-nap-process-frequently-asked-questions/ The NAP process and the adaptation component of NDC are in principle aligned so that they articulate the same objectives, are informed by the same datasets and analyses, and tracked using the same metrics. Information on a country's mitigation efforts is mandatory, whereas that related to adaptation is voluntary. Furthermore the NAP process predates the Paris Agreement. However, about 75 per cent of all countries who submitted NDCs have chosen to include actions on adaptation.

60 https://www.oecd.org/dac/environment-development/Aligning-Development-and-Climate-Action.pdf

Box 1: IFAD's Country Strategic Opportunities Programme in Rwanda 2019-24
Integrating NDC priorities into MO Country Strategies

Climate change means that Rwanda is experiencing recurrent mid-season droughts. Rainfall trends show that rainy seasons are becoming shorter, but have a higher intensity, 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 that affects livestock. Rwanda's NDCs seek to address these challenges. Rwanda's new IFAD COSOP (2019-2024) maps prospective investment areas for IFAD against the six actions detailed in Rwanda's NDCs under its programme on sustainable intensification of agriculture.

Since COSOP approval, two new IFAD investments have been approved. Both address climate vulnerabilities and contribute to the NDC adaptation priorities for agriculture. The Kayonza Irrigation and Integrated Watershed Management Project (KIIWP 1) tackles Rwanda's vulnerability to climate-exacerbated drought through catchment rehabilitation, infrastructure development, efficient infrastructure management, and climate-smart agriculture for irrigated and rainfed lands. USD 8.3 million or 46 per cent of IFAD's investment in KIIWP 1, has been validated as IFAD adaptation finance. The Partnership for Resilient and Inclusive Small Livestock Markets (PRISM) responds to the NDC's aim to increase the share of households applying agroforestry to 100 per cent 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 PRISM amounts to USD 1.3 million, 9 per cent of IFAD's investment. Rwanda's 2019 COSOP foresees further investment areas aligned with NDC priorities. For example, building on KIIWP 1, further climate support will be provided in a second phase (KIIWP 2).

Source: https://www.ifad.org/documents/38714170/41461663/CAR2019.pdf/be4aae01-c82c-9a75-eaed-9707db3fac5d

Even where NDCs have had a minor direct influence on business operations, they serve a useful function in highlighting priority sectors for climate action, as in the case of IFC. Developing country NDCs mostly do not address detailed implementation and financing arrangements at the project level, including specifically private sector financing. The IFC contributes to WBG Country Partnership Framework (CPF) formulation, and since 2018 has prepared in addition IFC-specific Country Strategies. Like the WBG, IFC is committed to climate action. But for sustainable private sector investments enabling climate policies are necessary, including a favourable environment for private sector engagement and clear implementing regulations in areas such as carbon pricing, performance standards, market-based support, and removing fossil fuel subsidies. These areas are often not addressed specifically by NDCs.

3.2 Operational policies and safeguards

Most MOs incorporate climate risk profiles into country and project assessments, although for the IMF coverage is still variable. MOs use broadly comparable methodologies for GHG mitigation accounting and for adaptation in project appraisal. It should be emphasised, however, that methodologies for adaptation accounting are more challenging, since "good development" also contributes to broader country resilience to climate change.

Most MOs under study incorporate country risk profiles and integrate climate risk into project feasibility assessments, generally through their safeguard instruments. Country strategies also include country climate profiles (See Table 1 on page 38). Risk assessments for IFAD, for example, are quite detailed at both country and project level, while IDB, AfDB and ADB prepare country climate and climate risk profiles and increasingly collaborate on these.

All MOs use GHG accounting or adaptation methodologies to assess the contribution of climate relevant projects to mitigation or adaption (see Table 1). Where projects are supported by climate finance instruments, all project appraisal documents use the methodologies required by the funding agency (most commonly GCF or GEF). The Joint Multilateral Development Banks (MDBs) Climate Finance Tracking and Reporting platform, implemented by six MDBs, has produced the "Joint Report on Multilateral Development Banks' Climate Finance" since 2011 using common methodologies. GHG accounting for project operations has also been facilitated through the IFI Harmonisation of Greenhouse Gas (GHG) Approaches platform initiated in 2013. These methodologies have evolved over time and, for the MDBs, are summarised in the Annex to the Joint Annual Reports on MDB Climate Finance.[61] However, the extent to which MOs use GHG accounting in appraisal of all projects varies, with the WBG and IFAD having gone the farthest. Only the WBG and EIB routinely use a shadow price of carbon in economic project appraisal.

Accounting for adaptation in climate finance cannot be directly compared with accounting for mitigation. Mitigation generally measures the entire project in terms of GHG emissions avoided (for example, substituting solar energy for fossil fuel). Adaptation generally measures only the incremental activities of a project that can be directly attributed to adaptation. However, the greater issue with accounting for adaptation is that much of it may often be difficult to distinguish from more generally "good, climate-resilient development." Activities which fall outside the climate sphere, such as education or infrastructure improvements or improved access to the Internet, may indirectly contribute to adaptation and resilience since they may lead to an increase in employment opportunities outside natural resource dependent activities such as subsistence agriculture. Nonetheless the MOs in practice provide support to adaptation planning as well as to a large number of adaptation and resilience programmes at country level. These include programmes for coastal zone management, improved weather and climate forecasting, disaster preparedness and resilience, flood management, urban resilience programmes adapting public health systems, "climate proofing" existing infrastructure, improved land and water management and climate-smart agriculture. Chapters 4 and 5 provide examples. Many of these programmes also have cross cutting benefits, including in particular climate-smart agriculture, which can bring "triple wins" in terms of enhance resilience, reduced GHG emissions/increased sequestration, and increased productivity and incomes

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61 https://www.ebrd.com/2019-joint-report-on-mdbs-climate-finance, https://www.idfc.org/wp-content/uploads/2019/03/idfc_mdb_methodology_comparison_07-10-14.pdf

3.3 Support for fossil fuels

All MOs have also phased out support for new coal powered investments, though some still support gas developments under certain circumstances. The transition to low emissions or climate neutral growth poses difficult short-term trade-offs and political economy challenges for some countries.

Most MOs no longer support new investments in coal-powered energy generation, although some have made verbal rather than written commitments. The policies regarding investment in gas vary, and policies regarding on-lending through financial intermediaries are a work in progress. Table 2 below illustrates the policies of a number of MOs, including the IFIs under study, as regards fossil fuels. IFAD, with a focus on agriculture and rural development, does not support investment in fossil fuels, and neither does UNDP. The gas sector, often regarded as a transition fuel and less polluting than coal, poses particular challenges. Assisting households to switch from using fuelwood to piped gas or liquefied petroleum gas (LPG) for cooking, for example, brings co-benefits in the form of health benefits from reduced indoor air pollution (IAP) and can help reduce forest and land use degradation. It is often women, furthermore, who are the beneficiaries, since women are the most exposed to IAP and are usually responsible for the time-consuming task of collecting fuelwood and for cooking. MOs are mostly restricting their support to upstream gas investments to exceptional cases. The WBG no longer finances upstream investments and the EIB does not support "unabated" gas investments. However, ADB, for example, assisted Bangladesh with support to a gas-fired power plant in 2018 and is providing a number of technical assistance grants related to gas. Its new Energy Policy, currently in draft, indicates the conditions under which it will continue to support gas.[62] The AfDB, together with several US and European development institutions, is currently planning to assist Mozambique with transport and port facilities for its offshore gas resources. The switch away from fossil fuels has been quite recent and has gathered momentum only in the last decade. And for many developing countries with substantial fossil fuel resources and/or investments in coal powered electricity generation, such as South Africa, Indonesia and India, there are political economy challenges in transitioning out of coal. Chapters 4 and 5 provide some examples of MO support to clean energy transitions, through investment and related support to policy reform.

62 https://www.adb.org/documents/draft-energy-policy-supporting-low-carbon-transition-asia-and-pacific

Table 2: Policies regarding support to fossil fuels: Selected MDBs

MDB	Coal exclusion policies	Oil exclusion policies	Gas exclusion policies	Indirect finance exclusions
EIB[63]	Partial exclusion since 2013, full exclusion after 2020.	Nearly full exclusion for all "unabated" projects after 2020.	After 2020, no new "unabated" gas projects will be financed above a threshold of 250g CO_2/kWh. Exceptions for power generation and transport infrastructure that make use of so-called "low-carbon" gases.	There is a commitment for all exclusions to include intermediaries, advisory and technical assistance, and associated facilities. However, the details are not yet defined.
EBRD	No thermal coal mining or coal plants.	Exclusion on exploration and upstream oil development after 2018 with few exceptions.	Minimal exclusions on gas, only additional screening of gas-related projects.	No relevant policies.
WBG	No thermal coal mining or coal plants except in rare cases after 2013.	No upstream projects after 2019.	No upstream projects after 2019, and financing gas as a transition fuel only in exceptional cases	International Finance Corporation's Green Equity Strategy excludes most coal finance via intermediaries.
IADB	No thermal coal mining or coal-fired power generation and associated facilities.	No upstream oil exploration and development projects.	Upstream gas exploration and development projects w/ some "exceptional circumstances".	No exclusion policies.
AfDB	Verbal but not yet written commitment to end all coal support.[64]	No exploration.	No exploration.	No exclusion policies.
ADB	Verbal commitments to only support coal "in countries where there is no alternative."	No exploration. No extraction with some exceptions.	No exploration.	No exclusion policies.

No support for fossil fuels | Some support to fossil fuels | No exclusion / no policy

63 European Investment Bank, "EIB Energy Lending Policy: Supporting the energy transformation," November 2019, https://www.eib.org/attachments/strategies/eib_energy_lending_policy_en.pdf.

64 Alexander Winning, "African Development Bank decides not to fund Kenya coal," Reuters, 13 November 2019, https://www.reuters.com/article/us-africa-investment-coal/african-development-bank-decides-not-to-fund-kenya-coal-project-idUSKBN1XN1A8.

MDB	Coal exclusion policies	Oil exclusion policies	Gas exclusion policies	Indirect finance exclusions
AIIB	No exclusion policy in place.	No exclusion policies.	No exclusion policies.	No exclusion policies
IDBG	No exclusion policies.	No exclusion policies.	No exclusion policies.	No exclusion policies.
NDB	No exclusion policy in place.	No exclusion policy in place, but no oil support identified.	No exclusion policies.	No exclusion policies.

No support for fossil fuels Some support to fossil fuels No exclusion / no policy

Source: Still Funding Fossils: An assessment of MDBs' energy finance since Paris & in COVID-19 Recovery: The Big Shift. Global 2021 https://bigshiftglobal.org/MDB-finance-2020

It should be highlighted that moving away from fossil fuels poses difficulties even for the more advanced economies. The challenges and opportunities of a "just transition" have been highlighted in recent publications and presentations,[65] which emphasise support for green energy transitions.[66] The guiding policy framework of the EIB, for example, is the European Green Deal and accompanying EU Climate Law, provisionally agreed to on 21 April 2021 but not yet approved.[67] The key climate-related elements of the Green Deal are summarised in Box 2 below. The Box also illustrates the difficulty that even EU member countries are facing in achieving unanimous support for policy changes that would achieve carbon neutrality by 2050, especially countries such as Poland with substantial domestic fossil fuel resources. And this is the case despite EU and EIB support for a "just transition" with very substantial financial support to assist the transition away from fossil fuels.

65 https://www.csis.org/events/road-cop26-just-transitions-and-climate-agenda

66 https://www.un.org/sg/en/content/sg/statement/2021-01-11/secretary-generals-remarks-the-cop26-roundtable-clean-power-transition-delivered

67 https://www.reuters.com/business/environment/eu-clinches-deal-climate-law-tougher-2030-emissions-goal-2021-04-21/#:~:text=The%20European%20Union%20clinched%20a,heart%20of%20all%20EU%20policymaking.
https://www.consilium.Europa.eu/en/press/press-releases/2021/04/21/European-climate-law-council-and-parliament-reach-provisional-agreement/

Box 2: The European Green Deal and the EU Climate Law

Supporting the Transition to a Green and Climate Neutral Economy: opportunities and challenges

On 11 December 2019, coinciding with the UN's COP 25 climate summit in Madrid, the EU Commission launched a major climate package, the European Green Deal. The initiative is a roadmap for achievement of the EU's aim to be climate neutral by 2050. The package focuses not just on cuts but also on economic development – decoupling growth from resource use --- and it includes a budget of EURO 1 trillion to support countries in the transition. Some of the key measures in the Green Deal include:

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

The cornerstone of the Green Deal is the EU Climate Law, provisionally agreed to in April 2021 but still subject to formal approval by the MEP and EU member country Parliaments. The draft law has been the subject of intense negotiations, particularly from countries such as Poland, where 75 per cent of electricity is still coal powered, and the coal industry is a major source of employment. The industry has, however, been hard hit by the broader economic impacts of the COVID-19 crisis. With EU commitments for additional support to Poland through the Green Deal and COVID-19 recovery package, Poland has updated its 2040 Energy Strategy and is speeding up its energy transformation, though on a slower timeline than other EU member countries.

Source: https://www.lexology.com/library/detail.aspx?g=b18af039-49eb-484e-ac52, https://time.com/collection/great-reset/5900740/Europe-green-new-deal-poland/, https://www.euractiv.com/section/energy-environment/news/warsaw-says-committed-to-eus-climate-neutrality-goal/

3.4 Organisational frameworks and staffing

Most MOs have dedicated climate change units, but climate change is very largely mainstreamed into MO work at corporate and country level. MOs would agree, nonetheless, and there are staffing and capacity constraints.

Most MOs have dedicated climate units, but many agree that there are staffing and capacity constraints. All MOs also rely, to a greater or lesser extent, on consultants and on partnerships with scientific institutions. Their mandates are different, so direct comparisons between institutions are difficult. The reliance on technical partnerships is illustrated by the example of UNEP, whose staff[68] dealing with climate change issues, for example, has increased from three staff members four years ago to, a still modest, ten professional staff and two long-term consultants, three UN Volunteers, and one Junior Professional Officer (JPO). GEF has a small team of climate change specialists but relies largely on implementing agencies for climate change expertise, as does the GCF.[69] Capacity in the MDBs is more substantial. IDB, for example, has 103 staff (most of them, however, are not climate change experts) in its Climate Change and Sustainable Development Sector. The Vice Presidency for Sectors and Knowledge includes a sustainability advisor who co-ordinates with sector champions in the other IDB departments. Climate change specialists are being posted to the country offices, where they can serve as climate advisors to IDBG resident Country Representatives. IDB Invest's climate team now has 7 staff and long-term consultants, with three additional staff responsible for assessing climate risks. IFC has adapted its organisational and staffing approach to its private sector mandate (see Box 3) and operational focus. MO climate related operations are discussed more broadly in Chapter 4 below. IMF has only a limited number of climate specialists, though staffing is expanding.

68 Permanent staff positions are funded by UNEP's core budget, which accounted for just 5% of its total funding in 2018-2019. It is expected to remain roughly the same for 2022-2023 and has essentially been frozen in recent years.

69 The CCDRM TG, more specifically, was expected to carry out a "systematic and rigorous multisectoral 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 "multisector 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."

Box 3: IFC: The organisational approach to Climate Business Development

Organisational frameworks for climate action are adapted to specific MO mandates

The IFC Climate Implementation Plan, published in April 2016, is being updated. It is organised around five themes: Scale Climate Investments, Catalyse Private Capital, Maximise Impact, Account for Climate Risk, and Climate Finance. About 35 per cent of IFC activities are related to climate, mostly to mitigation including energy efficiency, renewable energy, green buildings. Growth areas are, identified in distributed renewable energy for industrial and commercial sources, new financial intermediary models, urban Infrastructure, Agribusiness, and Clean Tech venture capital. IFC's biggest impact, however, is not its own account financing, but its ability to mobilise external capital for climate sectors.

Within IFC, lead responsibility for operationalising the Plan rests with IFC's Climate Business Department (CBD) that supports investment teams to identify climate investment opportunities and mitigate climate risk. Investment teams, which have scorecards that explicitly include climate targets, identify low-carbon investment opportunities through industry sector experts, metrics specialists, finance professionals, and strategists. The Department also supports analysis of climate risk through tools such as carbon pricing and assessment of transition and physical climate risk in investment projects.

IFC's Climate Anchors Network integrates climate business throughout the Corporation. The Network comprises senior staff in each industry and regional department as well as in key operational departments including legal, and environmental and social teams. Regional and departmental climate anchors report to their department director and to the climate business director. Network staff have recently increased to include a risk specialist and 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. In 2020, a senior specialist from IFC's risk department joined the Climate Anchors Network.

The CBD supports investment teams to identify climate investment opportunities and mitigate climate risk. The department is headed by a director that reports to a vice president, who reports to IFC's CEO. The team works with the upstream teams and with the mainstream investment teams – which have scorecards that explicitly include climate targets – to identify low-carbon investment opportunities through its industry sector experts, metrics specialists, finance professionals, and strategists. It also supports analysis of climate risk through tools such as carbon pricing and the assessment of transition and physical climate risk in investment projects.

Source: IFC

3.5 Measuring the carbon footprint of operations

Business related travel comprises the majority of MOs' carbon footprint. Most MOs purchase carbon offsets to compensate for the emissions they generate.

As MO's have become more responsive to the climate related impacts of the investments they support at country level, they have also introduced systems to track the carbon footprint of their own internal operations. They do this as a matter of Corporate Social Responsibility and to set an example of good climate stewardship Most MOs have been tracking their own emissions since before 2010, with ADB in

2013, GCF in 2019, and AfDB – which is currently performing baseline measurements – as the exceptions.

MOs report emissions annually through a mix of internal and external publications. Common items measured include business travel, electricity use, and heating and cooling; these are converted into a standardised carbon output; other pollutants are also measured. Carbon emissions are then organised according to their "scope" (See Table 3) as defined in the GHG Protocol developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). The GHG Protocol also helps MOs harmonise the conversion ratios they use, as well as what emissions to measure. As an added benefit to this standardised system, all of the reviewed UN agencies, the IMF, and the WBG are able to also disclose their results jointly in the Greening the Blue report

Table 3: Emissions scopes

Scope 1: Direct emissions sources	• Combustion of fuel in owned boilers and furnaces • Generation of electricity, steam, heat, etc. in owned equipment • Business travel and commuting in owned vehicles • Emissions of refrigerant from owned equipment
Scope 2: Indirect emissions sources	• Generation of purchased electricity, steam, heat, or chilled water
Scope 3: Optional sources	• Business travel and commuting in non-company owned vehicles

Figure 10 below presents GHG emissions by MO. Due to its size and the global span of its operations, the WBG has the largest gross emissions, by far. Figure 11 further below highlights the average breakdown of MO GHG emissions by scope.

Figure 10: Gross GHG emissions by MO

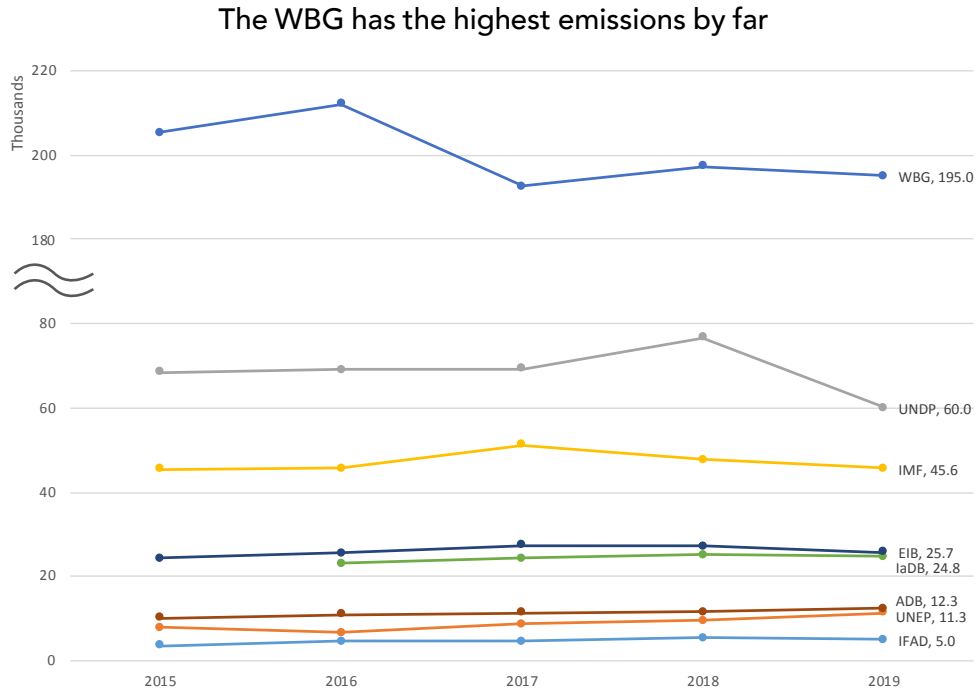
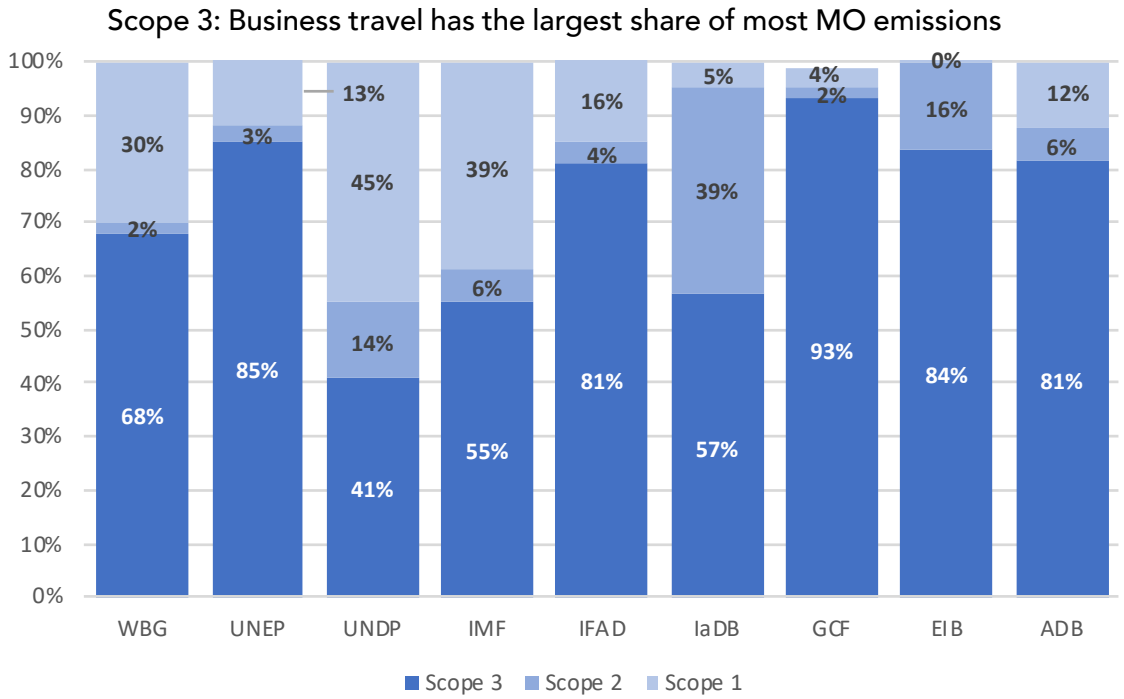


Figure 11: Breakdown of MO emissions by average per cent of scope



In order to combat these inevitable emissions, most MOs aim to become Carbon Neutral through the use of Carbon Offsets. These offsets can take many forms such as planting trees or other carbon capture projects; however, many MOs use a mix of investment in climate-neutral or net negative projects – such as those in forestry or green energy – renewable energy credits (RECs), certified emissions reductions (CERs), as well as emissions trading with other organisations. As a result of these offsets, most MOs are now technically carbon neutral.

4. FINANCING CLIMATE ACTION

4.1 Windows of financing

MOs have set targets for increasing the proportion of investments with a climate change focus as well as the proportion that is dedicated to adaptation and resilience. Partnerships have facilitated the development of common approaches to climate finance. The majority of publicly provided climate finance has been from IFI's own resources. The vertical funds have provided important leveraging finance and have facilitated "risk taking" by supporting innovations. They are also the main source of climate finance for UNDP and UNEP. In addition to the international vertical funds (e.g., GCF, GEF) there are also more specialised funds which may be managed by only one of the IFIs.

Climate finance still falls far short of requirements, However, estimates of financing needs change over time as new technologies are developed and rolled out to scale, and the enabling policy environments improve. The private sector has a key role to play, especially in mitigation but also potentially in adaptation. And many investments contribute to both adaptation and mitigation, while broader development programmes often have cross-cutting climate benefits.

IFIs

Climate finance as a share of the total operations of IFIs has increased from 20 per cent in 2015 to 33 per cent in 2019, a total of USD 50 billion (see Table 4 for details). EIB provided more climate finance than any other of the IFIs in this study (USD 21.7 billion) in 2019, but the great majority was to upper middle-and high-income countries, and for climate change mitigation. The share of adaptation in total climate finance more broadly has also increased for most IFIs, to as much as two-thirds of all climate finance provided by AfDB in 2020. The great majority of climate finance continues to be from the MDBs' own resources, with dedicated climate funds (such as the CIFs, the GCF and the GEF), and other co-financing, including from the private sector, forming a relatively small share of total climate finance, (less than 15 per cent in the case of ADB, AfDB and IDBG for every year since 2015). Figures for 2020 are already available for some of the MDBs.

Table 4: IFI climate finance (2015-20)

	2015	2016	2017	2018	2019	2020
ADB						
Total climate finance (USD million)	2 917	4 437	5 234	4 011	7 073	5 326
Climate finance/ total finance (%)	15	22	23	18	30	17
Adaptation finance/ total climate finance (%)	12	27	19	32	22	14
Own resources/total climate finance (%)	91	84	87	89	90	86
AfDB						
Total climate finance (USD million)	1 359	1 061	2 347	3 272	3 600	2 100
Climate finance/ total finance (%)	16	9	28	32	35	34
Adaptation finance/ total climate finance (%)	29	37	33	49	56	67
Own resources/total climate finance (%)	89	92	83	84	83	NA
EIB[70]						
Total climate finance (USD million)	5 137	4 266	5 477	5 700	21 698	28 810
Climate finance/ total finance (%)	26	21	27	29	31	37
Adaptation finance/ total climate finance (%)	7	7	3	8	4	10
Own resources/total climate finance (%)	99	99	97	94	98	NA
IDBG						
Total climate finance (USD million)	1 744	2 689	4 348	4 966	4 958	3 400

70 The MDB Climate Finance Annual Report does not report climate finance figures to the EU and other European Countries in the 2015 to 2018 reports. The data presented in 2019 and 2020 is from the EIB Climate Change Roadmap. 2020 figures are not yet finalised for all MDBs.

	2015	2016	2017	2018	2019	2020
Climate finance/ Total Finance (%)	16	21	29	27	25	16
Adaptation finance/ Total climate finance (%)	15	22	19	26	39	NA
Own resources/total climate finance (%)	85	89	94	90	95	NA
WBG						
Total climate finance (USD million)	10 722	11 494	13 213	21 326	18 806	21 400
Climate finance/ total finance (%)	18	18	21	32	31	28
Adaptation finance/ total climate finance (%)	32	31	31	37	41	52
Own resources/total climate finance (%)	93	94	97	96	95	NA

Source: MDB Climate Finance Annual Reports

The IFIs have had annual targets for climate finance, with increasing levels of ambition over the 2015-20 period. MDBs have mostly met these targets through 2019. As Table 4 illustrates, however, for 2020 the picture is more mixed, since substantial resources were diverted to address the short-term economic, social and health impacts of the COVID-19 pandemic. In addition to collaboration on climate finance tracking and us of common methodologies, which IFIs are working together to improve, the 2018 Joint Declaration on Paris Alignment[71] has provided an opportunity for even closer co-operation. This commits IFIs to operationalise the six building blocks of alignment under the Paris Agreement: These are: (i) MDB operations consistent with national low-emissions development pathways; (ii) Operations 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 IFI working groups were established under each of these building blocks, and each IFI takes the lead for co-ordinating work on one of these.

Since 2015 most IFIs have also sought to increase the share of adaptation finance in total finance while aiming to support improvements in the enabling environment for enhanced private sector engagement, especially in mitigation. Table 4 illustrates that the share of adaptation finance in total climate finance increased from 32 per cent to 52 per cent over the 2015-20 period for the WBG, for example, and from 28 per cent to 67 per cent for the AfDB. The increases were significant also for the IDBG, though much less so for the ADB and EIB. There is increasing consensus that, given rapidly developing technologies and declining costs for important renewable energy resources, with the right enabling environment the private sector can provide much of the mitigation finance needed. Public resources for mitigation are best used to provide seed money and to build capacity for implementation of policy changes. For adaptation, however, private sector financing is more challenging because the types of investments involved often do not directly

71 https://www.worldbank.org/en/news/press-release/2018/12/03/multilateral-development-banks-mdbs-announced-a-joint-framework-for-aligning-their-activities-with-the-goals-of-the-paris-agreement

generate revenues. Some MDBs have also had lending targets by sector or thematic area. For AfDB,[72] for example, the aim was that by 2020, 40% of the Bank's finance should be identified as climate finance, divided broadly under the High-5 frameworks as follows: (i) Light up and Power Africa investments – 22 percent; (ii) Feed Africa – 6 per cent; (iii) Industrialise Africa – 3 per cent; (iv) Integrate Africa – 1 per cent; and (v) Improve the Quality of Life for the People of Africa – 8 per cent. The AfDB 2016-20 Climate Change Action Plan (CCAP 2) noted also that for most African countries the principal source of GHG emissions is from LULUFC, for energy and subsistence agriculture, access to modern energy, and more productive, climate-smart agriculture were key elements in both mitigation and adaptation.

The IMF addresses climate change through policy advice and assistance with macro-economic and financial sector reform, rather than through direct project lending. Its work is summarised in Chapter 5. It should be highlighted also that most investment operations include a capacity building component, as well as support to implementation of policy reforms (for example in improved land use practices, or in regulations related to energy or transport), and many are preceded by analytical and policy related work.

UN agencies

IFAD has increased financial support to address climate change over the last decade. IFAD was "an early mover" in adaptation. In 2012 it launched the Adaptation for Smallholder Agriculture Programme (ASAP) with the objective of making climate and environmental finance work for smallholder farmers. ASAP has raised USD 300 million to integrate climate change adaptation across IFAD's portfolio. ASAP+ will allocate another USD 100 million. By 2018, climate finance comprised 28 per cent of total IFAD support, including ASAP, IFAD's own resources, and co-financing from the vertical funds and other sources. The target, furthermore, is that at least 25 per cent of assistance in IFAD-11 (2019-21), and at least 35 per cent in IFAD-12 (2022-25) shall be allocated to climate-focused activities, reaching 24 million people, and that financing is secured for joint climate action projects with FAO and WFP.

The majority of UNDP's climate related activities are supported through the vertical funds. Since these are not directly programmable, UNDP does not have climate finance targets as such. However, it is the largest single implementing agency of the GEF, with approvals (for all programmes) of over USD 400 million per year. UNDP has often supported GEF-funded pilot projects, and there has been some concern that many of these may not be directly scalable. While UNDP projects leverage substantial co-financing, often in the form of contributions from government, these are not accounted for in the same way as MDB co-financing and are not directly comparable. GCF approvals for which UNDP was the accredited agency totalled USD 182 million from 2017-19. UNDP has supported GCF preparedness activities as well as project implementation.

Climate change is the largest of UNEP's seven sub programmes, expected to account for nearly 29% of its total budget for 2020-2021 (USD 262.2 million). The focus is on assisting countries with adaptation, including ecosystem-based adaptation, on adoption of low GHG emission strategies and technologies, and on forest-friendly policies. Many of the projects primarily involve technical assistance and/or institutional capacity building. Many are also multi-country. They are predominantly funded by external sources including the GEF, GCF, EC, and individual bilateral donors and are executed by a wide variety of partners on the ground including national government agencies and NGOs. Dedicated vertical funds support nearly 90 per cent of UNEP's climate change activities; UNEP is the third largest implementing agency of the GEF.

72 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/AfricanDevelopmentBankClimateChangeActionPlan2016-2020.pdf

Dedicated Climate Funds

The following paragraphs provide a summary of the principal dedicated vertical funds established to address climate change. The three largest are the GEF, the CIFs, and the GCF. However, there are many more, some administered by a single MDB, and some designed to address one particular climate change area. The summary is not intended to be exhaustive.

The GEF is the oldest of the dedicated climate funds and has facilitated innovation in addressing climate change challenges. Established as a financial mechanism of the UNFCCC following the Rio Earth Summit in 1992,[73] its climate change mitigation fund has enabled MOs to pilot new approaches in areas ranging from energy efficiency and renewables to improved solid waste management and low carbon transport (see also Annex 2E). Since 2001 GEF has also been responsible for administering the Least Developed Country Fund (LDCF) to address adaptation and facilitate implementation of the 1994 United Nations Convention on Combatting Desertification (UNCCD) in the poorest countries, and the Special Climate Change Fund (SCCF), to help address adaptation and technology transfer needs in all developing countries. Since 1992 it has provided a total of USD 8.5 billion in resources and leveraged USD 66 billion in co-financing (see Table 5). The number of implementing agencies of the GEF has been increased from three (UNDP, UNEP and the WBG) in the initial years to 18 at present.[74]

Table 5: The GEF Programme 1992-2020

Programme	Projects & enabling activities	GEF funds (USD billion)	Co-financing (USD billion)
GEF: Climate change mitigation focal area	100	6.69	57.2
LDCF	305	1.51	6.53
SCCF	87	0.35	2.66

Source: Report of the GEF to the 26th Session of the Conference of the Parties

The GEF has enabled risk taking in piloting new technologies that would have been challenging with loan resources. GEF has also facilitated an increasing focus on climate change-related work especially for UNDP and UNEP. It has established a special fund under Article 13 of the Paris Agreement – the "Capacity Building in Transparency Initiative" (CBIT) – to help countries meet requirements for reporting on their NDCs and to build capacity for implementation (see also Chapter 5). Recognising that addressing climate change systematically and at scale requires cross-cutting solutions, the GEF now increasingly channels its support for climate action into "Integrated Impact Programmes." These include: (i) Food, Land Use and Restoration: land-based and value chain GHG mitigation (sequestration and avoidance;) (ii) Sustainable Cities: urban-related GHG emissions avoidance; (iii) Sustainable Forest Management: protection of carbon-rich stocks; forest-related GHG emissions avoidance. The GEF-8 programming discussions further emphasised the importance of integrated programmes to support nature and move towards carbon

73 The GEF serves as a "financial mechanism" to five conventions: Convention on Biological Diversity (CBD), United Nations Framework Convention on Climate Change (UNFCCC), Stockholm Convention on Persistent Organic Pollutants (POPs), UN Convention to Combat Desertification (UNCCD), and the Minamata Convention on Mercury

74 https://www.thegef.org/partners. It includes, in addition to UNDP, UNEP and the WBG, IDB, ADB, AfDB, the United Nations Industrial Development Organization UNIDO, Conservation International, the Development bank of Latin America, The Development Bank of Southern Africa, the Foreign Economic Co-operation Office of the Ministry of Environmental Protection of China, The Brazilian Biodiversity Fund (Funbio), The International Union for the Conservation of Nature, the West African Development Bank and the World Wildlife Fund US

neutrality[75] in support of a vibrant blue and green recovery. GEF estimates that 84 per cent of its overall financial support under GEF-7 is climate related. While introducing a larger number of implementing agencies has had some advantages, it may also have had the consequence of more "competition" for limited resources. As indicated in a recent evaluation,[76] however, the UNDP, WBG and UNEP continue to receive the majority of GEF funding (70 per cent) with UNIDO and FAO accounting for a further 7 per cent each. Nevertheless, even though the GEF is committed to scaling up private sector financing, one finding of the IFC study, for example (see Volume 2), has been that it has made much less use of GEF funding in recent years due to the relatively small size of individual project grants and a withdrawal from support to fund investment vehicles. The IFC also finds that the structure of the GEF integrated impact programmes limits the use of private sector finance.

The Climate Investment Funds (CIF) were established in 2008[77] and have facilitated collaboration between IFIs and countries on planning and prioritising programmes to address climate change. The CIFs are administered by the WBG's Climate Change Group, implemented in partnership with five IFIs,[78] and total some USD 8.6 billion to date (see Box 4). They have leveraged USD 53 billion of co-financing, 57 per cent public and 43 per cent private.[79] CIFs operate in 72 developing and middle-income countries. Programmes and projects are identified on the basis of priority investment plans developed jointly by the country, the relevant regional IFI and the WBG. 32 per cent of project funding has been to Asia, 27 per cent to Africa, 21 per cent to LAC, 13 per cent to ECA, 3 per cent to MENA, and 3 per cent has been for global programmes. Although the CIFs pre-date the SDGs, the programme has been mapped against them to illustrate the contribution they make, including to SDG 13. The CIFs were intended to pilot and provide lessons for low carbon, climate-resilient programmes and projects that would facilitate establishment and operationalisation of the Green Climate Fund. However, the CIFs continue to be replenished through commitments from individual donors, who consider the funds to be highly effective and catalytic. The CIFs have supported climate-friendly innovations across a range of sectors.

The IFIs agree that the CIF procedures, which operate through partnerships between IFIs and countries, facilitate both upstream collaboration between MDBs within a country and sector and a country-owned approach to investment planning.

75 https://www.thegef.org/sites/default/files/council-meeting-documents/2021_04_22_First_Meeting_GEF-8_PDs_Presentation.pdf GEF 8 Strategic Positioning and programming Directions April 2021

76 https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.E_C59_03_IEO_MSP_Evaluation_Nov_2020_0.pdf

77 14 donor countries have supported them, the primary countries being UK, US, Japan, Germany, France, Norway, Sweden and Canada.

78 Since the outset these have included the WBG, the ADB, AfDB, IDB and EBRD. EIB became in implementing partner in 2015.

79 https://www.climateinvestmentfunds.org

Box 4: Climate Investment Funds

An instrument for collaboration between IFIs at country level

To date the CIFs include four funds. The USD amounts refer to the funding contributed by the donors.

The Clean Technology Fund (CTF: USD 5.4 billion) helps scale up promising low-carbon technologies with transformational potential. Programmes supported range from solar power generation to improved urban transport systems.

The Pilot Programme for Climate Resilience (PPCR: USD 1.2 billion) helps integrate climate resilience into strategic development planning across sectors and stakeholder groups and funding to put the plans into action and pilot innovative public and private sector solutions, Programmes supported range from climate resilient agriculture and infrastructure to flood management.

The Forest Investment Programme (FIP: USD 758 million), empowers countries to address the drivers of deforestation and forest degradation both inside and outside the forest sector to achieve the triple win of being good for forests, good for development and good for the climate. Other benefits include biodiversity conservation, poverty reduction and protection of the rights of indigenous peoples and local communities. Programmes supported include landscape management, improved tree-crops, and agro-forestry and reforestation.

The Scaling Up Renewable Energy in Low-Income Country Programme (SREP: USD 720 million) support poor countries to scale up investments in renewable energy, including mini-grids.

The CIFs are now launching five new programmes: (i) accelerating the Coal Transition; (ii)renewable energy integration and storage to accelerate micro-grid development; (iii) sustainable cities to support more resource efficient growth in medium size cities; (iv) nature-based solutions at scale; and (v) industrial de-carbonisation in GHG intensive and hard-to-abate sectors like steel.

The CIFs have also mobilised USD 25 million for a COVID-19 Technical Assistance Response Initiative for Green and Climate Resilient Recovery.

Source: https://www.climateinvestmentfunds.org/.

The GCF was established to support developing countries to transition towards low emission and climate resilient pathways (see also Annex 2D). Its governing instrument was adopted at COP 17 in 2011 and it became fully operational in 2015. During its first programming period GCF mobilised USD 8.3 billion to support its operations, with a further USD 9.9 billion pledged for the 2020-23 replenishment. As of March 2021, the entire USD 8.3 billion had been committed for operations totalling USD 30 billion including co-financing, aiming to increase the resilience of 498 million people and avoid 1.8 billion tonnes of CO2e. GCF invests across three transitions: the built environment, energy and industry; human security, livelihoods and well-being; and land use, forests and ecosystems. It supports transformational planning, climate innovation, and de-risking investments to mobilise finance at scale and crowd in private finance. GCF employs part of its funds to help mobilise financial flows from the private sector. It also supports country capacity building through its readiness programme. Funding is split broadly 50:50 across adaptation and mitigation

although many of its programmes are cross-cutting. Operations supported to date are very wide-ranging.[80] Associated with the GCF is the Green Growth Institute, which supports knowledge and advisory services and assists member countries accessing climate finance, including through the GCF Readiness Programme.

GCF has a much broader range of accredited entities (implementing agencies) than GEF or the CIFs. As of March 2021, 103 had been approved for accreditation and they include developing country organisations, commercial banks, development finance institutions, equity funds, UN agencies, and civil society organisations. GCF structures its financial support through a combination of grants, concessional lending, guarantees, and equity instruments to leverage blended concessional finance and crowd in private investment. A key stated feature is leveraging risk taking and patient capital through GCF support. GCF has been under pressure to expand its operations very rapidly, and some MOs have gone through a "steep learning curve" in adapting to its procedures. But most are making increasing use of its instruments to support operations in member countries.

The Adaptation Fund was established under the Kyoto Protocol of the UN Framework Convention on Climate Change.[81] Since 2010 it has committed USD 783 million to climate adaptation and resilience activities, including support to 115 adaptation projects, with over 27 million direct and indirect beneficiaries. The Adaptation Fund has pioneered Direct Access and Enhanced Direct Access, empowering locally led projects and building country ownership in adaptation. It is financed largely by government and private donors, and also from a two per cent share of proceeds of Certified Emission Reductions (CERs) issued under the Kyoto Protocol's Clean Development Mechanism (CDM) projects.[82] The Fund currently has 53 Accredited Entities. These include national NGOs, government organisations, regional organisations, development banks, and multilateral organisations, including all the MOs in this study except the IMF and EIB.

Other funds

There is also a wide range of other vertical instruments, some managed by single MOs, some regionally focused and some in support of particular themes.[83] These include, for Africa and managed by AfDB, the CLIMDEV special fund (supporting improved hydro-meteorological knowledge, climate and weather forecasting systems), the Africa Climate Change Fund, and the Sustainable Energy for Africa Fund. The WBG manages the Energy Sector Management Assistance Programme (ESMAP) which supports innovative green energy solutions, as well as the Global Disaster Risk Reduction Facility (GDRRF). It is also supporting the Partnership for Market Implementation (PMI),[84] whose objective is to assist countries to design, pilot, and implement carbon pricing instruments aligned with domestic development priorities in order to meet NDC targets and long-term de-carbonisation strategies. It acts as trustee for 15 Carbon Finance facilities. These have supported activities in 65 countries and have made USD 2 billion in Emission Reduction payments since the first carbon fund (the Prototype Carbon Fund) was launched in 1999.[85] EIB has access to substantial EU grants and trust funds. ADB manages its own Climate Change Fund, the Urban Climate Change Resilience, and the ASEAN Australia Smart Cities trust funds, among others. Under the Kigali Amendment, the Multilateral Fund of the Montreal Protocol also supports developing countries

80 They include coastal resilience, climate smart agriculture, early warning systems, improved forest and broader landscape and ecosystems management, to rural energy, large-scale renewable energy, green finance and energy efficiency, and a green cities financing facility covering energy efficiency, clean energy transitions, low carbon transportation systems, green, resilient infrastructure, waste management, green areas, water cycle management and integrated planning

81 https://www.adaptation-fund.org/

82 Clean Development Mechanism

83 Those supporting capacity building in relation to NDCs are discussed in Chapter 4B (iii) 4.

84 launched in early 2021 and successor to the previous Partnership for Market Readiness (PMR),

85 https://www.worldbank.org/en/topic/climatechange/brief/world-bank-carbon-funds-facilities

in phasing out their use of climate-warming hydrofluorocarbons (HFCs), currently commonly used as a replacement for ozone depleting Hydrochlorofluorocarbons (HCFCs).[86] Overall, as highlighted by a recent publication,[87] there is a very large number of trust funds managed by different MOs and there is room for co-ordination and consolidation.

Climate change investments still fall well short of requirements. A recent study compares annual dedicated climate finance (USD 3 billion) and climate related development finance (USD 55 billion) with annual financing needs (USD 1-4 trillion).[88] The private sector has a key role to play, and this is widely recognised by the IFIs and the vertical funds. Over one quarter of GCF's portfolio, for example, is with private sector organisations, with USD 2.8 billion of GCF funding and USD 11.5 billion private sector funding committed. IFC has identified over USD 30 trillion dollars' worth of climate-smart investment opportunities in emerging markets, and estimates that financial institutions will need to grow the share of climate-friendly projects in their portfolios from an average of 7 per cent in 2016 to 30 per cent by 2030 to finance the greening of the economy. This equates to an increase from approximately USD 1.5 trillion to USD 13.4 trillion, a growth opportunity that IFC calls "too big for banks to miss." There is also scope for greater domestic resource mobilisation, especially in middle- and upper-middle income countries. The emerging market average tax to GDP ratio, for example, is 21 per cent, compared with an OECD average of 34 per cent.[89] This is an area which goes beyond the scope of this study, but illustrates the links between areas traditionally outside the 'climate domain" such as improved public financial management and resource mobilisation for climate action.

It should be emphasised that estimates of financing needs change over time as new technologies are developed and rolled out to scale, and the enabling policy environments improve. The costs of solar energy, both large scale and small scale, for example, have decreased dramatically over the past 10 years and costs can now compete with fossil fuel powered generation in many countries. Financing needs are also dependent on enabling policies, for private sector investment in clean energy, for energy efficiency and for urban development and broader land use. Land use policies which restrict new developments on land vulnerable to flooding can reduce adaptation costs, for example. Protecting upstream vegetation cover can reduce the severity of downstream flooding. Technology also has a key role to play in driving down the costs of climate-smart growth and facilitating transformational change. MOs and the MS more broadly have a role to play in all these areas; these aspects are discussed later in the chapter.

86 https://www.nrdc.org/experts/alex-hillbrand/montreal-protocol-convenes-agrees-268m-holdover-funding

87 https://www.researchgate.net/profile/Katharina-Michaelowa/publication/342540165_Climate_change-related_trust_funds_at_the_multilateral_development_banks/links/5f02d6fda6fdcc4ca44e984c/Climate-change-related-trust-funds-at-the-multilateral-development-banks.pdf

88 "Vivid Economics" 2020 Transformative Climate Finance Options https://www.vivideconomics.com/casestudy/transformative-climate-finance-a-framework-to-enhance-international-climate-finance-flows-for-transformative-climate-action/

89 https://data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS

4.2 Operating and financing at country level

At the country level MOs are investing substantially in climate change mitigation and adaptation, and climate has become a key part of IFI and UN agency country strategies. Support programmes may have been given a "push" by NDCs, but they are also elements in longer-term strategies for cities and countries to move towards greener, low carbon growth strategies and become more climate resilient, even if LTSs have not been formally articulated. MOs are increasingly supporting longer-term transformational programmes. They also go "beyond investments" and include enabling policies, which facilitate and drive down the costs of transitioning to carbon neutral and resilient growth. Country examples also illustrate that many climate programmes have cross-cutting adaptation and mitigation benefits and also contribute to broader socio-economic and environmentally sustainable development.

Most programmes involve partnerships between MOs at the country level and many include support from dedicated climate funds. Many also involve long-term commitment, including through difficult times. They often also include partnerships with private sector organisations, scientific research and academic institutions, and advocacy and community groups. Nevertheless, in some countries the "demand" for climate action is limited by local political economy constraints and short-term trade-offs. In these cases, the "operating space" is narrower but there are still opportunities. Overall, stronger engagement in upfront policy reform, including in regulatory frameworks for private sector climate action, would facilitate more rapid progress towards meeting the Paris goals.

The country studies indicate that MO support is grounded in country development priorities and contributes to these countries' climate goals, but in some countries the space for engagement is limited. Overall MO financial assistance to Brazil, for example, is very modest compared with the size of the economy. The current combined planned lending programmes of the IDBG and WBG (for all sectors), are about USD 2.5 billion per year, while Brazil's economy was estimated at USD 1.84 trillion in 2019. Brazil has been reluctant to borrow for environmental programmes; consolidation of protected areas, for example, has been supported primarily through GEF grant funding. MOs have supported climate-smart agriculture in the Cerrado with a mix of loans, concessional funding and grants (see Box 6). India's GDP was estimated at USD 3.7 trillion in 2019 while the major MOs in lending terms, ADB and the WB, together provide financing of about USD 6 billion annually. For Indonesia the WBG and ADB lending programmes are constrained by tight country fiscal policy and debt ceilings. In Ethiopia, the role of development assistance is greater, while in Jamaica both the WBG and IDBG have substantial programmes and the IMF has also been a major player. The larger countries have federal administrations, while implementation of climate-smart programmes is generally at sub-national level, and there is not always coherence between federal policy, on the one hand, and enforcement or implementation capacity at sub-national level, on the other.

The studies also note while for all countries economic and social development are priorities, for some there are clear synergies between growth and low carbon, climate-resilient growth, while for others there are trade-offs, at least in the short term. Where there are synergies, as in Jamaica (see Box 5) and Ethiopia, MOs have a much clearer task. Where there are differences, MOs can find "operating space", but need to accept that there are greater risks of failure or at least only partial success (as in the case of energy policy reform in Indonesia – see Box 12) or to work in less controversial areas while building consensus for reform through policy dialogue. For all of the countries, policy reforms frequently accompany investments in climate action, as illustrated by the boxes on Jamaica, India and Indonesia, which all involved extensive collaboration between MOs.

Box 5: Reducing vulnerabilities to natural disasters in Jamaica

Using a mix of financial instruments to support development and implementation of climate resilience policies

Jamaica has used various instruments to reduce vulnerability, The PPCR supported improved climate information systems and adaptation planning. In 2016 IDB approved the Disaster Vulnerability Reduction Project (USD 30 million) for improved disaster and climate resilience planning, risk reduction, including retrofitting of vulnerable key assets and securing coastline, and a Contingency Emergency Response Component (CERC) to support the country's emergency preparedness and response capacity. An additional programme is under preparation.

Jamaica has strengthened the regulatory, institutional, and budgetary framework for disaster risk management (DRM). It has also taken steps to strengthen its fiscal resilience to natural shocks and climate impacts by obtaining parametric insurance coverage for hurricanes, earthquakes, and excessive rainfall events under the regional Caribbean Catastrophe Risk Insurance Facility (CCRIF); and by securing a Contingent Credit Facility (CCF) with the IDB. The Government is also being assisted by the World Bank towards designing a Catastrophe Bond (CAT) to reduce risk to the insurance sector.

In March 2020, the WBG approved a Fiscal Sustainability and resilience DPL. This operation seeks to promote fiscal sustainability and inclusion, enhance fiscal and financial resilience against climate and natural disaster risks, and improve the investment climate for sustainable growth. It helps strengthen institutional mechanisms for greater fiscal responsibility, while also increasing sustainability of the social protection system. It supports measures to ensure that resources are available in the budget to adequately cope with climate and natural disaster-related shocks. It also improves policies to reinforce the resilience of Jamaica's infrastructure to multiple types of disaster risk, including reforms to land titling and to the application approval process for development and building permits, as well as for the effective management and sustainable development of fisheries.

Source: https://wicnews.com/caribbean/world-bank-approves-us70m-support-jamaicas-fiscal-resilience-490126560/.

The countries studied are undertaking a wide variety of climate-friendly operations, and different climate finance instruments have facilitated this. The GEF allowed for early work on climate change mitigation and drought resistance, mitigating risks with grant funding and allowing for later scaling up. It is an important source of climate finance especially for UNDP and UNEP. Most IFIs would agree that the CIFs have been effective instruments for them to work together and with countries to address key mitigation and resilience issues and have allowed for finance to scale. The GCF, with a large number of accredited agencies, has facilitated implementation of several important and innovative programmes, including in the five countries reviewed (see Boxes 6 and 7 for examples in Brazil and Ethiopia respectively).

Box 6: Building resilience in Brazil's North-East: Complementary approaches by IFAD and the WBG with GEF and GCF support

Climate resilient agriculture and nature-based solutions

The North-East Brazil Climate Resilience project aims to transform vulnerable farmers' productive systems to low emission climate resilient agriculture. It will increase access to water through solar irrigation and support in women, youth and traditional communities in particular to scale up tested adaptation and mitigation measures. Costs are USD 202 million, comprising USD 100 million GCF and USD 102 million IFAD. It is expected to reach 2.5 million beneficiaries. Co-benefits are projected to include 11.9 million tons GHG emissions avoided.

The Integrated Landscape Management in the Cerrado Biome Project, managed by the WB, aims to strengthen the adoption of environmental conservation and restoration and low-carbon emission agricultural practices in selected watersheds. It supports capacity building for landscape management at the national and local levels through land use mapping, studies and information, and strengthening of governance and the capacity of key institutions. It mainstreams improved landscape management practices into priority watersheds to promote the adoption of land restoration, low-carbon emission agricultural practices, production efficiency, and environmental compliance among farmers. Costs, supported by the GEF, are USD 21 million.

Source: https://www.greenclimate.fund/countries/brazil

A strong feature of the GCF has been that country entities can directly access funds and execute projects. Examples include the Ministry of Economy and Finance in Ethiopia (see Box 7), or the Agricultural development Agency in Morocco.[90] A wide range of development banks are also supporting investment programmes.

Box 7: Responding to the increasing risk of drought: Building gender response resilience of the most vulnerable communities, GCF and Go Ethiopia

Direct access to GCF finance by accredited government agencies

This climate resilience operation was approved in 2017 for a cost of USD 50 million, of which USD 45 million is provided by GCF. The project supports solar-powered water pumping and small-scale irrigation, the rehabilitation and management of degraded lands around the water sources, and creating an enabling environment by raising awareness and improving local capacity. Improved water supply and management systems will increase local communities' productive capacity as well as the water ecosystem's carrying capacity. Over 50% of the beneficiaries will be women, with 30% of households headed by women. There are 1.3 million beneficiaries, of whom 0.3 million are direct and 1.0 million indirect. The project will be implemented through the Ministry of Finance and Economic Co-operation (MFEC) and the relevant sector agencies. MOFEC is Ethiopia's Accredited Entity to the GFC; the MOFEC, which has established the Climate Resilient Green Economy (CRGE) Facility to help channel climate finance to projects.

Source: https://www.greenclimate.fund/countries/ethiopia

90 https://www.greenclimate.fund/ae/ada-morocco

MOs support a very wide range of climate-related operations. These range from multi-country initiatives which have been scaled up over time, to large-scale single country programmes, to pilot projects and climate-related research. This section cannot do justice all of these. Rather, it picks three areas, landscape resilience, clean energy, and climate-smart cities. Each involves a different set of partnerships, financial instruments, and enabling policies. All contribute to broader socio-economic and sustainable development goals as well as to climate goals, and several have both adaptation and mitigation benefits. Commitment for the long-term and a willingness to learn and take risks are common key ingredients for successful results. Other common themes include scaling up new technologies, and mobilising finance from a variety of sources, including the private sector. These examples also have a focus on the Sahel, which includes countries with highly challenging development environments.

Landscape resilience

The Great Green Wall Initiative[91] of the Sahel aims to improve climate resilience, productivity and incomes across semi-arid areas of the Sahelian countries. The concept was identified by African leaders in 2005 and adopted by the African Union in 2007. The aims are to improve climate resilience through integrated management of landscapes, transforming livelihoods through increasing crop and livestock productivity, improving food security, and providing jobs for the population. The programme is implemented largely through national-level initiatives with the support of development partners and vertical funds. The GEF, EU, FAO, and WBG provided initial support and the CIFs included Sahelian countries as pilots: Niger (PPCR), Burkina Faso (FIP), and Ethiopia (SREP). In 2011, with a USD 100 million GEF fund for the Sahel and West Africa Programme in Support of the GGWI (SAWAP) was established,[92] leveraging USD 1.1 billion in development finance. Specific interventions continued the landscape approach and included a programme on Building Resilience through Innovation, Communications, and Knowledge Services (BRICKS), implemented by three regional centres of excellence – the Permanent Interstate Committee for Drought Control in the Sahel, the Sahara and Sahel Observatory, and the international Union for Conservation of Nature (IUCN). SAWAP has brought over 1.6 million hectares of land under sustainable land management, reduced anthropogenic pressure on forests, increased adoption of participatory approaches for natural resources management, and increased investments in both SLM and income-generating activities for vulnerable households. The project has reached over 22 million direct beneficiaries across all 12 countries in the region.[93]

Later phases of the programme have continued the landscape approach while also supporting implementation of country NDCs. GEF has continued its support, emphasising that landscape restoration contributes to mitigation as well as adaptation. Additional impetus has been provided by the Climate Smart Agriculture[94] initiative, including the Africa Agricultural Adaptation Initiative,[95] co-ordinated by the African Union. The CGIAR has a core programme, the Climate Change, Agriculture and Food Security Programme (CCAFS), which includes a focus on the Sahel. The GCF has supported related operations in Ethiopia (sustainable land management, implemented through the WBG), the Niger Basin (integrated development and adaptation to climate change: AfDB), Niger (Inclusive Green Financing, IFAD), Senegal (Climate Risk Management including weather-based insurance: WFP, and Restoration of Saline Land: Centre

91 https://www.thegef.org/publications/great-green-wall-initiative#:~:text=Over%20a%20decade%20ago%2C%20the,(GGWI)%20in%20the%20Sahel.

92 https://sdg.iisd.org/news/first-great-green-wall-global-conference-reaffirms-commitments-to-restore-africas-drylands/, https://sawap.wordpress.com/2015/02/19/the-gef-presents-their-view-on-sawap/

93 https://publicpartnershipdata.azureedge.net/gef/GEFDocuments/d35dd11f-df7c-e811-8124-3863bb2e1360/Roadmap/TerminalEvaluationTE_5423-P130888-2019-ICR-WB-Western-Africa.pdf

94 https://www.worldbank.org/en/topic/climate-smart-agriculture, http://www.fao.org/climate-smart-agriculture/en/

95 https://sustainabledevelopment.un.org/partnership/?p=36657#:~:text=The%20main%20objectives%20of%20the,financial%20flows%20to%20the%20most

Du Suivi Ecologique), and Mali (Hydromet strengthening, WBG). During the 2021 One Planet Summit hosted by French President Macron and the Prince of Wales, AfDB pledged to assist in mobilising up to USD 6.5 billion over five years to help the GGW programme realise 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 region.

The Great Green Wall of the Sahel is estimated to be 15 per cent completed. It is being implemented in some of the least developed countries of the world. But it demonstrates how a combination of country leadership, sustained commitments and a flexible approach adapted to different countries combined with climate and development finance and technical partnerships have allowed a concept that is core to the long-term sustainable development of the Sahel to move forward. Long-term success also depends on Sahelian countries improving access to clean energy, as illustrated in the following paragraphs.

Clean energy in LDCs and middle-income countries

Because of the power deficit in LDCs, renewables provide an opportunity to increase access using clean energy sources. Energy poverty in Africa costs the continent an estimated 2-4 per cent of GDP annually. The International Renewable Energy Agency (IRENA) estimates that Africa has almost unlimited solar capacity potential (10 TW). The Desert to Power Initiative, launched by the AfDB in 2018,[96] is a multi-country programme targeting Sahelian countries which aims to develop and provide 10 GW of solar energy and supply 250 million people with green electricity, including 90 million people who would be connected for the first time, lifting them out of energy poverty.

A GCF supported programme covering Burkina Faso, Chad, Mali, Mauritania, and Niger is under preparation[97] in support of the Desert to Power Initiative. As an illustration of the link between energy poverty and land use degradation, LULUCF in these five countries is estimated to account for over 75 per cent of GHG emissions, significantly driven by the demand for biomass energy as well as by expansion of agricultural land area, often for low productivity, subsistence-driven farming. Studies highlight the importance of favourable policy, regulatory, pricing, and private sector investment environments in creating the right conditions for investments of this scale. The cost is estimated at USD 1.24 billion with USD 340 million of GCF and USD 450 million of AfDB support. The Facility will deploy financing for low emissions power projects for both on-grid and off-grid solar projects to benefit over 30 million people, with 18 Mt CO_2e reduction (directly attributable) plus 60 Mt CO_2e reduction (indirectly attributable). In 2018 the GCF approved a linked, single country programme for Burkina Faso, the Yeleen Rural Electrification Project.[98] The project aims to improve the regulatory environment for the private sector to invest in in rural areas, including support to installation of up to 100 mini-grids using results-based payments. Micro-finance institutions will be encouraged to contribute.[99] Total costs are estimated at Euro 74 million and the project aims to provide electricity access to over 900,000 people. AfDB is the implementing agency.

The approach to low carbon energy in middle and upper middle-income countries which already have widespread access to electricity requires a shift away from high-emitting sources of energy towards cleaner alternatives. However, successful implementation also requires improvements in the broader pricing, policy, and private sector enabling environment, including reforms that may not be directly attributable to climate change mitigation, but which are necessary for it to move forward at the scale required to make a difference to GHG emissions. The Benban solar energy project is one example.

96 https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/desert-power-initiative
97 https://www.greenclimate.fund/document/desert-power-g5-sahel-facility
98 https://www.greenclimate.fund/project/fp093
99 https://ec.Europa.eu/eu-external-investment-plan/projects/yeleen-rural-electrification-project_en

The second phase of the Benban solar energy plant in Egypt was completed in 2019 at a cost of USD 2.1 billion.[100] It now provides nearly 1.5 GW of energy to Egypt's national grid. It is part of Egypt's plan to increase its share of electricity provided by renewables to 20 per cent in 2022 and 42 per cent in 2035. Egypt experienced rolling blackouts in the 2012-14 period, which provided an impetus for improving the enabling environment for increasing energy supply. The government engaged in series of energy price reforms and improvements to the enabling environment for investment, supported by policy loans from the WBG in the 2017-19 period and a USD 12 billion Extended Fund Facility (EFF) from the IMF which included reforms in several areas.[101] These included improvements in the areas of business licensing and insolvency frameworks; public financial management, including state-owned enterprises; the energy sector; and subsidies, labour markets and social protection. These reforms helped create an enabling environment for investments like Benban, which is supported by a consortium of nine public and private sector investors including IFC and MIGA, which is providing political risk insurance. Similar large-scale and multiple small scale solar power investments are ongoing in a several other countries, including Morocco, Chile, India, and China.

Climate resilient, low carbon cities

Cities are drivers of innovation and growth and present opportunities in support of climate resilient, green, low carbon development. Success, similarly, requires enabling policies and collaboration between stakeholders and different sectoral interests. In general, there has been less progress on upscaling programmes in this area than in landscape management or low carbon energy. Success requires working at city level, and an understanding of central and local government fiscal policies as well as of local political economy concerns. As mentioned above, there are often also complex social safeguard issues in areas such as urban flood management and disaster risk reduction, which may involve restricting access to land and resettlement. A recent UN Habitat publication[102] focused on Asian cities identifies four key policy priorities: planning for the foundations of a sustainable future; guarding against future risks; capitalising on frontier technologies to develop people-centred smart cities; and mobilising financing to invest in sustainable urban solutions.

A number of city level initiatives are taking place. The WBG City Resilience Programme[103] provides financial, planning, and technical support to over 100 cities, and the EU supported Global Covenant of Mayors for Climate and Energy builds on locally led initiatives to combat climate change of more than 7,100 towns and cities from 119 countries and six continents, representing more than 600 million inhabitants. It is co-chaired by UN Secretary-General's Special Envoy for the Global Covenant of Mayors for Climate and Energy.[104] Nature-based solutions have been the focus of recent ADB support in selected towns and cities in Cambodia, the Lao People's Republic, and Viet Nam in the Greater Mekong Subregion (GMS) of Southeast Asia.[105] These programmes support "green infrastructure" for urban water and flood management, slope stabilisation, pollution management, and energy, heat, and GHG management. They also provide guidance for climate resilient urban planning and development and share experience from the three pilot countries. Hanoi in Vietnam is converting waste to energy through an improved landfill programme[106] and

100 https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/cm-stories/benban-solar-park-egypt

101 https://www.imf.org/en/News/Articles/2016/11/11/PR16501-Egypt-Executive-Board-Approves-12-billion-Extended-Arrangement

102 https://unhabitat.org/the-future-of-asian-pacific-cities-report-2019

103 https://www.gfdrr.org/en/crp

104 https://ec.Europa.eu/commission/presscorner/detail/it IP_16_2247#:~:text=giugno%202016B

105 Asian Development Bank, Nature-based Solutions for Building Resilience in Cities and Towns: Case Studies for the Greater Mekong Subregion, Manila, 2016. City Resilience Programme: Annual Report July 2019-June 2020

106 https://www.c40.org/case_studies/hanoi-to-generate-electricity-from-the-city-s-biggest-landfill

in Ibadan, Nigeria,[107] the city is improving flood plain management. Overall, far more work is needed to move cities to low carbon, climate resilient growth paths.

One of the most promising areas of intervention to decarbonise cities is accelerating the transition from internal combustion engines to electric vehicles. The GEF has been supporting pilots around the world, and recently scaled this into a global programme (see Box 8 below). The programme, implemented through UNEP, focuses on creation of enabling environments for e-mobility. MOs have supported public transport and traffic management programmes in a range of cities. A number of CIF supported operations have supported larger scale operations to improve public transport, including in the cities of Lagos, Kano, and Abuja, Hanoi and Ho Chi Minh City, Bogota and other cities in Colombia, and with GCF in Amman, Jordan.

Box 8: GEF Global E-Mobility Programme

Accelerating the transition to electric-powered vehicles

The programme, implemented through UNEP, will help governments establish supportive policies to enable technology transfer, private sector engagement, and access to commercial finance for the introduction of fleets of electric buses, two-wheelers, three-wheelers, trucks, light duty vehicles, and private vehicles. It will also create three regional platforms to support the transition to electric mobility in Africa, Asia and the Pacific, and Latin America and the Caribbean. The USD 33 million programme represents the first globally co-ordinated effort to promote and accelerate the uptake of electric mobility in developing countries. Since models suggest that there will be twice as many vehicles on the road by 2050, with most of this growth in developing countries, it is viewed as fertile ground for the GEF's intervention.

Beyond the GEF financing, the E-Mobility Programme is set to leverage more than USD 400 million in co-financing, including from the European Commission, the Asian Development Bank, and several other national institutions, international financial and philanthropic organisations, and the private sector. The programme will be implemented by UNEP in partnership with the International Energy Agency (IEA). The initial countries that will participate in the GEF Global E-Mobility Programme include Antigua & Barbuda, Armenia, Burundi, Chile, Costa Rica, India, Ivory Coast, Jamaica, Madagascar, Maldives, Peru, Seychelles, Sierra Leone, St. Lucia, Togo, Ukraine, and Uzbekistan.

Source: http://www.thegef.org/news/gef-global-e-mobility-programme-help-developing-countries-go-electric, https://www.thegef.org/sites/default/files/web-documents/10544_CC_PFD.pdf

Santiago de Chile is addressing urban air pollution through policy reforms to improve emissions standards and support a transition to electrification of transport.[108] The latter half of the 20th century brought economic growth, urban sprawl, and an exponential growth in the number of private vehicles, and with this came higher levels of congestion and air pollution. As a result, Chile began to monitor air pollution, regulate emissions from the transportation sector, and integrate Santiago's public transportation operators into a unified system under the purview of a public transportation authority. Since then, Chile has played a pioneering role in the region in the adoption of vehicle emission standards, as reflected in the

107 https://blogs.worldbank.org/nasikiliza/creating-a-flood-resilient-city-moving-from-disaster-response-to-disaster-resilience-in-ibadan

108 https://iea.blob.core.windows.net/assets/db408b53-276c-47d6-8b05-52e53b1208e1/e-bus-case-study-Santiago-From-pilots-to-scale-Zebra-paper.pdf

composition of its urban bus fleet. IDB and the WBG are providing technical support.[109] In 2018, Santiago became the first city in Latin America to adopt Euro VI emission standards for its public transportation system, and this helped set the stage for electric bus deployments in subsequent years. By March 2020, Santiago had already deployed close to 600 Euro VI buses and more than 400 electric buses – the latter making up approximately 6 per cent of the fleet. This city has set a target of full electrification by 2035. This is an effort to reduce exposure to local pollutants from the transportation network and, in particular, to reduce CO_2 emissions. The programme started in 2007 and has had a strong focus on learning. Some structural changes in fleet organisation and contractual arrangements are ongoing.

There are opportunities in "greening buildings." Box 9 below illustrates the potential as identified by IFC. Energy efficient buildings are a core element in the drive to lower GHG-intensive economies in several countries in Eastern Europe and were supported by the CIFs, and in Mexico through the IDB with German co-financing.

Box 9: Investment opportunities in green buildings: The IFC example

Green buildings: An investment opportunity in support of climate resilient, low carbon cities

Almost 40 per cent of all energy generated across the world is used to cool, light, and ventilate buildings, and the building sector will require an estimated 50 per cent more energy by 2050 than today.

The green buildings sector represents a USD 24.7 trillion investment opportunity by 2030 across all emerging market cities with a population of more than half a million people. Most of this investment potential – USD 17.8 trillion – lies in East Asia, Pacific, and South Asia, where more than half of the world's urban population will live in 2030. The investment opportunity in residential construction, estimated at USD 15.7 trillion, represents 60 per cent 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, less than 10 per cent.

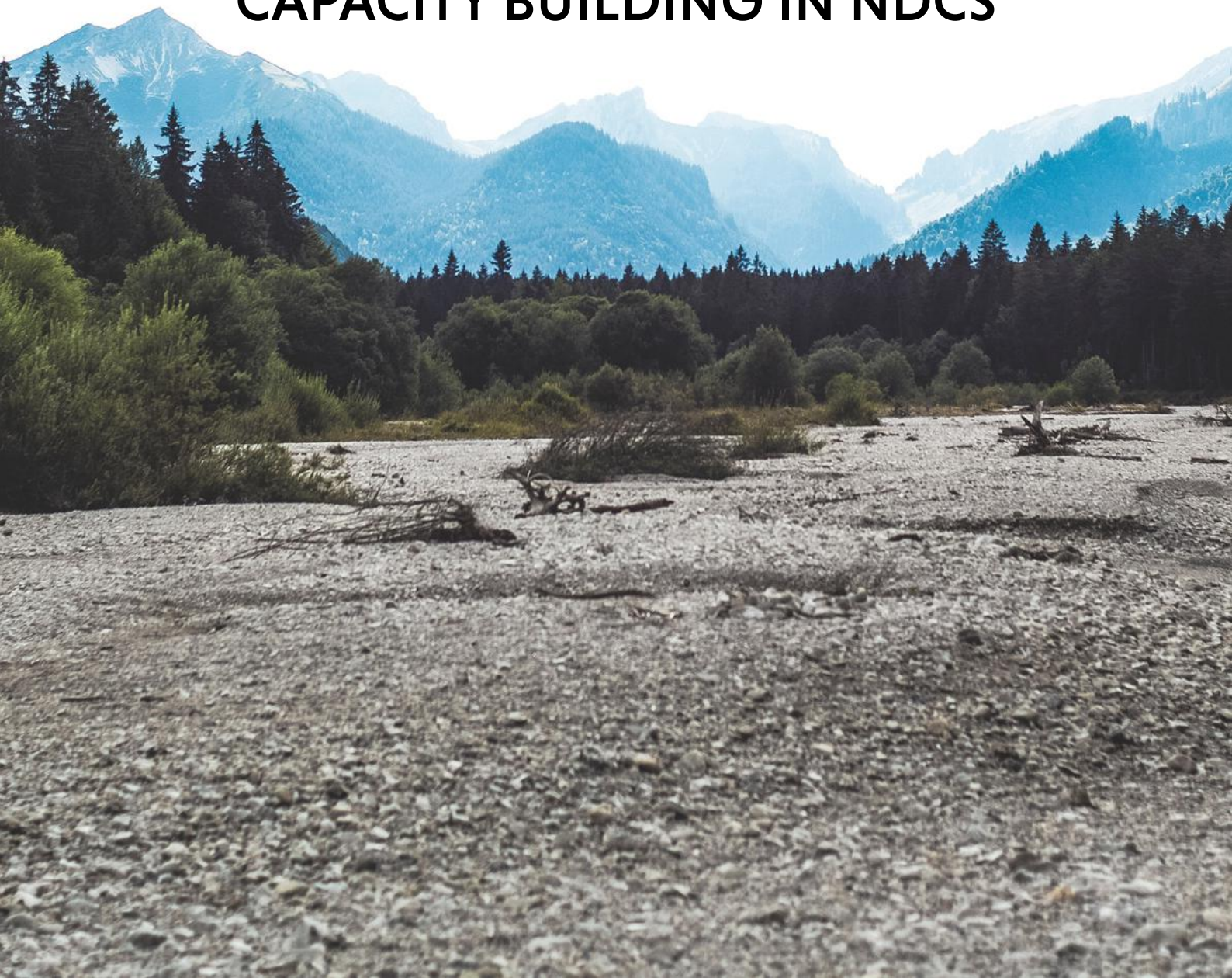
IFC is working to stimulate supply and demand in emerging markets for resource-efficient building design, construction, and ownership through its Green Buildings Market Transformation Programme. The aims are to set a metrics-driven definition of what constitutes a green building, reward property developers for "building green", improve the regulatory environment and promote direct investment.

IFC provides clients with both investment support and advisory services to facilitate the development of resource-efficient buildings. IFC has long-standing experience working with regulators on green building codes that are low-cost for the private sector to implement, easily enforceable, and 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 four billion dollars.

Source: https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/climate+business/resources/green+buildings+report.

109 https://www.climatechangenews.com/2020/03/12/electric-buses-offer-latin-american-caribbean-transport-green-profitable-future/, https://openknowledge.worldbank.org/handle/10986/34435?show=full

5. BEYOND FINANCING: PARTNERSHIPS TOWARD KNOWLEDGE, POLICY DIALOGUE, ADVOCACY, AND CAPACITY BUILDING IN NDCS



5.1 Knowledge products and policy dialogue

MO knowledge products vary widely, according to the nature of the MO and the targeted audience, and many involve partnerships, including with scientific and technical organisations. Policy analysis and capacity building often form part of the preparatory work for sector investments operations involving climate-related activities. They also feed into development of LTSs, as part of broader development strategies.

MOs provide support for policy reform both through dialogue and for support for reform implementation. It should be noted, however, that MO influence may be limited, especially in financial terms and in larger countries. Governments change and governance challenges can affect implementation of climate friendly regulations; these constraints can often only be overcome by domestic policy change and local alliances.

Public opinion also plays a role: for example, recognition of the health impacts of air pollution and understanding of its causes (often fossil fuels) may lead to an increase of support for cleaner energy solutions, which generates climate mitigation co-benefits. Working with broader civil society at country level can help build consensus for climate action and this is a potential area for increased focus both by the MOs and by the broader MS, including NGOs.

All the MOs support and disseminate climate-related knowledge outputs, which are often prepared through partnerships with countries and/or scientific institutions. The focus of these knowledge outputs varies according to the MO and covers a very wide range of areas. Although UNEP produces sector and country-specific products, the flagship publications focus on global adaptation and mitigation challenges. Box 10 illustrates the partnerships involved in some of their flagship products. The IMF produces knowledge products which assess the impact of climate change on the macro-economic and financial sectors. Its work is centred around six major themes: Climate and the Economy; Green Finance; Climate Mitigation, Fossil Fuel Subsidies, Climate Resilience, and Green Recovery from COVID-19. An important feature is that IMF knowledge products cover developed as well as developing countries (Box 11). Examples include: Mitigation Policies for the Paris Agreement: An Assessment for G20 Countries;[110] Canada's Carbon Price Floor and Mitigation Policies in the EU. The ADB produced over 20 knowledge products in the period from December 2020 to March 2021, with subjects varying from The Blueness Index, Investment Choice and Portfolio Allocation, to a series of publications entitled Climate Change Coming Soon to a Court near You and Country Climate Risk profiles.[111]

110 Mitigation Policies for the Paris Agreement: An Assessment for G20 Countries

111 https://www.adb.org/themes/climate-change-disaster-risk-management/publications-documents

Box 10: UNEP global knowledge products

Partnerships play a key role in global knowledge products

UNEP relies on partnerships with specialised academic and research institutions for many of its knowledge outputs. These include the World Conservation Monitoring Centre (WCMC), based in Cambridge, England; the Danish Technical University (DTU), located in Kongens Lyngby, Denmark; the International Ecosystem Monitoring Partnership (IEMP), established with the Chinese Academy of Sciences in Beijing; and the World Resources Institute (WRI) in Washington D.C.

DTU is largely responsible for the 2020 report Implementing Nationally Determined Contributions. UNEP's flagship, Global Environmental Outlook (GEO) report, is also a collaborative effort. The UNEP-DTU partnership also provides research-based advisory services to help developing countries deliver on their commitments in relation to the SDGs and the Paris Agreement. Its focus areas are: (i) climate planning and policy; (ii) climate transparency and accountability; and (iii) business models and markets.

UNEP's 2020 Emissions Gap 2020 report, the most recent of an annual series that began in 2010, was jointly produced by UNEP and DTU with financial support from the Governments of Denmark, Germany, the Netherlands, and Sweden and two foundations. Its 2020 Adaptation Gap Report was supported by the Governments of Canada, Denmark, Norway, and Sweden and is also a product of the UNEP-DTU Partnership and likewise an annual product since 2014. It includes contributions from the Secretariat of the UNFCCC, the London School of Economics (LSE), the Goddard Institute for Spaces Studies at NASA, 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, using the IPPC's definition of adaptation.

Source: Annex 2K and Volume 2.

The IMF has a key role to play in policy reform, because of its strong relationship with Ministries of Finance and central banks, and because of its global role in promoting macro-economic and financial stability. There is scope for the IMF to work more closely with the regional MDBs as well as with the WBG on analytical products that illustrate the benefits of climate policy change to core Ministries. The IMF is increasing its work on climate change, but there is progress to be made in mainstreaming climate change into Article IV consultations. This would further facilitate LTSs that are integrated into broader development strategies. IMF senior management has outlined four priority areas: (i) integrating climate in its annual country economic assessments – the Article IV consultations; (ii) including climate related financial stability risks in its financial sector surveillance through standardised disclosure of these risks, enhanced stress tests, and assessments of supervisory frameworks; (iii) capacity development to help equip finance ministries and central banks with the skills needed to take climate considerations into account; and (iv) mainstreaming climate indicators in macroeconomic data. However, climate issues have yet to be consistently integrated into the IMF's existing work. For example, a survey of its flagship annual economic country evaluations, the Article IV consultations, shows that of the 100 country reports published between January 1, 2019 and March 17, 2020, 45 had 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 (e.g., Mozambique, Somalia, and Zambia). Among developed countries, the staff reports for Ireland, Germany, Singapore, and France included discussions of the authorities' climate policies. However, no climate-related concerns were raised in the reports for Canada, China, Russia, and the United States, although subsequent to the period covered by the study climate issues were covered in the context of Article IV consultations for China, the US and Canada.[112]

Box 11: IMF knowledge products: Country examples and the potential of green finance

Knowledge products demonstrate the economic benefits of low carbon energy policies and the role of green finance in mitigation and resilience

The Fund's climate change policy and analytical work is organised under three main areas: mitigation, adaptation, and transition to low carbon economies. Studies cover developed as well as developing countries. Two recent climate change mitigation products include:

"*Climate Mitigation in China: Which Policies Are Most Effective?*", IMF Working Paper 16/148; July 2016. For the 2015 Paris Agreement on climate change, China pledged to reduce the carbon dioxide (CO_2) intensity of GDP by 60–65 per cent below 2005 levels by 2030. The paper develops a practical spreadsheet tool for evaluating a wide range of national level fiscal and regulatory policy options for reducing CO_2 emissions in terms of their impacts on emissions, revenue, premature deaths from local air pollution, household and industry groups, and overall economic welfare. By far, carbon and coal taxes are the most effective policies for meeting environmental and fiscal objectives as they comprehensively cover emissions and have the largest tax base.

"*Reforming Energy Policy in India: Assessing the Options*"; May 2017. This study assesses the environmental, fiscal, economic, and incidence effects of a wide range of options for reducing fossil fuel use in India. Among the most effective options is ramping up the existing coal tax. Annually increasing the tax by INR 150 (USD 2.25) per ton of coal from 2017 to 2030 avoids over 270,000 air pollution deaths, raises revenue of 1 per cent of GDP in 2030, reduces CO_2 emissions 12 per cent, and generates net economic benefits of approximately 1 per cent of GDP.

Knowledge products on green finance highlight the role of the financial sector: Long-term institutional investors can help with rebalancing and redistributing climate related risks and maintaining 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. Central banks and other regulators are adapting practices to address the risks of climate change, including improved climate risk disclosure and classification standards. The IMF is working with the Network of Central Banks and Supervisors for Greening the Financial System and other standard-setting bodies to promote green finance more broadly and develop climate-related stress tests.

Source: MOPAN Analytical Study on Climate Change: IMF MO Analysis (Annex 2.1 and Volume 2.)

112 https://www.cgdev.org/publication/confronting-macroeconomic-challenges-climate-change-road-ahead-imf

Sector policy and regulatory reforms and capacity building often precede and support operational investments. Climate resilient infrastructure may require reforms in land use policies and regulations, construction standards, environmental and social safeguards and procurement regimes as well as of the construction industry and the relationship between contractors and government bodies as well as technical, and geographical knowledge. The large-scale investments in solar energy in Egypt, referred to in Chapter 4.2 were accompanied by analytical work, capacity building, and institutional and regulatory reforms. Even where there has been long engagement, however, and even with MO partnerships, the country political economy enabling environment may change due to factors outside the influence of MOs. Brazil's policy towards forest protection in the Amazon since the change of government in 2019 is one example. The complexities of the challenges in Indonesia's transition towards cleaner energy, despite strong MO support, are illustrated in Box 12 below.

Box 12: Indonesia Energy Sector Development Policy Loan 2015

Political economy constraints in country level climate action are a reality

The Energy DPL, intended as part of a series, aimed to support government objectives for a more inclusive and sustainable energy sector, expanding alternatives to coal-powered generation and accelerating universal access. The financing package included the WBG (USD 500 million), ADB (USD 1 billion), the French Development Agency (USD 250 million) and KfW (USD 200 million and Euro 200 million). The WBG did not proceed with a second series due to changing government priorities, but other MOs continued their support.

The operation aimed to: (i) revise tariffs to reflect the cost of electricity generation by the State Electricity Company (PLN) by phasing out subsidies for larger consumers, indexing electricity tariffs to oil prices, the exchange rate, and inflation, and improving the operational efficiency of PLN; (ii) improve the investment climate for the development of domestic sources of natural gas; (iii) remove constraints to renewable energy through production bonuses for converting geothermal energy to electricity, and promoting market-based mechanisms for renewable energy; and (iv) expand access to modern reliable energy for the 39 million people without connections to electricity and increase the dependability for those with unreliable connections. This was to be achieved by improving the institutional and pricing structure in rural areas and through an action plan to extend and improve electrification.

Following the arrival of a new Minister of Energy, in 2016, government priorities changed from market-based reform through increased private sector investment, particularly with respect to renewables, towards faster electrification and "affordability." Electricity purchase price policies were revised, the domestic price of coal was kept below international prices, and the goals of reducing the fiscal drain and attracting private sector investment were compromised.

The implementation review notes a number of constraints including the ease with which government can raise debt financing on international markets and the political sensitivities associated with introducing more market-based mechanisms into the electricity sector and price increases as elections neared. It also notes that there were a total of four different Ministers of Energy and Natural Resources over the five-year period. In addition, Government divided responsibility for the implementation of the reforms between the Co-ordinating Ministry for Economic Affairs (CMEA) and the Ministry of Finance, while at the same time holding the Ministry of Energy and Mineral Resources (MEMR) responsible for technical aspects. The Government later switched technical responsibility to the Co-ordinating Ministry of Maritime Affairs.

Source: http://documents.worldbank.org/curated/en/233041594647887880/Indonesia-Indonesia-Energy-Sector-DPL.

Broadly, the support of different MOs is complementary, and the effectiveness of co-ordination depends to a large extent on the effectiveness of country-led platforms. The Ethiopian government, for example, has established co-ordination platforms around a series of key sectors, including sustainable land management, energy access and connectivity (see Annex 3.B and Volume 2). The example of coastal resilience in India (see Box 13 below) illustrates MO co-ordination on working at country level on policies related to coastal resilience with a focus on nature-based solutions.

Box 13: Protecting coastal resilience in India

Support for improvements in the Regulatory Framework for Coastal Zone Management provides the enabling environment for investments in coastal resilience through partnerships and a long-term engagement

ADB is supporting a programme for coastal resilience in the states of Goa, Karnataka, and Maharashtra through a multi-tranche financing facility (MFF) of up to USD 250.0 million first approved in September 2010. The MFF supports: (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 ongoing Karnataka tranche supports immediate coastal protection needs and coastal instability, with a focus on nature-based interventions and technologies including artificial reefs, beach nourishment, and dune management. It also supports shoreline management plans (SMPs), information systems, and capacity building to meet long-term needs for coastal protection and aims to enhance income-generating opportunities for coastal communities. There was close co-ordination with a similar WBG supported operation for the states of Gujarat, Odisha, and West Bengal, approved in 2011 for USD 285 million. This project helped demonstrate models for increasing the productivity of coastal and marine ecosystems and in improving the livelihood opportunities for coastal communities. It mapped over 7,800 km of the Coastal Hazard Line for India's entire mainland coast based on climate change projections, restored 19,500 hectares of mangroves, enhancing, coastal carbon sinks and protecting shorelines.

Both of these operations were based in part on the results of an earlier ADB-administered GEF project, co-financed with DFID, that produced guidelines for coastal zone management in India, including natural climate adaptation measures. This supported the Indian government's long-term vision for coastal and marine areas, as articulated in the Swaminathan Committee Report of 2005, which included reforms in the regulatory framework, including adoption of integrated management principles for coastal and marine areas, and institutional, knowledge and capacity building.

In November 2020, the WBG approved a USD 400 million multi-year programme to help India enhance its coastal resources, protect coastal populations from pollution, erosion, and sea level rise, and improve livelihood opportunities for coastal communities. The programme will invest in rehabilitation of coastal beaches and mangroves, address pollution from untreated waste streams including plastics, and support sustainable tourism to boost vulnerable coastal communities. Phase 1, USD 180 million, covers eight coastal states (Andhra Pradesh, Gujarat, Goa, Karnataka, Kerala, Odisha, Tamil Nadu, and West Bengal) and three coastal Union Territories (Daman and Diu, Lakshadweep, and Puducherry), where coastal resources remain under significant pressure, including from sea level rise.

Sources: https://www.worldbank.org/en/news/press-release/2020/04/28/india-integrated-coastal-zone-management, https://www.adb.org/projects/40156-033/main

There is more scope for working outside the direct climate sphere and with local advocacy groups to demonstrate the broader impacts of "climate unfriendly" policies. Analytical work on the health impact of air pollution in Cairo, for example, helped build political and public consensus for energy and transport reforms.[113] Local understanding of the impacts of urban flooding in Colombo, Sri Lanka, facilitated the land use changes and investments that were necessary to increase city resilience and improve urban liveability.[114] Climate advocacy involves a very broad range of stakeholders, including civil society and local communities, as well as NGOs, local governments, think-tanks, and private corporations (see also Figure 1). MOs work with many of these stakeholders through their operational programmes. Understanding and influencing public opinion more broadly is also important. One initiative undertaken by the UNDP is summarised in Box 14 below. There is scope for the IMF to work more closely with governments, in countries like Brazil and Indonesia, on the macro-economic and other risks of climate change, and on policy instruments that enable climate-responsible development.

Box 14: The People's Climate Vote

Seeking people's views on climate change

"Mission 1.5" is 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 to see happen. 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. As of January 2021, there were 1.2 million respondents in 50 countries.

Mission 1.5 is supported by UNDP and partners include the University of Oxford, and non-governmental organisations (NGOs). The aims are to educate people about climate change solutions and ask them about the actions that they think governments should take. The Peoples' Climate Vote is intended to connect the public to policymakers and to provide the latter with reliable information on whether people consider climate change an emergency, and how they would like their countries to respond. For some countries, this is the first time they have access to systematically gathered and analysed information regarding public opinion on climate change and policy solutions. Even for countries that have an understanding of overall public sentiment on climate change, it is often the first time that detailed questions have been asked about policy solutions on this scale.

UNDP argues that these perspectives are needed now more than ever as countries around the world are in the process of developing new national climate pledges in the form of revised and updated NDCs under the Paris Agreement. As the world's largest provider of support to countries for NDC design, UNDP has found that a key factor for countries raising levels of climate ambition is popular support for policies that address climate change.

Source: https://www.undp.org/content/undp/en/home/librarypage/climate-and-disaster-resilience-/The-Peoples-Climate-Vote-Results.html

113 https://www.regionalstudies.org/wp-content/uploads/2018/07/Abd_El_Aziz__Noha_Ahmed_-_Air_Quality_and_Urban_Planning_Policies.pdf

114 https://www.worldbank.org/en/results/2018/09/24/metro-colombo-urban-development-project

5.2 Capacity building in NDC formulation and transparency requirements

There is a wide variety of grant instruments available to support countries meet NDC requirements. However, funds come with administrative costs and there is room for consolidation. NDCs still have varying levels of government ownership and need to be supported by LTSs which are integrated into broader government development strategies and have "all of government" ownership and have short to medium term as well as longer term targets.

MOs are working with countries to help them fulfil their NDC commitments through a variety of instruments. These include policy support and climate finance as described in the previous sections, improved data collection and transparency, better costing of NDCs and capacity building for implementation, including at sub-national level.

The country studies suggest that country commitment to NDCs varies, depending largely on the extent of government ownership. Only Ethiopia is actively preparing a Long-Term Strategy, and not all countries are on-track to achieve their NDC commitments, which vary in level of ambition and consistency in terms of meeting the Paris goals. Governments and priorities may change, including in upper middle-income countries such as Brazil with relatively high capacity and a lesser need for MO technical and institution building assistance. Even when climate-friendly policies, laws, and regulations exist there may be significant governance and enforcement challenges. Higher priority should be given by both MOs and countries to the UNFCCC instrument of the LTS, which facilitates mainstreaming of climate considerations into broader development goals but higher-level short- and medium-term targets should be part of these. "All of government" ownership is a key element in LTS, including from Ministries of Finance and Economic Planning, and key sectoral Ministries. The WBG has committed to scale up support for development of LTSs in its new 2021-26 Climate Action Plan.

Most MOs support member country capacity building in NDC formulation and meeting reporting requirements.[115] This is provided through a multiplicity of channels, mostly through dedicated grant funding, e.g. *NDC Advance, Africa NDC Hub, NDC Invest, NDC Support Facility, NDC Partnership Climate Promise, NDC Action Project, NDC Partnership (NDC-P), Initiative for Climate Transparency (ICAT), Capacity Building Initiative for Transparency (CBIT).* UNDP supports countries through its NDC Support Programme and Climate Promise. For example, it is assisting Brazil and India in preparing national communications to the UNFCCC and Ethiopia in CBIT, in costing its NDC and separating conditional from unconditional NDC commitments. ADB supports translating adaptation priorities into investments through NDC Advance.[116] AfDB supports capacity building including through the Africa NDC-Hub. IDBG co-ordinates the LAC platform of the LEDS (Low-Emissions Development) Global Partnership. Country strategies for IFAD incorporate elements for NDC implementation and The WBG facilitates NDC actions through the NDC-SF[117] and Coalition of Finance Ministers for Climate Action. The NDC Partnership,[118]

115 The IMF and IFC do not do so directly.

116 NDC Advance is a technical assistance platform established by ADB to help DMCs mobilise finance, build capacity, and provide knowledge and other support to implement their NDCs. It assists countries to develop climate investment plans, tap financing from various sources, and develop monitoring and reporting mechanisms.

117 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

118 https://www.wri.org/our-work/project/ndc-partnership#:~:text=The%20NDC%20Partnership%20is%20a%20new%20coalition%20of%20governments%20and,fast%20and%20effectively%20as%20possible.

launched in Marrakesh in December 2016 and hosted by WRI, is a coalition of governments and international institutions aiming to help countries achieve their climate and SDG targets. Given the challenges with developing and implementing NDCs, there has not yet been a strong focus on LTSs.

Accurate reporting of Paris Agreement commitments presents particular challenges because of inadequate data and inter-ministerial co-ordination mechanisms in many developing countries. UNDP and UNEP play a prominent role in helping countries meet broader transparency requirements under Article 13 of the Paris Agreement. Many countries lack GHG inventories or accurate means of estimating adaptation or mitigation costs. A key result of the Paris Agreement Negotiations (under Article 13) was the establishment of an enhanced transparency framework. The Capacity Building Initiative for Transparency[119] (CBIT), was established by the GEF to strengthen national institutions' transparency related activities in line with national priorities. CBIT support totalled USD 116.2 million as of October 2020,[120] and operations were under way or under preparation in 70 countries. UNEP and UNDP were responsible for about two thirds of the value of the portfolio, FAO 15 per cent, and Conservation International (CI) 13 per cent.

The range of CBIT activities varies widely according to country capacity. Two examples of CBIT activities illustrate the differences:

- **Costa Rica:** The foundation of Costa Rica's enhanced transparency system is the National System for Climate Change Metrics System (or SINAMECC). CBIT supports a knowledge-sharing platform to ensure robust data archiving. Costa Rica is seeking to improve the quality of data-based policy-design. The CBIT is supporting a research and analytical unit that supports measurement of the progress and impact of existing and new climate policies. It formalises arrangements between academia and government, resulting in robust recommendations to inform national policy making. The unit will also enhance capacities of stakeholders, including at the local level, to conduct analyses of climate change policies and improve implementation.
- **Uganda:** Uganda lacks formal GHG data-sharing arrangements between its climate change governing body, the Uganda Climate Change Department (CCD), and other institutions in GHG emitting sectors. It does not currently have a full national GHG inventory. Through the CBIT an Inter-ministerial Co-operation Agreement for GHG data collection, processing, and sharing has been put in place. A technical guide and five sectoral Memoranda of Understanding (MoUs) on data-sharing for development of the national GHG inventory have been signed.

CBIT, through UNDP and UNEP jointly, also supports a Global Coordination Platform. It brings together practitioners from countries and agencies in order to enable co-ordination of transparency actions and ideas, identify needs and gaps in national transparency systems, and share lessons learnt. CBIT also supports sectoral initiatives on LULUCF and AFOLU, where data collection and monitoring are especially challenging.

119 https://climateactiontransparency.org/ Key donors include the Governments of Germany and Italy

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

5.3 The role of partnerships in sharing experience

Partnerships have been a cross-cutting theme of this study. They include partnerships related to specific operations including between MOs around country work, policy dialogue, investment support and analytical work, and partnerships built around sharing experience on NDCs. The IFIs collaborate on climate finance and the Paris Alignment building blocks. UNEP's work is built on partnerships. There are a number of platforms for sharing experience on particular themes, both globally and at regional level. One broad observation is that sharing lessons and advocacy at a global level may sometimes "crowd out" country focused work, at sub-national as well as national level. A second is that, given the importance of Ministries of Finance and Economic Planning in shaping policies, partnerships targeted at this group could receive more focus.

MOs share good practices both between countries and among themselves through a multitude of partnerships, learning events, and knowledge products and through operations. A number of these have already been mentioned, including the NDC Partnership and Global Co-ordination Platform for CBIT. As the country examples mentioned above illustrate, many of the larger scale operations involve partnerships between MOs and other elements of the MS, including bilateral agencies. The Climate Investment Funds (CIFs) provide an opportunity for MDBs to work together at a country level and share experiences on particular approaches to climate-smart investments across sectors and countries. The dedicated climate funds all include knowledge sharing platforms. Collaboration between MDBs has intensified through working together on implementation of the 2018 Joint Declaration on Paris Alignment and in related technical working groups including the six "building blocks". MOs also share experiences between countries through a variety of means, including learning events, knowledge sharing platforms, and on-line publications. IFIs and UN agencies also participate in a range of partnerships with NGOs and think-tanks, including E3G, WRI, New Climate Institute (NCI), German-Watch, and the Climate Policy Initiative (CPI), the Nature Conservancy (TNC) and The World Wildlife Fund (WWF) among also many others.

There are also multiple platforms for sharing experience on sectoral issues. Examples, which are by no means inclusive, are the Climate Action in Financial Institutions Initiative,[121] and the International Development Finance Club (IDFC),[122] which now involves roughly 52 national and international finance institutions. They include the MDB Infrastructure Collaboration Platform,[123] and the UNEP-UNIDO-managed Climate Technology Centre[124] and Network (CTCN). Partnerships around disaster risk management include InsuResilience,[125] the Alliance for Hydromet Development,[126] the Coalition for Climate Resilient Investments,[127]

121 http://climateinitiativesplatform.org/index.php/Climate_Action_in_Financial_Institutions

122 http://climateinitiativesplatform.org/index.php/International_Development_Finance_Club_(IDFC)

123 https://publications.iadb.org/publications/english/document/MDB-Infrastructure-Co-operation-Platform-A-Common-Set-of-Aligned-Sustainable-Infrastructure-Indicators-SII.pdf
http://climateinitiativesplatform.org/index.php/Climate_Action_in_Financial_Institutions

124 https://www.unido.org/our-focus-safeguarding-environment-clean-energy-access-productive-use-climate-policies-and-networks/climate-technology-centre-and-network-ctcn

125 https://www.insuresilience.org/wp-content/uploads/2018/11/Flyer_InsuResilienceGlobalPartnership_2018.pdf

126 https://public.wmo.int/en/our-mandate/how-we-do-it/partnerships/wmo-office-of-development-partnerships

127 https://resilientinvestment.org/

and the Coalition for Disaster Resilient Infrastructure[128] and the UNEP guidelines on sustainable infrastructure.[129] MOs also participate in the Initiative on Fluorocarbons Life Cycle Management[130] and the LEDS (Low-Emissions Development) Global Partnership.[131]

IDBG,[132] for example, is involved in all these partnerships as well on region-specific partnerships. It has co-operated with ILO on a flagship report, Jobs in a Net-Zero Emissions Future in Latin America and the Caribbean,[133] and with WHO and the Pan-American Health Organization (PAHO) on resilient health systems.[134] In 2018, IDB and IDB Lab launched the Natural Capital Lab (NCL),[135] which is promoting nature-based solutions across the IDBG. IDB Invest has worked with the Task Force on Climate-Related Financial Disclosures (TCFD)[136] recommendations during last years, with UNEP's Finance Initiative[137] to help train banks in LAC on sustainable finance and with the International Maritime Organization (IMO) in the FIN-Smart Roundtable[138] to identify investment needs for sustainable maritime transport. IDB Invest is also working within Fast Infra,[139] a public-private initiative led by HBSBC that aims to increase the flow of private finance to the developing world for sustainable infrastructure. 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. IDB also maintains partnerships with NGOs, including. through the Latin American Conservation Council. The Nature Conservancy, WWF, and Conservation International (CI) work as executing partners for technical assistance activities. IDB's programme Deep Decarbonization Pathways for LAC (DDPLAC) is built around partnerships with national universities, and it works with national entities and stakeholders in planning de-carbonisation and adaptation efforts. IDB Lab has played an important role in initiating experimental approaches with many of these NGOs. The other MOs included in the study participate in a similarly broad range of regional partnerships, with ADB, for example, having a particular focus on disaster resilience (See MO studies Volume 2 for details).

While partnerships promote collaboration, there may be room for consolidation. All MOs are committed to the Busan Declaration on Aid Effectiveness, and there is room for thematic, regional and global partnerships, but it is possible that these may sometimes crowd out work at country level. Countries are the key players in climate action, and climate action requires commitment of local stakeholders, at sub-national and community level as well as private enterprises and government. MOs and international NGOs would usefully focus more on these country level partnerships, to build consensus for needed reforms which would facilitate effective climate action. There is also scope for greater involvement of the Ministries of Finance and Planning in partnerships around policy action on climate change. The IMF has a role to play in this area.

128 https://www.cdri.world/
129 https://www.unep.org/resources/publication/international-good-practice-principles-sustainable-infrastructure
130 https://www.ccacoalition.org/en/resources/initiative-fluorocarbons-life-cycle-management-concept-paper
131 https://ledsgp.org/
132 See Volume 2 and also, https://ledsgp.org/news/page/10/?loclang=en_gbpage55-page-29
133 https://sdg.iisd.org/news/idb-ilo-report-transition-to-net-zero-emissions-in-lac-to-create-15-million-new-jobs-by-2030/
134 https://news.fundsforngos.org/environment/new-institutions-collaborate-with-paho-eu-to-strengthen-climate-resilience/
135 https://www.iadb.org/en/environment/natural-capital-lab
136 https://www.fsb.org/2020/10/2020-status-report-task-force-on-climate-related-financial-disclosures/
137 https://www.unepfi.org/
138 https://www.imo.org/en/MediaCentre/PressBriefings/pages/38-FINSMART-roundtable.aspx
139 https://www.sustainablefinance.hsbc.com/sustainable-infrastructure/fast-infra-a-public-private-initiative

5.4 The challenge of supporting innovation and application of technology

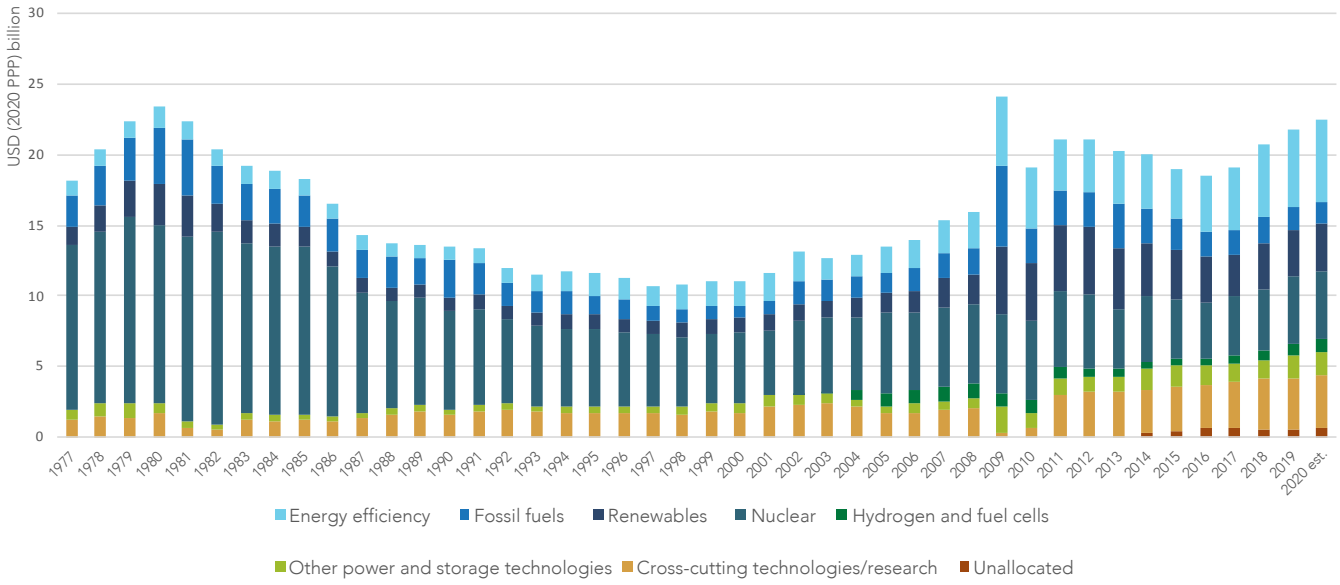
Technology has a key role to play in transitions to climate neutral, resilient development and some partnerships with scientific institutions as well as with private enterprises have been very successful. However, more needs to be done in this area. Research is not the core mandate of the MOs under study. One further challenge for the IFIs is that their operating cultures are often risk averse; there is pressure to deliver results in the short term and limited appetite for failure. Long-term commitment is key to development, testing and scaling up technological innovation, and there are some successful examples of co-operation between MOs and research organisations. More broadly, there needs to be greater public support for research, as well as for public-private sector partnerships in piloting innovative solutions.

While all MOs are in favour of innovation and new technologies, practical support, especially by MDBs, may be constrained by the broad risk frameworks in which they operate. These constraints are embedded in the operating culture of MOs. They are not unique to climate change or research and development issues and are difficult to overcome. These include:

- Due to procurement policies, concerns about credit ratings and the cost of technical due diligence, MDBs are likely to focus on fully commercialised "shovel-ready" technologies.
- MDBs may avoid interventions which are perceived as "safeguards risky." For example, effective implementation of urban resilience and flood management programmes may require re-settlement; this is always controversial, even with lengthy stakeholder participation and application of safeguard policies.
- MDBs are under pressure to deliver results in the short term and maintain high disbursement ratios. Programmes involving innovation (institutional as well as technical) are often slow and difficult, especially in the first years of implementation.

Research is not within the core mandates of the MOs under study but support for testing and piloting innovations, and accepting that some will fail, is a key element in meeting global climate goals. For good results, co-operation between publicly-funded researchers and private corporations is often necessary (the rapid development of the COVID-19 vaccines is one successful example). Yet public budgets in areas such as energy research have not kept pace with its key importance as a means of tackling the climate change challenge. Figure 12 below illustrates trends in public support to research and development in different energy areas over the last 20 years. While the share of funding allocated to research in energy efficiency and renewable energy has grown, funding allocated to key areas such as hydrogen fuels, renewable energy storage, and carbon capture and storage technologies remain modest while the overall trend in real terms is flat. Publicly funded research into energy adaptations for e-mobility is not recorded. The transformative changes needed cannot be attained without technological change. One challenge, as in all sectors, is that multiple steps are often necessary from basic research through testing, piloting, adapting to production to scale and commercial production.

Figure 12: Total public energy RD&D budget for IEA member countries



Source: International Energy Authority: IEA, https://www.iea.org/reports/energy-technology-rdd-budgets-2020

There are nevertheless some areas where MOs support technical research through partnerships. One example is the partnership between a number of MOs and the Consultative Group on International Agricultural Research (CGIAR) on climate smart agriculture (CSA), which aims to increase resilience to climate change while reducing emissions and increasing productivity. AFOLU accounts for 25 per cent or more of GHG emissions in many countries so CSA has a key role to play in meeting climate goals. IFAD has supported a number of research grants, including to the International Centre for Agricultural Research in the Dry Areas (ICARDA) in dryland systems, and national research institutions often participate in project implementation. In Ethiopia for example, the AfDB, through a value chain development and agro-industrial growth poles project, is supporting a government-led research programme that builds on CGIAR research to provide heat tolerant wheat seed, with the aim of expanding wheat production into 400,000 ha of lowland irrigated areas.[140] The WBG oversees the CGIAR and has supported its Centres and programmes for decades, including a special emphasis on Climate Smart Agriculture under the CCAFS (Climate Change, Agriculture and Food Security) Programme. Box 15 below summarises two initiatives, in accelerating climate research for Africa and in low emissions agriculture (LED).

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

Box 15: Agricultural research and Climate Smart Agriculture (CSA)

Long-term MO partnerships with research institutions can support development of climate action adapted to different country contexts

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 to the CGIAR for CSA in Africa. The research spans agriculture and livestock systems and includes work on improving the effectiveness of climate advisory and early warning services, to help avoid catastrophic losses. AICCRA activities will be concentrated in Senegal, Ghana, Mali, Ethiopia, Kenya, and Zambia, with regional benefits in terms of knowledge sharing on practical interventions.

Low Emissions Development Programme under CCAFS. The programme aims to reduce emissions through decreased deforestation, conversion of carbon rich peatlands and wetlands, and increased sequestration of carbon in small holder farming systems. CCAFS collaborates with the CGIAR Research Programme on Forests, Trees, and Agroforestry and includes a focus on governance of supply chains related to oil palm and rubber. CCAFS LED activities are being implemented in the Brazilian Amazon, with plans to extend these to Indonesia and the Congo Basin. 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; and
- Identification of viable LED technical practices and evaluation of impacts and trade-offs for livelihoods, gender equity, food security and mitigation. This 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.

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.

EIB has supported technical and finance innovations in a range of industry, finance and infrastructure areas. In 2007, EIB pioneered the green bonds market by issuing the world's first Climate Awareness Bond (CAB), allocated exclusively for climate change mitigating activities in line with the EU's sustainability objectives. In 2018, EIB's first Sustainability Awareness Bond (SAB) extended this approach to other environmental and social policy objectives. As of end of July 2020, the EIB remains world's leading supranational backer of green and sustainability bonds with over Euro 38 billion raised across 17 currencies. In total, CAB and SAB proceeds have helped finance 312 projects in 71 countries around the world. EIB 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 and resource-efficient economy. The EU Green Bond Standard, based on best market practices and the EU Sustainability Taxonomy classifications, aims to safeguard the robustness of the green capital markets. 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.[141] One example of finance in technical solutions to "green" the steel industry, which traditionally relies heavily on coal, is illustrated in Box 16 below. Overall, there is scope for the other MOs to scale up support to innovation in industrial processes; but the enabling environment is key to effective engagement.

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

Box 16: Green Steel: Circular Steel

Supporting technical innovation in greener industrial processes in support of carbon neutrality

A blast furnace uses coal to chemically reduce iron ore to iron, which is then further processed into steel. It releases large amounts of greenhouse gases, including CO_2 in the process. In Europe, steel-makers capture these by-product gases, transforming them 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. Under the European Commission's InnovFin Energy Demonstration Projects facility, EIB signed a Euro 75 million loan in May 2020 with ArcelorMittal Belgium to assist with financing 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 that uses microbes. The company also intends to partly replace fossil coal as an input to the blast furnace with waste-wood that has been treated to become bio-coal. The substitution of fossil coal by a circular carbon is a step towards the green transition. It is a typical carbon capture and usage process, 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.

Nature-based solutions play an important role in both adaptation and mitigation. Nature-based solutions provide vital ecosystem services across landscapes and seascapes that help maintain ecosystem structure and function while delivering climate mitigation benefits and increasing socio-ecological resilience for communities. There has been support to a number of programmes in this area over recent years, but investments need to be further scaled up to make a real contribution to the Paris goals. According to estimates in a recent study, up to 30% of GHG mitigation targets needed to deliver on the 1.5 degree Celsius target by 2050 could be provided through well managed nature-based solutions, including through improved land and watershed management and in agriculture, forestry, and peatlands.[142] There has also been increasing interest in "green infrastructure" investments in coastal areas such as coastal dune, mangrove, and wetland restoration. Healthy coastal ecosystems can also sequester vast amounts of carbon – up to 10 times the amount of carbon per hectare in terrestrial forests – in the form of "blue forests"[143] and submerged organic sediments that have built up over millennia. These need to be protected and accounted for. There is progress, however. Recent work has highlighted the potential of blue carbon certificates,[144] and Kenya, for example, has now included blue carbon in its NDC.[145] Measures include support to flood risk management, mangrove management and restoration, participatory resource management and marine spatial planning and blue carbon readiness assessments.

142 https://www.nature.com/articles/s41558-019-0591-9#author-information

143 https://oceanservice.noaa.gov/facts/bluecarbon.html, https://doi.org/10.1038/s41586-021-03371-z,

144 https://mpanews.openchannels.org/mpanews/issue/july-august-2020-221

145 https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Kenya%20First/Kenya%27s%20First%20%20NDC%20(updated%20version).pdf,

One major challenge is to demonstrate and quantify revenue streams that would drive private investment. Recently, this effort has received a boost from a collaboration between the WBG, the Global Disaster Risk Reduction Initiative (GDRRI) and the World Resources Institute (WRI) on "Integrating Green and Gray – Creating Next Generation Infrastructure."[146] A new strategic programme on nature-based solutions is being launched through the CIFs later this year.

The country studies show that support for piloting and then upscaling transformational technology could receive greater attention from MOs. The private sector has played a key role especially in investing in renewable energy. Its role in mitigation is likely to be stronger at country level over the coming years than in adaptation. The GEF has supported technology piloting, sometimes with UNDP or UNEP implementation, but there may be room for more co-ordination between these organisations and the MDBs at country level to move to the next stage. Technology transformation in some areas, such as solar energy or climate smart agriculture, has received greater attention at the developing country level than other areas, such as e-mobility.

146 https://www.worldbank.org/en/news/feature/2019/03/21/green-and-gray

6. MAINSTREAMING CLIMATE RESPONSIVE DEVELOPMENT INTO COVID-19 RESPONSE STRATEGIES

While country governments and MO responded quickly to the COVID-19 pandemic and many highlighted the potential of green recovery strategies, programmes have been largely targeted towards supporting emergency health measures, health systems and short-term protection of jobs and livelihoods. It is too early to tell whether longer term recovery strategies will emphasise green, climate responsive recovery. There is increasing support for analytical and policy advice which is demonstrating the potential of greener recovery, and this needs to be accompanied by support for preparation of "investment-ready" programmes and projects.

One key lesson from the COVID-19 pandemic concerns the importance of science and partnerships between science, government, and private enterprise. The very rapid progress in developing vaccines, demonstrates the effectiveness of these partnerships and the potential of scientific and technological research if it is adequately funded. The experience also demonstrates that governments (and MOs) need to accept that some efforts will fail. The lessons from the vaccine development hold true for transformative innovation in solutions to climate change mitigation and climate resilience.

MOs were quick to respond to the COVID-19 pandemic. They realised the threat posed both to public health and to longer-term economic growth and livelihoods as countries were obliged to impose lockdown measures to minimise the spread of the disease. Disruptions in trade and travel followed, and countries dependent on tourism were particularly affected. In response, the WBG, for example, is providing countries with USD 160 billion in financing,[147] including USD 50 billion in IDA grants and other concessional financing, USD 47 billion mobilised by the IFC, and USD 6.5 billion from MIGA from February 2020 through June 2021.[148] As of end-February 2021, the EIB had approved Euro 40.3 billion in COVID-19 recovery financing distributed among 158 projects. And since the start of the pandemic the IMF[149] has approved approximately USD 100 billion to 80 countries through various instruments. IFAD launched a COVID-19 Rural Poor Response Facility, as did AfDB, and ADB's lending increased by nearly 50 per cent in response. Overall IFI lending rose nearly 30 percent in 2020 compared with 2019.[150]

MOs focused first on emergency health and social protection measures, but many also argued that the pandemic offered an opportunity to "build back better," and promote a green, resilient recovery. MO leaders, including the Managing Director of the IMF, have made this argument several times in key public meetings, and several publications have made the case that the recovery offers an opportunity for scaling back subsidies, including on fossil fuels, and promoting lower carbon economies. The IMF's Fiscal Affairs Department, has developed and published a set of guidelines, called Special Series on COVID-19,[151] to assist countries in their responses to the pandemic, which include recommendations on promoting a green recovery, a just transition, and the use of revenues from potential carbon taxes to ensure this. ADB has also argued low-carbon and resilient recovery could generate economic benefits, increase food and energy security, and have strong health co-benefits and it has prepared technical notes with guidelines on balancing these longer-term aims with the short-term social protection and COVID-19 recovery require-

147 https://www.worldbank.org/en/who-we-are/news/coronavirus-covid19

148 https://www.worldbank.org/en/about/annual-report/covid-response

149 https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19

150 https://www.odi.org/blogs/17570-scaling-multilateral-bank-finance-covid-19-recovery

151 https://www.imf.org/en/Publications/SPROLLs/covid19-special-notes
https://www.imf.org/-/media/Files/Publications/covid19-special-notes/en-special-series-on-covid-19-greening-the-recovery.ashx

ments.[152] The African Development Institute outlined an approach[153] for building resilient economies in post-COVID-19 Africa. IDBG and the WBG have made similar arguments. The WBG has outlined the opportunities for green, resilient and inclusive development[154] (GRID) in the post COVID-19 recovery, and leaders made the case also at the April 2021 Spring Meetings.[155] UNDP has prepared guidelines on the short-term response "Prepare, Respond, Recover"[156] as well as on "Beyond Recovery: Towards 2030."[157] OECD has also addressed the potential of green recovery in a number of studies (e.g., *COVID-19 response measures and their potential implications for greening the economies of Eastern Europe, the Caucasus and Central Asia*).[158]

COVID-19 response packages to date have focused very largely on short term measures to protect health and jobs, including for advanced economies. The sectoral composition of EIB's COVID-19 response programmes,[159] with 66 per cent in SME credit lines, 12 per cent in health, and only a combined 14 per cent in the GHG-intensive sectors of industry and transport, reflects the reality that project identification and design in infrastructure sectors takes time. UNEP has undertaken an analysis of COVID-19 response packages during 2020 for 50 countries (see Figure 13).[160] The analysis illustrates "green spending" comprised only 18 per cent of total spending of nearly USD 2 trillion. An analysis broken down by support measures related to country GHG emissions intensity per unit of GDP for a selection of advanced and emerging economies (Figure 14) has some interesting findings; it shows that for a number of countries with relatively low GHG emissions intensity (Spain, Denmark, France) "green" spending formed a higher proportion of recovery packages than for countries with high GHG emissions intensity (Poland, China, Australia).

152 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.

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

154 https://www.devcommittee.org/sites/dc/files/download/Documents/2021-03/DC2021-0004%20Green%20Resilient%20final.pdf

155 https://sdg.iisd.org/news/world-bankimf-spring-meetings-call-for-green-inclusive-recovery-from-covid-19/

156 https://www.undp.org/content/undp/en/home/librarypage/hiv-aids/covid-19-undp_s-integrated-response.html

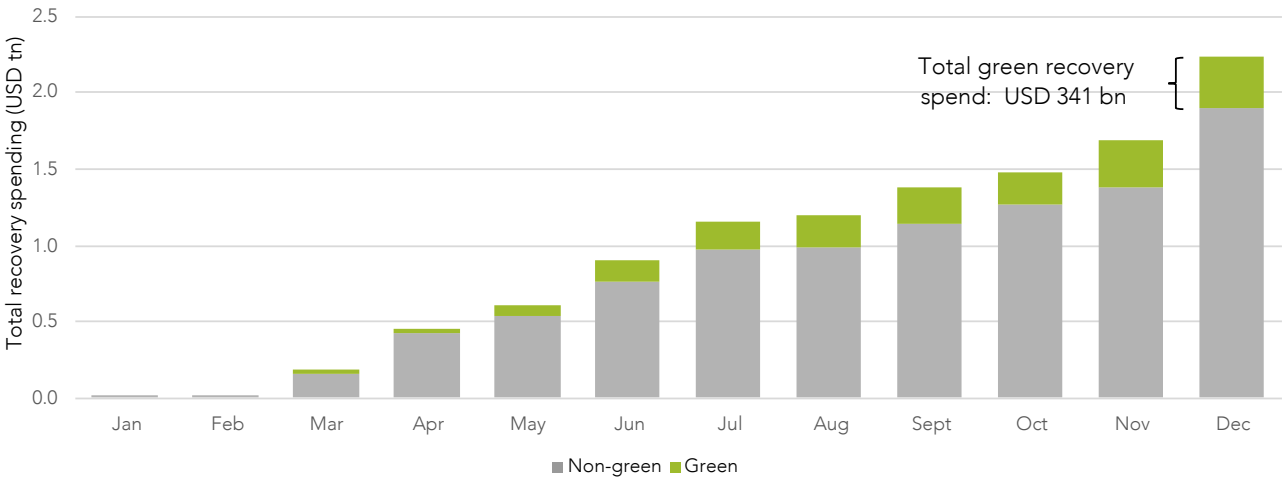
157 https://www.undp.org/publications/beyond-recovery-towards-2030

158 https://www.oecd.org/environment/outreach/ENV-EPOC-EAP(2020)5_COVID-Recovery.pdf

159 https://www.eib.org/en/about/initiatives/covid-19-response/financing.htm

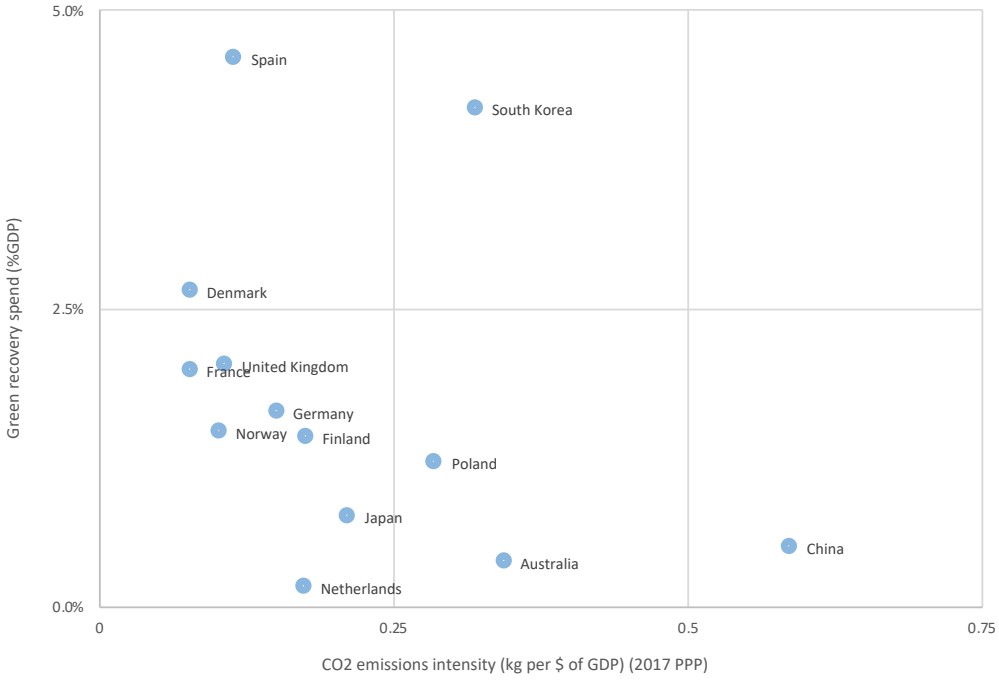
160 https://ourworldindata.org/policy-responses-covid

Figure 13: 2020 Economic recovery spending: Proportion of green recovery expenditure in 50 countries



Source: UNEP/Global Recovery Observatory, 2021

Figure 14: Green recovery spending (per cent of GDP) versus emissions intensity



Source: UNEP/Global Recovery Observatory, 2021

Support packages by IFIs for developing countries have, similarly, focused first on health and livelihoods protection measures. Of the five countries which were the subject of more detailed study the health impacts in two, India and Brazil, were still very severe in the second quarter of 2021. On the other hand, the impact in Jamaica, highly dependent on tourism, has been largely economic. The IMF provided an emergency loan for USD 520 million in 2020 under the Rapid Financing Instrument (RFI), while the WB approved a USD 150 million loan in early 2021 and the IDB a USD 75 million loan. Ethiopia has also received additional support from the IMF, and there have been emergency programmes for Indonesia (ADB and WBG) and Ethiopia (WBG and AfDB). These programmes, however, do not target green growth. A broader analysis of the breakdown of support measures by focal area by is not yet available. However, a recent Brookings publication has noted that most IMF recovery packages have come with very few conditionalities, and that, in constrained resource environments, there is unlikely to be fiscal space in the short run for both COVID-19 and climate change concerns.[161] The 2020 WBG Annual Report,[162] which focuses on the pandemic, also distinguishes between short term responses focusing on health, medium-term measures focusing on restoring livelihoods and the economy, and eventual longer-term measures which could support a more sustainable, inclusive and resilient future. By mid-2022 it should be possible to make a broader assessment of whether or not post COVID-19 recovery packages are supporting longer-term green transitions.

Some countries have, nevertheless, included substantial "climate friendly" measures in their policy responses. Nigeria's[163] USD 5.9 billion Economic Sustainability Plan is intended to stimulate the economy, retain and create jobs and extend protection to the poor. It includes investments in clean energy, agriculture, and infrastructure. There is a USD 619 million commitment to the Solar Homes Systems Project, which 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. Both the AfDB and the WBG have been working with Nigeria for some time to improve energy access and the energy policy environment.

Some international initiatives have also been started. UNEP, in response to COVID-19 and in partnership with the CGIAR and the International Livestock Research Institute (ILRI), launched 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.*[164] Germany, the UK, and Austria were the first donors to a green recovery initiative, which aims to help countries build a low-carbon, climate-resilient recovery from COVID-19. Funding will be provided through a new flagship World Bank trust fund, the Climate Support Facility,[165] which was launched on December 10, 2020 with an initial investment of USD 52 million. The Facility will provide support for technical assistance and advisory services to support countries to build a green recovery and enhance their national climate targets (NDCs) to integrate climate into long-term development planning. It will also fund analytical tools and knowledge development to inform country climate planning and development strategies.

161 https://www.brookings.edu/blog/future-development/2020/10/13/why-the-imf-needs-to-build-on-its-covid-19-record-not-backtrack/

162 https://www.worldbank.org/en/about/annual-report/covid-response

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

164 https://wedocs.unep.org/handle/20.500.11822/32316

165 https://www.worldbank.org/en/topic/climatechange/brief/the-climate-support-facility

The rapid development of vaccines in response to the COVID-19 pandemic shows the potential of private-public sector partnerships in support of innovation. Research organisations and industry were quick to see the importance of vaccination in controlling the pandemic, and some governments provided support early in the pandemic, either through direct support to research and testing, and/or through agreeing to advance purchase of vaccines once they were developed. These vaccines are proving transformative in the fight against COVID-19. The current challenge is to scale up production and distribution to developing countries.

7. LOOKING AT THE BIGGER PICTURE: LESSONS FOR THE MULTILATERAL SYSTEM

Overall, MOs and the MS more broadly have responded to the challenge of climate change in their work in developing countries. As described in Chapters 4 and 5, climate change action is reflected in strategies and policies at both corporate and country levels, the share of climate finance in operations has increased, and there has been an increasing focus on adaptation, especially in programmes supported by concessional finance. Where there is country demand, the MOs have responded, and there are broader dialogues on the benefits on climate friendly policies, especially as regards the energy sector. MOs do not support new coal fired power generation, and support for gas is provided only under limited circumstances. The MOs have been able to leverage large-scale private sector support for some key mitigation programmes, particularly in renewable energy, where technological transformation and enabling policies have resulted in pricing that is largely competitive with that of fossil fuels. The Benban solar power plant in Egypt described in Section 4 is an example. While MOs were already committed to addressing climate change in the decade before 2015, the Paris Agreement and the SDG 2030 agenda, including SDG 13, helped accelerate their "direction of travel."

The MS more broadly has also responded

Finance

Developed country governments have supported the establishment of a range of vertical climate funds. The Global Environment Facility (GEF) was the first, followed by the Climate Investment Funds (CIFs) in 2008 and the Green Climate Fund (GCF) in 2011, although capitalisation of the GCF has still well short of the USD 100 billion per year goal that the Fund had set for itself. Developed country governments have also supported smaller climate funds, often for specific purposes and implemented through individual MDBs. They also contribute to the regular replenishments of the concessional finance funds of the MDBs, an increasing proportion of which is used for climate finance, and to individual country level climate projects on a bilateral basis. Developed countries have provided support for capacity building around the development and reporting requirements for NDCs. The Climate Funds have likewise leveraged substantial co-financing from the private sector. In the private sector more broadly, incorporation of the principles of corporate social and environmental responsibility have become more widespread, and opportunities for investing in green finance instruments have grown.

Partnerships

An increasing number of partnerships provide networks for sharing experience, knowledge products, advocacy platforms, and innovative approaches. Regional partnerships provide opportunities for countries to share experience and discuss issues in common. There are also partnerships around specific technical products or sectoral challenges, such as green finance or energy transitions. For the MDBs, the CIFs and the 2018 Paris Alignment principles have provided especially useful vehicles for collaboration both in country programming and use of common approaches for GHG accounting methodologies in climate finance. Creation of a joint facility[166] to help improve their public and private sector clients' climate strategies is under discussion. There are technical and scientific partnerships, both between organisations and with other elements of the MS including the MOs under study. NGOs have played a particular role in advocacy and monitoring, especially at the international level.

Despite these efforts, the challenge of slowing and reversing climate change remains greater than ever. Current trajectories indicate that the goal of keeping global temperature rise below 2 degrees Celsius is unlikely to be met and the goal of 1.5 degree Celsius is highly unlikely. Current Nationally Determined Contributions (NDCs) vary widely in their level of ambition, not all present country NDC targets are likely

166 https://www.devex.com/news/development-banks-considering-250m-joint-climate-facility-99666

to be met and few in developing countries are supported by Long-Term Strategies (LTSs). The COVID-19 pandemic has resulted in only a temporary reduction in global GHG emissions, and carbon emissions are rebounding to pre-crisis levels with the short-term crisis response.[167] Meanwhile, and until more synergistic and climate-friendly longer-term recovery investment plans can be formulated and implemented, the COVID-19 crisis competes with climate change for the attention and resources of governments.

Lesson 1: The lack of "whole-of-government" NDCs and LTSs hinders progress on the climate change agenda.

The G20 countries have a key role to play in reaching the Paris climate goals. Between them they currently account for about 72 per cent of GHG emissions. The contributions of developed and developing countries to GHG emissions should be differentiated. The picture is rapidly changing and not all data are reliable, but in 2018 the developed G20 countries accounted for about 14 per cent of global population but 25 per cent of GHG emissions, while the emerging G20 countries accounted for about 49 per cent of global population and 47 per cent of emissions.[168] The developed countries have the strongest capacity to reduce emissions rapidly, to pilot and scale up carbon neutral and climate resilient approaches to development, and to work with developing countries to grow their economies on inclusive, low carbon and sustainable growth paths. Nevertheless, the large G20 emerging economies such as India, Indonesia, Brazil and above all China, which now accounts for about one-quarter of global GHG emissions, can also significantly contribute by scaling up their level of ambition.

Countries drive the development and climate change agenda but NDCs are not always owned by the "whole-of-government." Commitments to addressing climate change vary across countries, but require full national ownership, including at the level of the Ministries of Finance and Economy, which control resource allocation and are at the apex of decision making. However, NDCs in a good number of countries are often developed primarily by Ministries of Environment. Because of its relationship with the core ministries, there is scope for stronger engagement by the IMF to articulate the macro-economic and fiscal impacts of climate change and climate-friendly policies, and scope also for the other MOs to argue to case more forcefully with finance, planning and sectoral ministries.

MOs can influence countries only to a certain extent and country leadership and commitment to addressing climate change is vital. Withdrawing funding from other programmes is generally not effective, and can jeopardise ongoing pro-poor activities. There is potential for the broader MS, including NGOs, to broaden outreach and communication channels so as to develop stronger constituencies not only within

167 See, for example, https://www.nature.com/articles/s41558-020-0797-x

168 Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute (Available at: https://www.climatewatchdata.org/ghg-emissions); FAO 2020, FAOSTAT Emissions Database; CO_2 Emissions from Fuel Combustion, OECD/IEA, 2019; World Development Indicators, The World Bank. These estimates include LULUCF, of which most G20 countries are "net sequesterers."

central government but also at the sub-national level and in civil society more broadly. There are also opportunities for MOs to engage further in partnerships with NGOs. The impact of fossil fuel-caused air pollution on health, for example, is one relatively non-contentious advocacy area.

Current leaders of a number of key MOs who have been effective in transforming the climate agenda within their organisations may strengthen dialogue. These leaders have clearly expressed their commitment to the goals of the Paris Agreement and 2030 Sustainable Development agenda, as illustrated by the recent IMF-World Bank Spring Meetings and have highlighted the urgency of the need to address the climate change challenge at key international fora. This leadership could be usefully deployed in country dialogue with governments to raise the visibility of climate issues and the urgency of developing strategies and action plans to align the most energy intensive and "climate unfriendly" sectors of the economy with mitigation and adaptation pathways consistent with the Paris Agreement.

Long-Term Strategies (LTSs), which are optional under the Paris Agreement, are essential to address short- and long-term climate and development goals. They can allow for development of MO Paris Agreement-aligned pathways, based on sectoral plans and fully embedded in the broader national development agenda. LTSs can help governments to: (i) plan for climate resiliency and net-zero carbon emissions informed by science; (ii) sequence and update their NDCs; (iii) anticipate and better manage trade-offs; and (iv) design the policy and investment roadmaps needed to enable achievement of their climate goals in line with the objectives of the Paris Agreement. However, LTS response to date has been limited, suggesting that MOs need to step up and co-ordinate their support for LTS formulation, including policy formulation, structuring of financing, and implementation.

NDCs are more useful to some MOs as programming documents than others. NDCs are often broad statements of intentions and lack detail on investment requirements, underlying policy support and financing, including from the private sector. NDCs that align well with national development priorities find the easiest translation into MO assistance programmes. Furthermore, the role of NDCs in country programming processes varies significantly from one MO to another. For IFAD, for example, country-owned NDCs are a useful guide to programming since climate-smart agriculture represents a "triple win" of increased productivity and rural incomes, greater resilience, and reduced emissions. On the other hand, the bulk of IFC's investments are made on an opportunistic basis and respond to specific business opportunities. Both organisations, however, are committed to climate action.

Opportunities moving forward

- **Recognising that countries drive the climate agenda, MOs and other parts of the MS need to focus on support for developing NDCs and LTSs which are integrated into broader country development strategies.** The engagement of key sector Ministries and Ministries of Finance and Planning in this process is essential. The IMF could usefully engage directly with governments and other MOs in articulation of LTSs. The Fund is in an excellent position to lay out the economic impact of climate change to country leaders, ministers of finance, economics, and planning, and central bank governors in order to bring climate issues to the foreground and build commitment of core government agencies to LTSs.
- **Country commitment at the central leadership level is vital but where it is lacking, MOs should look for other entry points and exploit opportunities to remain engaged.** Examples include enhancing policy dialogue and maintaining a consistent message, and/or supporting actions specific climate relevant sectors or at the sub-national level, including in cities. Co-ordination among MOs, including around policy advocacy, is especially important in countries like India, China, Indonesia and Brazil, where there is the most to be gained from realigning broad sectoral policies with NDCs and LTSs consistent with a 1.5 degree Celsius target. More generally, MO leaders need to engage not only at the global level

but also at country level, and particularly with leaders in those countries where the level of ambition to addressing climate change is lagging.

- **At the country level, there is scope for stronger engagement between MOs, NGOs and civil society.** MOs should work with NGOs and civil society to engage more on enhanced climate-related awareness raising and advocacy including on cross-cutting issues such as the public health and welfare impacts of climate change and different policy approaches. But civil society itself, as an important element in the broader MS, has a key role to play in creating demand for reforms and inter-generational equity on climate change. There is room for stronger partnerships between international and local NGOs.
- **The COVID-19 recovery period offers an opportunity for greater integration of climate action and transition to greener, more resilient and inclusive development paths into broader development strategies.**

Lesson 2: The focus on measuring climate finance may distract from thinking climate as part of broader development.

Climate finance has been scaled up and shifted towards adaptation, but financial flows for adaptation and mitigation are not directly comparable. Adaptation has increased as a share of total climate finance, and covers a broad range of areas varying from disaster risk reduction, improved weather and climate forecasting and coastal resilience, adaptation in agriculture, land and water resource management, to climate resilient infrastructure, flood management and improved city planning. The challenge is that these interventions are generally part of broader development programmes and there are differences between the way mitigation and adaptation flows are calculated. Mitigation flows are assessed on the basis of total cost, as the intervention normally implies a switch in technology or fuel affecting the whole investment or an increase in energy efficiency; adaptation flows are evaluated on the basis of the incremental cost of augmenting the design of an infrastructure or landscape intervention so as to make it climate resilient. Furthermore, many climate-friendly investments, including in improved land and water management, climate smart agriculture and city greening, contribute to both adaptation and mitigation. Adaptation flows may therefore be "undercounted" if narrow definitions of climate finance are used.

"Good development" can also improve the enabling environment for climate action and needs continued priority. Improved public sector financial management, for example, though not generally "mapped" to climate action, can help mobilise domestic resources for adaptation and there needs to be more focus on mobilising domestic resources. Moving forward, concessional financing could usefully be focused largely on adaptation and climate resilience building, where the public good benefits outweigh direct revenue earning benefits and are long-term, and on lower income, vulnerable low-emitting countries and the small island developing states (SIDS). It should be recognised, however, that some MOs, especially the MDBs, have limited appetite for adaptation investments perceived as risky, especially those which carry reputational or safeguards risks involving restrictions in land use, for example in areas such as urban flood management. For mitigation concessional finance could focus on "pushing the envelope" on the introduction of new and innovative technologies.

Support for adaptation is best provided through systemic, long-term interventions which take into account current trends in global temperature rises. Support provided to individual, small-scale interventions could usefully include elements for testing scalability and transformative impact. There are several examples of small scale adaptation projects which have succeeded, over time, in leveraging support for much larger scale, programmatic efforts. Examples include the sustainable land management programmes in Ethiopia, coastal zone management in India, disaster preparedness in Jamaica and the Great green Wall

of the Sahel. Nevertheless, countries and MOs alike need to prepare a "Plan B" that explicitly recognises and models the impact of a greater than 2-degrees Celsius temperature rise and the corresponding needs for increased adaptation over the relevant time horizon.

The COVID-19 pandemic reduced resource availability for climate action in 2020 for some MOs but there are opportunities to focus on a green recovery moving forward. Governments and MOs responded rapidly to the pandemic, through programmes focusing first on the health emergency and next on protecting livelihoods as economies contracted. MOs argue, moreover, that the pandemic offers an opportunity to build back better, and promote a green, resilient transition, and some have established technical assistance support facilities in this regard. However, one analysis of support packages in 50 countries illustrates that "green spending" comprised only 18 per cent of total outlays of nearly USD 2 trillion through end-2020.[169]

Opportunities moving forward

- **There should be greater focus within the broader MS on moving beyond measuring "inputs" (climate finance) to assessing results in terms of greater long-term resilience or transitions to carbon-neutral growth.** This should include the result of policy reforms as much as investments.
- **The focus on climate finance should not come at the expense of broader climate friendly development.** Investment in policies and programmes with benefits in terms of health, education, reduced workloads, better water quality, broader ecosystems health, and more liveable cities as well as broader governance and public sector management reforms should continue to receive focus; many of these will also have broad cross cutting climate benefits.
- **Domestic resource mobilisation has an important role to play in climate finance.** MOs should work jointly with countries on identifying specific policy actions in this regard including improving the efficiency of taxation systems and revenue capture, as well as measures to increase domestic savings.
- **The authorising environment of MOs for investing in areas perceived as "safeguards risky" needs to be improved.** MOs are particularly reluctant to engage in programmes that may involve resettlement, despite the safeguards processes that exist, because of potential reputational risks. But support in complex areas such as flood management and protection, urban and coastal land use and transport planning, needs to be scaled up to increase investment in adaptation and resilience.
- **The COVID-19 recovery period offers an opportunity for greater integration of climate action and transition to greener, more resilient and inclusive development paths into broader development strategies.**

Lesson 3: Achieving Paris goals cannot happen without a massive scale up of private sector-led investment in climate change.

MOs can supply only a fraction of the demand for climate finance. Domestic resource mobilisation is important and is more likely if NDCs/LTSs are mainstreamed into broader government programmes. There is also a premium on leveraging every dollar spent to access new and additional finance. Crowding-in private sector finance through equity investments at the project level or nudging large-scale investments in climate-friendly and well-performing portfolios at the industry level, will be essential to meet the Paris climate targets. The IFIs can use their expertise and convening power to help "green" the asset portfolios of private investors and others, including commercial banks. Examples include building on the concept of Green Bonds, for which EIB, IFC/WB and AfDB have played leading roles in market creation, and establishing climate-friendly index funds of Paris-aligned corporations.

169 https://ourworldindata.org/policy-responses-covid; UNEP/Global Recovery Observatory, 2021.

For private investors clarity on both climate policies and the broader private sector investment climate is necessary. NDCs need to be accompanied by clear sectoral implementing regulations, standards, and policies, including in the pricing of fossil fuels, performance standards and incentives to reduce uncertainty and level the playing field for private investment. Consultations with the private sector are necessarily a key part of this process. A supportive investment climate and robust banking sector are also important "enablers," as are property rights regimes, frameworks for public-private partnerships, and incentives to reduce risk for investment in new areas.

Concessional public finance provided through a variety of mechanisms, such as blended concessional finance, risk-sharing facilities and pre-investment financing, can play a significant role in unlocking private finance. "Brute force" subsidisation approaches are generally disfavoured for a variety of reasons, including market distortion effects, limited leverage, and an unclear path to profitability as the sine qua non for sustainability in private markets. This argues for the internalisation of environmental costs and benefits in climate-sensitive markets through pricing, taxation, and regulatory approaches. Project pipeline development is hindered by a lack of adequate pre-investment and feasibility study financing.

Climate finance needs to be responsive to private sector investment criteria. Climate financing mechanisms must be agile and quick-reacting, willing to tolerate substantial risk, able to commit funds in substantial size blocks in order to drive market transformation, support a wide range of instruments and feature transparent and predicable decision-making. The private sector's project cycle normally operates at a faster pace than most external public funding decision time frames, with most investments moving from identification to approval in a space of 9 to 15 months.

A remaining challenge is to ensure that investments provided through financial intermediaries are climate friendly. These institutions cannot easily be subject to the same levels of scrutiny as the primary lending organisations. This is especially the case for on-lending to micro, small, and medium size enterprises (MSMEs). Nonetheless, relatively straight-forward screening criteria and reporting requirements can ensure the application of "do no harm" principles.

Opportunities moving forward

- **NDC/LTS formulation needs to engage more with the private sector to identify and help alleviate key constraints to up-scaling private investment in climate action.** LTSs need to include support for enabling policy environments for the private sector as well as public investments. Carbon pricing may be a highly effective policy option and the MOs should encourage its adoption, although at the country level there is little consensus for this as yet. Climate finance needs to scale-up the leveraging of private sector finance, by using grant and concessional resources strategically to support project development, de-risk, and aggregate investments, strengthen capital markets, and address policy, regulatory and pricing bottlenecks.
- **Effective private sector investment at scale also requires improvements in the enabling environment which go beyond what is typically addressed in NDCs.** These include removal of price subsidies for fossil fuels, full cost-reflective purchase tariffs as necessary to encourage investment in renewables, development of a robust banking sector, a favourable environment for "doing business" including clarity with respect to property rights and contract enforcement, and clear sector regulations. By publicising green investors and funds, and using scorecards to identify non-compliant actors, it may be possible to steer larger volumes of investment from the global savings pool toward emerging markets for sustainable energy, circular economy business models, and nature-based solutions.

Lesson 4: Transformational technology is key for moving towards a carbon neutral world but the required research and development is outside the mandate of the MOs.

Estimates of the costs of keeping temperature rises below 2 degrees Celsius have emphasised the financing gap but have not focused sufficiently on the potential of transformative technologies. Solar power is one good example whereby a mix of advances in technology, greater competition, changes in government policies, and support for investment in large markets such as China and India have helped to drive down costs so that solar-powered energy is now becoming competitive with fossil fuel-powered energy. Although in a different sector, the rapid development of COVID-19 vaccines is another. Public resources for research and development of climate beneficial technologies, such as new energy solutions, remain modest in many countries. This calls for strategic partnerships with research and development, science and technology and engineering enterprises to accelerate innovative, breakthrough technologies that are on the cusp of feasibility. Creating viable new technologies and realising significant market uptake is a typically a lengthy process, and there needs to be commitment and tolerance for failure at all steps from basic research, to testing, applied research, development, field testing, piloting, demonstration and commercialisation.

The early phases of the research and development cycle are outside the core mandate of the MDBs, but they can usefully support piloting of new approaches and transfer of technologies that are ready for commercial demonstration and scale-up in developing country environments. While IFI procurement policies generally favour mature technologies and widely available goods and services packages, there have been promising results in some areas. The IFIs' long partnership with the Consultative Group for International Agricultural Research (CGIAR), which was largely responsible for sparking the "green revolution" in agriculture, has more recently helped to test, develop, and roll out new technologies in the area of climate smart agriculture.

There are promising results from programmes focusing on "nature-based solutions" which could benefit from greater focus and support both from countries and MOs. Research and experience with earlier programmes of watershed restoration have highlighted the importance of solutions which are adapted to local ecosystems and deliver multiple benefits for adaptation, mitigation and biodiversity recovery. There has been increasing interest in investments in green infrastructure, for example, such as coastal dune, mangrove, and wetland restoration in coastal areas. Healthy coastal ecosystems can also sequester vast amounts of carbon – up to 10 times the amount of carbon per hectare in terrestrial forests – in the form of "blue forests"[170] and submerged organic sediments that have built up over millennia. These need to be protected and accounted for. There is progress, however. Recent work has highlighted the potential of blue carbon certificates,[171] and Kenya, for example, has now included blue carbon in its NDC.[172]

170 https://oceanservice.noaa.gov/facts/bluecarbon.html, https://doi.org/10.1038/s41586-021-03371-z,

171 https://mpanews.openchannels.org/mpanews/issue/july-august-2020-221

172 https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Kenya%20First/Kenya%27s%20First%20%20NDC%20(updated%20version).pdf,

Opportunities moving forward

- **There is scope for greater public sector support for innovation in both mitigation and adaptation.** The experience with solar energy provides one example. In a different sector, the rapid development of vaccines in response to the COVID-19 pandemic is another. Investing in innovation is not, however, an area in which many MOs have a comparative advantage, including the IFIs, given their generally modest appetite for risk. It requires the use of public sector resources as well as partnerships with research organisations, academia, and private industry.
- **There is also scope for more engagement in well-designed and integrated nature-based solutions, including in coastal and marine ecosystems.** High value carbon sinks on land and sea must be targeted and protected from destructive practices that release these stores of carbon and restored at scale to deliver sustained global and local benefits for climate, biodiversity and food security.[173]
- **There is a need for greater involvement and innovative investment in "green and liveable cities."** The work on green buildings and e-mobility needs to be scaled up and complemented by better and more effective climate resilience-oriented land use and transportation planning.

Lesson 5: Well-designed partnerships are important and their co-ordination and consolidation is essential.

Country mechanisms for co-ordinating development partners vary in effectiveness. Some countries have well established systems, led by Ministries of Planning and with sectoral sub-committees, while in others co-ordination is less well organised. This can sometimes lead to duplication of efforts and competition, especially for scarce concessional climate finance.

MOs do however co-operate through a variety of international networks as well as through country level work. The CIFs and the MDB Climate Finance Paris Alignment platforms have been a particularly useful means for MDBs to collaborate, including in country programming. There has also often been good MO collaboration around key large-scale climate action programmes at country level. While the GEF has financed useful pilots and some of these have been scaled up, there may be greater scope for the IFIs to work more closely at country level with UNDP and UNEP and other GEF implementing agencies to identify and scale up opportunities derived from recent innovative pilot activities for climate change mitigation and adaptation.

Multiple partnerships stretch administrative capacity at both the country and MO levels and consolidation is essential. There are for example many donor-supported facilities for advancing NDCs and LTSs, but they are not well-co-ordinated. These efforts generally involve capacity building for NDC development, costing, and reporting requirements, or facilitate the sharing and dissemination of progress regarding NDC implementation. There are multiple partnerships around NDC capacity building[174], and multiple international partnerships; these may sometimes crowd out the focus on country level action. With the growing integration of climate considerations into the mainstream development agenda, present aid co-ordination framework agreements become increasingly relevant for co-ordination of climate action. The UNFCCC's 2023 Global Stock-take could provide political space to strengthen co-ordination and consolidation of climate-related partnerships going forward.

173 Sala, E., Mayorga, J., Bradley, D. et al. Protecting the global ocean for biodiversity, food and climate. Nature 592, 397–402 (2021). https://doi.org/10.1038/s41586-021-03371-z

174 They include NDC Advance, Africa NDC Hub, NDC Invest, NDC Support Facility, Climate Promise, NDC Action Project, and NDC-P (NDC Partnership). Some partnerships focus on support for meeting broader transparency requirements, including the Initiative for Climate Action Transparency (ICAT) and the Capacity-building Initiative for Transparency (CBIT). Each facility comes with transaction costs and reporting requirements.

Opportunities moving forward

- **There is room for better co-ordination and consolidation of partnerships, including on NDCs, at both the international and country levels.** MDB co-ordination and harmonisation with respect to Paris alignment is a good model.
- **One area where progress remains to be made among MS members concerns reaching a common definition of LUC (Land Use Change).** As UNEP has highlighted, although IPCC has articulated a definition and methodologies, there appears to be no globally consistent and widely accepted country-level data set of LUC emissions.[175] The issues are two-fold. First, definitions vary, and second, country-level data are not robust, and may not measure year-to-year variations or carbon dynamics accurately. Consequently, not all global databases include emissions from LUC, although they are a growing source of emissions in some countries. While difficulties with the quality of data are recognised, FAO together with the research community and the SBSTA could foster an agreement on a common, easy-to-measure approach for land use change (LUC) within LULUCF at the country level, for inclusion in GHG databases that is consistent with IPCC methodologies.

Lesson 6: Reducing support to fossil fuels comes with challenges in the transition that need to be recognised.

MOs have sharply scaled down support to new fossil fuel power and policies have evolved, but trade-offs remain. None of the MOs studied support investment in new coal-fired power plants. Natural gas investments used to be but are no longer considered climate finance despite the lower carbon content and higher efficiency of gas compared to coal, but some MOs still provide support to gas distribution and power generation under certain circumstances. For example, in rural and peri-urban areas gas provides a clean alternative to fuelwood as a cooking fuel; it reduces the workload for women, who are usually responsible for fuelwood collection, and can have health benefits by reducing exposure to indoor air pollution and climate co-benefits by reducing forest and land degradation from excessive cutting for fuelwood.

Energy transformation requires a major shift in pricing, regulation, competition, and investment climate and MO support to the required policy reform is especially important. Some external critiques of the Paris alignment of MDB financing regard support for reforms that promote greater efficiency, full-cost pricing and private sector resource mobilisation in countries where fossil fuels predominate as supporting use of fossil fuels. On the contrary, these reforms support reduced consumption, increase the overall operational efficiency of the energy and energy-intensive sectors, and improve the enabling environment for the shift to renewables. Furthermore, experience has demonstrated that in a favourable policy environment, after an initial government-led demonstration phase, renewables can become a predominantly private sector business. Energy transformation will not proceed without a major underlying shift in pricing, regulation, competition, and investment climate.

Investments in gas-fired power generation projects, liquefied natural gas (LNG) import facilities, and gas distribution represent an area of increasing challenge. MOs are committed to low-carbon development. The main exception in some cases has been for investments in high efficiency gas-fired combined cycle power plants and associated LNG import infrastructure. Natural gas can substitute for coal and emits approximately one-half of the carbon per unit of electricity production, but it is nevertheless a large-scale source of GHG emissions, and with the associated infrastructure it represents a long-lived asset with significant carbon lock-in implications. Furthermore, gas provides a clean alternative cooking fuel to fuelwood, and comes with many co-benefits, including lower workload for women, health benefits from a reduction in indoor air pollution, and environmental/climate benefits from reduced land/forest

175 UNEP Emissions Gap Report 2020, https://www.unep.org/emissions-gap-report-2020

degradation. A number of criteria could be applied to limit consideration, on an "exceptional" basis, to natural gas activities that: (i) replace high-emitting coal and oil energy; (ii) increase energy security by allowing for fuel and source diversification; (iii) provide needed power system flexibility; (iv) contribute to direct poverty alleviation and local air quality improvement by substituting for coal, lignite, or traditional biomass fuels in cooking and heating applications; (v) lower methane leakage over the full gas fuel cycle; (vi) apply low-carbon technology, such as Combined Cycle Gas Turbines (CCGT) with carbon capture and storage, and high efficiency co-generation; (vii) contribute to the transition to low-carbon gases, such as hydrogen and biogas; and (viii) are complemented by a timeline and pathway for phasing out of gas and transitioning to low- and no-carbon energy.

Opportunities moving forward

- **MOs should provide greater clarity on the conditions under which they would support new mid-stream and downstream investment in gas**, given its contribution to GHG emissions and the long-term risks of stranded assets.
- **In the absence of a pathway for gas phase-out defined under an LTSs, a number of criteria could be applied to limit consideration, on an "exceptional" basis, of natural gas investment activities.** For some countries, for example, gas provides a clean energy alternative to fuelwood for cooking, with environmental and health benefits, especially for women.

Looking beyond the lessons – questions for further enquiry

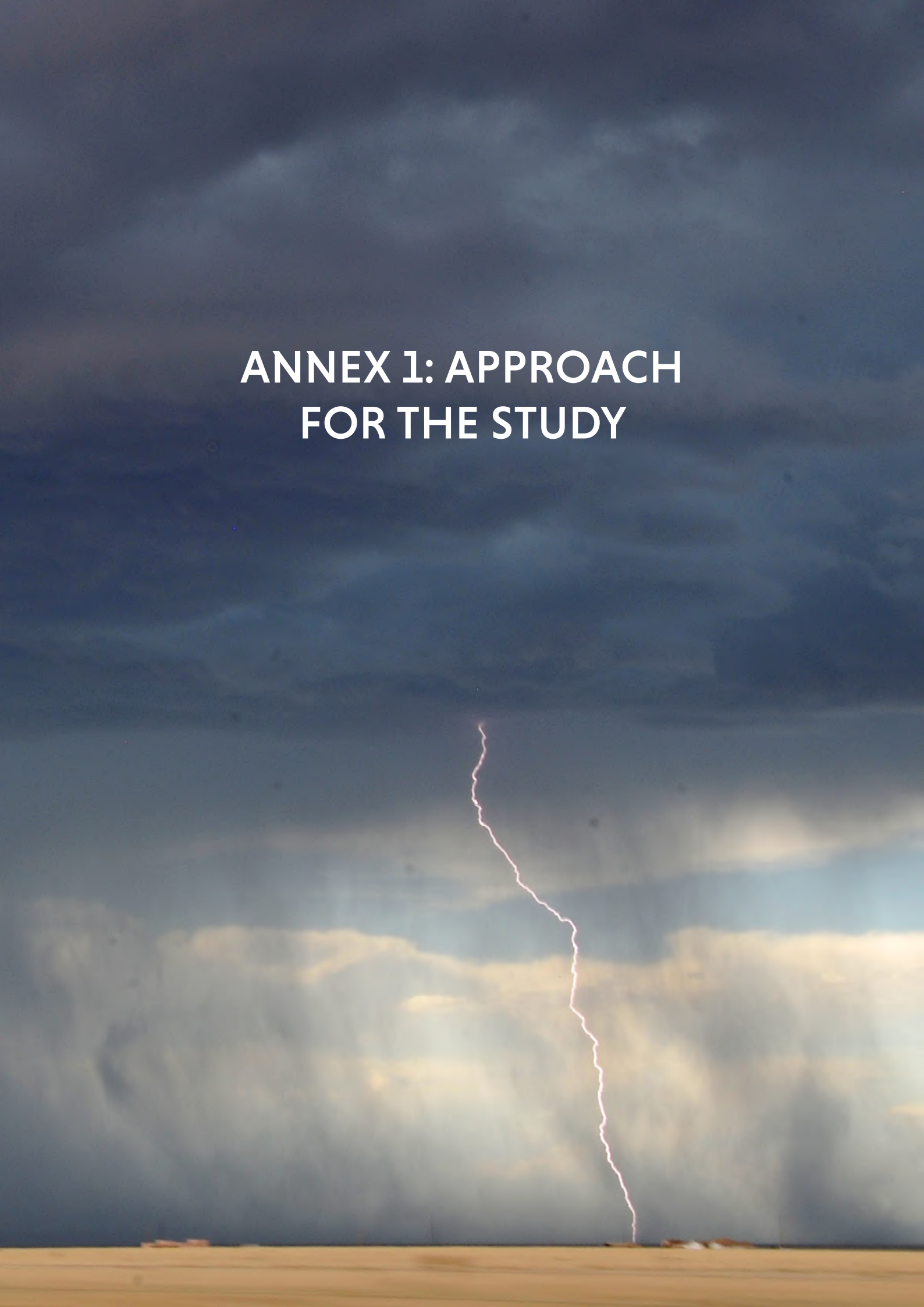
Climate change is the defining challenge of our time. The mobilisation of resources at the scale commensurate with this challenge requires a significant scale up of domestic resource (public and private savings) mobilisation, tapping the vast global savings pool and leveraging in investment from the private sector. The MOs studied have responded positively to this challenge and are scaling up their financial and technical support for climate adaptation and mitigation in both low- and middle-income countries. The MS more broadly has responded through partnerships, research, capacity building, knowledge and information sharing, and advocacy. The level of country commitment, including in the G20 countries, presently varies, and the world is, however, not currently on track to limit global warming to under 2 degrees Celsius, and far off track for the 1.5 degree Celsius goal. A much stronger effort is needed, including engagements that reflect a "whole-of-government" and "whole-of-society" approach, involving both enabling policies and broad stakeholder engagement, as well as greatly increased investment, at all levels, from local to global.

Country and MO leadership can play a key role in moving the climate agenda forward through clearly articulated messages, support to the operationalisation of pertinent actions, and "soft power" including convening capacity and advocacy. Broader support for the pursuit of truly transformational change is needed, with strong civil society participation and effective partnerships between researchers, private industry and governments.

The extensive research undertaken for this study and the input from key stakeholders, including the study reference group have distilled a number key lessons and opportunities which present potential areas for action by the international community -- decision-makers, shareholders of the MS and the MOs themselves -- as it looks to boost the global response to the climate agenda. Acknowledging the complexity of the climate change agenda and the limitations of this study's scope, moving forward, a number of critical questions would merit further enquiry and discussion to further shed light and provide insights and ideas in support of policy actions to further accelerate climate action.

The following seven questions are presented for consideration and to be taken up by stakeholders going forward:

1. How could MOs provide further support in getting to 1.5 degree Celsius, recognising that countries must make most of the effort?
2. How can MOs more effectively address the most difficult adaptation challenges, especially in urban areas?
3. How can MOs be more effectively engaged in country-level policy reform?
4. What does it mean, in practical terms, to build back better post COVID-19? How can MOs support the effort effectively?
5. How can MOs effectively align their metrics to get more fine-grained reporting on results in terms of adaptation, mitigation, and overall resilience, moving from inputs to outcomes and impact?
6. How can the MOs take advantage of the shift toward demands for greater transparency and accountability in corporate and investor asset holdings that are not aligned with the Paris Agreement? Can MOs provide some synergistic incentives to catalyse a further shift towards green investing?
7. How can SDGs, Paris and Addis Agreements (and other relevant normative agendas) be harmonised better for coherent action?



ANNEX 1: APPROACH FOR THE STUDY

1A. Framing questions

Annex Table 1 below summarises the questions that have guided the study and presents a distinction on how the study has examined them at the level of each MO, and then looks at the MS as a whole.

Annex Table 1: Framing questions

Sub-questions	MO level questions	MS level questions
1. How is the MS responding to climate change (CC)?		
1.1 Use of normative frameworks	How and to what degree is each MO using the principles of normative frameworks such as the 2030 Agenda and the Paris Agreement to guide their response to CC?	Is the MS effectively taking on board the mandates of Agenda 2030, the Paris Agreement and the UNFCCC more generally? Are the responses of the MOs consistent with the associated normative frameworks put forward by these initiatives?
1.2 Cohesiveness and coherence of the MS in responding to CC, with focus on the MOs assessed in the study	Are MOs co-operating and collaborating toward a coherent response? How have new partnerships impacted the work of MOs?	
1.3 Agility and effectiveness of the MS in reacting to increased global concern on CC	How has increased global attention and concern on CC influenced the work of MOs? Have MOs been agile and effective in their responses?	
2. How Are MOs incorporating CC into their organisational strategies, operational activities and resource plans?		
2.1 Integration of CC in MOs' organisational objectives	How do MOs address CC in their organisational objectives – vision, policies, strategies? Have these been amended to incorporate a focus on CC adaptation, or to mitigate for its effects? Is the attention to CC reflected in results frameworks?	Are the MOs – and by extension the MS – consistently incorporating CC into their key strategic documents and operationalising this commitment into their policies, programmes, and projects, resource allocation, and efforts to mitigate their own climate footprints? Are there relevant and effective inter-change and co-ordination mechanisms on CC that draw on the active participation of a high – and increasing proportion of MOs? If so, have these resulted in significantly increased collaboration across MOs with positive synergies (i.e., "the whole being greater than the sum of the parts"), or at least an avoidance of duplication and inefficient overlap or competition?
2.2 Integration of CC in MOs' operational actions	How have MOs modified/expanded their operations: (i) with their own financing, mobilising co-financing, including from private sector, tapping vertical funds; (ii) through knowledge outputs, policy dialogue, and policy-based operations; and (iii) technical assistance and capacity building? Are MOs helping countries formulate/implement NDCs? Has attention to CC been integrated and/or "mainstreamed" across operations through specific guidelines, targets, etc.? Are MOs promoting and reflecting science-based innovations and technological changes of relevance to CC mitigation and adaptation through their operations? What approaches do they use to assess the benefits of climate change mitigation and adaptation and broader "climate smart development" approaches? To what extent are MOs able to mainstream CC and broader green, resilient and inclusive recovery into COVID-19 response strategies?	
2.3 Integration of CC in MOs' resource allocation	How has the attention to CC been reflected in organisational changes, staff capacity and allocation of budget resources? Are climate risks being addressed through safeguard policies and other risk assessment methods?	
2.4 Reduction of MOs' own climate footprint?	Are MOs mitigating their own climate footprint? How? What initiatives stand out and to what extent have they been mainstreamed?	

Sub-questions	MO level questions	MS level questions
3. What lessons learnt and good practices can help strengthen the MS in tackling the climate crisis?		
3.1 Depth of changes linked to CC response	Are MOs making surface-level or systemic changes in their CC response efforts?	What are the most important lessons learnt by the MOs and the MS to date with respect to how to most effectively support country efforts to address climate change? What are some positive examples of, and potential opportunities for, positive externality or "spill-over" effects between MOs and across the MS – e.g., relevant new knowledge generated and disseminated, adoption of good practices as reflected in changed or enhanced MO business practices and operations having positive climate change impact?

1B. Lines of evidence

The study included an extensive review of documents. In addition to strategic and policy documents of the MOs, country-specific MO strategies and operations were reviewed, as well as the NDCs, broader development plans, and recent climate related projects of the five countries selected for more detailed study. The analysis also included a review of a broad range of research, scientific, policy and advocacy documents related to climate change. Four country analyses, the key documents examined include (i) climate risk profiles, (ii) broader development strategies and country policies, (iii) the most recent National Communications to the UNFCCC; and (iv) statements of NDCs, including, where available, both those immediately following the Paris Agreement in December 2015 and more recent, higher-ambition documents, as an input to COP 26. The documents consulted are listed in Annex 5.

The study uses as building blocks analyses of the response of each MO to the climate change agenda. The MO analysis was conducted based on publicly available documentation, and supplemented by interviews with key climate staff from each MO and with a limited number of other organisations within the MS. Each MOs was also sent a 15-page draft document, which benefited from a review by MO staff and allowed for revisions that are reflected in summaries of each MOs response to climate change presented in Annex 2 (the authors of this study are responsible for any remaining factual errors). All MOs responded to the request for interviews except the EIB and GCF, which, by 18th April had also not responded to a request to review the draft MO analyses. Annex 2 provides summaries of the response by MO. More detailed analyses by MO are available in Volume 2, Multilateral Organisation and Country Studies.

Country analyses complemented the MO analysis by considering the responsiveness of MOs to selected countries' needs. They addressed climate change challenges, NDCs, and the extent to which these are integrated with broader country development priorities. Indeed, climate change action takes place at country level and MO response is shaped to a great extent by the "demand" of developing countries for MO assistance. The countries selected are Brazil, Ethiopia, India, Indonesia and Jamaica. The justification for their selection is detailed below. Annex 3 provides a summary of the key climate change challenges, NDC commitments and MO interventions for each country, and includes a synthesis of key lessons learnt and good practices, also country by country. Annex 2, the MO analysis, summarises MO priorities for these

countries as relevant.

There were also interviews with global stakeholders, including experts from the OECD, the UNFCCC, SBSTA, WRI, and the Institute for Sustainable Development and International Relations (IDDRI). These interviews provided different, and helpful, perspectives on the response of MOs, and the functionality of the MS with respect to climate change more broadly.

1C. Selection of Multilateral Organisations

In order to address the questions and considering the time and resources available, the team selected eleven MOs based on guidance from the MOPAN Secretariat and the Reference Group. The selection process included the following criteria:

- **Inclusion of climate change in strategic objectives.** The selected MOs would all incorporate climate change, including commitment to the climate related SDGs and the Paris Agreement, into core strategies.
- **Role in financing Adaptation and Mitigation.** Given the key role that finance plays in the UNFCCC, this was a major criterion in MO selection. Middle-and low-income countries have highlighted in their NDCs the need for external financial assistance in order to meet their non-voluntary climate commitments under the Paris Agreement. There is a strong focus, therefore, on MOs that provide financing to address climate change both through their own resources and through management of dedicated concessional funds provided by third parties, including the GCF, GEF, and other donors.
- **Role in Capacity building.** Meeting commitments under the UNFCCC requires countries to build capacity in a range of areas, including development of NDCs, Nationally Appropriate Mitigation Actions (NAMAs), and National Adaptation Programme of Action (NAPAs), GHG monitoring, measurement, and verification systems, transparency in reporting, vulnerability analyses, climate finance, and incorporation of climate change considerations in broader national economic and sectoral policies and programmes.
- **Role in integrating climate change and the SDGs into the broader UN Development System (UNDS) and related Conventions.** While the focus of the study is on the selected MOs, reaching climate goals requires a co-ordinated response within the broader UNDS, including with related conventions and agreements such as the Sendai Framework and the Biodiversity and Desertification Conventions.
- **Role of climate change adaptation and mitigation in poverty reduction and inclusive growth.** Given that the poorest countries and the least prosperous people within countries are the most vulnerable to climate change impacts, a focus on MOs with poverty reduction as part of their core strategy was also an important criterion.

Three types of MOs are included: International Financial Institutions (IFIs); specialised UN Agencies; and Vertical funds. Eight of the MOs selected are implementing agencies for the two vertical funds included and eight are included regularly in MOPAN assessments. The MOs selected are the following:

Six International Financial Institutions

AfDB

The African Development Bank (AfDB) is the IFI with the primary responsibility for working with the African continent. Africa will account for nearly half the world's population increase over the next 30 years and faces fundamental development challenges. Fewer than half of the population have access to electricity and only two-thirds access to safe water, for example, and the number of people in extreme poverty is greater than in any other continent.[176] But there are also opportunities for the continent to "leap-frog" to more cost effective, low carbon and climate resilient development paths as Africa's economies grow and transform. The AfDB 2016-20 Climate Change Action Plan (CCAP) is anchored within its 2012 Green Growth Framework and broader 2015 Development Strategy, centred around the "High 5s." These are: to light up and power Africa; to feed Africa; to industrialise Africa; to integrate Africa; and to improve the quality of life of the African people. The CCAP includes climate finance targets in each of these areas and is centred around four pillars: support for adaptation and climate-resilient development; for mitigation and low carbon development; for financial resource mobilisation; and for strengthening enabling environments addressing cross-cutting issues.

ADB

The Asian Development Bank (ADB) is the IFI with primary responsibility for working with Asia and the Pacific. This region is a major contributor to global greenhouse gas (GHG) emissions, especially from the People's Republic of China, India, and Indonesia. Many of its countries are also among the most vulnerable to the increasingly adverse impacts of climate change, including more frequent and severe extreme weather events, such as tropical storms and droughts, and sea level rise. ADB has prioritised assisting developing member countries (DMCs) to address these challenges in its Strategy 2030, issued in July 2018, which identifies "Tackling Climate Change, Building Climate and Disaster Resilience, and Enhancing Environmental Sustainability" as one of its thematic priorities. An Operational Plan for this priority area for 2019-2024 was released in September 2019.

EIB

The European Investment Bank (EIB) is the lending arm of the European Union (EU). It is one of the largest providers of climate finance through the IFI system and works with lower- and middle-income countries outside the EU as well as with EU member countries. The EIB's 2019 Climate Roadmap includes ambitious lending goals to support the transition to carbon neutrality. The EU has gone beyond other regions in committing to a transition to zero carbon economies and a broader "Green Deal." The EU is also committed to a "just transition," recognising that less prosperous countries will need additional resources to facilitate the needed transitions; the EIB experience can also provide useful lessons on the challenges of seeking to ensure equity in addressing climate change.

IDBG

The Inter-American Development Bank (IaDB) is the IFI with primary responsibility for working with Latin America and the Caribbean (LAC). The region is a lesser greenhouse gas emitter because of its relatively smaller population and an abundance of lower carbon energy resources including hydropower. Some IDB member countries (e.g., Costa Rica) have been among the most active and vocal in charting a path to sustainable development, including combatting climate change. However, home to the Amazon rain-

176 https://ourworldindata.org/extreme-poverty

forest, the region is on the world stage as the key battleground on deforestation and attendant loss of carbon sinks. In addition, LAC harbours vastly biodiverse and fragile ecosystems, ranging from the melting glaciers of the Andean highlands to small tropical islands threatened by sea level rise and coastal loss in the Caribbean. The IDB approved an Integrated Climate Change Mitigation and Adaptation Strategy in 2011.[177]

IMF

The International Monetary Fund's (IMF) work demonstrates the linkages between economic and fiscal policy choices and climate change. Furthermore, the IMF provides a larger scale of financial support than any of the other MOs.[178] Initially under Managing Director Lagarde, and continuing under Managing Director Georgieva, the IMF has been a strong advocate for a global transition to a low carbon economy and building institutional and financial resilience in the face of climate change. The Fund publishes research on economic implications of climate change and provides policy advice to its membership to help them capture the opportunities of low-carbon, resilient growth. Notably, the Fund has conducted in-depth research on carbon taxes and the integration of environmental externality costs in energy pricing and international trade, and has become a leading advocate for a harmonised global carbon tax regime. It thus also plays a key role in climate related analytical and advisory services.

WBG

The World Bank Group (WBG) is the largest provider of climate finance to developing countries among the IFIs. Between 2016 and 2020, WBG climate finance exceeded USD 83 billion through a combination of tapping dedicated climate funds (e.g., Climate Investment Funds (CIFs), GCF and GEF funds), as well as regular lending (IBRD) and concessional financing (IDA) operations. In fiscal year 2020, the World Bank Group allocated nearly USD 21.4 billion to climate-related investments, exceeding its climate-finance target for the third year in a row.[179] The IFC (the WBG's private sector arm) has committed to increase its climate investments to 28% of annual financing, to help partners transition to low carbon intensity, invest in climate friendly technologies and climate proof their most vulnerable sectors. The IFC has also pledged to leverage an additional USD 13 billion in private sector capital annually by 2020 to climate sectors through a combination of innovative capital formation and risk reduction instruments.[180] Because of the broader importance of private sector finance in scaling up climate investments, IFC is the subject of a separate study. In addition to helping partners meet their commitments under the Paris Climate Treaty, the WBG is working with client countries to increase their resilience to the impacts of climate change through mainstreaming support for the SDGs and the 2030 agenda.

Three UN Agencies

IFAD

The International Fund for Agricultural Development (IFAD). Agriculture has been chosen as a focus area for two key reasons: First, poverty is higher in rural than in urban areas and is a larger component of GDP and employment in lower income than in upper middle-income countries. Improving agricultural productivity, access to markets and land management is key to raising prosperity. Second, agriculture and related natural resource management (land, water and forests) are cross cutting issues as regards climate change. Improvements in these areas reduce vulnerability, increase adaptive capacity and at the same

177 Integrated Climate Change Mitigation and Adaptation Strategy

178 https://www.imf.org/external/pubs/ft/ar/2019/eng/assets/pdf/imf-ar-2019-what-we-do.pdf

179 The WBG feature story, August 30, 2020. https://www.worldbank.org/en/news/feature/2020/08/30/world-bank-group.

180 IFC Climate Implementation Plan 2016.

time help mitigate the impacts of climate change through carbon sequestration and reduced emissions. Although its overall funding envelope is lower than that of the multilateral development banks, IFAD's poverty reduction mandate, its early commitment to adaptation and its success in raising co-financing provide opportunities for learning across MOs.

UNDS

The United Nations Environment Programme (UNEP) is the entity responsible for integrating environment and climate change considerations throughout the United Nations Development System (UNDS). It has decades of experience working on climate change and is uniquely able to link climate to other core environment and development issues and to draw on scientific networks to address key climate challenges.[181] Together with the World Meteorological Organization (WMO) it helped establish the Intergovernmental Panel on Climate Change (IPCC) and has supported negotiation of the United Nations Framework Convention on Climate Change (UNFCCC). Both its present (2018-2021) and proposed future (2022-2025) Medium-Term Strategies feature helping its 193 Member States to address their climate change mitigation and adaptation challenges. The GEF and the GCF together provide the bulk of the financial resources that support the operations it manages at the country level, including for climate change.

UNDP

The United Nations Development Programme (UNDP) has a broad development mandate to eradicate poverty and reduce inequality and exclusion. It has a strong programme to support climate change adaptation and mitigation which includes a particular focus on helping countries build capacity both to meet climate challenges and to access climate finance. UNEP is one of its most important partners within the United Nations Development System (UNDS), but UNDP, unlike UNEP, has a strong presence on the ground at the country level. Thus, there are existing synergies between UNEP, UNDP, the vertical funds and the IFIs and opportunities to enhance these further, which the study will explore.

Two Vertical Funds

GEF

The Global Environment Facility (GEF) was established in 1991 to help address global environmental problems. It is an operating entity of the UNFCCC's financial mechanism. It initially focused on key thematic areas such as climate change, land degradation, biodiversity loss and international waters, but has increasingly addressed cross cutting issues such as the drivers of degradation, sectoral integration and economic transformation. It has supported innovative approaches to adaptation and mitigation across a range of areas, and during its latest replenishment, committed to helping unlock greater Private Sector investment to address these global challenges.

GCF

The Green Climate Fund (GCF) is the world's largest dedicated fund helping developing countries reduce their greenhouse gas emissions and enhance their ability to respond to climate change. It was set up by the UNFCCC in 2010 and the IFIs proposed for this study (except the IMF, which does not provide project finance), as well as IFAD, UNDP and UNEP, are accredited implementing agencies of the GCF. Relatively newly established, it has been able to take advantage of the experiences and lessons learnt in earlier

181 https://www.unenvironment.org/resources/report/unep-climate-change-strategy

climate funding initiatives. Both GEF[182] and GCF investments typically consist of "blended" finance, with GCF, IFI, private sector finance and government contributions making up the financing package.

Annex Table 2: Information on proposed MOs

Organisation	Country strategies	Country climate risk profiles	Project-specific climate risk /safe-guards assessment	Climate mitigation/ adaptation & GHG emissions tracking
ADB	Present in most recent country strategies in a general way, but much less so in their results frameworks	Jointly with WB for Asian and Pacific countries	Yes, Climate Risk and Vulnerabil-ity Assessments (CRVAs) since 2014	Yes, GHG emissions reduc-tion/avoidance estimates up-front for pertinent projects
AfDB	Results frameworks mapped against High Fives; some also support NDCs explicitly	Climate risks included in coun-try strategies	Safeguard procedures (ESAPs) integrate climate change and into project review	Tracked for projects using climate finance and some key sectors, but not yet routinely integrated. Carbon shadow pricing not yet incorporated
EIB	N/A: Investment deal-flow responds to private sector proposals and financial intermediary demand. Programming is sector-strategy based.	Country-and sector-specific climate change risk scores, modelling both physical and transition risk, are under development.	Climate Risk Assess-ment (CRA) system provides a systematic assessment of the physical climate risk in direct lending.	Project level data reporting of both absolute and relative emissions began in 2012. Carbon value of Euro 80 per tonne of CO2 equivalent (in 2016 Euro) used in invest-ment economic evaluation.
GCF	N/A, country driven approach	N/A, but specific targets for LDCs, SIDS and Afri-can countries for adaptation	Accreditation system ensures that Accred-ited Entities can fully implement GCF's Environment and Social Management System (ESMS)	Required for all projects according to defined indi-cators. Specific methodol-ogies are left up to AEs.
GEF	N/A	N/A	Depend on IAs to do this	CC Focal Area Program miti-gation and GHG emissions tracking required for GEF project component; SCCF and LDCF have separate adapta-tion and resilience indicators
IDBG	Present in most country strategies	No	Yes, at least since 2018	Yes, for climate finance projects
IFAD	NDC implementation incorporated into country strategies (COSOPs)	Climate risks incorpo-rated into COSOPs	Procedures (SECAPs) incorporates climate into projects review	Uses FAO GHG account-ing tool to estimate GHG emissions/sequestration from projects Tracks incremental adap-tation benefits

182 https://www.thegef.org/sites/default/files/publications/Blended_finance_Final_NI_Approved_LR_0_1.pdf, https://www.greenclimate.fund/sites/default/files/document/gcf-means-business.pdf, https://sdg.iisd.org/news/gef-gcf-discuss-blended-finance-role-in-greener-investment/

Organisation	Country strategies	Country climate risk profiles	Project-specific climate risk /safe-guards assessment	Climate mitigation/ adaptation & GHG emissions tracking
IFC	See World Bank; IFC contributes to World Bank CPSs.	Assessments of climate risk have been conducted for specific country sectors on a selected basis	IFC identifies climate risks and impacts under its Performance Standard 1 but there are not yet detailed requirements on climate risks in particular investments	See World Bank
IMF	Climate change addressed in some Art. IV (country macro/debt) analyses	Climate change risks evaluated in some Art. IV (country macro/debt) analyses and some FSAPs (financial sector reviews)	N/A	N/A at a project level. IMF regularly publishes research on impact of macro and fiscal policies (e.g. fuel subsidies) on economy-wide GHG emissions.
UNDP	Country driven approach, does not have country strategies per se, but contributes to UN Sustainable Development Country Frameworks (UNSDCFs)	Not formalised but strong country presence, historical involvement with environmental Vertical Funds delivery in countries and NDC support to most developing provide an important data basis for country climate risk profiles	Yes, follows Vertical Funds requirements for VFs projects (most of the climate portfolio) and all projects must meet Social and Environmental Standards, which have been reinforced as of Jan 1st 2021	Follows Vertical Funds requirements for VFs projects (most of the climate portfolio) and included in Social and Environmental Standards, which have been reinforced as of Jan 1st 2021, for other projects
UNEP	Does not have country strategies per se, but contributes to UN Sustainable Development Country Frameworks (UNSDCFs)	No	Yes, Environmental and Social Safeguards Framework (ESSF) updated in 2020 and applied to all projects it implements for GEF, GCF and other donors	Yes, at selected country and global level, as per annual Emissions Gap and Adaptation Gap reports
WBG	CC incorporated into all CPF, and support for NDC implementation initiated in half (75) of these	Jointly with ADB for Asian and Pacific countries only; Climate Smart Agriculture (CSA) profiles will be drafted for all projects in the Ag sector	All projects screened for Climate Risk and Climate Impacts at pipeline and tracked over LOP	Climate mitigation and adaptation outcomes increasingly quantified; resilience will be assessed using new Resilience Rating System Carbon Shadow pricing routinely applied

1D. Selection of countries

Two broad categories were first used to identify candidate countries:

- Mitigation – high GHG emitting countries: (i) use of coal as a predominant source of emissions; (ii) use of other fossil fuels (e.g., oil and gas); and (iii) land use change resulting in deforestation and associated fires.
- Adaptation/Resilience Building – high vulnerability to climate change impacts from: (i) increasingly strong and more frequent tropical storms and flooding; (ii) increasingly intense and more frequent droughts, desertification, and periods of extreme heat; and (iii) sea level rise.

After identifying several candidates in each of the two categories, the selection took into account country income levels and geographic distribution as well as climate change management challenges, climate change-related performance to date, and global and regional importance. It also considered complementarities with the selected MOs. Finally, strong prior familiarity with and professional experience in the countries on the part of senior team members was also an element, but not the primary factor, in this prioritisation process.

This selection process resulted in the following focus countries:

Brazil

Brazil is the largest country in South America, in terms of its population, economy and geography. It has only modest energy- related carbon emissions due to an 88% dependence on hydropower for electricity generation and extensive use of biomass fuels substituting for fossil energy in industry and transport. However, it is the region's highest emitter of greenhouse gases due primarily to deforestation, fires and loss of carbon sinks linked with expansion of agriculture, particularly in the Amazonian and Cerrado biomes. The impacts of deforestation in Brazil have global impacts on climate change. Parts of this upper middle-income country, especially the poor and predominantly semi-arid Northeast, are highly susceptible to periodic droughts that appear to have become more frequent and severe over time. Elsewhere, including in major metropolitan areas such as São Paulo and Rio de Janeiro in the Southeast, heavy rainstorms and associated flooding events have also increased over time while sea level rise is also a risk along its very extensive coastal areas.

Ethiopia

Ethiopia is the lowest income country in the selection. Sixty-five per cent of the population is dependent on agriculture and the country has very high vulnerability to droughts, floods and increasingly severe periods of extreme heat. Ethiopia still faces fundamental development challenges to improve the quality of life, income and opportunity for its citizens. Challenges include reducing vulnerability to natural disasters, increasing agricultural production and improving food security, increasing access to energy, water supply and transport infrastructure, and providing adequate social protection, health and education. At the same time there are great opportunities to adopt low carbon and climate resilient growth trajectories, and strong commitment at country level.

India

India is the largest country in the sample in demographic and economic terms. It is classified by the World Bank in the lower middle-income group, but poverty levels are high. It is the world's third largest contributor to global greenhouse gas (GHG) emissions due its large population, to heavy coal use and other fossil fuel sources, but it has accelerated its use of renewable sources, particularly solar energy, in recent years and has become an international leader in this regard. It is also highly vulnerable to the impacts of climate change, including increased droughts and flooding affecting both rural and urban areas, as well as to the impacts of sea level rise along its extensive coastlines.

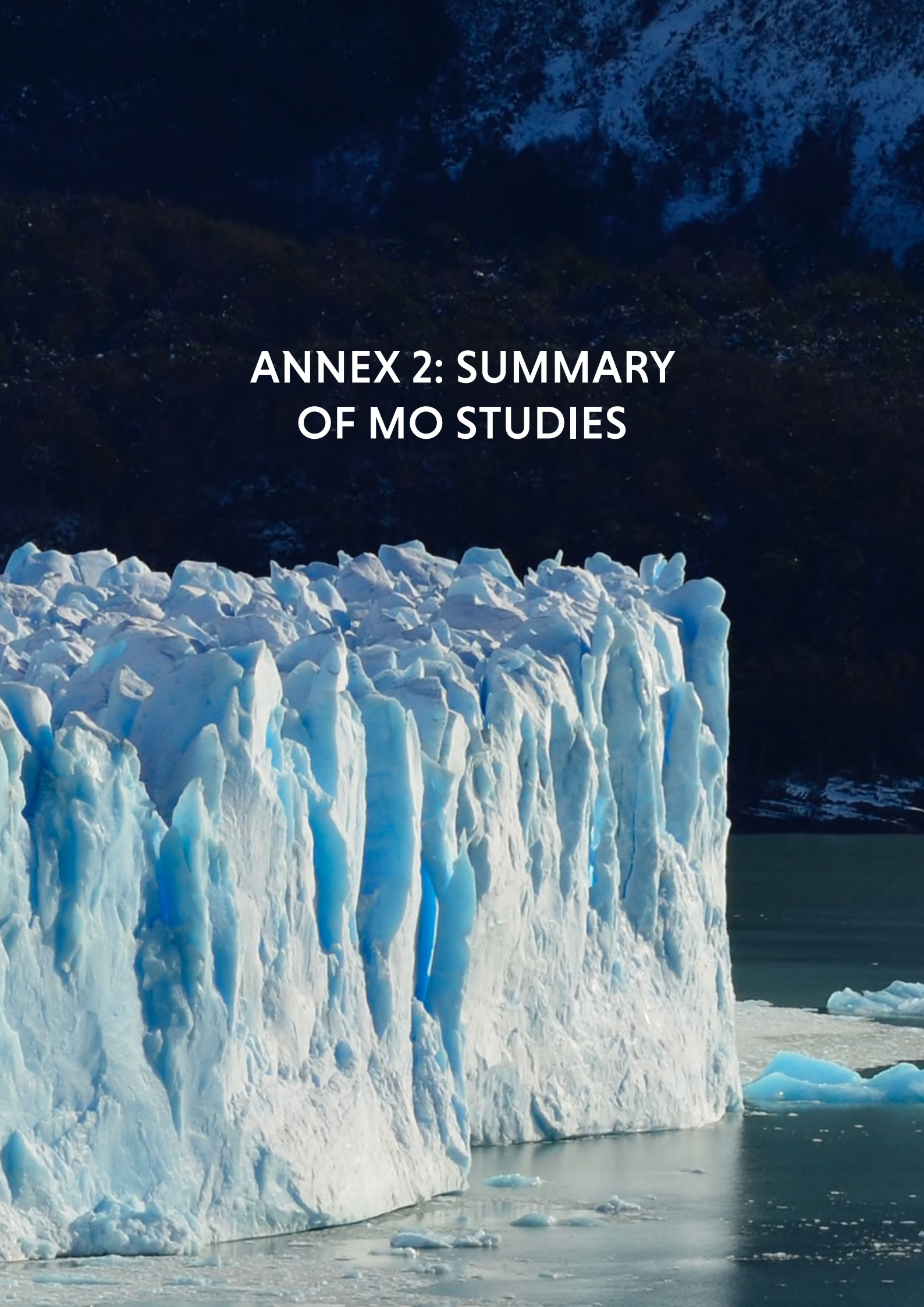
Indonesia

Indonesia is a lower middle-income country comprising many islands with a large population. It is also a demographically large lower middle-income country as well as a major source of GHG emissions in Asia – and thus in the developing world more generally. This is due both to a growing reliance on coal as an energy source and to significant land use change and associated deforestation and fires in parts of the country linked to the continuing spread of oil palm plantations. It is perhaps even more vulnerable to tropical storms and sea level rise than India (although less so to drought), as even its capital city, Jakarta, is highly affected.

Jamaica

Jamaica is a Small Island Developing State (SIDS) in the Caribbean. It has an historic dependency on coastal tourism, based on its legendary coral reefs, white sand beaches and shallow lagoons. In addition to tourism, agricultural products are an important source of foreign exchange. It has a larger population than most SIDS, and over 80 per cent of the population lives within 5 kilometres of the coast. Jamaica's natural assets and economy are subject to a range of impacts exacerbated by climate change, including more intense hurricanes, coral bleaching, ocean acidification, and saltwater intrusion. The Caribbean Sea is particularly vulnerable to surface level seawater warming, affecting water quality and fisheries. Jamaica is also highly dependent on imported fossil fuels for energy and transport. While adaptation challenges exist in nearly all sectors of the economy, Jamaica is also committed to reducing its CO2 emissions through improvements in land use, land use change and forestry (LULUCF) and incorporating renewables in the energy sector. Based on guidance from the reference group, Jamaica was included as it faces challenges typical for small island developing states (SIDS).

ANNEX 2: SUMMARY OF MO STUDIES



2A. Asian Development Bank summary

2A.1 Use of normative frameworks in strategies and policies

ADB subscribes to the principles and normative frameworks of the 2030 Agenda, which launched the Sustainable Development Goals, and the Paris Climate Agreement, both approved in 2015. The SDGs and Paris Agreement have reportedly had an important "catalytic effect" both in spurring ADB's external support to its Developing Member Countries (DMCs) and internally. They also enabled implementation of ADB's Climate Change Operational Framework (CCOF) for 2017-2030, issued in July 2017, that provides guidance as to how to strengthen climate actions and operationalise ADB's commitment to provide at least USD 6 billion a year in climate change finance from its own resources by 2020. The CCOF was also a critical input for ADB's operational priorities in Strategy 2030 a year later. These included "Tackling Climate Change, Building Climate and Disaster Resilience, and Enhancing Environmental Sustainability," one of seven such priorities, for which an Operational Plan for 2019-2024 was issued in September 2019.[183] ADB's most recent Energy Policy highlights the importance of clean energy transitions [184] Climate change concerns and actions have also progressively become more prominent in its Country Partnership Strategies (CPSs) over the past decade.[185]

2A.2 Partnerships

ADB collaborates with other MOs, including the World Bank, EIB, UNEP, GEF, and GCF, in relation to climate change in several ways. ADB and the World Bank, for instance, are co-users of the Climate Investment Funds (CIFs) for selected countries in Asia and the Pacific. The two Banks have also jointly prepared Climate Risk Country Profiles for all Asian and Pacific DMCs. ADB and EIB have recently established a Clean and Sustainable Oceans Partnership that provides a framework to expand inter-institutional co-operation and investments in ocean health and sustainable blue economy. ADB actively participates in several joint MDB working groups on climate-related matters, and presently chairs the main one on climate change and has a strong working relationship with the International Development Finance Club (IDFC), founded in 2011 to improve the efficiency of development support, including the mainstreaming of climate-related actions. It is likewise an implementing agency of both the GEF and GCF.

Other important ADB partnerships include those with the Global Centre on Adaptation and the Asia Pacific Adaptation Network as well as longer standing ones with international environmental NGOs such as WRI and WWF. ADB likewise works with regional organisations on climate change issues, including Central Asia Regional Economic Co-operation (CAREC), the Association of Southeast Asian Nations (ASEAN) on green finance, and the South Asia Cooperative Environment Program to promote dialogue on green

183 ADB, Climate Change Operational Framework 2017-2030: Enhanced Actions for Low Greenhouse Gas Emissions and Climate-Resilient Development, Manila, July 2017; ADB, Strategy 2030: Achieving a Prosperous, Resilient, and Sustainable Asia and the Pacific, Manila, July 2018; and ADB, Operational Priority 3: Tackling Climate Change, Building Climate and Disaster Resilience, and Enhancing Environmental Stability, 2019-2024, Strategy 2030 Operational Plan, Manila, September 2019.

184 https://www.adb.org/sites/default/files/institutional-document/699206/energy-policy-draft-consultation.pdf Energy Policy Supporting Low Carbon Transition in Asia and the Pacific May 2021 (draft)

185 This finding is based on a review of the past 2-3 CPSs for Bangladesh, Fiji, India, Indonesia, Maldives, Mongolia, Pakistan, Peoples Republic of China, Uzbekistan, and Viet Nam together with ADB's approach to the Pacific region comprised of 11 small island development states (SIDs).

and resilient COVID-19 recovery, which also advances achievement of the NDCs. It also collaborates with the Japanese Ministry of Environment on its Asia-Pacific Adaptation Information Platform (AP-PLAT) and several new partnerships are expected to enhance regional knowledge exchange.[186]

2A.3 Investment, technical assistance, and capacity building operations

ADB's climate finance rose from USD 2.9 billion in 2015, of which roughly USD 2.6 billion was for mitigation and USD 356 million for adaptation, to nearly USD 7.1 billion in 2019, of which about USD 5.5 billion was for mitigation and USD 1.5 billion for adaptation.[187] This indicates both a significant overall increase in ADB's climate finance and an increasing focus on adaptation over the past half decade. Overall, ADB's climate finance as a share of its total financial commitments increased from 15 per cent in 2015 to almost 30 per cent in 2019. ADB has reportedly also administered some USD 1.5 billion in CIF funding for 47 projects in Asia and the Pacific over the past decade.[188] A significant decrease in ADB climate finance to USD 5.3 billion in 2020, however, is attributed largely to the need to divert financing to help DMCs respond to the COVID-19 pandemic. India and China, followed by Bangladesh, Indonesia, the Philippines, and Pakistan, were the top recipients of ADB climate finance between 2011 and 2019. Almost half of this financing was allocated to the energy sector, followed by transport, water and other urban infrastructure and services (WUS), and agriculture, natural resources, and rural development ANRRD), which collectively accounted for 93 per cent of the total. In its operational work ADB has been undertaking Climate Risk and Vulnerability Assessments (CRAVs), estimating GHG emissions, and applying shadow prices for carbon in the economic analysis of its new lending operations for the past half decade or more and has provided technical assistance and capacity building support to Developing Member Countries (DMCs) through its Climate Change Fund (CCF) utilising its own resources and other energy and climate-related Funds that it manages.[189]

186 These include including InsuResilience, Alliance for Hydromet Development, Initiative on Fluorocarbons Life Cycle Management, Coalition for Climate Resilient Investments, and Coalition for Disaster Resilient Infrastructure.

187 These figures are taken from the Joint MDB Climate Finance Reports for 2015 through 2019 and ADB reporting of the equivalent totals for 2020.

188 See ADB and the Climate Investment Funds: Climate Change Innovation and Action in Asia and the Pacific, Manila, January 2014, ADB, ADB and the Climate Investment Funds: Developing a Private Sector Portfolio, Manila, January 2016, and ADB, The Asian Development Fund and the Climate Investment Funds: Country Fact Sheets, Manila, 2016.

189 See, for example, ADB, Climate Risk Management in ADB Projects, Manila, November 2014; ADB, Mainstreaming Climate Risk Management in Development: Progress and Lessons Learned from ADB Experience in the Pilot Program for Climate Resilience, Manila, 2017, ADB, Guidelines for Estimating Greenhouse Gas Emissions for Asian Development Bank Projects, Manila, 2017; ADB, Greenhouse Gas Emissions Accounting for ADB Energy Project Economic Analysis, Manila, December 2019; and Independent Evaluation Department (IED), Climate Change Fund, 2008-2019, Performance Evaluation Report, Asian Development Bank, Manila, 2020.

2A.4 Knowledge sharing and advocacy

Over the past decade, ADB has generated and disseminated climate change-related knowledge products on numerous relevant topics. These include "climate-proofing" of infrastructure,[190] "green finance,"[191] nature-based solutions for resilience of urban areas in the Greater Mekong Subregion (GMS),[192] and, more recently, guidance to DMCs on integration of climate change actions into their COVID-19 recovery programmes.[193]

2A.5 Lessons learnt and good practices

- **Identifying opportunities for project design and fund implementation.** With many climate financing initiatives presently operating or under development, there may be considerable confusion with respect to the available opportunities available and means of access to these opportunities. ADB needs to proactively use existing networks to disseminate pertinent information and communicate relevant opportunities to its DMCs.
- **Building country pipelines of climate change adaptation and mitigation 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.
- **Promoting 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 do not have direct access to these resources and must work through accredited entities like 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.
- **Building 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 give comfort to investors to scale 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.
- **Strengthening monitoring and evaluation.** MOs 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, while there has been limited comparison of results at the portfolio level and limited comparison of performance results against project appraisal estimates. Operational success is more difficult to monitor and evaluate for adaptation projects. Assessing such projects thus requires longer time horizons and is characterised by uncertainty in terms of future climate conditions and the socio-economic circumstances in which the associated measures will operate.

190 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.

191 ADB, Catalyzing Green Finance: A Concept for Leveraging Blended Finance for Green Development, Manila, 2017; ADB, ASEAN Catalytic Green Finance Facility (ACGF): 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.

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

193 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.

2B. African Development Bank summary

2B.1 Use of normative frameworks in strategies and policies

Reflection in Mandates, Strategies and Policies, results frameworks and organisational frameworks, integration of CC into risk assessments and safeguards, evolving policy towards fossil fuels:

Mandates and strategies

The AfDB High Five (H5) agenda, articulated in 2016,[194] has five priorities to achieve the SDG 30 goals: light up Africa, feed, industrialise and connect Africa and improve the quality of life for the people of Africa. The H5 builds on the AfDB Ten Year Strategy (2013-22), [195] Climate Change Strategy (2009),[196] Green Growth Framework (2012),[197] and Climate Change Action Plans for 2011-16[198] and 2016-20.[199] Most recent Country Strategies also aim to help countries achieve NDCs under the Paris Agreement.

Results frameworks and risk assessments

AfDB has tracked climate finance commitments jointly with other MDBs, consistent with the six building blocks under the Paris Agreement,[200] and using agreed tracking methodologies first developed jointly in 2011. It undertakes climate risk assessments as part of project preparation but highlights the challenge of inadequate data in Africa. Its safeguard procedures (ESAP)[201] integrate environmental, climate change and social considerations into the project cycle. In 2016 the Power, Energy, Climate and Green Growth Vice-presidency was created,[202] with integrating climate change, energy and green growth- related activities under five departments and including the Climate Change and Green Growth Department (PEGC2).

194 https://www.afdb.org/en/high5s

195 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

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

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

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

199 https://www.afdb.org/en/news-and-events/african-development-bank-approves-its-second-climate-change-action-plan-for-2016-2020-17527

200 http://pubdocs.worldbank.org/en/784141543806348331/Joint-Declaration-MDBs-Alignment-Approach-to-Paris-Agreement-COP24-Final.pdf. The Declaration was signed by The African Development Bank Group, the Asian Development Bank, the Asian Infrastructure Investment Bank, the European Bank for Reconstruction and Development, the European Investment Bank, the Inter-American Development Bank Group, the Islamic Development Bank, the New Development Bank, and the World Bank Group (IFC, MIGA, World Bank), (jointly, the MDBs).

201 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/SSS_%E2%80%93vol1_%E2%80%93_Issue4_-_EN_-_Environmental_and_Social_Assessment_Procedures__ESAP_.pdf

202 https://www.afdb.org/en/news-and-events/the-african-development-bank-group-appoints-amadou-hott-as-vice-president-power-energy-climate-and-green-growth-16248

Evolving policy to fossil fuels

AfDB's New Deal on Energy for Africa 2016 – 2025[203] highlights that LULUCF accounts for 75 per cent of GHG emissions in Africa, driven by demand for biomass energy and subsistence agriculture. The New Deal aims to accelerate access to modern energy for lighting homes, for clean cooking, for industrialisation and wealth creation. It emphasises renewables and supports economically viable cleaner technologies. It will assist member countries to incorporate natural gas into their energy mix, where applicable; AfDB has not supported coal fired power plants since 2015 and in 2019 made a formal commitment not to do so.[204] Since 2016, renewable energy projects have constituted about 85 per cent of the Bank's power generation investments.[205]

2B.2 Partnerships

AfDB participates in a range of global and regional partnerships.[206] These include the Nairobi Framework Partnership (NFP), created to mobilise participation of African countries in the carbon markets, which hosts the Annual Africa Climate Week, the NDC Hub, the Partnership with MDBs on Paris alignment, with UNEP on NDC policy and implementation implications, with the Global Mechanism of United Nations Convention to Combat Desertification (UNCCD), with the WBG and IFAD on the GAFSP (Global Agricultural and Food Security Programme Fund)[207] and with Canada through the AfDB-Canada Climate Facility. Partnership with African stakeholders such as the Committee of African Heads of State on Climate Change (CAHOSCC), the African Ministerial Council on the Environment (AMCEN) and the African Group of Negotiators (AGN) were instrumental in shaping and advocating for African positions on climate change. Partnerships with climate Funds include the Sustainable Energy Fund for Africa (SEFA), the Climdev Special Fund, the GCF, GEF, Climate Investment Funds and the Adaptation Fund.

2B.3 Reflection in investment operations (including through mainstreaming)

Commitments identified as climate finance have increased from USD 1.4 billion in 2015 to USD 3.6 billion in 2019, when they accounted for 35 per cent of AfDB financial commitments.[208] 80 per cent was from AfDB's own account and 20 per cent from dedicated climate funds. The aim was to increase the share of climate finance to 40 per cent by 2020. By 2019 AfDB had succeeded in channelling USD 12 Billion in financing for activities related to renewable energy, energy efficiency, sustainable transport, natural resources, agriculture and water management, climate proofing infrastructure and capacity building. It had issued four Green Bonds, two for USD 500 million each and two for SEK (Swedish kroner)[209] one billion each.

Since 2015 AfDB has increased its focus on adaptation. By 2018 USD 1.6 billion of climate finance was for adaptation and USD 1.62 billion for mitigation, broadly a 50:50 split and by 2020 two-thirds was for adaptation. CCAP 2 provides a clear conceptual framework which links adaptation and mitigation to the

203 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Bank_s_strategy_for_New_Energy_on_Energy_for_Africa_EN.pdf

204 https://www.afdb.org/en/news-and-events/press-releases/unga-2019-no-room-coal-africas-renewable-future-akinwumi-adesina-30377

205 https://www.csis.org/analysis/role-afdb-and-future-africa

206 https://www.afdb.org/en/documents/climate-change-and-green-growth-2019-annual-report. This report and the 2018 report provide details on all of these partnerships

207 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 321million) of the GAFSP portfolio through projects in 10 African countries

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

209 One Swedish kroner is currently equivalent to USD 0.12

H5 AfDB development goals. Operations are increasingly incorporating GHG accounting into project analysis. AfDB does not yet routinely include carbon shadow pricing in project economic appraisal.

AfDB emphasises the cross-cutting benefits of many development initiatives in Africa, given the importance of LULUCF. Improved access to clean energy reduces emissions from deforestation but also increases resilience by reducing degradation and erosion. Climate smart agriculture improves adaptive capacity through better land and water use, but also reduces emissions through efficiency and productivity gains.

The AfDB Board responded rapidly to the COVID-19 crisis and in April 2020 approved a USD 10 billion (UA 7.4 billion) [210] COVID-19 Response Facility. Support initially focused on strengthening health systems, social protection and budget support, but has increasingly included on working with countries "to build back better" and support green, climate resilient recoveries; Nigeria,[211] for example, removed fossil fuel subsidies during the pandemic and its USD 5.9 billion Economic Sustainability Plan provides incentives for upscaling the solar power industry and installing solar panels in homes and enterprises. Overall AfDB support, however, had to be scaled down following overall lending during 2020 from UA 7 billion in 2020 to UA 4.17 billion in 2021, due to AfDB ratings coming under pressure. Approvals for both the COVID-19 response and climate finance were lower than anticipated in 2020: climate finance comprised 34 per cent of total approvals in 2020.

2B.4 Knowledge, capacity building, advocacy and technology

Recent knowledge products include country climate risk profiles,[212] and guides to climate finance, gender mainstreaming in climate action and climate resilient infrastructure, and the Green Growth index,[213] which assesses readiness in green growth implementation in the context of NDCs and the Paris Agreement.

AfDB hosts the NDC hub secretariat[214] whose aim is to build capacity among member countries operationalise NDC targets in the Paris Agreement. It has developed a toolkit for parliamentarians on NDC and green growth implementation. It hosts CLIMDEV,[215] whose aim is to build climate and weather forecasting capacity in regional and country centres in Africa.

AfDB plays a key role in advocating for Africa's position in the UNFCC; in this context it also brings together African Ministers of Finance and Environment further to mainstream climate change, the SDGs and the Sendai Framework into national development plans.

AfDB supports upscaled use of modern technology across sectors, where this is feasible; often this involves supporting improvements in the enabling environment and removal of market barriers to private investment. At a local level, for example, it supports innovations such as Transport emissions monitoring and mapping in African cities.

210 https://www.afdb.org/en/documents/african-development-bank-groups-covid-19-rapid-response-facility-crf
211 https://www.wri.org/blog/2021/01/nigeria-moves-toward-sustainable-covid-19-recovery
212 https://www.afdb.org/en/topics-and-sectors-sectors-climate-change-knowledge-products/climate-change-country-profiles
213 https://www.afdb.org/sites/default/files/eoi_-_green_growth_consultant.pdf
214 https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/africa-ndc-hub
215 https://www.climdev-africa.org/The-ClimDev-Special-Fund

2B.5 Lessons learnt and good practices

Lessons learnt

- **Africa has multiple development challenges.** Half of its countries are LDCs (least developed countries), and half are fragile states. In most, there are deep rooted governance difficulties. For many, furthermore, commodities, including oil and gas but also minerals, are the principal source of foreign exchange. While tackling climate vulnerabilities and "leapfrogging" to low carbon growth will help also address key development issues, mainstreaming NDC commitments into development strategies may not always receive full attention from key decision makers in-country.
- **At the same time, capacity may be limited in country to implement NDC programmes and data may be insufficient for accurate tracking**; AfDB continues to face difficulties with slow disbursement and project management. Activities addressing vulnerability or cross cutting issues, often involve spatial or sectoral trade-offs and implementation to scale takes time.
- **Sub-Saharan Africa (minus South Africa), with 14 per cent of global population, is responsible for only about 6.5 per cent of global GHG emissions**[216], and most countries put a priority on vulnerability and adaptation. AfDB is responding to climate change but is doing in an Africa-appropriate way with a focus on sustainable food production, resilience of water supply systems and climate risk management. Mitigation opportunities are pursued when they provide climate friendly means to achieve other African priority SDG goals (e.g., modern rural energy access through renewable energy). At the same time Sub-Saharan Africa is expected to account for half of global population increase over the next 30 years; "climate smart growth" is essential.

Good practices

- **Partnerships have played a key role** not only as regards knowledge products, capacity building and advocacy, but also in mobilising finance to address climate change.
- Much AfDB work, especially in energy but also in other sectors such as agriculture, has focused on **improving the enabling environment for private sector investment in climate change adaptation and mitigation.**
- **AfDB is focusing on core development priorities**, including programmes which have the potential for transformational change such as the Great Green Wall and the Desert to Power initiatives for the Sahel.
- AfDB, by adopting its Green Growth framework in 2012, and by incorporating green growth and climate change under one department, recognises **the importance of cross-sectoral integration for green, inclusive and climate resilient growth.**

2C. European Investment Bank summary

EIB is the world's largest international public investment lending institution, providing some USD 744 billion in finance over the 2010-2020 decade, or an average of almost USD 75 billion per year. While close to 90 per cent of EIB financing in the form of loans, equity investment and guarantees is destined for the EU and accession candidate countries, the balance occurs in outside markets dispersed between

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

about 150 "partner" countries. Foci of EIB financing include infrastructure, trans-European networks, energy security, environmental improvement and sustainability, SMEs, and knowledge economy projects. The Bank favours Public Private Partnership funding models.

2C.1 How is the EIB responding to climate change?

The European Green Deal

Reflecting its parentage, the EIB is highly committed to achieving the goals of the Paris Agreement and SDG-13, and besides wearing the name "The EU Bank" also self-refers 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. The Green Deal commits the EU to becoming climate neutral by 2050 while promising to help companies to become world leaders in clean products and green technologies.

Energy Lending Policy

A key milestone on the path to ratcheting up EIB's commitment to comprehensively addressing climate change has been its new Energy Lending Policy.[217] In November 2019, the EIB Board adopted a decision to end financing for fossil fuel energy projects by the end of 2021.

Climate Bank Roadmap

In November 2020, and in line with the political ambition behind the European Green Deal, the EIB Board increased the level of climate and environment commitment for the EIB Group by approving the Climate Bank Roadmap, 2021-2025.[218] The decision of the EIB Board 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 to leverage EUR 1 trillion of investment by the EIB Group 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). The second core dimension of the EIB Board decision is to ensure that "all financing activities are aligned to the goals and principles of the Paris Agreement by the end of 2020."

Collaboration with other MOs, organisations and initiatives

Befitting its origins and governance structure, the EIB has a particularly important relationship with the European Commission. Co-operation with the IFIs has a long tradition, particularly when it comes to co-financing EIB's non-EU operations. Due to the wide availability of EU-sourced grant and trust funds, EIB's relationships with the UNFCCC financing mechanisms have been of lesser importance.

217 https://www.eib.org/en/publications/eib-energy-lending-policy
218 https://www.eib.org/attachments/thematic/eib_group_climate_bank_roadmap_en.pdf

2C.2 How has the MO incorporated climate change into its organisational strategies, operational activities, and resource plans?

Climate change corporate objectives

The EIB is one of the largest multilateral financiers of climate action in the world, with the EIB and the World Bank Group typically vying from year to year for the top spot. In 2013, the EIB set a target to maintain its climate lending at or above 25 per cent share of total EIB lending, an objective that was consistently met. The EIB has now committed to reach 50 per cent share of support for "climate action and environmental sustainability" in its overall lending programme.

Climate change operations

Climate finance is overwhelmingly sourced from internal resources, with only a 2 per cent share mobilised from external sources over the period 2015-2019. Over the same period, mitigation finance accounted for almost 95 per cent of total climate finance and adaptation finance just over 5 per cent. In addition to its direct climate finance role, the EIB has been a leader and innovator in green finance and green bonds.

Advisory activities

The EIB also operates a substantial advisory arm in close partnership with the European Commission, carrying out an average of 400 advisory tasks per year with about a quarter of these assignments outside the EU. The EIB believes that these advisory activities are a critical part of its value proposition, essential to support the generation of bankable projects and ensuring efficient implementation. EIB has tabbed supporting climate action and environmental sustainability as becoming central to advisory activity over the next few years as an integral part of the EIB's ambitions in these areas.

2C.3 What lessons learnt and good practices from the MO can help strengthen the MS in tackling the climate crisis (for both mitigation and adaptation/resilience building)?

The EIB is a case study in the importance of consistency of strategic direction, leadership, and political commitment. EIB's Board is composed of governments from the same continent and the same supra-national entity. 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, with notably an Energy Lending Policy that is significantly more aggressive and progressive from a climate standpoint than would likely find acceptance at other multilateral financing institutions due to diverging donor/recipient interests.

High client country capacity and commitment to climate change action have been key to EIB's ability to provide high volumes of financing in general and climate finance in particular. EIB's facility in responding to climate mandates speaks to the high capacity of the large majority 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. The bulk of EIB's operations are in countries with well-defined climate action plans, supportive investment climates and climate policy frameworks, thriving private sectors, and high implementation capacity. The EIB's ability quickly to 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 transactions cost, to accelerate project identification and preparation and to provide blended concessional finance climate solutions.

EIB's implementation of carbon pricing for investment analysis is noteworthy and bears watching. While a number of MOs have similarly mandated the inclusion of a carbon shadow value in the economic evaluation of projects, the EIB's enactment appears to have more prominence and policy weight and therefore more likely to have actual sway in project selection, justification and decision-making.

The EIB faces similar challenges to those which prompted IFC's decision 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.

2D. The Green Climate Fund summary

2D.1 Normative frameworks in strategies and policies

The GCF was announced at COP15 in Copenhagen, and its Governing Instrument[219] (GI) was formally approved at COP 17 in December 2011 in Durban, South Africa. It was set up with the objective of making a significant contribution to global efforts towards attaining the goals set by the international community to combat climate change by promoting a paradigm shift towards low emission and climate-resilient development pathways, with a particular attention to the needs of developing countries most vulnerable to the adverse effects of climate change. It was also expected to become a significant channel for the USD 100 billion in annual climate finance that the developed countries committed to mobilise by 2020.

It is part of the UNFCCC Financial Mechanism and serves the Paris Agreement. Its initial (2016) as well as updated (2020-23) Strategic Plans[220] fully integrate the goals of the Paris agreement in the strategic vision. Regarding the SDGs, the fact that the GCF's work is an enabler of the SDGs has been highlighted at high level since their adoption.

2D.2 Partnerships

As part of the UNFCCC Financial Mechanism, the GCF contributes to structuring the multilateral system when it comes to climate change. It operates under the guidance of the COP and channels resources through other MOs. As of April 2021, the GCF had 103 entities approved for accreditation (of which 86 had signed a legal agreement and 74 had fully completed their accreditation process).[221] Other than the IMF, all of the MOs analysed during this study are AEs of the GCF.

Co-ordinating with other Climate Funds:

In accordance with its GI and COP guidance, the GCF has developed an operational framework[222] to enhance complementarity and coherence with other climate funds at four levels: i) board-level discussions on fund-to-fund arrangements, ii) enhanced complementarity at the activity level; iii) promotion of coherence at the national programming level; and iv) complementarity at the level of delivery of climate finance through an established dialogue.

219 Governing Instrument
220 https://www.greenclimate.fund/sites/default/files/document/gcf-b27-21.pdf
221 https://www.greenclimate.fund/about/partners/ae, visited on April 12th
222 https://www.greenclimate.fund/document/gcf-b17-08

2D.3 Programme priorities: Paradigm shift, balance between adaptation and mitigation, and focus on the most vulnerable countries

The GCF seeks to balance funding for mitigation and adaptation initiatives and half of the adaptation funds are earmarked for developing countries that are particularly vulnerable, such as the Least Developed Countries (LDCs), Small Island Developing States (SIDS) and African countries. Other allocation parameters include geographic balance, funding channelled through direct access entities and engagement with the private sector. GCF's Climate Impact Assessment Network (C-NET), established in 2020, aims to integrate climate science in GCF operations, including systematic assessments of mitigation impact and of the climate rationale in adaptation projects.

The GCF aims to have an impact within eight mitigation and adaptation results areas: health, food, and water security, livelihoods of people and communities, infrastructure and built environment, ecosystems and ecosystem services, energy generation and access, transport, buildings, cities, industries, and appliances and forest and land use.

The GCF's Initial Resource Mobilisation (IRM) in 2014 amounted to USD 8.3bn received in different currencies (out of USD 10.3 billion of pledges). Its first Replenishment culminated at the Paris Pledging Conference in October 2019, where 27 countries pledged a combined USD 9.78 billion, with a number of developed European countries (such as Germany, France, the United Kingdom, Norway and Sweden) doubling their initial IRM contribution in local currencies (although others such as Australia and the USA did not participate and major contributors such as Japan and Canada did not raise their contributions). As a result, the GCF has to date (April 2021) approved 173 projects, committing USD 8.3 billion and disbursing USD 1.8 billion. 33 per cent of these funds went to the private sector and 22 per cent were accessed through direct access accredited entities (national or regional).[223]

Mobilisation of the private sector:

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, micro, small and medium enterprises (MSMEs) and local financial intermediaries. Its main objectives are to:

- Address the perceived dearth of "bankable" projects through its Readiness Programme and its Project Preparation Facility (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; and
- Align financial flows with sustainable development areas of climate action.

The 2020-2023 updated GCF strategic plan[224] includes the objective to "Significantly increase portfolio level mobilisation achieved through the GCF contributions to private sector projects under the PSF, relative to the Initial Resource Mobilisation," reaffirming the GCF's commitment to mobilise the private sector.

223 https://www.greenclimate.fund/projects/dashboard

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

2D.4 Lessons learnt and good practices

With only about 5 years of operations, it is early to draw lessons on GCF's funded projects' impact.

The GCF is the largest multilateral climate fund and as such, it 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.

The GCF's rapid operationalisation left gaps in essential policies and frameworks that are still being filled in order for the GCF to achieve its full potential and added value. Priorities include: sharpened articulation of the GCF's general investment guidelines with detailed terms and conditions for GCF's financial instruments; finalising a revised GCF accreditation and partnership strategy; guidelines for a programmatic funding approach; and developing the GCF's own environmental and social safeguards; and finalising an integrated results management framework which adjusts and integrates existing results management and performance measurement frameworks with indicators, results tracking tools and methodologies to account for paradigm-shifting adaptation and mitigation results.[225] In preparation for these improvements GCF's Independent Evaluations Unit (IEU) has also conducted evaluations on the GCF accreditation approach, Simplified Approval programme and GCF support to Small Island Development States(SIDS).

2E. The Global Environment Facility summary

2E.1 Normative frameworks in strategies and policies

The Global Environment Facility (GEF) was an outcome of the first Earth Summit in Rio in 1992 and has been an official financial mechanism for the UNFCCC since the GEF came into force in 1994. In addition to its mandate to support climate mitigation efforts in developing countries through its Climate Change Focal Area, in 2001, the Parties to the Climate Change Convention established two additional funds focused on adaptation – the Least Developed Country Fund (LDCF) and the Special Climate Change Fund (SCCF) – and requested they be managed by the GEF. The LDCF is reserved for adaptation needs of the poorest countries, while the SCCF is available to all developing countries to help address a wide range of adaptation and technology transfer needs. Leading up to and in line with the goals of the Paris Agreement,[226] the GEF has deployed these resources to assist countries with the preparation of NAMAs, NAPAs, INDCs and, in recent years the updating of their NDCs and initial implementation. Reflecting further COP guidance, the GEF established a special fund under Article 13 of the Paris Agreement – the "Capacity Building in Transparency Initiative" (CBIT) – to help countries meet requirements for transparency and accountability in reporting on their NDCs and other UNFCCC communications and to build institutional capacity for NDC implementation.

225 https://us.boell.org/sites/default/files/2020-12/CFF11%20-%20GCF%20-%20ENG%202020%20-%20Digital.pdf
226 https://www.thegef.org/news/new-financial-initiative-support-paris-agreement

2E.2 Partnerships

As a vertical fund with a UNFCCC mandate, the GEF occupies a unique niche within the Multilateral System to address climate change. The GEF relies on 18 Implementing Agency Partners[227] – 10 of them MOs – to deliver its projects and programmes around the world. Its partnership model uses grant funding to leverage its support 8 times over with financing from IA partners to catalyse innovation, technology transfer, replication and global uptake. Since its inception through June 30, 2020, the GEF has supported 1,008 projects on Climate Change Mitigation with USD 6.7 billion from GEF funds and a further USD 57.2 billion in co-financing from partners. During this same period, the LDCF has approved USD 1.59 billion for 305 projects, programmes, and enabling activities (EAs), with an additional USD 6.5 billion in co-financing; the SCCF has supported 86 projects with USD 350 million in GEF funding and approximately USD 2.7 billion in co-financing.[228] In addition to these IAs, the GEF partners or collaborates with the scientific community, research institutions, the NGO community and, increasingly, the private sector to create the enabling environment for innovation, systems modelling to understand the interactions of key environmental drivers and transformational change.

Co-ordinating with other Climate Funds:

Since the establishment of the LDCF and SCCF within the GEF, additional climate finance has been mobilised by donors to help developing countries meet the goals and objectives of the Paris Agreement. These include the Green Climate Fund (GCF), Climate Investment Funds (CIF) and the Adaptation Fund. GEF resources are unique among these funds in being typically grants with notional allocations to countries at the start of each GEF replenishment and, in the case of LDCF resources, reserved for the neediest countries. To avoid competition and enhance synergies with these Funds, the GEF has joined a working group with other Fund Managers to share successes and good practices on streamlining procedures for accessing and implementing Climate Funds and on developing standard criteria and indicators to measure results across Funds.[229]

2E.3 Programme priorities: Technology and innovation, catalysing transformation and impact

Through successive, quadrennial replenishments of GEF Trust Funds, the GEF has adapted its programmes and priorities on Climate Change to be better aligned with the Paris Agreement and with the latest science. The shift has been most evident in the conceptualisation and roll out of the GEF's Impact Programs and "integrated approach" across its Focal Areas. Given the alarming global trends on GHG emissions and warming trajectories reported by the IPCC, the GEF identified new pathways to mainstream climate action across its focal areas to deliver climate benefits along with investments in biodiversity, international waters, reversing land degradation and desertification. The result is that today, 84 per cent of GEF investments include Climate-Related Finance. The GEF is currently preparing for its eighth replenishment, and will continue the focus on integrated programmes.

The GEF also ramped up its financing of innovative technology through accelerator platforms designed to showcase climate friendly-technologies ready to be commercialised and mobilising new Public-Private Partnership to take these to scale. An example is the Global Cleantech Innovation Programme (GCIP) in partnership with UNIDO (USD 18 million in GEF and USD 634 million co-financing), now in its second phase.

227 https://www.thegef.org/partners/gef-agencies

228 "Report of the GEF to the 26th Session of the Conference of the Parties."

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

The GCIP promotes solutions that are affordable and scalable, enabling countries to leapfrog to cleaner, more resilient economic pathways. GEF Impact Programs include the "Sustainable Cities" IP, which has financed the "Grid Connected Rooftop Solar PV" project in India[230] to help it achieve "a solar revolution" in thermal energy production (USD 23 million GEF; USD 892 million in co-financing, including USD 500 million from WBG and USD 265 million in Private Sector equity).

The global "E-mobility" programme launched in June 2020 in 27 countries will help decarbonise urban transport through electrification of city fleets. This USD 430 million programme (with USD 33 million in GEF and USD 400 million in co-financing), is the first global effort to co-ordinate the uptake of electric mobility in developing countries. It is implemented by UNEP in partnership with the International Energy Agency (IEA).[231] Another IP, "Sustainable Forest Management"[232] is a USD 250 million programme designed to protect carbon rich stocks of high-quality forest in three Forest Biomes: the Amazon, the Congo Basin, and Dryland forests in key regions of the world. Safeguarding forest ecosystems at scale or marine ecosystems along a country's vulnerable coast are among the many Nature-based Solutions being deployed across the portfolio of the GEF and its Implementing Agencies. Properly implemented, these management solutions at the level of ecosystems are considered among the most effective ways to achieve climate benefits that are systemic and sustainable, and at sufficient ecological scale for impact. Linked to other ecosystems services like biodiversity and regeneration of natural capital, they contribute to the resilience of human communities by maintaining the ecological integrity of the natural systems that society and economies depend on. In terms of mitigation, the GEF expects to deliver 1.5 billion tCO2e, in GHG emission reductions in the current GEF Cycle (GEF-7).[233] On adaptation, 80 per cent (38 countries) of LDCs have so far tapped into LDCF funds this cycle, totalling USD 356 million, with most of these in Africa. Six of the 38 are SIDS.

2E.4 Lessons learnt and good practices

- **The GEF provides primarily grant funds[234] for climate action in developing countries, giving it a comparative advantage over other Climate Funds.** However, increasing complementarity and harmonising metrics on eligibility access and performance across funds would enhance synergy.
- **The GEF is moving toward greater risk-taking and innovation to attract Private Sector engagement on climate action.** Closer partnering with IFIs would accelerate these trends.
- **Investing in knowledge and learning networks** and disseminating this to partners in the MS accelerates uptake of new technologies and models of co-operation that can lead to sustained impact.
- **Concessional financing and greater upstream collaboration with IFIs**, government implementing agencies and Finance Ministries can help set the stage for policy reforms in politically difficult contexts and pave the way for PS investment in key sectors, including energy and LULUCF, catalysing transformation.

230 https://www.thegef.org/project/grid-connected-rooftop-solar-program

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

232 https://www.thegef.org/topics/sustainable-forest-management

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

234 However, in cases in which they are deemed appropriate to mitigate risk, enhance resource leverage, or sustain investments over time, the GEF does use Non-Grant instruments (NGIs), especially to engage the Private sector. These NGIs include: Credit guarantee (partial/full); (b) Performance risk guarantee; (c) Structured financing; (d) Equity/investment fund; (e) Revolving equity fund; (f) Contingent loan; (g) Concessional loan; and (h) Revolving loan fund. See the GEF's Policy on Non-Grant Instruments: http://www.thegef.org/sites/default/files/documents/NonGrant_Instruments_Policy-2014_0.pdf

2F. Inter-American Development Bank Group summary

2F.1 Use of normative frameworks in strategies and policies

The Paris Agreement was the basis for the IDBG's Governors' resolution in 2016 that it should increase its financing for climate change-related projects to 30 per cent of its loan, guarantee, investment grant, technical co-operation, and equity operations by the end of 2020. This Agreement likewise prompted IDBG, which consists of IDB (for the public sector), IDB Invest (for the private sector), and IDB Lab (for innovative small projects), to increase its focus on long-term consistency with global climate objectives across all its operations and to call on its 26 borrowing member countries in Latin America and the Caribbean (LAC) to submit and periodically update their nationally determined commitments (NDCs) and formulate long-term, low- GHG emission development strategies (LTSs). This has resulted in increased opportunities for IDBG to better understand the costs and benefits of decarbonising and how to align the NDCs and LTSs with countries' broader development goals.

IDBG has approved two Climate Change Action Plans in recent years. The first, for 2016-2020 issued in 2017, recognised that climate change presented significant challenges to ensuring sustainable and inclusive development in LAC, but affirmed that the SDGs and the Paris Agreement represented an unprecedented level of global commitment to meet these challenges.[235] This commitment is reiterated in the second Action Plan for 2021-2025, issued in December 2020.[236] This plan raises the ambition of the IDBG's climate agenda, in particular through its focus on the consistency of its support with long-term decarbonisation and climate-resilience efforts, following the shared MDB approach to support countries to deliver on their commitments under the Paris Agreement. IDBG's rolling four-year updates to its Sector Framework Documents (SFDs) also highlight key links with climate change and identify associated operational opportunities.

2F.2 Partnerships

IDBG collaborates regularly with other MDBs, including AfDB, ADB, AIIB, CEB, EBRD, EIB, IDBG, NDB, and WBG, including in working groups for climate finance, adaptation, mitigation, and GHG accounting. It is also presently participating in a joint approach on alignment with the Paris Agreement that includes common methodologies for assessing the operations IBDG finances, guidelines for the preparation of LTSs, and other initiatives in the Climate Action in Financial Institutions Initiative and the MDB Infrastructure Collaboration Platform. IDB has partnered with the World Bank for joint programming and use of the Climate Investment Funds (CIFs) in LAC and IDB Invest has a partnership with IFC to measure the impact of its transactions on Financial Institutions. It has also worked with UNEP on guidelines for sustainable infrastructure and with ILO on a flagship report on jobs in a net-zero emissions future in LAC and in dialogues with WHO and the Pan-American Health Organization (PAHO) on resilient health systems. IDBG is likewise an active member of the NDC Partnership, the LEDS (Low-Emissions Development) Global Partnership, and the LEDS LAC Platform. It is in contact with the UNEP-UNIDO-managed Climate Technology Center and Network (CTCN) and an observer to the UNFCCC and supports the Climate Mainstreaming Initiative, while also working with numerous NGOs throughout the region and elsewhere.

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

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

2F.3 Investment, technical assistance and capacity building operations

IDBG's financial commitments for climate change have increased significantly over the past half decade, from USD 1.7 billion in 2015 to nearly USD 5 billion in 2018, before falling sharply in 2020 (to USD 3.4 billion) due to the need to redirect funding to COVID-19 emergency response programmes through both investment and policy-based lending. The share of lending for adaptation also grew substantially over this period from around 15% of its total climate finance in 2015 to 34 per cent in 2020. While much of these resources are allocated through investment operations, IDB also has a robust portfolio of smaller Technical Co-operation and capacity building projects that focus on climate change-related objectives and concerns. IDBG has also stepped up its support for green finance, as illustrated by recent activities in Chile and elsewhere, as well as for a "climate-smart Caribbean" whose small island developing states (SIDS) are especially at risk.

2F.4 Knowledge sharing and advocacy

IDBG shares information about its climate change-related activities, initiatives, and knowledge products through its annual Sustainability Reports[237] and specific technical notes and discussion papers. Its recent pertinent knowledge products cover a range of topics including GHG accounting,[238] disaster and climate risk assessment,[239] implications of climate targets on oil production and fiscal revenues in LAC,[240] vulnerability to climate change and impacts on the agriculture sector in the region,[241] committed emissions and the risk of stranded assets,[242] using nature-based solutions for climate-resilient infrastructure,[243] and lessons from efforts to get to zero emissions in LAC, among others.[244] They also include a blog on the opportunities presented by COVID-19 for the need to build a more sustainable future.[245]

237 See, for example, IDB, Sustainability Report 2020, March 2021 that focuses specifically on the impacts of COVID-19 on the LAC region and IDB's contributions to a" green and inclusive recovery." For the past several years these report also contain a Global Reporting Initiative annex.

238 IDB, IDB GHG Accounting Manual, Washington D.C., February 2021.

239 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

240 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.

241 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.

242 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.

243 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, Increasing Infrastructure Resilience with Nature-Based Solutions: A 12-Step Technical Guidance for Project Developers, Washington D.C., 2020

244 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.

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

2F.5 Good practices and lessons learnt

- The international climate change agenda requires ambitious policy reforms but implementing current NDCs may increase the risk of carbon lock-in and stranded assets by establishing technical and economic barriers for decarbonisation.
- The paradigm shift of the Paris Agreement requires that the climate change focus shift from a subset of operations with climate change impacts to ensuring that all operations are consistent with countries' long-term, low-GHG, climate-resilient development pathways.
- Even though country and client demand drives IDBG's investments, climate change needs to be more deeply embedded in country strategies, programming exercises, and policies, while climate finance needs to be complemented with assessment of alignment to the Paris Agreement, including climate risk management, and results tracking.
- The transition to net-zero emissions is technically possible by producing zero carbon electricity; electrifying industry, transport, heating, and cooking; increasing provision of public and non-motorised transportation; managing and regenerating natural carbon sinks; and improving resource use efficiency, 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 can bring one million net jobs in the region by 2030 and generate benefits worth several per centage points of GDP by avoiding the current loss of productivity in congestion and health impacts from pollution.
- Latin America and the Caribbean is producing compelling evidence on how to work with stakeholders from government, civil society, academia, and the private sector to design long-term low-emission strategies that integrate economic, social and decarbonisation goals.

2G. International Fund for Agricultural Development summary

2G.1 Use of normative frameworks in strategies and policies

Mandates, strategies and policies

The IFAD Strategy and Action Plan on Environment and Climate Change 2019-25[246] emphasises the links between the SDG 2030 Agenda and the Paris Agreement, and IFAD's 2019 Climate Action Report[247] highlights the role of the NDCs as a climate change action policy instrument. The strategy refers to the Koronivia Joint Work on Agriculture (KJWA) under COP23, which called for a technical work programme on agriculture within the UNFCCC framework. The strategy also mentions the importance for inclusive and sustainable rural development of the Convention on Biodiversity (CBD) and the International Treaty on Plant Genetic Resources for Food and Agriculture.

246 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.

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

Results frameworks and organisational frameworks, integration of CC into risk assessments and safeguards. The IFAD Strategic Framework (2016-2025)[248] emphasises the integration of strategies to address climate change with broader development goals, and NDC implementation is now incorporated into country programming documents. IFAD's Social, Environment and Climate Assessment Procedures (SECAP)[249] incorporate climate risk and climate response into country strategies and projects, the aim of the 2019-26 Climate Action Plan is that through IFAD interventions 24 million more people shall have greater resilience to climate change by 2026.

Evolving policy towards fossil fuels. As an agency supporting smallholder agriculture and rural development, IFAD does not support production or transmission of fossil fuels.

2G.2 Partnerships

As highlighted in its Climate Action Reports, IFAD participates in a range of partnerships. It promotes the place of agriculture in the UNFCCC processes and NDC implementation. It contributes to the National Designated Authorities Partnership platform, with a focus on smallholder agriculture, and capacity building. IFAD supports the Learning Alliance for Adaptation in Smallholder Agriculture set up in 2015 to produce and disseminate evidence in high-level fora, South-South events and research projects. A recent study by MOPAN on collaboration between the Rome Based Agencies (FAO, WFP and IFAD) highlighted co-operation in-country, especially through individual operation.[250] IFAD works with the Africa Sustainability Centre, and with the Global Innovation Lab for Climate Finance. IFAD engages with partners beyond the multilateral system, especially through its SSTC (South-South and triangular Co-operation). Within countries it has supported partnerships between local communities, local organisations and NGOs. It supports cross-country collaboration of farmers' organisations, for example. It also supports PPPPs (public-private-producer-partnerships).[251] It is an implementing agency of the GEF, the GCF, and the Adaptation Fund. Some climate related projects are co-financed with other MDBs and many with bilateral agencies.

2G.3 Reflection in investment operations

Climate is mainstreamed into operations, and country programming documents (COSOPs) include an analysis of climate risks and incorporate NDC commitments into strategic objectives. The target is that 25 per cent of assistance in IFAD 11 (2019-21) and 35 per cent in IFAD 12 (2022-25) shall be allocated to climate focused activities. These targets are being met. IFAD estimates the GHG impact of its operations through the GHG ex-ante accounting tool, developed by FAO,[252] and in 2018 adopted MDB[253] methodologies to monitor investments in adaptation and mitigation. IFAD, by consolidating the teams responsible for environment and climate change, nutrition, gender, youth and indigenous people into the Environment, Climate, Gender and Social Inclusion Division (ECG), aims for further integration of these issues. As part of its decentralisation strategy IFAD is increasing the number of climate specialists at country level, to ensure better co-ordination on programmes. But there are still staffing constraints.

248 https://www.ifad.org/en/strategic-framework#:~:text=IFAD's%20Strategic%20Framework%202016%2D2025,sustainable%20transformation%20of%20rural%20areas.&text=The%20Framework%20sets%20three%20strategic,capacity%20of%20poor%20rural%20people

249 https://www.ifad.org/en/secap

250 The study also suggested that there was room for greater co-operation at strategic and programming level, while recognizing the transaction costs of moving to such an approach. http://www.mopanonline.org/otherproducts/items/mopan-casestudy-collaborationbetweenthethreerome-basedunagencies.htm

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

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

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

In 2012 IFAD launched the Adaptation for Small-Holder Agricultural Programme (ASAP) [254] to make climate and environmental finance work for smallholder farmers. ASAP provides financing to scale up and integrate climate change adaptation across IFAD's portfolio It has now launched ASAP+[255] By December 2020, ASAP had raised USD 300 million and there was an active portfolio in 31 countries, benefiting nearly 5 million people.[256] Activities include climate resilient land management practices. "Climate proofing" 400km of roads, improved water management, improved processing and better climate information. An additional USD 100 million is being raised under ASAP+. Many IFAD adaptation activities also have mitigation benefits, including support for afforestation and improved land management, mangrove rehabilitation efficient cook-stoves, bio-digesters and renewable energy.

In response to the COVID-19 pandemic, IFAD launched a multi-donor COVID-19 Rural Poor Stimulus Facility (RPSF). RPSF is aligned with the broader UN socio-economic response framework. IFAD has raised USD 40 million of seed funding,[257] and aims to mobilise at least USD 200 million to improve the resilience of rural livelihoods in the context of the crisis by ensuring timely access to inputs, information, markets and liquidity.

2G.4 Knowledge, capacity building, advocacy and technology

IFAD includes innovation and capacity building in its operations, including through piloting best practices, organisational strengthening at country level and south-south exchanges. It has a particular focus on supporting value chain enhancement and access to finance, but also on empowering women and youth to address climate vulnerabilities. Examples of recent research activities include a grant to ICARDA and CIMMYT for enhanced water use efficiency, soil fertility and productivity in drylands.[258] In order to build capacity within IFAD, a climate and environment module has been included in the curriculum of the Operations Academy.

2G.5 Lessons learnt and good practices

- IFAD was an early mover in designing climate finance instruments through the ASAP specifically to address the threats that climate change posed to small holder farmers and the rural poor. Other elements of the MS would benefit from its experience.
- IFAD's experience also demonstrates the "triple win" of climate smart agriculture in 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.
- IFAD's explicit incorporation both of climate risk assessment and of NDC priorities in COSOP design illustrates how the institution is committed to supporting NDC implementation.
- IFAD's focus on poor rural communities gives it an especially challenging mandate. Programmes have often faced implementation delays, linked in part to weak local capacity and difficult operating environments.

254 https://www.ifad.org/en/web/knowledge/publication/asset/39186467. Donors at the outset 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.

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

256 though less than targeted in 2012

257 https://www.wbcsd.org/WBCSD-COVID-19-Response-Program/Vital-Supply-Chains/IFAD-COVID-19-Rural-Poor-Stimulus-Facility Initial contributions were received from the Governments of Canada, Sweden and the Netherlands

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

- IFAD's experience highlights the importance of a strong country presence. With the recent decentralisation, it is now building up technical capacity at country level, which will enable it 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 particular efforts to incorporate gender and youth considerations in project design. MDBs and IFAD have scope for further collaboration on strengthen 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.

2H. International Finance Corporation summary

2H.1 How is the MO responding to climate change?

IFC recognises climate change as an acute threat to global development that increases instability and contributes to poverty, fragility, and migration, and believes that climate action is also an investment opportunity for the private sector. IFC has evolved its policy framework governing climate change in response to the mandates of the UNFCCC and the Paris Agreement. The most significant steps in this policy evolution are (i) Reducing exposure to coal, (ii) Terminating support for upstream oil and gas development except in exceptional circumstances, and (iii) Greening equity investments in financial institutions.

The IFC's most important partnership is with the World Bank. The WBG institutions work in concert to help countries transform sectors to improving the enabling environment, developing regulatory conditions, building capacity, putting in place standards, financing an innovator, and reducing risks.

The IFC has been a pioneer in blended concessional finance,[259] including for climate projects. The GEF, the CIF and bilateral donor funds have historically been major sources of concessional co-financing for IFC climate targeted projects. The outside funds are matched by IFC mobilised resources and can be deployed as concessional loans, guarantees, equity, and performance-based grants for private sector projects that would generally not have proceeded due to market barriers.

2H.2 How has the MO incorporated climate change into its organisational strategies, operational activities, and resource plans?

The principal IFC-focused climate change strategy document is the 2016-2020 IFC Climate Implementation Plan. The Plan is organised around five themes: Scale Climate Investments, Catalyze Private Capital, Maximise Impact, Account for Climate Risk, and Climate Finance. While details are not yet available, on April 2, 2021 the WBG presented a new Climate Change Action Plan to its board that included a commitment that 85 per cent of new IFC operations will be Paris aligned by July 1, 2023 and 100 per cent by July 1, 2025. IFC also committed to growing its climate-related investments to an annual average of 35 per cent of its own-account long-term commitment volume between 2021 and 2025 and working with financial institutions to finance projects that will support mitigation and adaptation.

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

2H.3 What lessons learnt and good practices from the MO can help strengthen the MS in tackling the climate crisis (for both mitigation and adaptation/resilience building)?

IFC has identified four key lessons for mainstreaming climate into its core business. These are briefly summarised as (a) Generate buy-in from IFC's operational departments through dedicated staff resources, (b) Establish regional and industry climate targets that are part of departmental scorecards and tied to monetary incentives, (c) Promulgate clear and easily definable guidelines on what qualifies as a climate project, and (d) Create a centralised Climate Business Department.

To date the NDCs have had only a minor direct influence on IFC's climate business operations, although they do serve a useful function in highlighting broad sectors and subsectors that governments signal as priorities. Developing country NDCs do not usually delve into expected implementation and financing arrangements at the individual project level, including the anticipation of private financing. The bulk of IFC investments are on an opportunistic basis and respond to business and sectoral priorities defined on a global or regional basis.

Nevertheless, it is important for private investors seeking climate business opportunities for governments to get climate policies right. Countries should integrate their NDC commitments into national development strategies, and budget and staffing processes. This will help governments move from often high-level NDC targets to establish implementing regulations with clear and consistent policies such as carbon pricing, performance standards, market-based support, and removing fossil fuel subsidies.

Of even greater importance for mobilising private resources is to strengthen the private sector investment climate. Enforcing property rights, providing a robust framework for public-private partnerships, and creating investment policies and incentives will all help to minimise unnecessary costs and reduce risks to attract private capital towards these newer sectors.

The World Bank Group's "Cascade" approach, combining upstream support for policy and regulatory reforms with downstream private finance and risk mitigation instruments, may be of particular relevance for countries that have not been able to attract private participation in climate investments. For MDBs, this implies a more co-ordinated approach to the public and private sides of development.

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 in order 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.

To mesh with IFC's and the private sector's business practices, climate financing mechanisms must be agile and quick-reacting, willing to tolerate substantial risk, able to commit funds in substantial size blocks in order to drive market transformation, support a wide range of instruments (e.g., grant, debt, equity, quasi-equity, guarantees), and feature transparent and predicable decision-making. IFC's project cycle operates at a faster pace than most external public funding decision time frames, with most investments moving from identification to approval in a space of 9 to 15 months. In addition, once IFC makes a commitment to a private project sponsor to mobilise external resources, the proponent needs a high degree of certainty that the resources will be forthcoming.

Reflecting the foregoing needed characteristics for meshing with the business cycle, IFC's call on the UNFCCC's financing mechanisms is presently very modest. IFC's use of the GEF, while initially robust and high impact in terms of catalysing new fields of activity at IFC, has been declining and has faded into relative insignificance. Neither has the GCF been tapped by the IFC. Among the multi-donor/multi-implementing entities facilities, only the CIFs have continued to serve as a steady and reliable partner.

Investments in gas-fired power generation projects, LNG import facilities and gas distribution will represent an increasing area of challenge for IFC, and for the MDBs more generally, who would be well served by developing criteria and guidelines to select gas sector projects. Until country Long-Term Strategies (LTSs) for low carbon development that define pathways and time-horizons for full gas phase-out are available, a number of shorter-term oriented criteria could be applied to screen proposed gas investments.

2I. International Monetary Fund summary

2I.1 How is the MO responding to climate change?

The IMF's Managing Director has stated publicly that climate change presents a major threat to long-term growth and prosperity, and it has a direct impact on the economic wellbeing of all countries. Therefore, the Fund has a role to play in helping its members address those challenges of climate change for which fiscal and macroeconomic policies are an important component of the appropriate policy response. These concerns have been amplified by current Managing Director Kristalina Georgieva, who was installed in the post in 2019. Importantly, at an October 2020 meeting of finance ministers, Georgieva said that climate change was a "macro-critical" issue – a term used by the Fund to describe issues that affect, or have the potential to affect, domestic or external stability, which is intended to ensure consistency with IMF's mandate.

The Fund's primary output is the publication of research on the economic implications of climate change and the translation of these findings 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 themed on climate change. However, the volume of climate change related studies, articles, books, manuals and blogs has grown over the past decade to an impressive series of recent climate change publications, with the past five years since the Paris Agreement witnessing a particular acceleration. The resulting policy guidance on climate change relates to 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 Nationally Determined Contributions.

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.

The IMF's key partnership, both historically and with respect to climate change, is with the World Bank. The IMF engagement with the regional development banks has largely focused on outreach activities and is subject to resource constraints. A more recent partnership in which the IMF plays a leading role is the Coalition of Finance Ministers for Climate Action, which recognises the challenges posed by climate change and the unique capacity of the world's finance ministers to address them.

2I.2 How has the MO incorporated climate change into its organisational strategies, operational activities, and resource plans?

The Fund's voice has been loudest on carbon taxation as a key to mitigation. The Fund recommends that carbon pricing is the centrepiece of mitigation strategies for advanced and developing countries alike: (i) carbon pricing directs activity towards low-emissions options, (ii) carbon pricing provides an essential price signal for mobilising private investment in low-carbon technologies, (iii) it raises an easily collected source of revenue, (iv) carbon revenues can help fund investments for meeting SDGs, and (v) pricing can also generate large domestic environmental co-benefits, like reductions in local air pollution mortality.

In recognition of expectations for greater mainstreaming of climate change in its analytical and client advisory work, the Executive Board will consider in Spring 2021 a new Climate Change Strategy.

2I.3 What lessons learnt and good practices from the MO can help strengthen the MS in tackling the climate crisis (for both mitigation and adaptation/resilience building)

Perhaps the most striking lesson emerging from this review is the impact of executive leadership and commitment. The acceleration of the IMF's activism on the climate change issue can clearly be linked to the commitment and pronouncements by a succession of the institution's leadership at the highest level.

Climate change issues, when macro-critical, are already within the IMF's mandate. Managing Director Georgieva's recent declaration that climate change is a "macro-critical" issue is fully supportive of this view.

No institution is better placed than the IMF to understand climate change as a risk threatening economic growth and stability, and to provide guidance on how these risks can be balanced. 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.

The UNFCCC would do well to cultivate a closer relationship with the IMF. The UNFCCC bodies need to broaden their outreach and communication channels so as 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. The Fund 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.

Similarly, the IMF could strengthen its presence in global climate change discussions. The IMF's 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 working groups and initiatives on green finance.

The IMF has a clear path to ratcheting up 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 the Fund's top management, application of policy findings and implications have yet to be mainstreamed within its macroeconomic and fiscal tools applied at the country level. The climate community can help make the case to the Fund's shareholders for the needed resources.

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 as to what can be expected from its analysis, the Fund can best leverage its core expertise efficiently and rely on others to complement its analysis. The Fund does not need to build its own expertise in all aspects of climate change, but it will need to partner closely with others.

2J. United Nations Development Programme summary

2J.1 Use of normative frameworks in strategies and policies

As the Development Agency of the UN system, the UNDP is the face of the SDGs and they drive all its work. Climate change has underpinned UNDP's strategic plans for decades, as a mainstreamed cross-cutting issue. As such, the Paris Agreement did not result in a strategic turn but did lead to an increased demand for support from developing countries to tackle climate change, and availability of international climate finance, which has in turn increased the UNDP's level of investments and activity in this area.

The UNDP Strategic Plan 2018-2021[260] is anchored in the 2030 Agenda for Sustainable Development and related agreement such as the Paris Agreement. It is articulated around six "signature solutions", in which mitigating and adapting to climate change are woven, that seek to address complex and interconnected challenges. Likewise, its energy strategy was formulated in 2017, in response to the international normative frameworks agreed to in 2015, including the Paris Agreement.

2J.2 Partnerships

UNDP focuses particularly on partnering with Vertical Funds, which represented 18% of its total budget (not limited to climate) in 2019.[261] This is particularly true regarding climate change, with major GEF, GCF and Adaptation Fund portfolios.

260 http://undocs.org/DP/2017/38

261 UNDP 2019 Funding Compendium

The UNDP also leads and participates in a range of climate relevant Partnerships such as:

The NDC Partnership

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

The UNDP Climate Promise, which is aiming to support 100 countries enhancing their climate ambition as part of the National Determined Contributions, involves over 35 strategic partners including: IRENA (energy), UNEP (energy, adaptation, resource efficiency, forestry and nature-based solutions), FAO (adaptation, forestry), ILO (green jobs and just transition), UNICEF (youth and social protection), World Bank (adaptation, MRV), UN-HABITAT (local and regional governance, cities), as well as the University of Oxford.

The African Adaptation Initiative

The African Adaptation Initiative, under the political leadership of the Committee of African Heads of State and Government on Climate Change (CAHOSCC) and the African Union (AU) and which is currently under its phase 3 that aims to achieves transformative adaptation results for African countries throughout the Decade of Climate Action (2020-30).

The UN-REDD Programme

The UN-REDD Programme, which was launched in 2008 and 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 as well as 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, as well as Climate Security with UNEP.

2J.3 Investment, technical assistance, and capacity building operations, knowledge sharing and advocacy

UNDP is today the UN system's largest provider in climate change activities with activities in 140 countries. UNDP has a very strong country presence, working in about 170 countries and territories through its country offices and 5 regional hubs. It does not have country strategies but deploys its strategic plan in a country-driven manner. UNDP has been a lead implementing agency for the GEF since its establishment, and it has expanded its role through participation in new funds established under the UNFCCC, mainly the Least Developed Countries Fund (LDCF), the Special Climate Change Fund (SCCF), and the Adaptation Fund (all established in 2001), and the Green Climate Fund (established in 2010).

Beyond activities carried out under the Vertical Funds, which represent the majority of UNDP's climate work, UNDP launched the Climate Promise at the UNSG 2019 Climate Action Summit to help countries design and implement their climate pledges. In response to increasing demand from countries for support to enhance their NDCs under the Paris Agreement and building on the foundation built by the successes of the NDC Support Programme, the Climate Promise is UNDP's commitment to ensure that

any country wishing to increase the ambition of their national climate pledge is able to do so. As of March 2021, The Climate Promise is supporting 118 countries to enhance their NDCs including 38 LDCs, 28 SIDS, and 14 high emitters. So far, more than USD 14 million of UNDP core resources have been committed to the Climate Promise, and more than USD 34 million in financing has been leveraged from vertical funds and bilateral donors.

2J.4 Lessons learnt and good practices

In its recent report "Lessons from Evaluations: Learning from past crises for recovering from COVID-19,"[262] the Independent Evaluation Office highlights the following lessons:

- Environment projects benefit from broad stakeholder engagement to manage expectations, utilise local knowledge, and integrate rights and culture of local populations.
- Engaging the private sector with attention to conflict of interest creates opportunity for long-term sustainability of environmental interventions.
- Building effective crisis management and recovery systems requires an integrated and 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 disaster risk management and climate change adaptation 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.

262 http://web.undp.org/evaluation/documents/reflections/book/reflections-crisis-series-02-21.pdf

2K. United Nations Environment Programme summary

2K.1 Use of normative frameworks in strategies and policies

UNEP was established following the United Nations Convention on the Human Environment in Stockholm in June 1972. Its mandate is to set the agenda and advocate for the global environment, and it serves as the focal point and co-ordinating entity within the UN system for protection and improvement of the environment.[263] One of its prime objectives is to support science-based policy making. It is also responsible for administering the Secretariats of 15 Multilateral Environmental Agreements (MEAs), including those for the Biodiversity convention, chemicals, and ozone substance depletion/Montreal protocol. Largely a normative agency itself, UNEP uses, supports, and seeks to apply the principles and normative frameworks of the 2030 Agenda and the Paris Agreement to guide its response to climate change. This is borne out in its Medium-Term Strategies (MTSs) for 2018-2021 and 2022-2025 and in its Annual Programmes of Work and Budget (PoWs). Climate change has been a UNEP priority for many years with the first subprogram for this purpose included in the MTS for 2010-2013, which has become increasingly and intentionally aligned with the SDGs and the Paris Agreement over time. Climate Change is the largest of UNEP's seven subprogrammes, expected to account for nearly 29% of its total budget for 2020-2021(USD 262.2 million). The subprogramme has three objectives, that countries increasingly: (i) advance their adaptation plans, which integrate ecosystem-based adaptation; (ii) adopt and/or implement low greenhouse gas emission development strategies and invest in clean technologies; and (iii) adopt and implement forest-friendly policies and measures that deliver quantifiable emissions reductions, as well as social and environmental benefits. UNEP's role is to support its 193 Member States to achieve these objectives.[264]

2K.2 Partnerships

UNEP is heavily reliant on partnerships of different types, including for its financial resources. Earmarked resources presently finance around 90% of UNEP's Climate subprogramme, with most these funds coming from the GEF and GCF for specific UNEP-implemented projects.[265] Other funding sources, including the European Community, other UN agencies, bilateral donors, members of the UNEP Finance Initiative, and the private sector, also contribute to this resource pool as well as to the Environment Fund, over whose allocation UNEP has greater control.[266] UNEP likewise depends on national and subnational governments, NGOs, and the private sector to execute the projects for which it is an implementing (GEF, other donors) or accredited (GCF) agency. According to its Open Data Base, there are 558 such projects in one or more

263 Maria Ivanova, The Untold Story of the World's Leading Environmental Institution: UNEP at Fifty, The MIT Press, Cambridge, Massachusetts, 2021. According to the PoW for 2020-2021, more specifically, UNEP's objective is to "provide leadership in the environmental dimension of sustainable development and balanced integration and coherence of environmental issues in the United Nations system and in the delivery of the programme of work."

264 UNEP, Programme of Work and Budget for the Biennium 2020-2021, Nairobi, March 2019, pp. 32-35.

265 According to UNEP's Programme Performance Report 2018-2019 (Nairobi, 2020), the main contributors to earmarked funds for 2018-2019 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 and individual countries, most notably Germany (USD 99.4 million), were responsible for most of the rest.

266 The top five contributors to the Environment Fund during 2018-2019 were the Netherlands, Germany, France, the United States, and Sweden. Other donors included Belgium, Canada, China, Denmark, Finland, Ireland, Norway, Ireland, Japan, the Russian Federation, Switzerland, and the United Kingdom, among others.

of 149 countries with total commitments of USD 2.87 billion, of which the GEF accounts for the largest number.[267] UNEP likewise has key climate-related partnerships in many areas (e.g., science, finance, energy, industry, transportation, agriculture and forestry, adaptation, and short-lived pollutants).

UNEP partners extensively with other UN agencies, including FAO, UNDP, UNIDO, WHO, and WMO, as well as with MDBs such as the World Bank and environmental NGOs including WRI, both in general and with respect to climate change, as well as with many other individuals and organisations to produce its knowledge products. Together with WMO, for example, it was responsible for establishing and overseeing the Secretariat of the Intergovernmental Panel on Climate Change (IPCC). With UNIDO, it plays a similar role with respect to the Climate Technology Center and Network (CTCN), which is the operational technology mechanism under the UNFCCC, presently has 629 members, and has supported 329 technology transfer projects. It likewise works with the private sector as in the above-cited Finance Initiative (UNEP-FI), a partnership to mobilise finance for sustainable development, which presently works with some 350 members, including banks, insurance companies, and investors, and over 100 supporting institutions.[268] With UNDP, the World Bank, and WRI, it co-produced the biennial World Resources reports since the early 1990s through 2011, and continues to contribute to WRI's World Resources website that was established to replace them the same year. It also jointly oversees the UN REDD+ programme with FAO and UNDP, and has numerous other joint activities with UNDP, including the Capacity Building Initiative for Transparency (CBIT), also directly associated with the UNFCCC.

2K.3 Investment, technical assistance, and capacity building operations

UNEP does not prepare country strategies but, as part of the UN development system (UNDS) participates actively in the elaboration and implementation of UN Sustainable Development Partnership Frameworks (UNSDPFs) at the country level. As indicated above, it also oversees implementation of GEF, GCF, and other donor-financed investment, technical assistance, and capacity building projects at both the individual and multi-country levels. This adds a piloting and learning-oriented operational role to its predominantly normative one. The results of all these projects and UNEP's subprogrammes are assessed by its Evaluation Office and summarised in biannual Evaluation Synthesis Reports.[269]

2K.4 Knowledge sharing and advocacy

Science-based knowledge compilation, dissemination, and advocacy are also among UNEP's primary functions, which it carries out through the periodic publication of Global Environmental Outlook and other flagship and technical reports that generally involve numerous co-authors and reviewers and include summaries for policymakers.[270] On climate change specifically, in partnership with the Danish Technical University (DTU), it has issued an influential annual Emissions Gaps Report since 2010 and annual Adaptation Gap Reports since 2014,[271] which are linked directly with the UNDCCC and Paris climate goals and targets. It also produces other major reports that contain information or implications relating to climate

267 UNEP, Open Data portal. More specifically, there are 406 GEF projects involving 147 countries with commitments of USD 1.33 billion, 57 GCF operations in 40 countries involving USD 201.6 million in commitments, and 95 projects financed by other sources involving 129 countries and another USD 1.33 billion in commitments.

268 UNEP's Sustainable Finance Progress Report, March 2019 provides further details of its activities to date.

269 See, for example, UNEP Evaluation Office, Evaluation Synthesis Report 2018-2019, Nairobi, March 2020.

270 For recent examples of such flagships, see, UNEP, Global Environmental Outlook GEO-6: Healthy Planet, Healthy People, Cambridge University Press, 2019, UNEP International Resource Panel, Global Resources Outlook 2019: Natural Resources for the Future We Want, Nairobi 2019, and Secretariat of the Convention on Biodiversity and UNEP, Global Biodiversity Outlook 5, Montreal, 2020

271 The most recent volumes are UNEP DTU Partnership, Emissions Gap Report 2020, Nairobi, 2020, and UNEP DTU Partnership and the World Adaptation Science Programme (WASP), Adaptation Gap Report 2020, Nairobi, 2021.

change, through its Frontiers series, including a recent one on zoonotic diseases in response to the COVID-19 pandemic.[272] Finally, UNEP has recently issued an important synthesis report with the title Making Peace with Nature: A Scientific Blueprint to Tackle the Climate, Biodiversity, and Pollution Emergencies,[273] that stresses the need for a more integrated approach to these critical challenges.

2K.5 Lessons learnt and good practices

- **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 and large-scale progress.** Governments need a backing from the public and confidence that the private sector benefits from their policies. The private sector needs loud and clear market signals and long-lasting policies. Individuals and the public sector need policies and products and services that make it easy to opt for low-carbon behaviour and lifestyles. If one of these elements is missing, 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 multilateral organisations.** For maximum impact of the CTCN, for example, further work is needed with donors (e.g., GEF and GCF) to facilitate roll-out of new technologies such as establishing regional import standards for cooling solutions.
- **Global and national efforts to tackle climate change, preserve biodiversity, and combat environmental pollution need to be better linked.** To promote an integrated approach on the ground, for example, UNEP launched a Flagship Program on Climate, Ecosystems, and Livelihoods (CEL) that serves as the UNEP-IEMP's Ten Year Strategy (2016-2025).[274] Its objective is to improve livelihoods by building climate resilience and restoring and conserving key ecosystems in developing countries. Through CEL, this climate-ecosystems-livelihoods nexus approach is being implemented in about 30 developing countries in Africa, Asia and the Pacific, and Central Asia and focuses on protecting the most fragile ecosystems, such as drylands, river basins, and coastal zones and, by doing so, on implementation of the Paris Agreement and achievement of the SDGs.

2L. The World Bank (IBRD/IDA) summary

2L.1 Use of normative frameworks

The World Bank Group is the largest multilateral financier of climate investments in the developing world. Its mission of reducing poverty and promoting shared prosperity is consistent with its commitment to the goals and objectives of the Paris Agreement and the SDGs. In late 2018 the WBG joined nine other MDBs in signing on to the "Six Building Blocks" to catalyse low emissions and climate-resilient development

272 The UNEP, Frontiers 2018/2019: Emerging Issues of Environmental Concern, Nairobi, 2019 publication, for instance, contained specific chapters on "Permafrost Peatlands: Losing Ground in a Warming World" and "Maladaptation to Climate Change: Avoiding Pitfalls on the Evolvability Pathway," among other topics, while a recent UNEP report produced together with the International Livestock Research Institute (ILRI) bears the title Preventing the Next Pandemic: Zoonotic Diseases and How to Break the Chain of Transmission, Nairobi, 2020.

273 UNEP, Making Peace with Nature: A Scientific Blueprint to Tackle the Climate, Biodiversity, and Pollution Emergencies, Nairobi, 2021.

274 Launched by UNEP and the Chinese Academy of Sciences in 2010, the Beijing-based International Ecosystem Management Partnership (IEMP) seeks to mobilise science to support policy setting for sustainable ecosystem management in developing countries.

and further align their operations and policies with the goals of the Paris Agreement (PA).[275] Adhering to these commitments remains a work in progress for the WB as well as other MDBs, particularly items 1. "Alignment with mitigation goals," 4. "Engagement and policy development support," and 5. "Reporting." Nevertheless, the WB has responded to the challenge of the Paris Agreement by ramping up investments in climate action in developing countries through marshalling its own resources as well as the Climate Investment Funds (CIFs), and other Climate-related Trust Funds it manages to leverage these against external resources. These include those from other parts of the Multilateral System, financial markets and the Private Sector to help developing countries meet their Nationally Determined Contributions (NDCs) for accelerated, low carbon development. Much needed support for the preparation of Long-Term Strategies (LTS), outlining the policy and investment decisions on the path toward low/zero-carbon net growth, is currently being mobilised in co-ordination with other MDBs.[276]

2L.2 Climate change and the WB's mandates, strategies and policies

The WBG adopted its first Climate Change Action Plan in 2016.[277] "The Action Plan is underpinned by five strategic shifts for the WBG's 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) Maximizing 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. (v) Transformation: achieving global climate commitments will require a shift from business as usual." A fundamental aim of the Action Plan was to deliver transformational impact. As a result of the targets in the Plan, the share of WBG projects with climate co-benefits rose from 25 per cent in 2015 to 62 per cent in 2020. The share of WB finance with climate co-benefits rose from 18 per cent in 2015 to 29 per cent in 2020 for the Bank Group as a whole. The Bank delivered over USD 83 billion in climate finance over this period, amounting to over 30 per cent of its lending in the last three years. In 2020, despite the COVID-19 Pandemic, the WBG committed USD 21.4 billion to climate-related investments--the biggest amount in any single year in the WBG's history.[278] The Bank's performance was "the result of an institution-wide effort to mainstream climate considerations into all development projects." More ambitious targets have just been announced for the 2021-2025 period. On average, 35 per cent of the WBG's financing over the next five years is expected to have climate co-benefits.[279] There will be an enhanced focus on results and impact; on climate diagnostics to support countries in their NDCs, LTS and integration of climate action into Country Partnership Frameworks; on reducing emissions and vulnerability through transformative investments in key systems; and in supporting just transitions out of coal. Within IBRD and IDA 50 per cent of climate finance will support adaptation and resilience, up from 32 per cent in FY14.

275 https://pubdocs.worldbank.org/en/784141543806348331/Joint-Declaration-MDBs-Alignment-Approach-to-Paris-Agreement-COP24-Final.pdf. The Six Building blocks include: 1. Alignment with mitigation goals, 2. Adaptation and climate-resilient operations; 3. Accelerated contribution to developing countries' transition through climate finance and needed TA for Climate Action… in line with science-based evidence identified by the IPCC; 4. Engagement and policy development support; 5. Reporting; 6. Align internal activities.

276 WBG pers com Q& A

277 World Bank Group Climate Change Action Plan: 2016-2020. www.worldbank.org

278 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

279 WB Press Release, December 9, 2020 https://www.worldbank.org/en/news/press-release/2020/12/09

2L.3 Partnerships

The WB engages in a broad array of partnerships to achieve its mission and has used these to advantage in implementing its Climate Action Plan and achieving its corporate commitments to the Paris Agreement. In light of the more than USD 1 trillion/yr. financing gap, mobilising significant new and additional resources from the private sector to help countries transition to cleaner development is a priority. The City Climate Finance Gap Fund,[280] launched in September 2020, and implemented by the World Bank and the European Investment Bank is a case in point. The Fund (with a target capitalisation of €100 million) seeks to unlock at least €4 billion of private and public investment in climate-smart projects and urban climate innovation to increase urban resilience. The Bank is also engaged in a Multi-Donor Partnership with the Global Facility for Disaster Reduction and Recovery, and the United Nations Office for Disaster Risk Recovery (UNDRR) to help more than 90 cities around the world mitigate the impacts of disasters and climate change. The Bank also partners with other MOs to leverage concessional financing for investments in mitigation and adaptation in countries with limited fiscal space for borrowing or in the context of policy reforms that are politically challenging. Such financing draws on Trust Funds such as the NDC Partnership Fund, the GEF, the GCF and the Climate Investment Funds (CIFs) – an USD 8.6 billion multi-donor fund designed to drive transformations in clean technology, energy access, climate resilience, and sustainable forests in developing and middle-income countries. The CIFs are jointly programmed for use by five MDBs,[281] which facilitates access and co-ordination in country programmes. The WBG also collaborates with the IMF on climate risk reduction in vulnerable countries. The Financial Sector Assessment Program (FSAP)[282] has begun to include Climate and Environmental Risks and Opportunities to reduce the likelihood that a natural disaster would lead to a financial crisis with cascading repercussions. The WBG and the IMF are also exploring the write-off of private sector debt in some of the poorest countries in exchange for progress on climate mitigation. [283]

2L.4 Operations, sector alignment and mainstreaming climate change concerns

The WB has committed to mainstreaming climate into its operations and policies. Beyond incorporating climate considerations into Country Partnership Strategies and support for NDCs, all projects are screened for climate impact at pipeline entry. Mitigation and adaptation benefits are calculated using various metrics which are tracked over the course of the project. Carbon Shadow Pricing and GHG emissions are also calculated for projects in carbon intensive sectors like energy, transport and agriculture, and climate resilience is assessed using a new resilience rating system. In the energy sector the emphasis has been on electrification in regions with low or no access to power, especially in Sub-Saharan Africa.[284] The Bank's energy policy has been to "support development of energy systems based on least-cost options with an emphasis on renewable sources." While the Bank has shifted away from coal, it continues to fund oil and gas, but "only in exceptional cases where there is a clear benefit from energy access for the poor and the project fits within the countries' Paris Agreement commitments."[285] In Agriculture, the emphasis has

280 https://www.worldbank.org/en/news/press-release/2020/09/23/city-climate-finance-gap-fund-launches-to-support-climate-smart-urban-development

281 ADB, IDB, AfDB, EBRD, WBG. USD 8.6 billion multi-donor trust fund designed to drive transformations in clean technology, energy access, climate resilience, and sustainable forests in developing and middle-income countries.

282 WB documents and Q&A

283 https://www.reuters.com/article/us-world-bank-debt-climate/world-bank-imf-to-consider-climate-change-in-debt-reduction-talks-idUSKBN2AK01B

284 Under the SDG Partnership Fund the WB is helping countries in Africa with low access to electricity and ample sources of renewable energy like wind and solar to develop these for new power generation. In other countries, the WB is supporting a fast-track transition from fossil fuels to solar and wind with USD 1.3 billion for off-grid, rural electrification in 24 countries. Of these projects, 90 per cent were based on renewable energy, mostly solar.

285 https://www.worldbank.org/en/topic/energy/overview#2

been on Climate-Smart Agriculture, particularly in IDA countries where vulnerability to climate impacts is high.[286] In 2018 the Bank's support for adaptation in Agriculture, Health and Nutrition, Social Protection and Labor, Urban-Rural and Resilience, and Water totalled USD 7.6 billion, reaching parity with mitigation at USD 8.0 billion.[287]

COVID-19 Recovery

The WBG is providing countries with USD 160 billion in financing, including USD 50 billion in IDA grants and other concessional financing through June 2021. Most of this is carbon neutral with some green investments in renewable energy and energy efficiency in the health and transport sectors. Overall, the emphasis has been on emergency relief and economic recovery, jobs, social protection and health.

2L.5 Lessons learnt and good practices

- **While the WB has provided over USD 80 billion for climate related activities from 2016-2020, the current financing gap to help countries achieve low carbon development at the needed pace and scale will require greater risk tolerance and investments in innovation.** This calls for greater PS engagement and an accelerated shift away from oil and gas. Rural electrification based on renewable sources and local storage and distribution of energy in the power sector have already benefitted many of the Bank's poorest clients.
- To overcome **low NDC ambition and policy gridlock, further upstream co-ordination among MDBs is needed on lending for policy reforms and improved governance in GHG intensive sectors.** This can pave the way for PS investments in innovation and market transformation.
- **Support for preparation of LTS to provide countries with a blueprint for NDC implementation needs to be ramped up across MDBs.** Without these, countries' short-term development plans may lock in stranded assets that prevent an effective transition to green growth and decarbonisation by 2050.
- **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 Treaty.
- **Effective Institutional Leadership on climate change can transform obligations into strategic opportunities.** The WBG has demonstrated a positive direction of travel on Climate Change since its early support in the mid-1990s. This has grown under the leadership of internal champions within the institution, many of whom have gone on to lead other organisations to similar heights within and outside the Multilateral System.

286 See "The ABCs of IDA—Climate Change" for a complete list of projects. http://ida.worldbank.org/results/abcs/abcs-ida-climate-change

287 WBG Adaptation and Resilience Action Plan: Managing Risks for a More Resilient Future. 2019

ANNEX 3: COUNTRY ANALYSES

3A. Brazil Country summary

3A.1 Background, adaptation and mitigation challenges and priorities

Socio-economic features

With a land area of more than 8.5 million km^2 and an estimated population of more than 212 million in 2021 that was growing at about 0.8 per cent a year, Brazil has a population density of 25 persons per km^2. Just over 87 per cent of the population resides in urban areas. With an estimated GNI per capita of USD 9 900, 34 per cent of its land area was in agriculture and 59 per cent in forests. Its annual deforestation rate at 0.4 per cent, but 28.4 per cent of Brazil's land area was in protected areas, mainly in the vast Amazon region.[288]

Government strategy

The current development priorities of the Brazilian Government (GoB) include restoring economic growth and fiscal stability and expanding employment generation that have all been adversely affected by the COVID-19 pandemic. Primary export promotion, including soybeans, iron ore, meat, and poultry, is an important part of the strategy to boost growth. According to the national development plan for 2015-2019 its agenda prior to the onset of COVID-19 had four main axes: coherence of macro and structural policies, investment in infrastructure, growth in trade and productivity, and tax and financial sector reform.

Mitigation challenges

Total GHG emissions in Brazil in 2016 were 1,467 Tg CO2e, according to its Fourth National Communication (NC4) to UNFCCC. Its per capita CO2 emissions were estimated at 2.37 metric tons/person in 2018. The agriculture sector contributed 33.2 per cent of total emissions, followed by the energy sector (29.9 per cent), and land use, land use change, and deforestation (LULUCF) with 27.1 per cent and industrial processes and waste responded for 6.4 per cent and 4.5 per cent. Over 70 per cent of Brazil's energy is generated by hydropower and it uses sugar cane-based ethanol in part to power its vehicle fleet. Between 2010 and 2016, emissions grew by 19.4 per cent and 61 per cent of this increase was due to LULUCF, 20 per cent from energy, 12 per cent from agriculture, 4 per cent from waste, and 3 per cent from industrial processes. The increase for LULUCF was primarily due to deforestation and associated fires in the Amazon and Cerrado biomes.

Adaptation challenges

Brazil houses 60 per cent of the Amazon Basin, which is home to 20 per cent of the world's fresh water and whose biodiverse ecosystems provide services for nearly 30 million people, including 350 indigenous communities. Climate change impacts in the Basin are significant, as higher temperatures change the range and distribution of species, increased drought severity affects freshwater ecosystems and changes in rainfall and temperature could impact the spread of disease. Sea level rise and storm surge will have substantial impacts on lowland areas. Climate variability and change also threaten agriculture in Amazônia and the Cerrado, as well as in the already drought-prone semi-arid Northeast and droughts are expected to become more frequent and severe in the future, also affecting major cities in the Southeast.

288 World Bank, Little Green Data Book 2017, Washington D.C., 2017.

Adaptation and mitigation priorities

Brazil submitted its NDCs in December 2016 based, inter alia, on the National Policy on Climate Change (2009), the Law on the Protection of Native Forests (2012), and the Law on the National System of Conservation Units (2000). It noted that the GoB was designing new public policies, through its National Adaptation Plan (NAP), issued in May 2016, that would strive to: (i) strengthen Brazil's adaptation capacity, assess climate risks, and manage vulnerabilities at the national, state, and municipal levels; (ii) integrate vulnerabilities and climate risk management into public policies and strategies; and (iii) enhance the coherence of national and local development strategies with adaptation measures. The NDC document also pledged that Brazil would reduce its GHG emissions by 37 per cent below 2005 levels in 2025 and by 43 per cent below 2005 levels in 2030 and strive for a transition towards energy systems based on renewable sources and the decarbonisation of the economy assuming it had access to the financial and technological means for this to occur. It also set targets and highlighted additional measures for the use of biofuels and other renewable energy sources (excluding large hydropower), energy efficiency in the electricity and industrial sectors, low carbon agriculture, and net zero illegal deforestation in the Amazon region by 2030.[289]

3A.2 Multilateral Programmes Related to Climate Change

World Bank Group

The WBG's Country Partnership Framework (CPF) for Brazil for Fiscal Years 2018 to 2023 was issued in May 2017. Climate change is identified as one of Brazil's development challenges with respect to "inadequacies in the policy framework for the use and protection of Brazil's natural resources." One of the three "Focus Areas" of the CPF is "Inclusive and Sustainable Development" including new activities to support Brazil's NDCs with a focus on land use and leveraging global partnerships to this effect. GoB expressed interest in borrowing up to USD 3 billion in FY18 and FY19, including USD 1 billion for subnational investment projects. Over the past decade, IFC has financed renewable energy and ethanol production. However, the change in federal administrations in January 2019 likely impacted Bank funding in a negative way as only 4 new lending operations were approved in 2019 and 8 in 2020, and one of the latter was a USD 1 billion loan for income support for the poor affected by COVID-19 in October 2020.

Inter-American Development Bank

The IDB Group Strategy for Brazil, 2019-2022 was issued in June 2019. It highlights four priorities: (i) improving the business climate and narrow gaps in sustainable infrastructure to enhance competitiveness; (ii) promoting international and national integration to boost productive capacity; (iii) building a more effective public sector that promotes fiscal sustainability; and (iv) reducing social inequality and inequality of opportunity by enhancing public policy efficiency. IDBG would also provide "cross-cutting support" for gender and diversity, environmental sustainability and climate change, and innovation and digital transformation. It observed that inadequate planning was the main urban challenge. IDBG would prioritise multimodal transport systems, modernisation and expansion of climate-resilient infrastructure, and operating efficiency, together with promotion of policies and investments to diversify the energy matrix, increase the role of renewable energy sources, encourage the use of innovative solutions, and promote regional energy integration. IDB anticipated USD 7.2 billion of new IDB lending during the CPS period or roughly USD 1.8 billion a year.[290]

289 Federative Republic of Brazil, Intended Nationally Determined Contribution Towards Achieving the Objective of the United Nations Framework Convention on Climate Change, Brasília, December 9, 2016.

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

International Fund for Agricultural Development

IFAD issued it most recent COSOP for Brazil covering the 2016-2021 period, in March 2016. IFAD's target beneficiary group is landless families and family farmers with limited land area, soils of lower fertility, and limited access to technical assistance and financial services in the semi-arid parts of the Northeast increasingly affected by environmental and climate change problems, including an intensification and higher frequency of droughts and floods, and an increase in areas under risk of desertification. IFAD would expand its activities into other ecosystems characterised by high levels of rural poverty and where the rural poor are also increasingly affected by environmental and climate change problems, including transitional Amazon areas in the western part of the Northeast and the forest zone nearer to the east coast where sugarcane production had been declining due to soil deterioration and higher frequency of droughts. IFAD's programme would support family farmers in improving their management of natural resources and better adapting to the effects of climate change. Total IFAD financing in 13 projects in Brazil is on the order of USD 300 million.[291]

United Nations Development Programme and United Nations Environment Programme

The UN, including IFAD, UNDP, and UNEP issued its Sustainable Development Partnership Framework (SDPF) for Brazil for 2017-2021 in October 2016. Focusing on People, Planet, Prosperity, Peace, and Partnerships, one of its two desired outcomes for the Planet was strengthened institutional capacity to promote public policies for the sustainable management of natural resources and ecosystem services and combating climate change and its adverse effects. The SDPF observes that one of the greatest challenges in Brazil is ensuring the implementation and consistency of its regulatory framework in relation to the environment and of public policies related to sustainable management of natural resources/ecosystem services and combating climate change and its effects.[292] Both UNDP and UNEP also have numerous climate-related projects for Brazil alone and involving other countries as well.

Global Environment Facility and Green Climate Fund

19 GEF operations implemented by the WBG, IDBG, UNDP, and UNEP among others have been approved for Brazil or involving Brazil over the past decade for both mitigation and adaptation purposes. The indicative GEF allocation for climate change in Brazil between 2014 and 2018 was USD 46.7 million. There have been two large GCF projects to date for nearly USD 200 million, one entailing payments for certified REDD+ results and the other for rural climate resilience in the Northeast by IFAD.

291 IFAD, Federative Republic of Brazil Country Strategic Operations Program, Rome, March 2016.

292 United Nations, UN Sustainable Development Partnership Framework –Brazil, 2017-2023, Brasília, October 2016.

3A.3 Challenges, opportunities, and recommendations

The main challenge presently facing Brazil in terms of climate change is the need to curb new land clearing, deforestation, and associated fires, particularly in the Cerrado and Amazon, that rose significantly in the past two years, after having fallen significantly during the prior decade. This is a response to increasing international demand for beef and soybeans, the export-oriented growth model of the administration that took office in January 2019 and the lack or decreasing application and enforcement of environment legislation, including the Forest Code, with respect to legal deforestation restrictions. Brazil's adaptation needs have also grown, particularly in relation to increasing drought and flooding impacts. As a result:

- MOs need to stress the vital importance of proactive measures to reduce deforestation and fires in the Cerrado and Amazônia, as part of their policy dialogue with the federal and state governments and consider possible lending and/or other restrictions in relation to other priorities in the absence of a more positive federal response to these challenges.
- Through their analytical work and policy dialogue, MOs need to help GoB weigh the significant trade-offs between continued promotion of large-scale commercial primary exports, such as soybeans and beef, and reducing GHG emissions from agro-ranching activities, which have led to increasing forest clearing and fires in the Cerrado and Amazon biomes in recent years.
- MOs also need to continue to work with the Ministry of Agriculture, subnational governments, the private sector, and civil society to support the Low-Carbon Agriculture Program and agricultural intensification, afforestation, and the restoration of degraded lands more generally.
- Greater attention needs to be given to Brazil's climate change adaptation and resilience building challenges, particularly in terms of drought risk management and desertification in rural areas, flood and land use management in cities all sizes, coastal protection, and water resource management, especially in critical water basins such as that for the São Francisco River.
- MOs need to strengthen existing levels of co-ordination and collaboration with respect to climate change actions in Brazil, as well as with governments at both the national and subnational levels. This refers not only to the World Bank and the IDB, but also to their interactions with UN agencies, particularly FAO, IFAD, UNDP, and UNEP that have climate-related responsibilities and activities under current and future UN Sustainable Development Partnership Frameworks.

3B. Ethiopia Country summary

3B.1 Background, adaption and mitigation priorities

Socio-economic features

With 109 million people and a population growth rate of 2.6 per cent per year (2018), Ethiopia is the fastest growing economy in the region.[293] However, smallholder agriculture and livestock still account for over 30 per cent of GDP, 65 per cent of employment, and 75 per cent of exports. 78 per cent of Ethiopia's population live in rural areas. Ethiopia is land-locked and mountainous, but with over 1000 m3 of internally renewable water resources per capita it is not (yet) water scarce overall. Its climate is diverse. Ethiopia has a land area of 1.1 million km^2.

293 Numbers in this section are drawn from the World Development Indicators (WDI) data base.

Government strategy

Ethiopia's Growth and Transformation Plan (GTP) is currently in its second phase. The aim is to become a lower middle-income country by 2025, including through implementation of the Strategy[294] for a Climate Resilient and Green Economy (CGRE)[295] and related sectoral strategies.[296] For Ethiopia, building a green economy also offers cost-efficient abatement potential while promoting GTP targets. GTP II integrates the sustainable development goals and Africa agendas such the Common African Position (CAP),[297] Agenda 2063,[298] and the Addis Ababa Action Agenda.[299] Since 2017, Ethiopia has been chair of the Least Developed Countries (LDC) Group at UN climate change negotiations. Challenges include sustaining economic growth and poverty reduction and improving the private sector investment environment.

Climate-related vulnerabilities and adaptation challenges

Droughts and floods have historically imposed heavy costs in Ethiopia, but these are becoming more frequent with climate change. Average temperatures in Ethiopia have increased by 1°C since 1960 (0.25°C per decade), with more hot and fewer cold days.[300] These changes have led to increased evapotranspiration and reduced soil moisture. Most climate models predict continued increases in temperature[301] with significant implications for human and animal health,[302] agriculture, water resources, and ecosystems, and, with a larger per centage of precipitation falling during heavy events, an increased risk of floods and landslides. Government recognises the threat, and over the last 20 years has undertaken extensive programmes to combine emergency response with longer term resilience measures. Even so it is estimated that about 8 million people will have needed food aid in 2020, the consequences of drought, the locust invasion, Covid-19 and the conflict in Tigray.[303]

Main sources of GHG emissions and mitigation challenges

Ethiopia's GHG profile is dominated by emissions from the agriculture sector, forestry and land-use sectors (AFOLU). The INDC[304] estimates livestock to account for 42 per cent of GHG emissions, crop cultivation 9 per cent, LULUCF 37 per cent, electric power generation, transport, industry and buildings 3 per cent each. Although GHG emissions have been growing at 4 per cent per year, per capita emissions of 1.8 tons CO2e compared with a world average of 6.7 tons CO2e and account for only 0.3 per cent of global emis-

294 A CGRE facility was operationalised in early 2013 to attract climate finance to support the institutional building and implementation of Ethiopia's CRGE Strategy http://www.mofed.gov.et/web/guest/crge-facility

295 Emphasising the cross-cutting nature of resilience, the CGRE highlights 8 vulnerable sectors: agriculture, forestry, health, transport, power, industry, water and urban. https://www4.unfccc.int/sites/NAPC/Documents/Parties/Final%20Ethiopia-national-adaptation-plan%20%281%29.pdf

296 http://gggi.org/site/assets/uploads/2017/11/2015-08-Sectoral-Climate-Resilience-Strategies-for-Ethiopia-1-Agriculture-and-Forestry-Climate-Resilience-Strategy.pdf

297 https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=1329&menu=35.

298 https://au.int/en/agenda2063/overview#:~:text=AGENDA%202063%20is%20Africa's%20blueprint,global%20powerhouse%20of%20the%20future.

299 . https://www.un.org/esa/ffd/ffd3/wp-content/uploads/sites/2/2015/07/DESA-Briefing-Note-Addis-Action-Agenda.pdf

300 https://climateknowledgeportal.worldbank.org/, Country Risk Profile Ethiopia 2020, drawing on data from https://www.ipcc.ch/reports/

301 Under a high global GHG emissions scenario these could be by 1.8C by the 2050s and 3.7C by 2100.

302 Large livestock are identified as being particularly vulnerable to heat stress; Ethiopia has the largest number of livestock in Africa https://www.ifpri.org/cdmref/p15738coll2/id/132771/filename/132980.pdf

303 https://www.wfp.org/countries/ethiopia#:~:text=WFP%20supports%20300%2C000%20people%20and,to%20buy%20fresh%20nutritious%20produce. This number includes about 750,000 refugees from neighbouring countries..

304 https://unfccc.int/sites/default/files/ethiopia_indc.pdf prepared by the Ministry of Environment and Forestry of Ethiopia

sions. [305] The electric grid system consists almost entirely of renewable energy, nearly all from hydropower, with increasing development of solar, wind and geothermal resources. 77 per cent of the population still lack access to modern energy sources and rely on wood for fuel. Private vehicle ownership is still very low (about 3 per 1000 people). [306]

Adaptation and mitigation priorities

The NDC highlights that for Ethiopia adaptation and mitigation go together. It aims to (i) foster economic development; (ii) reduce emissions by 64 per cent over "business as usual" by 2030 compared with 2010, and (iii) setting priorities for resilience. The main priorities for mitigation are better forestry and agricultural land use, renewable energy and leapfrogging to modern, energy efficient technologies. The main adaptation priorities concern drought management, flood management and improved weather and climate information, pest management early warning systems and disaster risk management. The NDC did not quantify investment requirements or distinguish between conditional and unconditional commitments. UNDP is currently working with Ethiopia in this regard.[307]

3B.2 Multilateral programmes related to climate change

The Ethiopian government prioritises climate resilience. It has brought development partners together around core programmes; The aid co-ordination framework comprises the 28-member Development Assistance Group (DAG). Ethiopia currently has more than 30 DPs,[308] including non-traditional donors like China, Turkey, and India[309] which are moving towards joining the DAG. Ethiopia co-ordinates the Africa Adaptation Initiative, inaugurated within the African Union in 2016. UNEP, UNDP, AfDB and WBG as well as the EU, WWF and other organisations are participants.[310] All MO programmes emphasise integration with the Government CGRE and Development Plans.

African Development Bank

AfDB seeks to mainstream climate resilience into its programme, planned at USD 2.5 billion over the 2016-20 period.[311] The programme supports transport, energy, focusing on renewable energy, access, transmission, and regional integration water supply and sanitation, local services improvement, PPPs for agro-industrial parks, ICT roll-out and a line of credit. The transport and water supply investments are designed to be climate resilient. Non-lending activities total USD 6.6 million and include a study of the regional carbon trade and support to climate modelling. In agriculture AfDB[312] is partnering with the

305 https://www.climatelinks.org/resources/greenhouse-gas-emissions-factsheet-ethiopia
306 https://www.nationmaster.com/country-info/profiles/Ethiopia/Transport
307 https://www.ndcs.undp.org/content/ndc-support-programme/en/home/our-work/geographic/africa.html
308 . https://www.oecd.org/dac/financing-sustainable-development/development-finance-data/Africa-Development-Aid-at-a-Glance-2018.pdf
309 This section is drawn from the 2016-20 AfDB Ethiopia country partnership strategy
310 http://climateinitiativesplatform.org/index.php/African_Adaptation_Initiative_(AAI)
311 https://www.afdb.org/en/news-and-events/afdb-board-approves-2016-2020-country-strategy-paper-for-ethiopia-15577
312 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/Feed_Africa-Strategy-En.pdf

Government and the Technologies for African Agricultural Transformation initiative[313] to produce heat tolerant wheat seed, with the aim of expanding wheat production into 400,000 lowland irrigated areas. AfDB and the WBG participate in a USAID led Power Africa Initiative launched in.[314]

World Bank Group

The WBG 2018-22 Country Partnership Framework[315] envisaged an IDA allocation of USD 4.0 to USD 4.8 billion over the 2018-22 period, with USD 1 billion in trust funds, focuses on three areas: (i) economic transformation, (ii) resilience and inclusiveness, and (iii) institutional accountability and confronting corruption. The CPF notes that Ethiopia has the second largest energy deficit on the continent. Much of the lending contributes to large scale government programmes across sectors. The objective for enhanced management of natural resources and climate risks includes programmes for sustainable land management[316] and improved land tenure,[317] pastoral livelihoods and forestry, agricultural productivity, irrigation and productive social safety nets. The CPF includes analytical work on energy, clean cooking, off grid renewable energy including wind, disaster risk management, sustainable water and sanitation services, dam safety and pastoralism. The CPF also includes specific targets related to the SDGs.

International Fund for Agricultural Development

IFAD's current Country Strategic Opportunities Program (COSOP) approved in 2016[318] seeks to enable rural households to raise their incomes and improve their food security, through: (i) Enhanced resilience through improved management of natural resources, particularly water; and (ii) enhanced linkages with the private sector. It includes a limited number of large-scale programmatic operations, for Pastoral Community Development Project (USD 223 million) co-financed with the WBG; for Participatory Small-Scale Irrigation Development Programme II, (USD 145 million) co-financed with the Adaptation for Smallholder Agricultural Program,[319] and a Rural Financial Intermediation Programme (USD 248 million). Investments include GHG accounting.[320] The COSOP supports research activities, notably with the Consultative Group on International Agricultural Research (CGIAR), as well as south-south partnerships.

313 https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/technologies-african-agricultural-transformation-taat The program, funded by AfDB and in 31 countries, aims to boost productivity and value chains in nine key commodities (maize, wheat, rice, sorghum/millet, cassava, high-iron bean, orange flesh sweet potato, aquaculture and small livestock). AfDB works closely with the CGIAR and other partners on this initiative

314 https://www.usaid.gov/powerafrica#:~:text=Power%20Africa's%20goal%20is%20to,new%20home%20and%20business%20connections.

315 https://documents.worldbank.org/en/publication/documents-reports/documentdetail/202771504883944180/ethiopia-country-partnership-framework-for-the-period-fy18-fy22

316 the Resilient landscapes and livelihoods project": approved 2020, with WBG as implementing agency, for a cost of USD 296 million with Green Climate Fund support of USD 165m (Summarised in the Annex to this section) https://www.greenclimate.fund/project/fp136

317 The WBG has had a longstanding engagement in sustainable land management in Ethiopia. Recent evaluations are largely positive https://ieg.worldbank.org/reports/ethiopia-sustainable-land-management-project-i-and-ii-ppar.The most recent sustainable land management project was approved in 2019 with an IDA credit of USD 500 million and a total cost of USD 1.6 million. http://documents.worldbank.org/curated/en/949841560736884940/Ethiopia-Climate-Action-through-Landscape-Management-Program-for-Results-Project

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

319 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.

320 IFAD uses a tool developed by FAO, the land-based accounting system, which 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 Consultative Group for Agricultural Research (CGIAR) and CCAFS (Climate Change, Agriculture and Food Security), a core research programme under CGIAR https://ccafs.cgiar.org/resources/publications/ex-ante-carbon-balance-tool-ex-act

International Monetary Fund

IMF approved a USD 2.9 billion programme with Ethiopia in 2019,[321] to help Ethiopia implement its `Home-grown Economic Reform Plan' to maintain macroeconomic stability and improve living standards. Among other areas the programme helps to strengthen financial management and oversight of state-owned enterprises; reform the financial sector to support private investment. In April 2020, IMF provided USD 411 million under the Rapid Financing instrument to help Ethiopia mitigate the balance of payments problems and economic slowdown associated with COVID-19.

United Nations Development Programme

UNDP places a special focus on building national capacity. UNDP contributed to the formulation of the CRGE, and to a CRGE Facility[322] and Registry. With GEF support UNDP is supporting the NDC update[323] which will disaggregate the 64 per cent GHG emission reduction target into "conditional" and "unconditional" contributions and identify climate change-related budget expenses. UNDP is working with the FAO on Scaling up Climate Ambition on Land Use and Agriculture through NDCs and NAPAs (SCALA).[324] Through GEF UNDP is also supporting four investment operations, (see below). A United Nations Sustainable Development Cooperation Framework (UNSDCF) is under preparation.[325]

United Nations Environment Programme

UNEP has a regional office in Addis Ababa.[326] Its mandates include working with the African Union on pan-African initiatives as well as with the Government of Ethiopia. It has facilitated policy papers including the Non-Motorised Transport (NMT) Strategy 2020-2029,[327] linked to the Ethiopian initiative Menged Le Sew, Streets for the People. UNEP has partnered with UN Habitat and World Resources Institute (WRI) Ethiopia to strengthen government capacity at the national and city level.

Green Climate Fund

Green Climate Fund (GCF) [328] has so far approved readiness activities and five investment operations including Ethiopia, supporting climate resilience landscape and water management, and clean energy access. Total GCF funding is USD 233 million. Country specific Investment Operations comprise: (i) A Resilient landscapes and livelihoods project (WBG: USD 296 million of which GCF USD 165 million); (ii) Responding to the increasing risk of drought: building gender response resilience of the most vulnerable communities (GOE, USD 50 million of which USD 45 million GCF); and three multi-country operations which include Ethiopia, all to support green finance.

321 https://www.imf.org/en/News/Articles/2019/12/23/na122319-six-things-to-know-about-ethiopias-new-program

322 http://mptf.undp.org/factsheet/fund/3ET00

323 https://www.ndcs.undp.org/content/ndc-support-programme/en/home/our-work/geographic/africa/Ethiopia.html#:~:text=Ethiopia's%20NDC%20update%20will%20define,carbon%20market%20and%20identify%20climate

324 http://www.fao.org/climate-change/programmes-and-projects/detail/en/c/1273079/

325 https://unsdg.un.org/un-in-action/ethiopia

326 https://www.unep.org/regions/africa/our-work-africa/un-environment-ethiopia

327 https://www.unenvironment.org/explore-topics/transport/what-we-do/share-road/ethiopia

328 The operations summarised below can all be found through the following website: https://www.greenclimate.fund/countries/ethiopia

Global Environment Facility

Global Environment Facility (GEF)[329] Recent operations include support to adaptation in Ethiopia's lowlands, UNDP/ Ethiopian Meteorological Agency, (USD GEF 5.3 million, cost USD 16.4 million); integrated landscape management to enhance ecosystem resilience and food security (GEF/UNDP USD 11 million, GoEthiopia USD 144 million) and a 2018 GEF/UNDP USD 1.1 million grant for capacity building to comply with the Paris Agreement.[330] Other investment operations include support to solid waste composting (2016) and to improved cook-stoves (2014) both implemented through UNDP.

3B.3 Challenges, opportunities and recommendations

The Ethiopian Government fully recognises that climate change adaptation and vulnerability reduction are key to inclusive growth and to the welfare of citizens. The 2011 CGRE (Climate Resilient and Green Economy) was a landmark document, and Ethiopia's overall growth plans are aligned with it. MOs have provided support to government-led programmes designed to reduce climate related vulnerabilities and increase resilience, which have been adapted over time in the light of lessons learnt and provide a vehicle for MO co-operation. Ethiopia is a regional leader in climate change negotiations at the UNFCCC. It has a clearly defined path for reduced GHG emitting, climate resilient growth which has the full ownership of the Ministry of Finance as well as the sectoral ministries, and established procedures for donor co-ordination. This facilitates collaboration between MOs and other elements of the climate MS. There are six main challenges:

- Much of the NDC strategy is "good development" and it is difficult to separate out elements which may be eligible for "incremental" climate finance, especially as regards adaptation. There are affordability as well as social issues with shifts to cleaner fuels, especially for cooking. Despite impressive growth, Ethiopia remains a low-income country with fundamental development challenges.
- Ethiopia's electricity is generated almost entirely from clean energy sources, (very largely hydropower) and Ethiopia has potential both for further hydropower development, and for solar and wind power generation. However, Ethiopia is landlocked and downstream riparian countries expressed concerns about two strategic investments. In both cases MOs withdrew from providing direct financial support to these investments. As costs of alternatives have come down, Ethiopia is now also focusing on developing solar, wind and geothermal resources.
- The enabling environment for private sector investment has also been challenging, though there have been improvements in the last two years. The IMF, WBG and AfDB have been assisting with policy and regulatory reforms in this regard. Private sector investment will facilitate more rapid development of a variety of clean energy sources.
- Ethiopia's capacity to meet the NDC measurement, reporting and verification requirements MRV) is still limited. Measurement of emissions from AFOLU, (the agriculture, and forestry and land use sectors) is especially challenging. Ethiopia is receiving assistance from various sources in improving measurement and reporting capacity.
- Ethiopia continues to be obliged to tackle short term crises. The country is facing the worst locust invasion for 25 years. Although it has dealt quite well with the health impact of COVID-19, economic growth has slowed sharply. And it has recent faced civil conflicts, which have led to the displacement of people and the disruption of livelihoods.

329 https://www.thegef.org/country/ethiopia All of the projects mentioned can be found through this website.

330 https://www.thegef.org/project/capacity-building-program-comply-paris-agreement-and-implement-its-transparency-requirements

- Moving forward, as Ethiopia urbanises and vehicle ownership increases from its currently very low levels, support for sustainable urban development will be of increasingly priority in maintaining Ethiopia's current "climate responsible" growth path.

3C. India Country summary

3C.1 Background, adaption and mitigation challenges and priorities

Socio-economic features

India, covering a land area of 2.973 million square kilometres, is the world's second largest country in demographic terms (1.38 billion people) with a population density at around 464 persons per km^2. It had an estimated Gross National Income per capita of USD 2 120 in 2019. Roughly 35 per cent of its inhabitants reside in urban areas, with an urbanisation rate of around 2.3 per cent a year over the past decade. As the world's sixth largest economy, it is also the fourth largest electricity consumer. Roughly 60 per cent of its total land area is dedicated to agriculture, while less than 24 per cent remains in forest and 5.4 per cent is in protected areas.[331]

Government priorities

Laid out in its action agenda for 2017-19, key Indian Government (GoI) priorities include: enhanced agricultural productivity through land, market, and subsidy reforms; enhanced industry, trade, and services to boost productivity and create high wage jobs, including a manufacturing and export-based strategy; balanced growth nationwide; and an inclusive society. It also seeks to improve the country's competitiveness by promoting skills development, catalysing entrepreneurship, and strengthening connectivity, including multi-modal transport logistics.

Mitigation challenges

India is the third highest emitter of GHGs in the world, with an estimated total of 2.65 GT CO2 in 2018. Its per capita emissions were 2.7 tons of CO2e in 2015. The energy sector accounted for 68.7 per cent of total emissions, 49 per cent of which were from electricity and heat generation and 24 per cent from manufacturing and construction, with much of the rest coming from transport use. Three-quarters of India's electricity was generated by coal in 2014, 11 per cent by hydropower, 5 per cent by natural gas, 3 per cent each by nuclear and wind, and 2 per cent each by fuel oil and biofuels. Agriculture was the second largest source of CO2 emissions (19.6 per cent) with enteric fermentation by ruminants, especially cattle, contributing nearly half of this subtotal and rice paddies also being a significant source, while industrial processes, land use change and forestry, and waste were responsible for 6 per cent, 3.8 per cent, and 1.9per cent, respectively. Overall, emissions increased by 2,060 Mt CO2e, or by 180 per cent between 1990 and 2014.[332]

Adaptation challenges

A recent assessment found that by the end of the century, average temperature in India is projected to increase by 1.1-4.1 degrees Centigrade over the 1986-2005 baseline, with temperature rises strongest in

331 World Bank, Little Green Data Book 2017, Washington D.C., 2017.

332 The Carbon Brief Profile – India, March 14, 2019.

the northern regions where annual minimum and maximum temperatures are expected to increase more than national average. Thus, disaster risk reduction and adaptation should be priorities to protect communities from increases in projected hazard intensities and intensification of climate extremes was projected with increased drought risk and increased precipitation during heavy rainfall events. Major restructuring of agricultural systems will also be required to respond to decreasing yields, particularly of staple cereal crops, and urban areas and key infrastructure are expected to face major pressures from rising temperatures and water resource management challenges.[333]

Adaptation and mitigation priorities

GoI's priorities are reflected in its NDCs submitted in 2015 that emphasised the need to adapt to climate change by enhancing investments in development programmes in vulnerable sectors, particularly agriculture, water resources, the Himalayan region, coastal regions, health, and disaster management. To do so, it would also proceed to develop climate resilient infrastructure, fully implement afforestation programmes, and plan and implement other actions to enhance climate resilience. It also pledged to: (i) reduce the emissions intensity of its GDP by 33-35 per cent by 2030 from the 2005 level; (ii) achieve about 40 per cent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030 with the help of transfer of technology and low-cost international finance, including from the GCF; and (iii) create an additional carbon sink of 2.5 to 3 billion tons of CO2e through additional forest and tree cover by 2030. It would likewise continue ongoing mitigation efforts by introducing more efficient and cleaner technologies in thermal power generation, promoting renewable energy generation and increasing the share of alternative fuels, reducing transport and waste emissions, and promoting energy efficiency in industry, transport, buildings and appliances.[334]

3C.2 Multilateral programmes related to climate change

World Bank Group

The WBG's most recent Country Partnership Framework (CPF) for FY 2018-2022 supports GoI's climate change activities across the portfolio. Its focal areas are resource-efficient growth, enhancing competitiveness and job creation, and investing in human capital. Two of the subobjectives under the first focal area are to increase access to sustainable energy and improve disaster risk management and resilience to climate change. Mitigation-related interventions would include assisting GoI scale up renewable energy and mobilise private financing through a mix of instruments. The WBG would also support ongoing efforts improve water resource management, implement the agroforestry and 'trees outside forests' programmes, promote climate-smart agriculture practices, inland aquaculture, and improvement degraded forests to restore and enhance ecosystems, preserve biodiversity, and reduce emissions and help cities become "more green, liveable, productive, and resilient." World Bank lending was projected at USD 3.3-4.0 billion a year and IFC finance at some USD 10-13 billion over the CPF period.[335]

Asian Development Bank

ADB's most recent Country Partnership Strategy (CPS) for India is also for 2018-2022. It adopted climate change as the third of its strategic pillars, affirming that ADB would support GoI's efforts to meet its NDCs

333 World Bank and ADB, Country Climate Risk Profile – India, Washington D.C., 2020.

334 Government of India, India's Intended Nationally Determined Contribution: Working Toward Climate Justice, Delhi, October 2015. After the Paris Agreement was signed in December 2015, India converted its INDCs directly without changes into its first NDCs, which have not yet been updated.

335 World Bank Group, Country Partnership Framework for India, FY2018-2022, Washington D.C, July 25, 2018.

and to improve resilience of the economy to climate change impacts, including to increase renewable energy consumption and "green corridors" for high voltage transmission lines, work with domestic financial institutions to deepen access to climate financing for renewable energy development and improved energy efficiency, support methane capture from urban wastewater and solid waste management facilities, and develop of non-motorised and low-carbon mass transit in cities. It would also mainstream climate change adaptation and disaster risk management across sectors, promote climate proofing of infrastructure, assess natural disaster and climate change vulnerability risks for all new investment projects, and incorporate appropriate resilience measures in their design. ADB expected to lend between USD 3 and 4 billion annually during the CPS period.[336]

International Fund for Agricultural Development

IFAD's COSOP for India for 2018-2024 emphasises the links between climate change and long-term food security, observing that Indian agriculture was highly vulnerable to climate change because of its continued sensitivity to monsoon variability. In response, IFAD would support crop and livelihood diversification, integrated farming, and improved social security nets to build resilience to climate change and market variability. It would also seek to boost climate-smart agricultural production and converge with government insurance and social protection schemes, make natural resource management and climate change adaptation a core feature of its programme, and promote environmentally sustainable and climate-resilient technologies and practices covering crop varieties, soil health and water conservation, integrated pest management, agroforestry, and precision farming. IFAD's allocation for India for 2019-2021 totalled nearly USD 166.3 million.[337]

United Nations Development Programme and United Nations Environment Programme

The United Nations, including IFAD, UNDP, and UNEP, issued a Sustainable Development Framework (SDF) for India together with the GoI for 2018-2022. It identifies seven priority areas, the fifth being "climate change, clean energy, and disaster resilience," whose co-ordinating entity is UNDP. The objectives for this priority area are that environmental and natural resource management are strengthened and communities have increased access to clean energy and are more resilient to climate change and disaster risks. Expected results include enhanced energy efficiency, increased use of renewable energy, and increased institutional and community resilience by integrating adaptation, mitigation, and disaster risk reduction into national policies, strategies, planning, and programmes.[338] Both UNDP and UNEP have numerous climate-related projects, many of which are financed by GEF, in India.

Global Environment Facility and Green Climate Fund

The GEF has been funding projects in and/or including India for climate change mitigation and adaptation, including those for which the World Bank, ADB, UNDP, and UNEP are implementing agencies, for the past several decades. GCF presently has projects for solar rooftop energy, groundwater recharge and micro irrigation, and coastal flood protection, the latter implemented by UNDP.

336 Asian Development Bank, Country Partnership Strategy: India 2018-2022 Accelerating Inclusive Economic Transformation, Manila, September 2017.

337 IFAD, India Country Strategic Opportunities Program (COSOP) 2018-2024, Rome, August 21, 2018.

338 Government of India and United Nations, India Sustainable Development Framework 2018-2022, New Delhi, September 2018.

3C.3 Challenges, opportunities, and recommendations

The elements identified by the GoI most in need of external support are climate finance, technology development and transfer, and capacity building. The MOs have sought to respond to these needs, but more is needed. Since the Paris Agreement the MOs have increased their support for adaptation activities, including for rural, coastal, and urban areas. Assistance by MOs for extreme weather-related disaster risk management and improved water resource management has also risen. Most MO financial support for mitigation continues to be for renewable, especially solar, energy. However, there are continuing challenges in all these areas, while collaboration among the MOs and with other development partners also leaves room for improvement, a need that the GoI currently prioritises.

Several areas can be identified as opportunities:

- There is a need to strengthen the co-ordination among MOs and other development partners in their climate-related policy dialogue and interventions in India both in terms of mitigation, especially in the energy sector, and adaptation.
- Greater use could be made of development policy loans both at the national, particularly in the energy and transport sectors, and (selectively) at the state levels in support of their respective Climate Change Action Plans, such as the World Bank has attempted to do for Himachal Pradesh.
- While recent MO efforts have increasingly focused on helping India address its vulnerability to climate change, especially in the agricultural and water resource sectors and in coastal areas, these initiatives are insufficient and further financial and technical assistance is likely needed.
- The same applies in terms of India's urban resilience needs in view of the continuing rapid rate of growth of both its megacities and other agglomerations of all sizes.
- MO and other development partner assistance for climate change adaptation/resilience building needs to be better integrated with their support for natural disaster risk management in practice, as the ADB, World Bank, and UN have all pledged to do in their most recent country strategies.

3D. Indonesia Country summary

3D.1 Background, adaption and mitigation challenges and priorities

Socio-economic features

With an estimated population of around 273.5 million in 2020 and a total land area of 1,811,570 square kilometres, Indonesia has a density of about 151 persons per km^2. It is composed of more than 17,500 islands with over 81,000 kilometres of coastline. Its Gross National Income per capita was USD 3,440 in 2017. Around 56 per cent of its population resides in urban areas. Thirty-one per cent of its land area was in agriculture and 50.2 per cent was in forests, while 14.7 per cent was in terrestrial protected areas in 2017. Indonesia's average annual deforestation rate between 2000 and 2015 was 0.6 per cent.[339] Indonesia contains 10 per cent of the world's tropical forests and 36 per cent of its tropical peatlands.

339 World Bank, Little Green Data Book 2017, Washington D.C., pg. 103

Government strategy

The Medium-Term National Development Plan for 2020–2024 sets the goal of achieving prosperous, fair, and sustainable development. Its priorities include efforts to accelerate human capital development, improve infrastructure and connectivity, simplify regulations and bureaucracy, and promote economic transformation. The impact of COVID-19, however, means that these goals may be difficult to achieve, and the government has established a taskforce on COVID-19 response and economic recovery that prioritises health care, social protection systems, and economic support measures.

Mitigation challenges

Indonesia is the third largest emitter of GHGs in Asia and the tenth largest in global terms. Its CO2 emissions were estimated at 2.32 tonnes per capita in 2019, up from 1.88 tonnes per capita in 2016. These emissions stem mainly from deforestation and peatland fires and secondarily from the burning of fossil fuels for energy. Indonesia's annual GHG emissions were nearly 2.4 billion tons of CO2e in 2015. Indonesia accounts for 53 per cent of global palm oil cultivation, whose expansion is largely responsible for the country's high deforestation rate. From 2000 to 2015, Indonesia lost an average of 498,000 hectares of forest each year, making it the world's second largest deforester after Brazil. In 2015, changes in land use, peatlands, and forests were estimated to have accounted for 79 per cent of Indonesia's GHG emissions.[340] Indonesia is the world's fifth largest coal producer and exports about 80 per cent of its production, primarily to China. About 58 per cent of Indonesia's electricity was generated by coal in 2017, while only 5 per cent came from renewables, primarily geothermal energy.

Adaption challenges

Indonesia is ranked in the top third of countries in terms of climate risk with high exposure to all types of flooding and extreme heat.[341] As many as 42 million people are threatened by sea level rise and a one-meter rise could inundate more than 400,000 hectares. Jakarta has been described as the world's "fastest sinking city." Increased rainfall is projected for most of Indonesia's islands, except those in the south, including Java, where it is projected to decline by as much as 15 per cent. These variations in precipitation are expected to result in increased flooding and drought in the wetter and drier areas, respectively. Indonesia's largest cities are among the areas most vulnerable to flash flooding and the timing of the annual monsoon may be affected by climate change, which could have significant negative effects on agricultural, especially rice, production.

Adaptation and mitigation priorities

According to its NDCs submitted to UNFCCC in November 2016, climate mitigation and adaptation efforts are viewed as "an integrated concept...essential for building resilience in safeguarding food, water, and energy resources." In this context, Indonesia planned to transform to a low carbon economy and build resilience into its food, water, and energy systems through the following enhanced actions: (i) sustainable agriculture and plantations; (ii) integrated watershed management; (iii) reduction of deforestation and forest degradation; (iv) land conservation; (v) utilisation of degraded land for renewable energy; and (vi) improved energy efficiency and consumption patterns. Indonesia voluntarily committed to reduce 26 per cent of its greenhouse gases against the business-as-usual scenario by 2020 and could increase its contri-

340 Carbon Brief Profile – Indonesia

341 World Bank and Asian Development Bank, Climate Risk Country Profile- Indonesia, Washington D.C., 2021.

bution up to 41 per cent reduction of emissions by 2030 subject to availability of international support. It pledged that the pathway towards decarbonisation of the economy would be fully integrated into the National Medium-Term Development Plan for 2020-2024.[342]

3D.2 Multilateral programmes related to climate change

World Bank Group

The Country Partnership Framework (CPF) for Indonesia for 2016-2020 has six engagement areas, half of which contain elements associated with climate change. Engagement Area (EA) 2 ("Sustainable Energy and Universal Access") would focus in part on renewable energy and low carbon development. Assistance under EA 4 ("Delivery of Local Services and Infrastructure") would include support for sustainable urbanisation and that for EA 5 ("Sustainable Landscape Management") would support design and implementation of a landscape programme focused on improving management of, and benefits from, terrestrial natural assets and address the underlying drivers of deforestation and forest degradation. WBG operations in Indonesia were projected to include USD 7.5 billion from the World Bank and USD 3 billion from IFC for the CPF period.[343] Moving forward with a comprehensive energy reform agenda has been challenging (for the ADB as well as the WBG).

Asian Development Bank

ADB's most recent Country Partnership Strategy (CPS) for 2020-2024, identifies climate change as one of the country's principal development challenges. It recognises that Indonesia is among the largest GHG emitting countries in the world and is highly exposed to climate change risks and natural disasters. It focuses on three "strategic pathways," one of which is "supporting climate change mitigation and adaptation measures, environmental sustainability and green recovery, disaster risk management and finance, and water and food security." In this context, ADB would concentrate on helping to strengthening the country's resilience to natural disasters, outbreak of diseases, and climate change. It also pledged that ADB would "embed" climate change mitigation and adaptation measures in its infrastructure investments and support Indonesia's NDC goal of 23 per cent of energy supply coming from renewable sources by 2025 and assist Indonesia shift to a "cleaner growth path" by encouraging renewable and clean energy and fostering energy conservation. ADB's sovereign lending during the CPS period were projected to be on the order of USD 10.7 billion.[344]

International Fund for Agricultural Development

IFAD's COSOP for 2016-2019 focused predominantly on the country's adaptation challenges. It put forward three strategic objectives, the second being "small-scale producers and their families are more resilient to risks, which includes climate adaptation." It was expected to have two main outcomes in this regard: (i) sustainable and climate-smart productive systems and (ii) inclusive, risk-mitigating financial services and use of remittances. It affirmed that smallholder adaptation to climate variability is a major condition for increasing their productivity and reducing their vulnerability, water scarcity is already an issue, and rain patterns are expected to change. Building producers' resilience to environmental risks was one of

342 Government of Indonesia, First Nationally Determined Contribution of the Government of Indonesia, Jakarta, November 2016.

343 World Bank Group, Country Partnership Framework for the Republic of Indonesia FY16-FY20, Washington D.C., November 3, 2015.

344 Asian Development Bank, Country Partnership Strategy for Indonesia, 2020-2025, Manila, September 2020.

the COSOP's main expected outcomes and piloting of climate risk-oriented approaches such as index insurance schemes would be considered. New IFAD financing of roughly USD 135 million was projected for the COSOP period.[345]

United Nations Development Programme and United Nations Environment Programme

The United Nations recently issued its Sustainable Development Co-operation Framework for Indonesia for 2021-2025, in whose preparation IFAD, UNDP, UNEP, and other UN entities participated and based on a Common Country Assessment. One of its strategic priorities is "Green Development, Climate Change, and Natural Disasters" and its "strong prerogative" was to support Indonesia's rapid transition towards low-carbon development by prioritising climate change and natural resource management while reducing vulnerabilities to natural hazards. The UN intended to help promote an "irreversible shift towards low carbon development to be achieved by a combination of ambitious Government leadership and mobilisation of broad-based partnerships involving people, business, communities, and industry associations." Awareness raising would also help "rebalance the move towards more sustainable production and consumption and stronger policy, regulatory, and enforcement frameworks would enhance land management, safeguard ecosystems, and tackle environmental degradation, including by enhanced levels of community natural resource management."[346] UNDP is the responsible implementing agency for one GCF project and at least other 18 climate change-related projects involving Indonesia approved since 2010, many of which are financed by GEF. UNEP is the implementing agency for seven climate change-related projects involving Indonesia approved since 2011.

Global Environment Facility and Green Climate Fund

Numerous GEF operations involving climate change and other focal areas approved since 2010, including those implemented by the World Bank, UNDP, and UNEP, are identified in its project portal involving Indonesia. GCF support to date totals USD 273 million and includes support for geothermal energy scale-up implemented by the WBG, and REDD+ results-based payments, to be used for improving forest governance at local level and implemented through UNDP.[347]

3D.3 Challenges, opportunities and recommendations

MO strategies and operations are generally aligned with Indonesia's climate change mitigation and adaptation challenges and priorities, but due to fiscal constraints because of low domestic tax revenues its borrowing capacity is limited. Greater financial assistance is nonetheless needed to help respond to the country's extensive adaptation needs in both the urban and rural sectors, including for climate-smart agriculture and improved water resource and flood management in coastal and other low-lying areas and those subject to drought. The shift from the dependence on fossil fuels to a greater reliance on renewable sources also needs to accelerate. There are at least six continuing challenges for MOs.

345 International Fund for Agricultural Development, Indonesia Country Strategic Opportunities Programme, 2016-2019, Rome, August 18, 2016.

346 United Nations, Sustainable Development Co-operation Framework (UNSDCF) Indonesia 2021-2015, Jakarta, April 2020.

347 https://www.greenclimate.fund/document/indonesia-country-programme

1. **Prudent macro-economic and fiscal policies cap the fiscal deficit at 3 per cent of GDP**. Since domestic tax revenue generation is low, this poses fiscal constraints on government external borrowing and tax mobilisation needs to be increased if MOs are to have larger lending envelopes in Indonesia for climate change or any other purpose.[348]
2. **Conflicts between national short-term macroeconomic and longer-term climate change mitigation goals need to be conciliated to the extent possible.** Through their country policy dialogue, analytical work, policy-based lending, and technical assistance, MOs could play a useful role by elucidating the trade-offs and piloting and scaling up ways to limit or reconcile them.
3. **MOs need to continue their efforts to promote energy policy reforms** and support public and private sector efforts to reduce Indonesia's reliance on fossil fuels, especially coal, and increase electricity generation from renewable sources, including wind and solar as well as geothermal.
4. **MOs need to accelerate and intensify efforts to help Indonesia reduce deforestation** and adopt more sustainable forest management practices, including through oil palm intensification, and investments in other forms of afforestation in degraded areas as well as through promotion of improved enforcement of environmental regulations, even though this is admittedly especially challenging in a territorially large and decentralised country like Indonesia.
5. **MOs need to increase support for climate change adaptation and resilience-building** across the board (i.e., in all relevant sectors and in both rural and urban areas) with an emphasis on coastal and other low-lying areas using concessional resources to the extent possible.
6. **MOs need to strategically co-ordinate their approaches** to climate change mitigation and adaptation, particularly on the policy front and in relation to climate finance, technology development and transfer, and institution building at both the national and subnational levels.

3E. Jamaica Country summary

3E.1 Country context, adaptation and mitigation challenges

Jamaica is a Small Island Developing State, and the largest English-speaking island in the Caribbean. It is an upper middle-income country, with a per capita GDP of USD 5 582 in 2019, ranking 93rd globally.[349] Jamaica is also the most densely populated of the Caribbean SIDS. More than 70 per cent of all major industries are located within the coastal zone and some 80 per cent of the population live within 5 km of the coast.[350] Jamaica's key economic sectors are tourism (which accounts for 30 per cent of GDP and 25 per cent of all people employed in the country), agriculture at 6.6 per cent of GDP, mining at 4.1 per cent, and manufacturing (including textiles and refining of crude oil imports) account for 29.4 per cent of Jamaica's GDP.[351] Jamaica has rich mineral resources and is one of the world's largest producers of alumina and bauxite, producing over 12.6 million tonnes of bauxite and 3.46 million tonnes of alumina for export each

348 http://documents1.worldbank.org/curated/en/576841467987848690/pdf/94066-SCD-P152827-SecM2015-0308-IDA-SecM2015-0212-IFC-SecM2015-0153-MIGA-SecM2015-0102-Box393228B-OUO-9.pdf Systemic Country Diagnostic World Bank 2019

349 Data for 2019. Climate Watch, WRI. https://www.climatewatchdata.org/countries/JAM

350 Third National Communication of Jamaica to the Framework Convention on Climate Change. 2018.

351 https://www.worldatlas.com/

year.[352] In addition to its productive sectors, Jamaica is also highly dependent on remittances (USD 2.5 billion annually). These suffered huge losses in 2020 due to the COVID-19 pandemic, putting dependent households at further risk.

Adaption challenges

As a Small Island Development State within the Caribbean/Atlantic Hurricane Belt, Jamaica is at very high risk from storm surge, coastal flooding and damage to strategic infrastructure. According to Climate Watch, Jamaica's climate risk index score is 64.83, placing it 57th of out 181 countries, and is highly vulnerable.[353] Climate models predict an increase in the frequency of Category 4 and 5 hurricanes in the Caribbean and a steady increase in sea level rise of up to 1 meter by the end of the century.[354] The IDB (2020) estimates that, in the decade between 2001 and 2012, Jamaica suffered an annual average loss of 1.3 per cent of GDP in damage and loss from floods, hurricanes and droughts.[355] The government of Jamaica has put this cumulative loss at USD 128.54 billion.[356]

Mitigation challenges

In 2018, Jamaica's total emissions were estimated at 10.2 million tonnes, and per capita GHG emissions were 2.86 tonnes.[357] While Jamaica ranks somewhere in the middle of GHG per capita emissions by country, Jamaica is highly depended on imported fossil fuels. In 2015, Jamaica spent 9 per cent of GDP (or USD 1.3 billion) on petroleum imports.[358] Crude oil, coal and petroleum products constitute 87 per cent of Jamaica's energy mix, with only a fraction (less than 1 per cent) coming from renewables. The bulk of Jamaica's energy is consumed in mining, primarily bauxite (37.4 per cent), followed by electricity (25 per cent),[359] transport (20 per cent), and the sugar industry (12 per cent). Reducing its dependency on imported fossil fuels is a major element of Jamaica's National Energy Policy[360] and fiscal stabilisation strategy.

3E.2 Country priorities for adaptation and mitigation and government response

Building resilience to climate change is one of Jamaica's highest priorities. Adaptation and mitigation priorities are embedded in the National Climate Change Framework. Protecting vulnerable populations and climate-proofing vital economic sectors to avert the worst impacts from climate change is an existential imperative for Jamaica. Adaptation, disaster risk management and resilience are central themes of Jamaica's National Development Plan "Vision 2030," (modelled on the SDGs). Likewise, reducing its dependence on imported fossil fuels and including a greater share of natural gas and renewables in its

352 Significantly, the processing and loading facilities for these high value exports are located along the north coast, where Columbus first landed (Discovery Bay) and Jamaica's coral reefs once flourished, before the combined effects of siltation, eutrophication, overfishing, warming temperatures and coral disease precipitated an ecological phase shift from coral dominated to algal dominated reef.

353 https://www.climatewatchdata.org/countries/JAM#ghg-emissions

354 State of the Caribbean Climate 2020. University of the West Indies, Mona, and the Caribbean Development Bank.

355 Improving Climate Resilience in Public Private Partnerships in Jamaica. IDB Climate Change Division, and the Development Bank of Jamaica. Technical Note No IDB-TN-01916. June 2020. And USAID Climate Risk Profile

356 Intended Nationally Determined Contribution of Jamaica Communicated to the UNFCCC, https://www.climatewatchdata.org/countries/JAM

357 https://www.climatewatchdata.org/countries/JAM#ghg-emissions

358 https://www.greenbiz.com/article/jamaica-and-how-renewables-are-changing-island-energy-economics

359 In 2014, 92% of Households had access to electricity through the Jamaica Public Service Company (BUR-1, 2014).

360 The Energy Policy targets a reduction in the amount of petroleum in the country's energy from 95% in 2010 to 30% petroleum, 42% natural gas, 5% coal, and 20% renewables by 2030.

energy mix is a crucial element of Jamaica's emissions reduction strategy and central to the National Energy Policy goal of "a modern, efficient, diversified and environmentally sustainable energy sector… affordable and accessible… [under an] appropriate policy, regulatory and institutional framework."[361]

NDC

As a signatory to the Paris Agreement Jamaica submitted its INDC in 2015, and further strengthened its contributions in a revised NDC in 2020, in line with Article 4.8 of the Paris on clarity, transparency, and understanding" (ICTU)[362]. Jamaica's updated mitigation target is to achieve 25.4 per cent reduction relative to business-as-usual emissions in 2030 without international support (unconditional), and 28.5 per cent reduction relative to business-as-usual emissions in 2030 conditional upon international support. This translates into an emissions target of 7.02 Mt for energy and LUCF by 2030 without support, and 5.1 Mt conditioned on international support.[363] These positive changes effectively double Jamaica's ambition. To achieve these more ambitious emission reduction targets and meet its adaptation needs, Jamaica seeks support for the expansion of energy efficiency initiatives in the electricity and transportation sectors, and improved natural resources management in line with sector action plans and policies currently under development.

3E.3 MO Response

Overall, the MS response has been well aligned with Jamaica's climate change priorities. IFI support from the World Bank, IMF and IDB has featured a mix of disaster risk reduction, debt management and fiscal stabilisation, and economic recovery, while enhancing resilience in the most vulnerable social sectors (agriculture, fisheries, community tourism). Programmatic lending for policy reform, concessional finance under the Climate Investment Funds administered by the WB, and Special Climate Change Funds (SCCF) mobilised through the UNFCCC and administered through the GEF, along with its own climate change trust funds, have been essential in financing much of Jamaica's adaptation and resilience agenda. UNDP and UNEP have partnered with the GEF to strengthen Jamaica's institutional capacity and readiness for climate change and the proactive mitigation and adaptation measures that will build resilience in key sectors. Since the Paris Agreement, MS-mobilised climate finance, including the GCF, has been used to catalyse private sector engagement to complement scarce public sector resources as climate impacts intensify. This includes facilitating Public Private Partnerships through, inter alia, enabling policy reforms, equity funds, de-risking instruments and proof of concept demonstrations in renewable energy (wind and solar) production and battery storage, development of energy conservation and fuel efficiency standards in the building and transport sectors, and climate smart agriculture. In rural areas of Jamaica, where vulnerability to climate impacts is highest, greater potential returns in resilience could be realised through nature-based adaptation. Restoring degraded coastal resources (e.g., mangroves, seagrass beds and coral reefs) and protecting biodiversity yield benefits in carbon storage, coastal protection from storm surge and sea level rise, as well as greater fisheries productivity, food security and income – with significant benefits the tourism sector.

361 https://climate-laws.org/geographies/jamaica/policies/ministry-of-energy-and-mining-long-term-national-energy-policy-2009-2030

362 https://unepdtu.org/wp-content/uploads/2020/06/2020-pocket-guide-to-ndcs.pdf

363 Climate Watch Data Jamaica https://www.climatewatchdata.org/countries/JAM

Donor co-ordination, collaboration and COVID-19 recovery

Formal donor co-ordination among UN agencies to support Agenda 2030 and Jamaica's commitments to its NDCs is overseen by the Planning Institute of Jamaica (PIOJ) and UNDP through the Joint National Steering Committee for the UN Multi-Country Sustainable Development Framework 2017-2021 (UN MSDF).[364] The WBG, IDB and the IMF collaborate on a programme of economic stabilisation through a series of development policy loans, emergency assistance, and access to catastrophic risk insurance. Further, the WBG and the IDB have each committed USD 510 million for an EFF (Extended Fund Facility) to de-risk investment by the private sector in needed infrastructure through grants, TA, risk capital, and other instruments. Regarding COVID-19 recovery assistance, the IMF provided an emergency loan in the amount of USD 520 million for Jamaica in May 2020 under the Rapid Financing Instrument (RFI), while the WB is providing emergency budget support. These resources target urgent balance of payment needs resulting from the COVID-19 pandemic and are not focused on green growth.[365]

3E.4 Lessons learnt

Jamaica is strongly committed to meeting the SDGs and its NDCs under the Paris Agreement. It has aligned both its climate change policy framework and its national development policy "Vision 2030" accordingly, mainstreaming climate action across sectors, while garnering public support for this vision.[366]

Managing risks and recovering from external shocks remain huge challenges for Jamaica, as it seeks to find a stable path toward economic growth. The response of the IFI MOs has been to invest heavily in strengthening macroeconomic stability and disaster risk management capacity. This support has bolstered Jamaica's economy and projections are for positive economic growth in a post-COVID-19 recovery. But gaps remain in disaster preparedness and response, the application of robust safeguards to reduce vulnerability, and the adequacy of financial instruments to mitigate risk in vulnerable sectors.

Investing in Jamaica's Rich Natural Capital is underfunded. Nature-based Solutions (NBS) offer opportunities for gains in adaptation and resilience against climate impacts, as well as mitigation through coastal habitat and wetlands restoration. Jamaica could benefit from funding opportunities opening up in the GEF, UNEP, and the Climate Investment Funds (CIFs) (particularly for SIDS), to invest in biodiversity conservation, restoration and rehabilitation of its degraded forests, and integrated coastal zone management to realise ecosystem benefits across a range of services. Not only will this bolster Jamaica's natural capital, but the pandemic and its zoonotic origins have highlighted the importance of ecosystem health in maintaining community health and welfare.

Mitigation targets for emissions reduction have received less direct support, but policy reforms in energy intensive sectors and pilots in innovative technology have opened a path for private sector investment. MDB collaboration around policy and sector reforms in line with Jamaica's newly updated NDCs needs to be strengthened to deliver on these national commitments with the help of the private sector.

364 The UN MSDF is designed to ensure synergies across UN agencies at the regional and national level within a single strategic development framework and helps reduce duplication and promotes transparency and accountability in development assistance. https://jamaica.un.org/en/18233-joint-national-steering-committee-un-multi-country-sustainable-development-framework-2017

365 https://www.imf.org/en/News/Articles/2020/05/15/pr20217-jamaica-imf-executive-board-approves-disbursement-to-address-the-covid-19-pandemic

366 https://sustainabledevelopment.un.org/content/documents/19499JamaicaMain_VNR_Report.pdf

ANNEX 4: STATISTICAL TABLES

4A. MDB climate finance 2015-2019

Annex Table 3: ADB climate finance from 2015-2019 (USD billion)

ADB	2015	%	2016	%	2017	%	2018	%	2019	%	2019/2015
Total climate finance	2.92	11.6%	4.44	16.3%	5.23	14.9%	4.01	9.3%	7.07	11.5%	242.5%
Mitigation	2.56	12.8%	3.25	15.3%	4.24	15.2%	2.73	9.0%	5.54	11.9%	216.2%
Mitigation/total		87.8%		73.2%		80.9%		67.9%		78.3%	
Adaptation	0.36	7.1%	1.19	19.1%	1.00	13.6%	1.29	9.9%	1.54	10.3%	431.5%
Own resources	2.66	15.8%	3.74	14.7%	4.54	13.8%	3.59	8.9%	6.36	10.9%	239.6%
External resources	0.26	15.8%	0.70	35.8%	0.70	27.2%	0.43	14.8%	0.71	22.6%	270.1%
External/own resources		10%		19%		15%		12%		11%	
Total resources	19.09	14.6%	20.50	14.6%	22.71	16.2%	22.61	15.0%	23.69	12.0%	124.1%
Climate finance/total		15%		22%		23%		18%		30%	

Source: https://www.eib.org/attachments/press/1257-joint-report-on-mdbs-climate-finance-2019.pdf . The figures for 2020 are not yet published for all MOs

Annex Table 4: AfDB climate finance from 2015-2019 (USD billion)

AfDB	2015	%	2016	%	2017	%	2018	%	2019	%	2019/2015
Total climate finance	1.36	5.4%	1.06	3.9%	2.35	6.7%	3.27	7.6%	3.60	5.8%	264.9%
Mitigation	0.96	4.8%	0.67	3.2%	1.56	5.6%	1.67	5.5%	1.58	3.4%	164.5%
Mitigation/total		70.9%		66.7%		66.7%		51.1%		44.0%	
Adaptation	0.40	7.9%	0.39	6.2%	0.78	10.7%	1.60	12.4%	2.02	13.5%	509.1%
Own resources	1.21	5.2%	0.97	3.8%	1.94	5.9%	2.74	6.8%	2.99	5.1%	242.2%
External resources	0.15	9.0%	0.09	4.4%	0.40	18.2%	0.53	18.4%	0.61	19.4%	410.8%
External/own resources		12%		9%		21%		19%		20%	
Total resources	8.74	6.7%	11.17	7.9%	8.40	6.0%	10.17	6.7%	10.17	5.2%	116.4%
Climate finance/total		16%		9%		28%		32%		35%	

Source: https://www.eib.org/attachments/press/1257-joint-report-on-mdbs-climate-finance-2019.pdf The figures for 2020 are not yet published for all MOs

Annex Table 5: EIB climate finance from 2015-2019 (USD billion)

EIB	2015	%	2016	%	2017	%	2018	%	2019	%	2019/2015
Total climate finance	5.14	20.5%	4.27	15.5%	5.48	15.6%	5.70	13.2%	21.70	35.2%	264.9%
Mitigation	4.77	23.8%	3.98	18.7%	5.33	19.1%	5.27	17.5%	20.69	44.4%	164.5%
Mitigation/total		92.9%		93.2%		97.3%		92.4%		95.3%	
Adaptation	0.37	7.3%	0.29	4.7%	0.15	2.0%	0.43	3.3%	0.97	6.5%	509.1%
Own resources	5.09	21.7%	4.23	16.6%	5.33	16.2%	5.39	13.4%	21.33	36.5%	419.2%
External resources	0.05	3.0%	0.04	2.0%	0.15	6.5%	0.31	5.6%	0.33	10.6%	675.5%
External/own resources		1%		1%		3%		6%		2%	
Total resources	19.61	15.0%	20.18	14.4%	20.16	14.4%	19.62	13.0%	70.54	35.8%	
Climate finance/total		26%		21%		27%		29%		31%	

Source: https://www.eib.org/attachments/press/1257-joint-report-on-mdbs-climate-finance-2019.pdf The figures for 2020 are not yet published for all MOs

Annex Table 6: IDBG climate finance from 2015-2019 (USD billion)

IDBG	2015	%	2016	%	2017	%	2018	%	2019	%	2019/2015
Total climate finance	1.74	6.9%	2.69	9.9%	4.35	12.3%	4.97	11.5%	4.96	8.1%	264.9%
Mitigation	1.47	7.3%	2.11	9.9%	3.51	12.6%	3.69	12.2%	3.04	6.5%	206.4%
Mitigation/total		84.6%		78.4%		80.7%		74.3%		61.3%	
Adaptation	0.27	5.4%	0.58	9.3%	0.84	11.4%	1.27	9.8%	1.92	12.8%	710.4%
Own resources	1.49	6.3%	2.41	9.4%	4.07	12.3%	4.48	11.1%	4.70	8.0%	316.2%
External resources	0.26	15.6%	0.28	14.4%	0.28	12.5%	0.49	17.1%	0.26	8.3%	100.8%
External/own resources		17%		12%		7%		11%		6%	
Total resources	10.81	8.3%	12.25	8.7%	15.25	10.9%	18.56	12.3%	17.11	8.7%	158.3%
Climate finance/total		16%		21%		29%		27%		25%	

Source: https://www.eib.org/attachments/press/1257-joint-report-on-mdbs-climate-finance-2019.pdf The figures for 2020 are not yet published for all MOs

Annex Table 7: WBG climate finance from 2015-2019 (USD billion)

WBG	2015	%	2016	%	2017	%	2018	%	2019	%	2019/2015
Total climate finance	10.72	42.7%	11 494	42.2%	13 213	37.5%	21 326	49.5%	18 806	30.5%	175.4%
Mitigation	7.33	36.5%	7 939	37.4%	9 129	32.8%	13 435	44.5%	11 109	23.8%	151.6%
Mitigation/total		68.4%		69.1%		69.1%		63.0%		59.1%	
Adaptation	3.39	67.5%	3 555	57.1%	4 084	55.5%	7 891	61.0%	7 697	51.5%	226.8%
Own resources	10.00	42.6%	10 852	42.6%	12 773	38.7%	20 556	51.1%	17 834	30.5%	178.4%
External resources	0.73	44.0%	642	32.8%	440	19.8%	771	26.9%	971	31.1%	133.9%
External/own resources		7%		6%		3%		4%		5%	
Total resources	59.78	45.7%	64 185	45.7%	61 783	44.0%	66 868	44.3%	60 618	30.8%	101.4%
Climate finance/total		18%		18%		21%		32%		31%	

Source: https://www.eib.org/attachments/press/1257-joint-report-on-mdbs-climate-finance-2019.pdf The figures for 2020 are not yet published for all MOs

Annex Table 8: Total of selected MOs climate finance from 2015-2019 (USD billion)

Total	2015	%	2016	%	2017	%	2018	%	2019	%	2019/2015
Total climate finance	25.10	100.0%	27.22	100.0%	35.22	100.0%	43.10	100.0%	61.56	100.0%	245.3%
Mitigation	20.07	100.0%	21.22	100.0%	27.87	100.0%	30.17	100.0%	46.63	100.0%	232.3%
Mitigation/total	80.0%	78.0%	79.1%	70.0%	75.7%						
Adaptation	5.02	100.0%	6.22	100.0%	7.35	100.0%	12.94	100.0%	14.94	100.0%	297.3%
Own resources	23.45	100.0%	25.48	100.0%	32.99	100.0%	40.23	100.0%	58.44	100.0%	249.2%
External resources	1.65	100.0%	1.96	100.0%	2.23	100.0%	2.87	100.0%	3.13	100.0%	191.8%
External/own resources	7%	8%	7%	7%	5%						
Total resources	130.63	100.0%	140.56	100.0%	140.43	100.0%	150.84	100.0%	197.00	100.0%	150.8%
Climate finance/total		19%		20%		25%		29%		31%	

Source: https://www.eib.org/attachments/press/1257-joint-report-on-mdbs-climate-finance-2019.pdf The figures for 2020 are not yet published for all MOs

4B. Climate change information

Annex Table 9a: Regional GHG emissions, 2018

GHG emissions ($MtCO_2e$ and % of regional total)							
Region	LULUCF and AFOLU	Energy including buildings, transport, industry, waste			Total	Population (% of world)	Per capita emissions
	$MtCO_2e$	%	$MtCO_2e$	%	$MtCO_2e$		
East Asia & Pacific	1 807	10%	16 184	90%	17 991	30.5	7.7
Of which: China	23	0%	11 682	100%	11 706	18.2	8.4
Europe & Central Asia	-137	-2%	7 668	102%	7 532	12	8.2
Of which: European Union (27)	156	5%	3 178	95%	3 333	5.8	7.5
Latin America & Caribbean	1 810	46%	2 153	54%	3 963	8.4	6.2
Middle East & North Africa	131	4%	3 170	96%	3 301	6	7.4
North America	253	4%	6 304	96%	6 558	4.8	18
South Asia	1 045	25%	3 155	75%	4 200	23.9	2.3
Of which: India	690	21%	2 656	79%	3 346	18	2.4
Sub-Saharan Africa	2 288	62%	1 428	38%	3 717	14.4	3.4
Of which: South Africa	37	7%	483	93%	521	0.8	9
World	7 205	15%	41 734	85%	48 940		6.4

Source: Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute (Available at: https://www.climatewatchdata.org/ghg-emissions); FAO 2020, FAOSTAT Emissions Database; CO2 Emissions from Fuel Combustion, OECD/IEA, 2019; World Development Indicators, The World Bank.

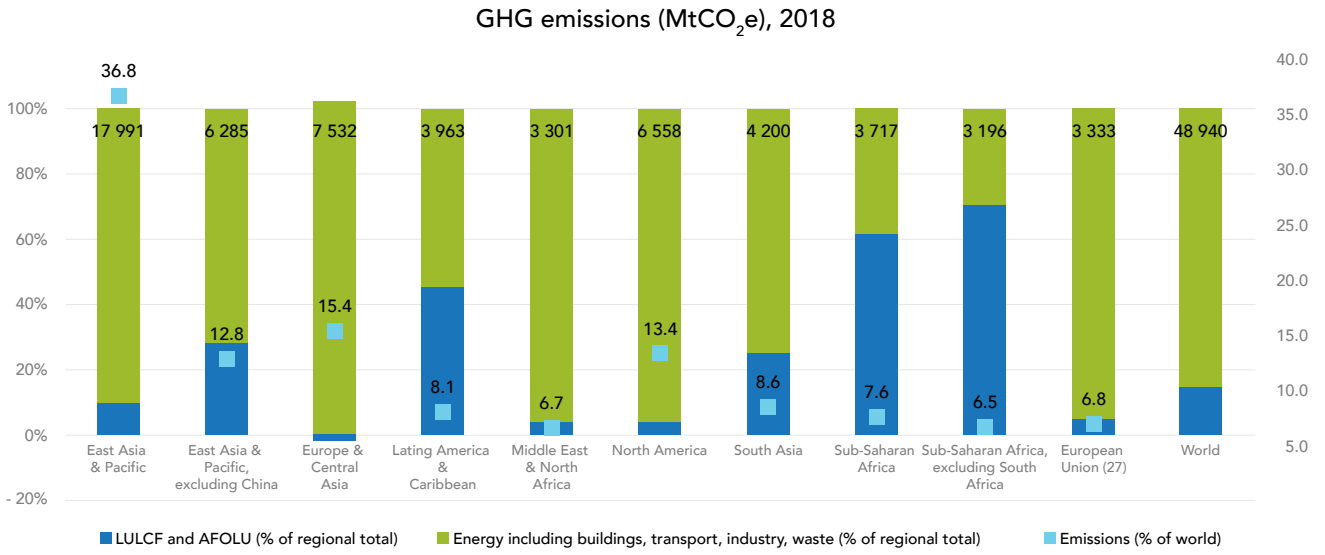
Annex Table 9b: G20 GHG emissions, 2018

GHG emissions ($MtCO_2e$ and % of regional total)								
Region	LULUCF and AFOLU	Energy including buildings, transport, industry, waste			Total	Total excluding LULUCF	Population (% of world)	Per capita emissions
	$MtCO_2e$	%	$MtCO_2e$	$MtCO_2e$	$MtCO_2e$	$MtCO_2e$		
G20	3 015	9%	31 983	34 998	34 998	35 545	62.4	7.4
G20 Advanced	602	5%	11 504	12 106	12 106	12 570	13.5	11.8
G20 Emerging	2 413	11%	20 479	22 892	22 892	22 975	48.9	6.2
World	7 205	15%	41 734	48 940	48 940	47 552		6.4

Note: G20 Advanced economies includes Australia, Canada, France, Germany, Italy, Japan, South Korea, United Kingdom, United States, and European Union. G20 Emerging economies includes Argentina, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa, and Turkey.

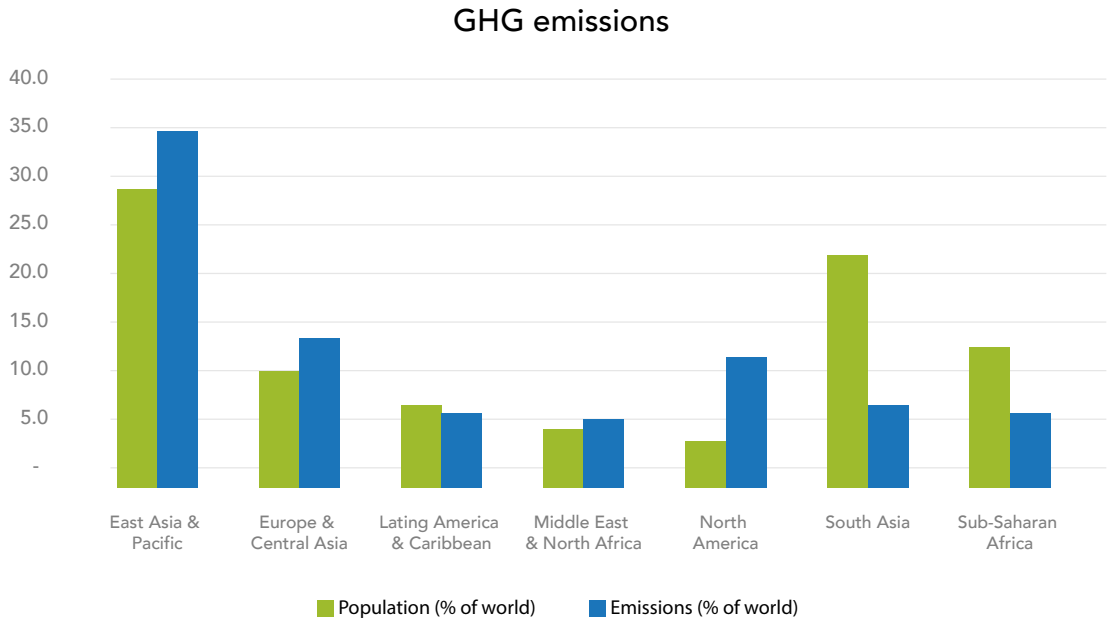
Source: Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute (Available at: https://www.climatewatchdata.org/ghg-emissions); FAO 2020, FAOSTAT Emissions Database; CO2 Emissions from Fuel Combustion, OECD/IEA, 2019; World Development Indicators, The World Bank.

Annex Figure 1: Regional GHG emissions, 2018



Source: Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute (Available at: https://www.climatewatch-data.org/ghg-emissions); FAO 2020, FAOSTAT Emissions Database; CO2 Emissions from Fuel Combustion, OECD/IEA, 2019.

Annex Figure 2: Regional populations and GHG emissions as a per cent of world totals, 2018



Source: Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute (Available at: https://www.climate-watchdata.org/ghg-emissions); FAO 2020, FAOSTAT Emissions Database; CO2 Emissions from Fuel Combustion, OECD/IEA, 2019; World Development Indicators, The World Bank.

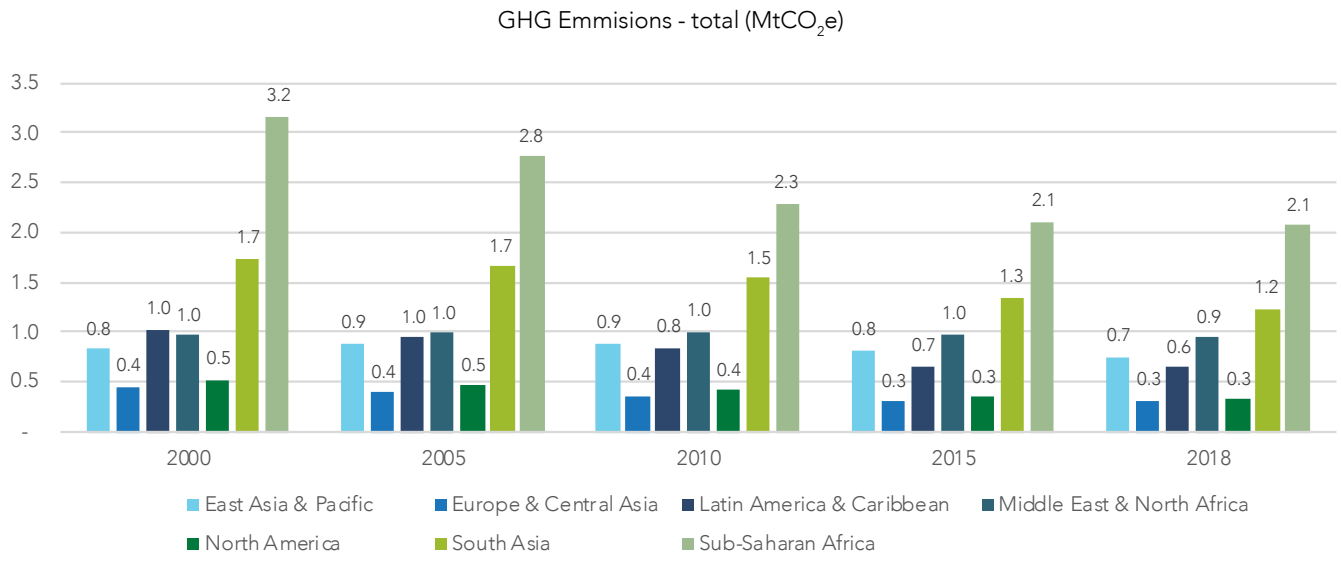
Annex Table 10: Country and regional GHG emissions, 2018

Regional rank of per capita emissions	Region (Country)	GHG emissions ($MtCO_2e$ and % of regional/country total), 2018					Population (% of world)	Emissions (% of world)	Per capita emissions (metric tonnes)
		LULUCF and AFOLU		Energy including buildings, transport, industry, waste		Total			
	East Asia & Pacific	1 807	10%	16 184	90%	17 991	30.7	36.8	7.7
Top 3	Australia	163	26%	456	74%	619	0.3	1.3	24.8
	Mongolia	32	57%	24	43%	56	0.0	0.1	17.6
	New Zealand	32	45%	39	55%	71	0.1	0.1	14.6
Bottom 3	Vietnam	59	16%	306	84%	364	1.3	0.7	3.8
	Philippines	64	27%	171	73%	235	1.4	0.5	2.2
	Korea, Dem. People's Rep.	8	18%	37	82%	45	0.3	0.1	1.8
	Europe & Central Asia	(137)	-2%	7 668	102%	7 532	12.1	15.4	8.2
Top 3	Turkmenistan	9	7%	116	93%	125	0.1	0.3	21.4
	Kazakhstan	22	8%	249	92%	271	0.2	0.6	14.8
	Russia	(455)	-23%	2 447	123%	1 992	1.9	4.1	13.8
Bottom 3	Bulgaria	(29)	-146%	48	246%	20	0.1	0.0	2.8
	Kyrgyz Republic	2	15%	13	85%	15	0.1	0.0	2.4
	Tajikistan	6	42%	9	58%	15	0.1	0.0	1.7
	Latin America & Caribbean	1 810	46%	2 153	54%	3 963	8.4	8.1	6.2
Top 3	Paraguay	76	80%	19	20%	95	0.1	0.2	13.7
	Bolivia	97	77%	30	23%	126	0.1	0.3	11.1
	Uruguay	25	71%	10	29%	34	0.0	0.1	10.0
Bottom 3	El Salvador	4	26%	10	74%	13	0.1	0.0	2.1
	Costa Rica	(3)	-38%	12	139%	9	0.1	0.0	1.7
	Haiti	5	48%	5	52%	11	0.1	0.0	0.9
	Middle East & North Africa	131	4%	3 170	96%	3 301	5.9	6.7	7.4
Top 3	Qatar	0	0%	100	100%	100	0.0	0.2	35.9
	United Arab Emirates	2	1%	261	99%	263	0.1	0.5	27.3
	Kuwait	1	0%	112	100%	113	0.1	0.2	27.3
Bottom 3	Syria	6	14%	40	86%	46	0.2	0.1	2.7
	Morocco	13	15%	79	85%	92	0.5	0.2	2.6
	Yemen	8	38%	14	62%	22	0.4	0.0	0.8
	North America	253	4%	6 304	96%	6 558	4.8	13.4	18.0
	Canada	97	13%	666	87%	763	0.5	1.6	20.6
	United States	156	3%	5 638	97%	5 794	4.3	11.8	17.7

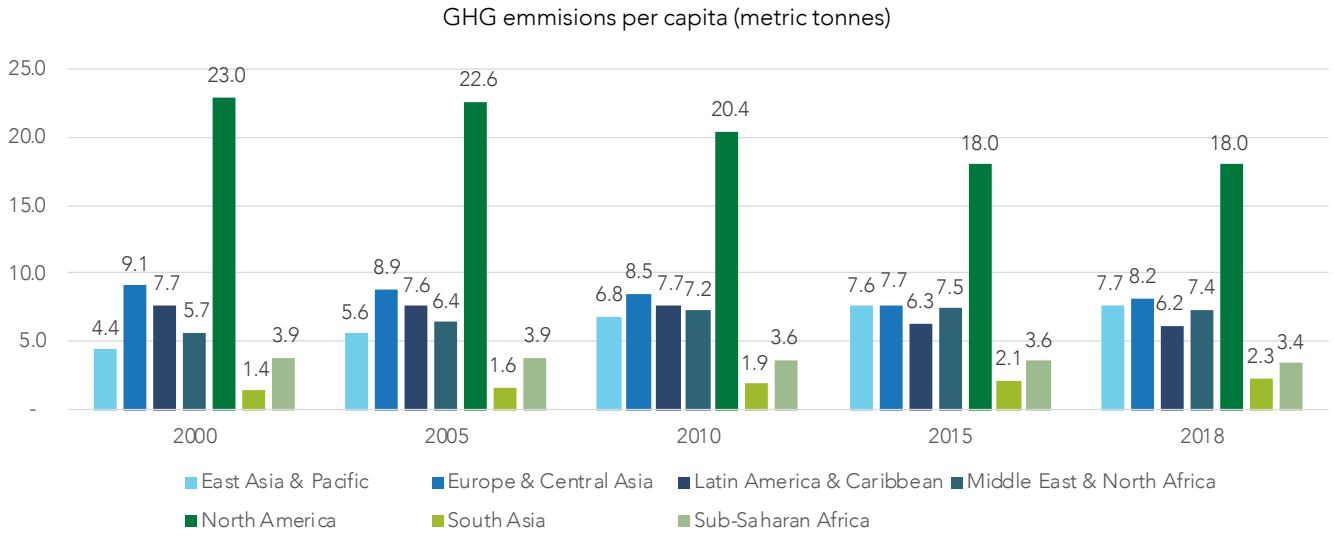
Regional rank of per capita emissions	Region (Country)	GHG emissions ($MtCO_2e$ and % of regional/country total), 2018					Population (% of world)	Emissions (% of world)	Per capita emissions (metric tonnes)
		LULUCF and AFOLU		Energy including buildings, transport, industry, waste		Total			
	South Asia	1 045	25%	3 155	75%	4,200	23.9	8.6	2.3
Top 3	Afghanistan	15	15%	84	85%	99	0.5	0.2	2.7
	India	690	21%	2 656	79%	3 347	17.8	6.8	2.5
	Pakistan	193	44%	245	56%	438	2.8	0.9	2.1
Bottom 3	Nepal	29	53%	26	47%	55	0.4	0.1	1.9
	Sri Lanka	8	21%	29	79%	37	0.3	0.1	1.7
	Bangladesh	110	50%	110	50%	221	2.1	0.5	1.4
	Sub-Saharan Africa	2 288	62%	1 428	38%	3 717	14.2	7.6	3.4
Top 3	Botswana	46	81%	11	19%	57	0.0	0.1	25.5
	Central African Republic	50	57%	37	43%	87	0.1	0.2	18.7
	Namibia	17	75%	6	25%	22	0.0	0.0	9.2
Bottom 3	Burundi	7	76%	2	24%	9	0.1	0.0	0.8
	Ghana	(15)	-77%	35	177%	20	0.4	0.0	0.7
	Rwanda	5	65%	2	23%	8	0.2	0.0	0.6

Source: Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute (Available at: https://www.climate-watchdata.org/ghg-emissions); FAO 2020, FAOSTAT Emissions Database; CO2 Emissions from Fuel Combustion, OECD/IEA, 2019; World Development Indicators, The World Bank.

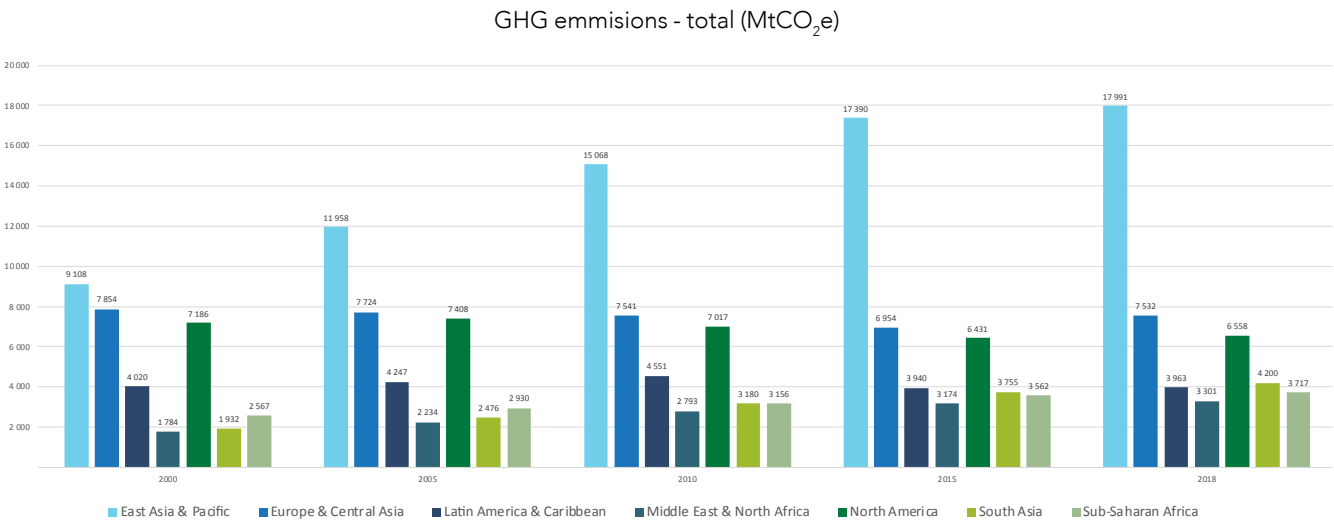
Annex Figure 3: Ratio of GHG emissions to GDP



Annex Figure 4: GHG emissions per capita

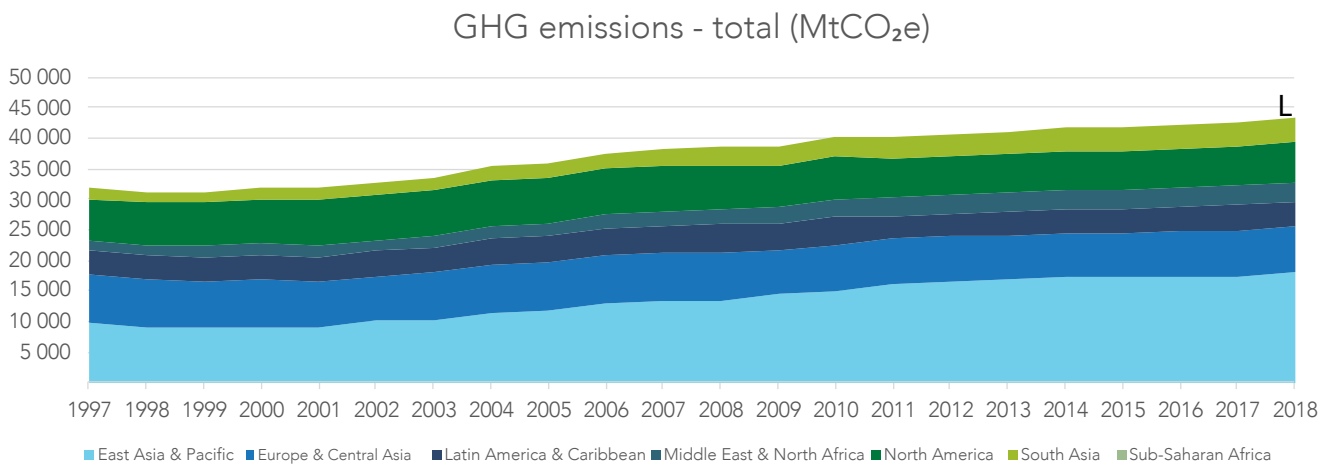


Annex Figure 5: Total GHG emissions by region



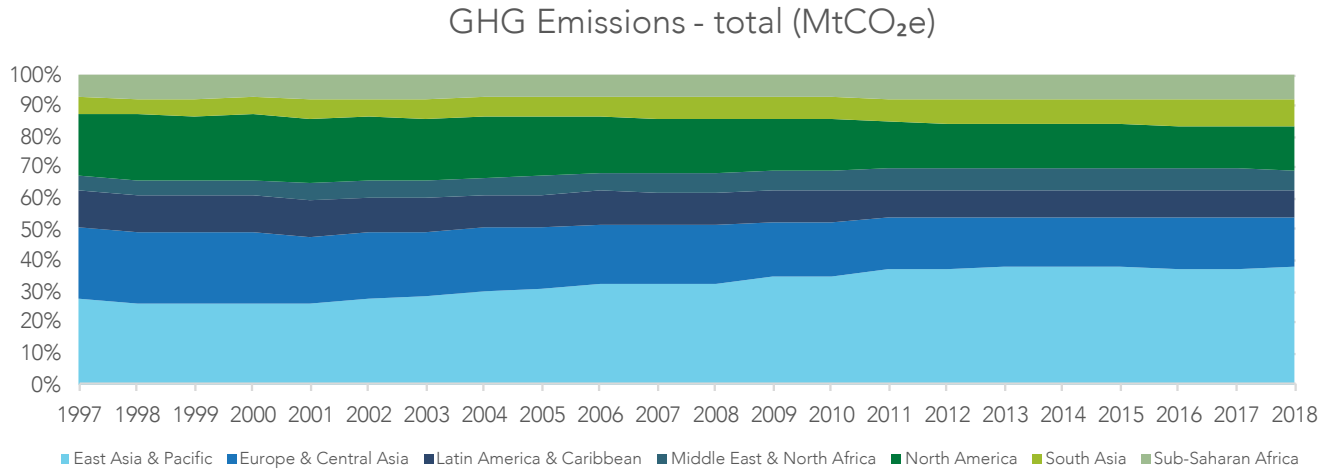
Source: Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute (Available at: https://www.climate-watchdata.org/ghg-emissions); FAO 2020, FAOSTAT Emissions Database; CO2 Emissions from Fuel Combustion, OECD/IEA, 2019; World Development Indicators, The World Bank

Annex Figure 6: Trends in total GHG emissions by region



Source: Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute (Available at: https://www.climate-watchdata.org/ghg-emissions); FAO 2020, FAOSTAT Emissions Database; CO2 Emissions from Fuel Combustion, OECD/IEA, 2019; World Development Indicators, The World Bank

Annex Figure 7: Trends in total GHG emissions by region as a per cent of world emissions



Source: Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute (Available at: https://www.climate-watchdata.org/ghg-emissions); FAO 2020, FAOSTAT Emissions Database; CO2 Emissions from Fuel Combustion, OECD/IEA, 2019; World Development Indicators, The World Bank

ANNEX 5: LIST OF INTERVIEWEES

ADB

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Filippo Berardi, Coordinator, Climate Change Focal Area

Gustavo Fonseca, Director of Programmes

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Francisco José Joel Castro y Ortiz, Lead Economist, Strategic Planning and Development Effectiveness, IDB

Amy Lewis, Senior Operations Specialist, Climate Change Division, IDB

Hilen Meirovich, Investment Manager Lead Office, Climate Change IDB Invest

Christian Parra Menezes, Investment Officer, Climate Change, IDB Invest

Yuri Suarez Dillon Soares, Unit Chief, Strategy and Impact, IDB Lab

Graham Watkins, Chief, Climate Change Division, IDB

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Cassie Flynn, Strategic Advisor on Climate, Head of the Climate Promise

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Nick René Hartmann, Senior Partnerships Advisor

Pradeep Kurukulasuriya, Director- Nature, Climate and Energy & Executive Coordinator- Environmental Finance

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Raphaël Jachnik, Policy analyst- Climate Finance

UNFCCC SBSTA

Paul Watkinson, former chair

IDDRI

Damien Barchiche, Head of Governance Programme
Lola Vallejo, Head of Climate change programme

NDC - Partnership

Romeo Bertolini, Deputy Director, Head of Bonn office
Eva Huebner, GIZ focal point for the NDC-Partnership
Tori Okner, Head of Outreach and Governance
Thibaud Voïta, Head of Knowledge Product

WRI

Yamide Dagnet, Climate Negotiations & Climate Program Director

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