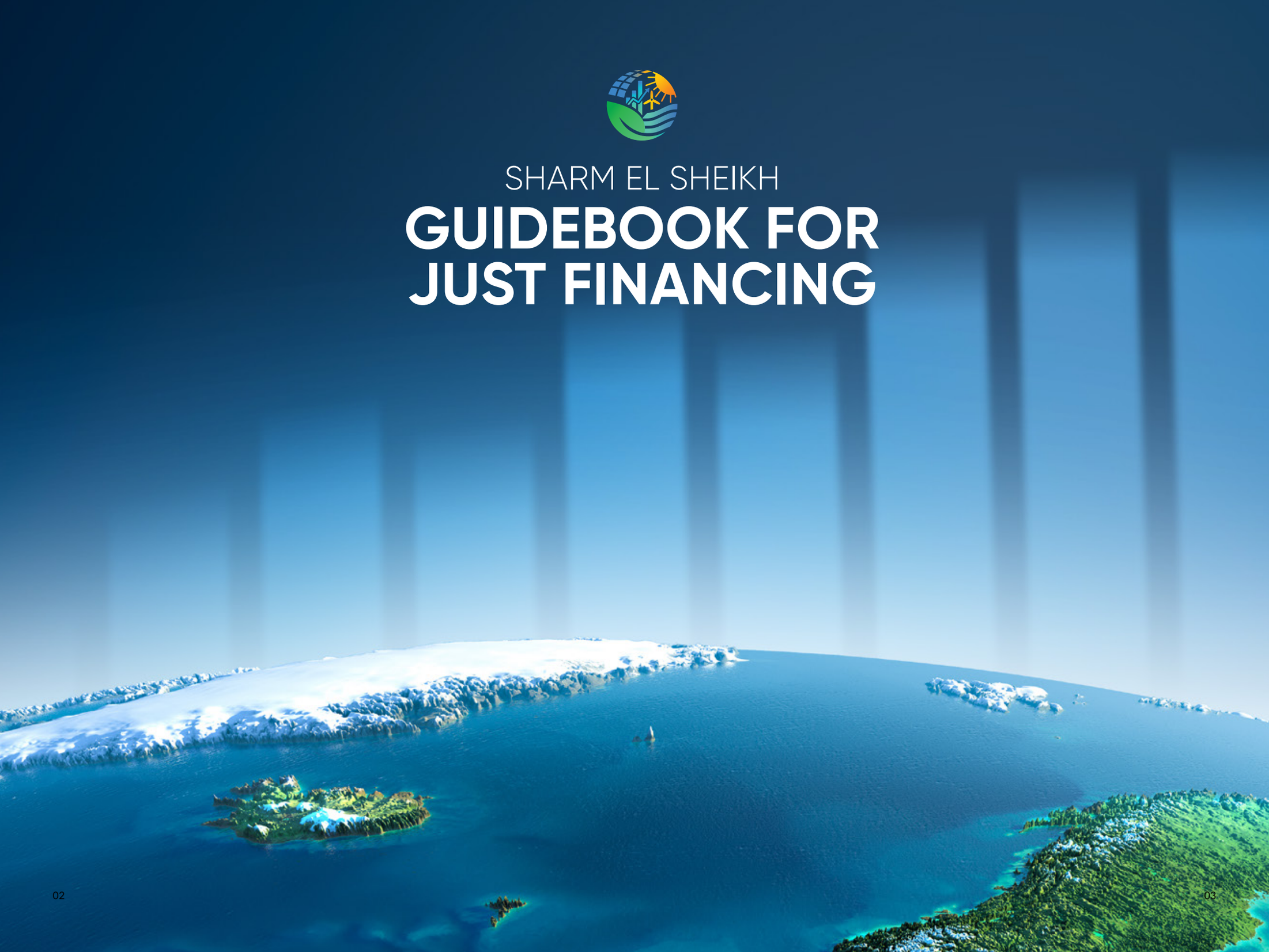
SHARM EL SHEIKH

GUIDEBOOK FOR JUST FINANCING



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Guidebook for Just Financing

"The principle of common but differentiated responsibility is at the core of climate justice and just energy transitions. As such, I strongly support the Sharm El-Sheikh Guidebook for Just Financing, for several good reasons: It forges a common path for climate action in Africa and it outlines the key role of each stakeholder in translating financial commitments into implementable projects. It also clearly lays out the climate financing gap on the African continent and proposes an actionable agenda to close that gap."

Dr. Akinwumi A. Adesina, President, African Development Bank Group

The Just Finance Guidebook is a critical tool for policy makers and private sector executives seeking to understand the broad spectrum of issues around climate finance facing both LICs and MICs. The Guidebook is the result of months of intense collaboration among an extraordinary group of stakeholders.

Mr. Jay Collins, Vice Chairman of Banking, Capital Markets and Advisory, Citi

Investing in climate action makes smart economic sense. Climate policies need to be integrated with national financing strategies and help ensure that no one is left behind. To date, UNDP's Climate Promise has supported %96 of countries in Sub-Saharan Africa to enhance and implement climate priorities - from enhancing food security to increasing the protection of ecosystems - while also providing support to vulnerable communities who are living on the frontlines of climate change. Given the economic and demographic challenges in our region, we also ensure that climate-smart investments are also growth-enhancing and job-creating. This Sharm El Sheikh Guidebook includes proposals and recommendations on how to create more favorable policy environments, enhance institutional and regulatory systems, and forge public-private partnerships. A green and climate-resilient future is possible but it must go hand in hand with social and economic growth to ensure prosperity for all.

Dr. Khalida Bouzar,
Assistant Secretary-General and Director of the United Nations Development Programme Regional Bureau for Arab States

"The World Economic Forum is committed to accelerating the just transition, through public-private collaboration. The Sharm El-Sheikh Guidebook for Just Financing is a crucial step in fostering inclusive partnerships towards a climate resilient future. "

Prof. Klaus Schwab, Chairman, World Economic Forum

"Climate change is a growing threat to our lives, to our livelihoods, and to the stability of our economic and financial systems. Investments in resilient societies, renewable energy, and green technology are urgent and vital. This requires vast sums of money—amounts that far exceed what governments alone can provide—so we need new ideas and new approaches to harness private capital to build cleaner, greener, stronger economies everywhere."

Dr. Kristalina Georgieva, Managing Director, International Monetary Fund

"The evidence is clear: Developing countries are bearing the brunt of our climate crisis. 1 billion people, overwhelmingly in the Global South, will face coastal flood risk by 2050. An additional 140 million may be driven from home by climate disaster or food and water insecurity. Yet these countries remain locked out of pivotal financing at scale that could help them adapt to our changing world: African states, for example, receive less than %5.5 of global climate financial flows, and only less than %10 of all climate finance investments are targeted to adaptation solutions.
Just financing is not only a moral imperative. It is the only way we will reach our ambitious climate goals. At CIF, we have been on the front lines of driving catalytic climate finance in the developing world for almost 15 years. We have seen the challenges firsthand: Creating an enabling environment. Financing frontier, catalytic investments. Mobilizing the private sector. Yet we have also seen the power of collaboration: Bringing together key partners across government, development, financial institutions, business, and philanthropy in common cause around proven and innovative solutions.
This Guidebook is a powerful example of how we must come together around a programmatic, multi-sectoral approach — and secure a better collective future."

Ms. Mafalda Duarte, CEO, Climate Investment Funds

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"Limiting climate change to 1.5 degrees Celsius requires the mobilization of enormous capital to emerging markets and developing economies (EMDEs). That is now possible because of the commitments of private financial institutions around the world to catalyze and finance the energy transition. However, barriers remain to getting that capital to where it is needed the most. The Sharm El-Sheikh Guidebook for Just Financing identifies the key reforms to overcome these barriers, providing essential recommendations at this critical juncture for EMDEs. GFANZ welcomes this Guidebook and will work to implement its recommendations through Country Platforms, Just Energy Transition Partnerships and other catalytic initiatives such as the CFLI. Building on the significant resources that GFANZ members are dedicating to the Indonesian and Vietnamese JETPs and Egypt's Country Platform, GFANZ looks forward to working with a wide range of countries and stakeholders to ensure that the energy transition is truly just and global."

Dr. Mark Carney, Co-Chair, Glasgow Financial Alliance for Net Zero

"CrossBoundary is committed to driving blended finance solutions in underserved markets globally – reflecting our core belief in the importance of Just Financing in accelerating progress toward both climate and development goals. Tackling the climate crisis is a collective undertaking that requires an unprecedented degree of collaboration. Strategic use of limited public resources to unlock private capital is critical for scaling investment into underserved markets which may be particularly vulnerable to the effects of climate change.
As investment managers and advisors, we see great opportunity in Africa. More than half of our staff are based in Africa, and we are actively developing and financing projects across the continent, pairing lasting climate mitigation, adaptation, and development impacts with strong financial returns. There is enormous need to both continue driving capital absorption into existing infrastructure solutions for climate mitigation and adaptation, and to bring new business models to bear – particularly for nature-based solutions. We look forward to collaborating with other stakeholders to implement the recommendations of the Sharm El Sheikh Guidebook for Just Financing."
-Enhancing the investability of climate projects through Carbon Markets

Mr. Matthew Tilleard and Mr. Jake Cusack, Co-Founders, CrossBoundary

"Every year, those living between the tropics of Cancer and Capricorn face losses and damages three to four times more than elsewhere. And this year, that was epitomised by the devastating floods that submerged a third of Pakistan. That loss became less invisible to others this year, as America and Europe endured extreme floods, heat waves and forest fires. All of humanity will be on the frontline if mitigation does not occur fast enough. That is why we need to provide access to a global balance sheet to fund mitigation efforts everywhere, backed by a new issue of Special Drawing Rights: a global mechanism backed by a global currency, to accelerate the delivery of global public goods. Because we are so close to the 1.5 degrees warmer trigger for cascading effects, the speed and the quantum of mitigation matter. So we must prioritise fast mitigation, such as a sharp reduction in methane emissions. The reality is, two hundred years of industrialisation has already baked in 1.2 degrees of warming, so even rapid mitigation is not enough from here. We need triple lending by the World Bank and other Multilateral Development Banks, in return for an additional focus on providing concessional finance for climate-vulnerable countries to invest in climate resilience. And we need a more shock-absorbent international financial system with every debt instrument carrying natural disaster and pandemic clauses. While these simple ideas will make a difference, they do not require any country to write a cheque to any other today. In addition to this, we will also need a new international mechanism, such as a levy on fossil fuel prices as they slip back from elevated levels, to deliver grants or grant-like funding for reconstruction after a climate or slow-onset event. It has never been more apparent what COP must deliver."

Hon. Mia Amor Mottley, Prime Minister, Barbados

"The world is currently failing to meet its goal of limiting global warming to 1.5 degrees Celsius, in part because of a lack of adequate support and financing, particularly for energy transitions in low- and middle-income countries," said Dr. Rajiv J. Shah, President of The Rockefeller Foundation. "At a time when the world faces concurrent, compounding crises — many of them caused by the changing climate — this Guidebook offers recommendations that can help mobilize financing to mitigate and adapt to climate change, empower people, and unlock economic opportunity."

Dr. Rajiv J. Shah, President, Rockefeller Foundation

"Climate action experienced increased momentum over the past few years. Yet, this trajectory has been interrupted by the compounded crises since 2020; heightening the cost of the climate agenda and calling for more integrated and inclusive collaboration by all stakeholders.
To achieve measurable change, we need to multiply our financial resources and achieve distributional justice across regions, and across sectors. We carry a prominent obligation to acknowledge and mend the existent disparities in the climate finance landscape.
Within this context, the Sharm El-Sheikh Guidebook for Just Financing brings the idea of 'Justice' to climate finance to move from pledges to implementation. It emphasizes the need to scale-up investments towards climate adaptation and mitigation projects, while highlighting the importance of improved access to quality and quantity climate financing that leaves no one behind through a variety of mechanisms and tools to promote just financing.
As a practical demonstration of the principles of the Guidebook, we launched Egypt Country Platform for the Nexus of Water Food and Energy (NWFE) Program, which is a country-led platform coordinated by Egypt's ministry of international cooperation. It presents high priority national adaptation and mitigation projects and aims to catalyze and crowd in private investments through a variety of instruments, including blended finance."

H.E. Dr. Rania A. Al-Mashat, Minister of International Cooperation, the Arab Republic of Egypt

"Taking place a few weeks ahead of COP27, third edition of the Finance in Common Summit (FiCS), aimed to send a loud and clear signal: Public Development Banks are powerful allies of UNFCCC to accelerate the implementation of just energy transitions. By mobilizing more that 300 billion US$ of green and climate finance in 2021, the Multilateral Development Banks and the International Development Financing Club (IDFC), demonstrate that strong mandates are able to unleash climate investments on the ground. If all public development banks (PDBs) were to commit to a similar ratio as IDFC, they could extend more than 500 billion US$ of climate finance per year, and mobilize much more through the private sector."

Mr. Rémy Rioux, Chief Executive Officer AFD, Chairman IDFC

"A just transition towards a net-zero world requires us to accelerate emissions reduction while meeting the socio-economic needs of developing and emerging economies. The Sharm El-Sheikh guidebook lays out how we can do this. In particular, it underscores the importance of synergising transition finance across the public and private sectors. The 140-strong Network of Central Banks and Supervisors for Greening the Financial System (NGFS) stands behind this effort with the launch of the NGFS Blended Finance Initiative at COP27."

Mr. Ravi Menon, Managing Director, Monetary Authority of Singapore
Chairman, Network of Central Banks and Supervisors for Greening the Financial System

"Achieving a just transition will not and must not be a zero-sum game. By investing at significantly higher levels, by spreading innovations for both climate mitigation and adaptation around the globe, and by ensuring adequate long-term finance for the developing world, we must make this a gain for all nations. The Sharm El Sheikh guidebook provides a practical guide for implementing this just transition. It will take extraordinary ambition in partnership among the public, private and philanthropic sectors to achieve this. But there has never been a larger opportunity for us to spur growth, solidarity and achieve better and safer lives for communities everywhere."

Mr. Tharman Shanmugaratnam, Senior Minister and Coordinating Minister for Social Policies, Singapore

"The number one priority of the [18] African presidents my institute supports is investment. Much of this is climate related: from the renewable energy systems that will power the continents growth and industrialisation to the investments in irrigation and cold storage communities need to make to halt growing food insecurity. At around a quarter of a trillion dollars per year, these investment needs are vast and largely unmet. My institute engages with African Governments and Global investors and it is a tragic paradox that despite there being no lack of institutional finance looking for long term investments, very little is being channelled into Africa where the needs are highest.
Egypt's "Guidebook for Just Financing" is an important and practical tool to addressing this issue. It takes a system wide view of a complex topic and shines a light on the issues that need to be addressed to get finance flowing to where it is most needed. Beyond this, it provides clarity on what is expected from each of the actors involved in developing and financing projects on the continent: from the work governments need to undertake in preparing bankable projects and creating a secure, transparent environment for investment to the role development finance institutions and philanthropists can play in catalysing and de-risking.
Egypt's NWFE initiative (Nexus of Water Food and Energy) puts these principles into practice and is a powerful example of the work Governments need to do: linking a vision to strategy, policy and then the global outreach to finance a home grown climate transition plan. I would urge governments and financiers to read the guidebook and reflect on where they can do more to address an issue that is as crucial for Africa's development as it is for the planet."

Sir Tony Blair, Founder and Executive Chairman, Tony Blair Institute for Global Change

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List of Acronyms

ACCF	Africa Climate Change Fund
AF	Adaptation Fund
AFDB	African Development Bank
AFOLU	Agriculture, Forestry and Other Land Uses
ASAP+	Adaptation for Smallholder Agriculture Programme
ATLAS	Adaptation Thought Leadership and Assessments
AUM	Asset Under Management
BRs	Biennial Reports
BURs	Biennial Update Reports
CapEx	Capital Expenditure
CBDR-RC	"Common but Differentiated Responsibilities and Respective Capabilities"
CIF	Climate Investment Funds
CIP	Climate Investment Plan
COP	Conference of the Parties
CPI	Climate Policy Initiative
CrI	Climate readiness index
CSO	Civil Society Organisation
CTF	Clean Technology Fund
CVC	Corporate Venture Capital
CVI	Climate Vulnerability Index
DFI	Development Finance Institutions
ECAs	Export Credit Agencies
EIB	European Investment Bank
ETF	(Paris Agreement) Enhanced Transparency Framework
ESG	Environmental, Social and Governance
FCPF	Forest Carbon Partnership Facility
FDI	Foreign direct investment
FX	Foreign Exchange
G20	Group of Twenty
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEEREF	Global Energy Efficiency and Renewable Energy Fund
GEF	Global Environment Facility
GFANZ	Glasgow Finance Alliance for Net Zero
GHG	Greenhouse gas emissions
HDI	Human Development Index
HICs	High Income Countries
I&FF	Investment and Financial Flows
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IGAD	Intergovernmental Authority on Development
IIA	International Investment Agreement
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IPO	Initial Public Offering
ISDS	Investor-State Dispute Agreement
IUCN	International Union for Conservation of Nature
KPI	Key Performance Indicator
LCD	Low Carbon Development
LDCF	Least Developed Country Funds
LDCs	Least Developed Countries
LICs	Low Income Countries
LMICs	Lower Middle-Income Countries
LTS	Long term strategy
MCFs	Multilateral climate funds
MDB	Multilateral development Banks
MENA	Middle East and North Africa
MICs	Middle Income Countries
MIGA	Multilateral Investment Guarantee Agency
MOIC	(Egyptian) Ministry of International Cooperation
MRV	Measurement, Reporting and Verification
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
NDCs	Nationally determined commitments
NGO	Non-governmental organisation
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OECD CRS	OECD Creditor Reporting System
OECD DAC	OECD Development Assistance Committee
OSA	Operating Services Agreement
PAYS	Pay-as-you-save
PE	Private Equity
PFM	Public Financial Management
PPP	Public-Private Partnership
PSA	Purchase and Sale Agreement
PV	Solar photovoltaic
RBF	Results-based Financing
SBTi	Science-based Targets initiative
SCF	Strategic Climate fund
SDGs	Sustainable Development Goals
SIDS	Small Island Developing States
SIP	Strategic Issue Papers
SLBs	Sustainability-linked Bonds
SOEs	State-owned enterprises
SWF	Sovereign Wealth Fund
TA	Technical Assistance
TAM	Total Addressable Market
TAP	Technology Action Plans
TCFD	Task Force on Climate-related Financial Disclosures
TNA	Technology Needs Assessments
TNFD	Taskforce for Nature-related Financial Disclosures
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
VC	Venture Capital

Acknowledgements

The Sharm El Sheikh Guidebook for Just Financing is an embodiment of collective effort of a broad range of stakeholders. Through an inclusive and engaging process, the Egyptian Ministry of International Cooperation (MoIC) worked closely with governments, multilateral and bilateral development partners, commercial and investment banks, private sector, Philanthropies, think tanks and research institutes, to underpin an ambitious and realistic actionable agenda that is rooted in the principles of justice and equality. In this context, MoIC wishes to thank all stakeholders for their active participation, during the consultation, conceptualisation and actualisation phases of the Guidebook development.

First and foremost, MoIC would like to acknowledge the sincere efforts exerted by each working group of the six Chapters, where their valuable inputs and insightful contributions played a key role in the drafting process of the Guidebook. Special thanks are extended to the Chapters' partnering institutions; namely: African Development Bank (AfDB), Citi, Convergence Blended Finance, the Organization for Economic Cooperation and Development (OECD), the United Nations (UN), the United Nations Development Programme (UNDP), and the United States Agency for International Development (USAID), whose commitments and dedicated efforts were a main factor in bringing this document to life.

The depth of understanding developing and emerging countries' climate opportunities and risks, and the ability to set out an implementable actionable agenda based on their needs would not have been possible without the support of all partners in the Guidebook.

MoIC would like to extend special appreciation to the International Fund for Agricultural Development (IFAD), NDC Partnership, the Tony Blair Institute for Global Change, and the United Nations Conference on Trade and Development (UNCTAD) for their substantial inputs that helped contextualize the different topics and materialize the concepts that make up the climate finance ecosystem.

MoIC is also thankful to the World Bank and Climate Finance Advisors (CFA), for their valuable advice and editorial review to ensure coherence and cohesion across the Guidebook.

MoIC truly appreciates all our esteemed partners who spared no efforts in providing case studies and comments across the document, which not only enriched the content of the Guidebook, but also shed the light on successful practices that can be replicated in developing and emerging economies. These include Bill and Melinda Gates Foundation, BloombergNEF, Climate Investment Funds (CIF), European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), International Finance Corporation (IFC), International Labor Organization (ILO), United Nations Environment Programme (UNEP), United Nations Children Funds (UNICEF), United Nations Department of Economic and Social Affairs (UNDESA), United Nations Economic Commission for Africa (UNECA), Islamic Development Bank (IsDB), and Japan International Cooperation Agency.

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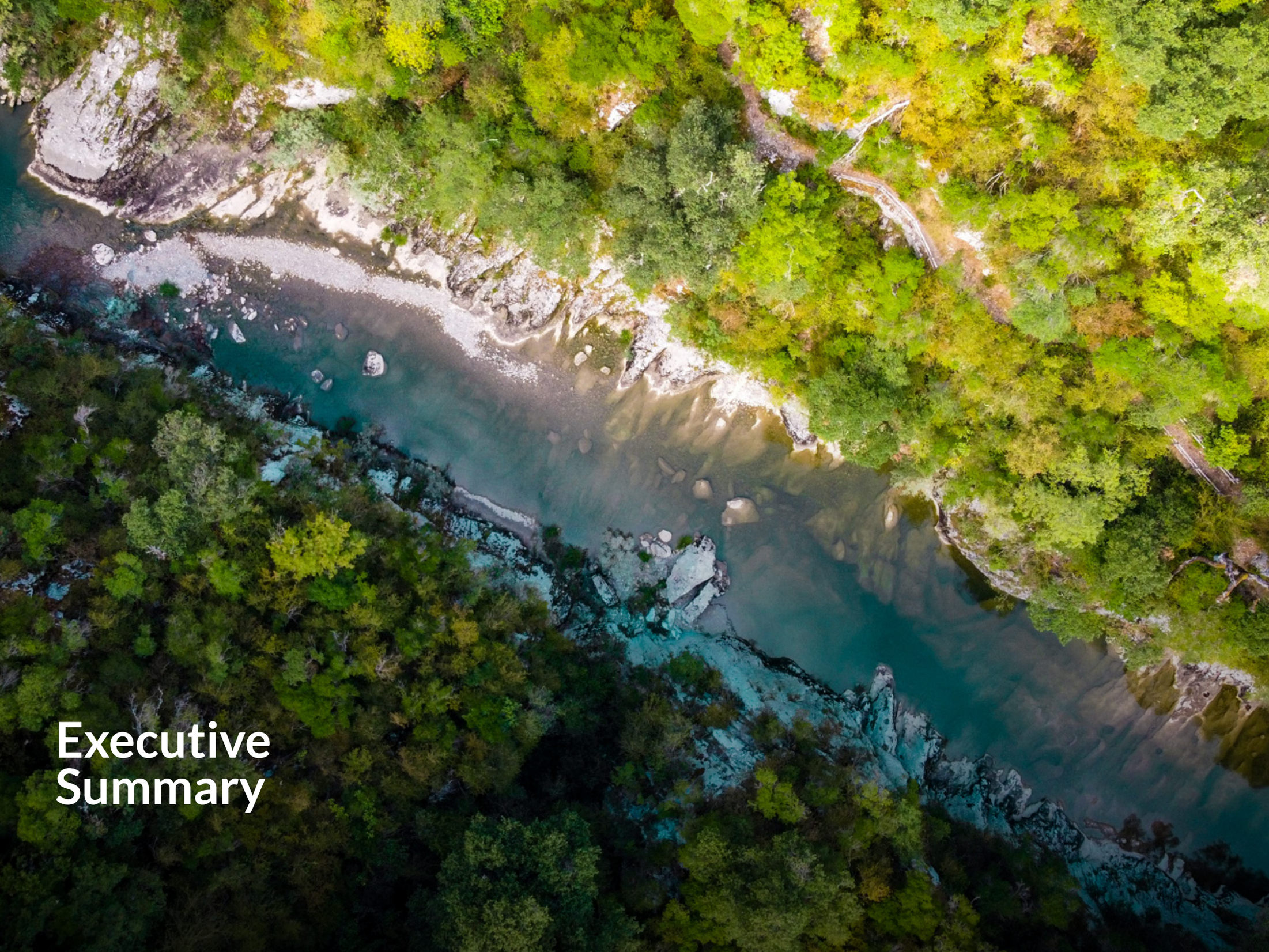
Likewise, MOIC acknowledges the indispensable role of all the organizations that participated in the non-state actors consultation conducted by the Tony Blair Institute for Global Change in support of the Guidebook, including: the Net Zero Asset Owner Alliance (NZAOA) and the Glasgow Financial Alliance for Net Zero (GFANZ), Meridiam, Climate Bonds Initiative, Nigeria Infrastructure Debt Fund, Black Rhino (Blackstone Africa), JGP, AXA Climate, the Green Finance Institute, Swiss Re, Task Force on Climate-related Financial Disclosures (TCFD), Bboxx, Carbon Clean, Climate Finance Action Network, E3G, Natural Resources Group Governance Initiative, Climate Policy Initiative, Abt Associates, C40 Cities, Clinton Global Initiative, and the Climate Action Network. These rounds of consultations have helped in presenting an implementable blueprint that reflects the pivotal role of non- state actors in accelerating the transition towards a climate resilient future.

Finally, MoIC expresses its sincere gratitude to Dr. Akinwumi A. Adesina, President, African Development Bank Group; Mr. Jay Collins, Vice Chairman of Banking, Capital Markets and Advisory, Citi; Dr. Khalida Bouzar, Assistant Secretary-General and Director of the United Nations Development Programme Regional Bureau for Arab States; Prof. Klaus Schwab, Chairman, World Economic Forum; Ms. Kristalina Georgieva, Managing Director, International Monetary Fund; Ms. Mafalda Duarte, CEO, Climate Investment Funds; Dr. Mark Carney, Co-Chair, Glasgow Financial Alliance for Net Zero; Mr. Matthew Tilleard and Mr. Jake Cusack, Co-Founders, CrossBoundary; Hon. Mia Amor Mottley, Prime Minister, Barbados; Dr. Rajiv J. Shah, President, Rockefeller Foundation; Mr. Rémy Rioux, Chief Executive Officer, AFD, and Chairman, IDFC; Mr. Ravi Menon, Managing Director, Monetary Authority of Singapore and Chairman, Network of Central Banks and Supervisors for Greening the Financial System; Mr. Tharman Shanmugaratnam, Senior Minister and Coordinating Minister for Social Policies, Singapore; Sir Tony Blair, Founder and Executive Chairman, Tony Blair Institute for Global Change; for their support and valuable endorsement of the Guidebook, which underpinned the collective spirit of world leaders to support the climate agenda.

Disclaimer:

All opinion boxes in the Sharm El Sheikh Guidebook for Just Financing represent the views and opinions of the authors and do not necessarily reflect the views of the Ministry of International Cooperation or partnering institutions.



Executive Summary

Executive Summary

With the recent global direction towards accelerating transition to low carbon and climate resilient development pathways, there is little dispute over the importance and urgency of a swift and collective action. The potential is significant to push forward a transformative agenda that accounts for developing countries' development trajectories and ensures equitable access to financial and technical resources.

Climate finance has been at the forefront of the global agenda over the past years. Despite the vast amounts of pledges made, and the surging demand for climate finance, pledged global commitments do not make their way to the countries that need them the most. Further, many developing and emerging economies have limited access to long-term financing at scale, not to mention the burdensome cost of capital. Advancing the climate agenda in these countries will, hence, require climate financial flows commensurate to the climate challenge.

The Sharm El-Sheikh Guidebook for Just Financing brings the idea of 'Justice' to climate finance with the objective of translating commitments into implementable projects while capturing opportunities to leverage and catalyze needed finance and investments to support the climate agenda.

It sets forth a definition for just financing with corresponding guiding principles; contributes to reducing perceived risk of investments in developing countries through bridging the information gap; provides mapping of climate capital providers' access criteria; introduces innovative financing modalities to unlock private investments; and highlights different successful climate aligned projects that can be replicated and up-scaled in developing countries. **It finally concludes with an actionable agenda for each stakeholder** that lists the roles they could play to achieve just financing outcomes and sets forth practical recommendations for equitable climate-resilient development pathways.

The Guidebook reduces the risk and uncertainty associated with climate investments in developing countries by contributing to filling the information gap for both national governments and investors. It also identifies key barriers to private investments and proposes solutions to overcome them.

More importantly, **the Guidebook provides a mapping of climate capital providers** based on their access criteria, risk appetite, regional and sectoral focus, ticket size and financing instruments to address the limited access of developing countries to climate funds. This provides MICs and LICs with more visibility on main sources of capital for climate action and hence supports decision makers in identifying needed actions to address their respective challenges and contexts.

It also proposes a set of innovative financing models that can leverage the unique capabilities and interests of different pools of capital to finance impactful climate projects even in many of the most challenging geographies and sectors and presents successful projects that can be replicated and upscaled.

> *The Guidebook presents a realistic and implementable blueprint aimed at maximizing the effectiveness and efficiency of the existing climate finance system in the short-run. It is intended to serve as a dynamic and living document that will be updated to account for global changes and incorporate more implementable projects in other regions.*

The Climate Finance Landscape

The global architecture of climate finance is dynamic and complex. Understanding how the ecosystem works, who the key players are, and mapping the climate finance flows and pledged commitments, as opposed to estimated needs, per region and sector, is critical for justly financing investment pipelines.

The current volume of climate finance falls short of the levels needed to accelerate climate action. The scale of climate investments needed to achieve a low-carbon transition is estimated at $4.5 trillion annually by 2030 and could reach up to $6 trillion in 2050, thus dwarfing the $100 billion pledge. Achieving this target by 2050 means that more than 590% increase in the amount of mobilized and disbursed climate finance is required.

The global private financial system has a significant role in bridging the financing gap, as it holds approximately $410 trillion in assets. Shifting only 1.4% of global private financial assets would be sufficient to fill the climate finance gap.

Global climate finance flows are regionally, thematically, and sectorally imbalanced. Over 75% of global climate finance flows are raised and spent domestically, presenting a challenge for developing economies that have limited access to finance. Also, East Asia & Pacific, Western Europe, and North America receive 75% of financing, whereas regions contributing the least to GHG like Africa receive less than 5%. On a sectoral level, climate change adaptation investment is severely under-resourced, receiving less than 10% of climate flows.

Around 61% of climate finance is raised in the form of debt. The prominence of debt funding poses substantial challenges, as many developing countries are already highly indebted and under a tight fiscal stance.

Accessing climate finance from dedicated funds can be challenging. Accreditation processes often require significant technical and administrative capacity not only to design and plan high-quality bankable and investable projects, but also to credibly demonstrate the ability to implement projects on the ground. This requires a strong capacity to monitor activities and report impact of investments, which remains an area for improvement in developing countries.

Against this backdrop, **the Guidebook sets out adaptive, flexible and actionable frameworks and scalable models for enabling access to equitable financing for climate action** that are applicable to developing and emerging economies at large, with a special focus on Africa when drawing lessons learnt and providing policy recommendations to support Just Financing decision-making.

Just Financing is distinct from concepts such as climate justice and just transition in terms of its scope but similar in terms of its intended purpose.

> *The Guidebook defines Just Financing as: "financing that accounts for historical responsibility for climate change while ensuring equitable access to quality and quantity climate financing that supports resilient development pathways, leaving no one behind".*

It also sets forth 12 core principles clustered under three main themes: Country Ownership, Equitable Pathways to Climate Finance and Governance Structures.

Guided by country owership, the Just Financing principles aim to recognise, respect, and take concrete action to support developing countries' right to development and industrialization; align global climate targets with national development objectives; support and fund the creation of enabling environments, while strengthening the role of institutions; call upon global stakeholders to actively consider and take progressive action to address historical disparities and responsibilities in addressing climate needs.

Fostering equitable pathways to climate finance, the principles call for mainstreaming the concept of Just Financing across all capital providers at the national and international levels; ensuring the right of developing countries to quality and quantity climate finance; addressing access, affordability, and resource allocation bias; promoting “additionality”; and addressing the loss and damage caused by climate change.

To enhance governance structures, Just Financing requires strong institutional governance mechanisms at the international and national levels; robust transparency and accountability mechanisms; and should be anchored on balanced multi-stakeholder participation and collective agreements that enhance international, regional, and local coordination and commitments.

The concept and core principles of Just Financing represent a call for action to assess the current global climate finance architecture and embed reforms from these principles. They serve as a framework to guide innovative climate finance strategies and instruments that mobilise consistent finance from international and national organisations, and private investors with the objective to stimulate interlinkages between climate action, inclusive growth, social and economic equity.

In view of the growing financing needs to respond to the climate agenda, the involvement of a wider constellation of financial actors, including the private sector is critical to be able to deploy pledged commitments and catalyze additional capital.

In 2019/2020, 49% of the global climate finance flows were mobilized by the private sector. Although the percentage insinuates that the public and the private sector are equally financing climate projects, this is not the case in several regions, including Africa, where only 14% of the climate finance flowing to the continent comes from the private sector.

Prospects and Opportunities

While the climate finance ecosystem can be complex, there are significant opportunities to increase the flow of funds to climate projects in developing countries. Fostering knowledge sharing within the ecosystem is key, so that projects can identify the right funders, and capital providers are able to identify a robust pipeline of projects meeting their criteria. At the same time, there is a need for continual innovation and scaling of financial instruments that are fit-for-purpose for climate projects particularly in underserved geographies.

The commitments made during COP26 offer an opportunity for different stakeholders to work with the private sector to align sustainability targets with low-carbon transition goals. The success of catalyzing additional financing hinges on the interaction and complementarity of all stakeholders’ efforts. The different stakeholders can leverage their competitive advantages to attract more capital, create enabling environments for investments and channel this finance to the areas most in need for climate change adaptation and mitigation.

Mobilising additional finance that goes beyond the $100bn pledge will need greater engagement between private and public sector to unlock the trillions of dollars that are available through the private sector and other development and non-state actors. This will therefore not only depend on whether developed countries can mobilise the required financing for climate action to developing countries, but also whether this mobilisation is accurately reported, does not increase the debt of developing countries, targets least developed countries and small island states and ensures equal support for adaptation alongside mitigation.

> *While it is important to rethink the climate finance architecture in the medium and long-run to crowd-in investments at scale, the Guidebook identifies the short-term opportunities that can be seized to maximize the effectiveness and efficiency of the current system.*

This can be achieved through:

- Addressing synergies between climate finance and other types of financing: Delivering climate finance that is separate and additional to ODA provides opportunities for leveraging special delivery mechanisms for climate finance, which are more effective at targeting the root causes of vulnerability to climate change.
- Enhancing coordination between MDBs and other capital providers such as the private sector and philanthropies to catalyze financial resources at scale.
- Raising ambition for adaptation efforts is crucial, whilst maintaining and strengthening mitigation efforts to enable countries to deal with the adverse effects of climate change and to prevent exacerbating existing gaps.
- Exploring incentives for the private sector in adaptation. The enabling policy and regulatory frameworks for private sector contribution to adaptation finance need to be in place. Part of this will also require changing narratives to challenge the idea that adaptation means costs without benefits.
- Shifting capital flows to the countries that need them most: To date, finance has followed markets and investment opportunities. The global climate finance architecture could be improved by eliminating redundancies, simplifying processes and getting finance flowing not only faster, but also more effective.
- Enhancing efforts by governments in developing economies to build institutions and develop human resources to create the enabling conditions for investment and implementation. Countries that have the capability and capacity to navigate the changing regulatory environment are well positioned to spur greater investment.

Creating an Enabling Environment for Climate Investment

It is evident that the global private financial system is well-positioned to bridge the climate financing gap. However, without the proper enabling environment, it would be challenging to leverage and mobilize these finances for climate action.

While governments have a leading role in creating a conducive environment for climate investment, advancing the transition to a low-carbon pathway relies on the interaction and complementary efforts of all stakeholders. Adopting a multi-stakeholder approach whereby governments and relevant actors are fully engaged in a country's climate-related needs assessment, planning, resource mobilisation and implementation ensures just and equitable outcomes.

Climate investment needs assessments should be country-driven and action-oriented. An adequate assessment requires evaluating the country's climate risks over time, including physical risks, while identifying opportunities to enhance resilience, in line with country policies, national strategies and development trajectories. This is to ensure countries are agile and responsive to changing contexts.

Sectoral prioritisation in the context of Just Financing principles means that transitioning to low carbon is not a question about how countries should move from carbon-intensive development to climate resilient pathways. It should rather ensure the burden of historic, current and future emissions is shared by all countries in a responsible and equitable way, in line with the Paris Agreement.

The drivers of economic growth and development differ between countries depending on a multitude of factors, including for example: which sectors are primary or significant drivers of GDP activity, the fiscal and socioeconomic context, a country's development trajectory, as well as environmental sustainability.

With only 41% of submitted or revised NDCs being costed, including detailed estimates of adaptation and mitigation needs in NDCs and translating them into investment plans can signal a country's investment readiness and enhance the visibility of the pipeline of investable projects to the private sector.

NDCs need to factor in the cost of inaction, or an inability to raise the necessary funding and financing to meet a country's climate-investment needs on time. While the investments needed to mitigate and adapt to climate change may be significant, the costs of loss and damage if countries don't act to combat climate change are significantly greater and will further increase as inaction continues.

Climate action and sustainable development are inextricably linked. Therefore, climate investments should not compete for budget resources with other public programs, but rather establish the synergies, where mainstreaming climate considerations fosters the transition to resilient development pathways.

When it comes to budget allocation, countries may consider developing financing plans for the pipeline of climate investments, map the various sources of capital, and classify projects based on the type of support needed. Some projects may require initial concessional and/or grant support for system planning or project preparation. Other projects that are not commercially viable may need financial support either from domestic or international sources, whereas interventions with high social benefits but low financial returns require public or philanthropic funds.

To increase transparency and accountability, governments could introduce climate tags for budget tracking and conduct regular climate expenditure and institutional review based on the national budget cycle.

Fostering an efficient and conducive environment entails strong regulatory frameworks, effective institutional arrangements, and systematic capacity building to strengthen the role of institutions, as well as creating and deepening markets for low carbon development pathways.

Regulators and policymakers possess powerful tools to promote investment in climate-aligned and low-carbon opportunities in their countries, and particularly to promote investment in adaptation. There are several climate finance policy levers that governments can utilize to catalyse private capital for climate action, such as subsidies and tax incentives to promote climate investment, removing tariffs on green products and fostering public-private dialogue.

National governments have a responsibility to set up systematic, transparent, and just processes for non-state actors to provide input and feedback on the design and implementation of enabling environment reforms, including multi-stakeholder dialogue processes and grievance mechanisms.

While the international investment agreements (IIAs) contain substantive protection standards for foreign investors, the urgency of climate action has recently heightened attention to the need to reform the IIA regime. They need to account for climate investment considerations to facilitate sustainable investments in support of climate action and limit or exclude coverage of high-emission investments.

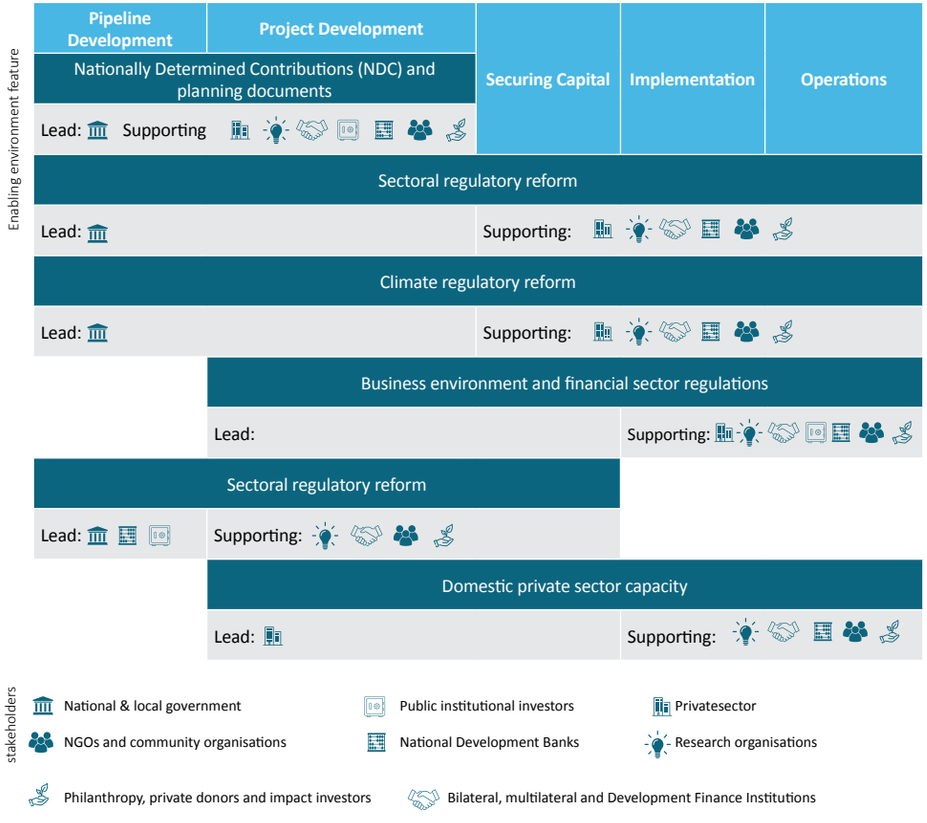
A transition to a green economy will require investment into research and development (R&D), implementation of new technologies, and infrastructures necessary for their sustainable use. IIAs should encourage development of local technological capacities by limiting or eliminating prohibitions of performance requirements especially in green and sustainable technologies.

New generation IIAs increasingly recognise investors' responsibility in contributing to the transition to a green economy. Countries may consider including references to various standards of corporate social responsibility (CSR), responsible business conduct (RBC) standards and other codes of conduct as applicable to foreign investors within the scope of the treaty.

In addition to ensuring the right of countries to regulate under IIAs in a general manner, and to effectively contribute to climate action, IIA reform needs to distinguish climate-responsible investment, strengthen investor responsibility for the protection of the environment, as well as promote and facilitate investment in clean technologies.

Multi-stakeholder engagement plays an important role in facilitating the flow of capital to priority climate investments. The private sector can provide insights on the gaps and opportunities in a country's enabling environment by liaising with governments to ensure that climate risks and opportunities are adequately accounted for in the regulatory framework. Additionally, private capital providers alongside philanthropic foundations can serve as an additional source of highly concessional funding and climate expertise alongside development partners. Civil society can also liaise with governments to ensure that their constituents' interests are considered in the development of enabling environment reforms, as well as provide academic and research expertise to public sector decision makers.

Figure 1: Roles of Key Stakeholders in Strengthening an Enabling Environment for Climate Finance



Source: Climate Finance Advisors, 2022

While creating a conducive enabling environment for climate investments with robust regulatory and institutional frameworks and capacity building can facilitate the preparation of investable projects, it doesn't necessarily guarantee investability.

Enhancing the Investability of Climate Projects

Developing economies present unique opportunities for private investors, yet main challenges remain to be addressed. These challenges span macro, sectoral and firm levels and require supporting actions from government, bilateral and multilateral organisations, philanthropies, and the private sector to unlock mutually beneficial investment opportunities.

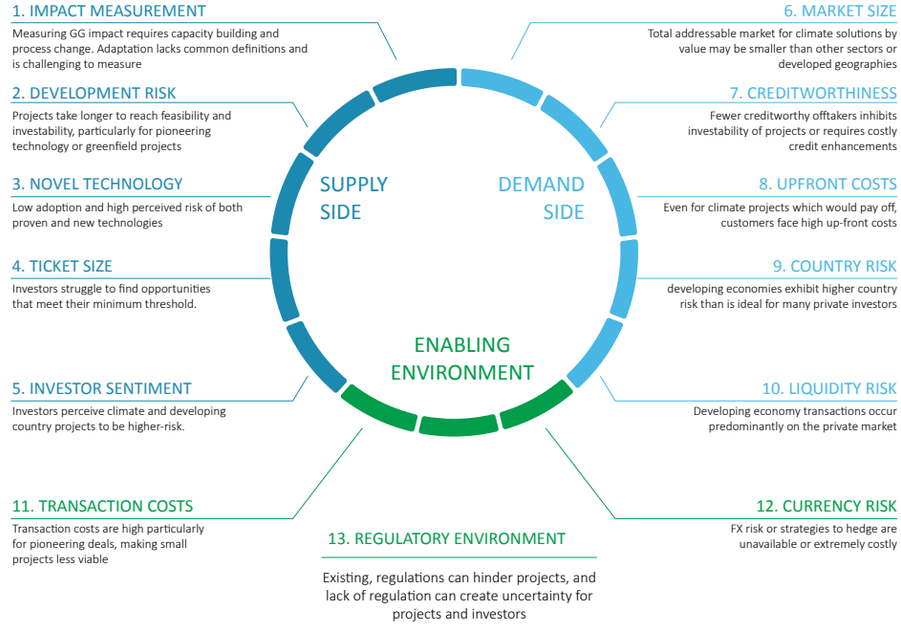
Private investment flows to developing countries are key in supporting climate action, however, the investability of projects is one of the main impediments to private finance. Investability is the potential and capacity of a project to attract non-public investment. Although some projects may have high social and economic returns, they are not considered investable by the private sector due to their low financial returns.

Requirements for investability vary based on the source of capital. The range of investments that are attractive to private investors is dependent on investors' own mandate, risk appetite, instruments, cost of capital, time horizon for realizing returns, and volume of capital to deploy, as well as a project's risk-return profile.

Capital providers seek risk-adjusted returns that fit their distinct profile, which is often driven by fiduciary duties. The risk-adjusted return of an investment is broadly determined by the fundamentals of the company or project such as profitability and cash generation, and by the conditions of the market such as market size, competition, and macroeconomic environment. As an illustration, investors with high risk appetite can invest in projects or companies at earlier stages with no immediate cash flows and uncertainty in the exit strategy. Investors with a lower risk appetite prefer investments with proven business models, stable cash flows, and clear exit strategies.

Some challenges that face climate projects are mainly related to the supply and demand sides of climate solutions, while others are related to the enabling environment at the country level.

Figure 2: Challenges to Investability of Climate Projects in Developing Economies



Source: CrossBoundary and CFA

Supply-side challenges are perceived particularly high in developing countries. Investors are required to assess and determine the impact of their investment which presents a technical challenge and requires additional resources, as well as bear the development risk of a project during the development stages before commercial operations begin. Furthermore, investors find it risky to engage in projects with still unproven technologies, and struggle to find climate investment opportunities that meet their minimum investment threshold. This is particularly relevant for adaptation projects which comprises more nascent sectors that have not reached scale level yet.

On the demand side, market size is a considerable challenge as developing economies have smaller addressable markets, and thus the potential for climate investment is perceived as limited. Additionally, companies face challenges with up-front costs and the shift of expense from an operating expense (OpEx) to capital expenditure (CapEx), which is further aggravated by the high country risk of developing economies, considered higher than is ideal for many private investors.

When it comes to the enabling environment, investors tend to face three main challenges. Transaction costs require capital providers to demand a large ticket size for climate projects compared to other investment opportunities, especially in emerging and frontier markets, regardless of the project size. The second challenge is currency

risk, which is more prominent in countries with volatile exchange rates, and becomes even more relevant in times of economic and market stress. The third challenge is the regulatory risk, as climate projects face non-existent, unclear, or conflicting regulations which affect the financial viability of projects and attractiveness for investment.

There are several policy levers that governments can enact to support climate investments, such as employing directed policy through adequately designed regulations, tax, and subsidies which align financial and economic returns; and removing harmful subsidies which counter climate objectives.

Investments that address climate change – whether reducing emissions or addressing resilience requirements – bring with them greater public good benefits, and in many cases economic returns. Understanding some of the nuances around investability at each stage of the project lifecycle will be important for deploying strategies to enhance such investability, and also to understand how to scale investments in markets.

Projects with high economic returns can have a wide range of financial returns, from fully commercially viable to requiring full or partial public funding. For each category on the returns spectrum, investability can be enhanced through: policy and market-level actions; improving the risk-return profile of the investment; and addressing other transaction-level barriers.

Projects that are pure public goods with high economic returns but low or uncertain financial returns, are well-suited for public funding. Measuring and enhancing the economic returns of a project are hence critical for prioritizing the deployment of limited public and philanthropic capital. To that end, strategies to quantify economic returns need to incorporate environmental and social externalities, while factoring in the cost of inaction.

In cases where projects have below-market risk-return, blended finance can be used to bridge the investment gap by enhancing the risk-return profiles. Commercially viable projects, on the other hand, would require investment facilitations to overcome transaction-level barriers and coordination challenges.

The Guidebook presents solutions in the form of investable, scalable models for mitigation and adaptation projects that provide economic returns from clean energy, decarbonization, resource efficiency, and adaptation actions. These models identify the challenges and types of projects addressed, as well as the relevant capital providers and key stakeholders that are pivotal to the successful implementation of the selected models, many of which can be replicable across geographies, stakeholders, and sectors.

Catalyzing Private Capital for Climate Action

The costs of addressing climate change – both risks and opportunities – far exceed the availability of the limited public resources. Even if all Multilateral Development Banks (MDBs) dedicate all their funds to the green transition, it would only amount

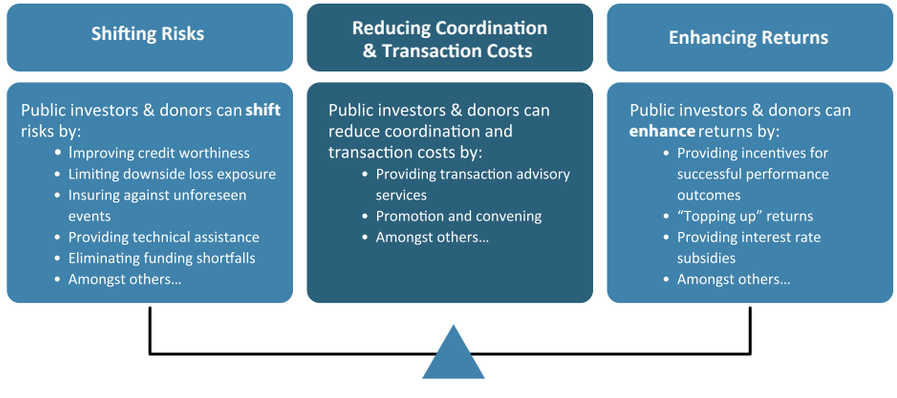
to 4% of the needed finance, while shifting only 1.4% of global private financial assets would be sufficient to fill the climate finance gap.

The most significant barrier to private sector investment in developing economies is high country risk (perceived and actual). Around 73% of low and middle income country sovereign risk ratings are rated "B" or lower- beyond the fiduciary risk limits of most investors, which means that, apart from the risks associated with investing in green projects, they experience high risk perception. This negatively affects countries' sovereign credit rating, hence limiting access to private flows. The de-risking of investments is therefore pivotal, especially during periods of rising interest rates and in circumstances where MICs and LICs experience sovereign debt vulnerability.

Innovative finance solutions can unlock existing pools of capital. There is a need for developing, advancing and deploying innovative finance approaches, such as blended finance and carbon and resilience credits, to de-risk and catalyse private capital towards mitigation and adaptation projects. These approaches can help accelerate the green transformation by creating incentives for private investors, whilst safeguarding societies that are most vulnerable to shocks.

Blended Finance has been demonstrated as an important approach to creating fiduciary investment assets that effectively catalyse private investment. Blended finance transactions are, by definition, realized when concessional public capital, grants and risk-sharing instruments are brought to a transaction for the purposes of bearing greater risks for lower returns, or to help share more risks within a transaction, thus enabling private capital to invest when previously the risk-return profile for their funding was imbalanced.

Figure 3: Blended Finance Approach



Source: CrossBoundary, adapted from Convergence

Concessional blended finance transactions, to date, raise a total of around $10 billion per annum, 75% of which are for climate. Most of the transactions for climate have been conducted at the project level as opposed to the more efficient portfolio level (e.g., funds and facilities), resulting in limited private sector engagement in climate-related investments.

Being strategic in the application of blended finance approaches should, by design, not only increase the quantity of investment, but also the quality, and ensure that the benefits of a green economy transition are equally shared, and that the burdens are not disproportionately borne by developing economies least responsible or able to bear them. They also mobilize both cross-border and domestic investment, as well as support and complement domestic financial institutions operating in low and middle-income countries.

Structuring climate investments through blended finance on the portfolio level can help deploy concessional climate-related investments more efficiently and achieve high private investment mobilization. In this approach, development organisations provide funding to a blended fund or facility at below-market terms to mobilize private capital providers to invest in the vehicle. The blended finance vehicle then extends financing to a portfolio of projects in developing countries.

Collective action through country platforms is crucial in unlocking necessary resources to achieve impactful, climate-resilient and sustainable development. Multi-stakeholder platforms can play a critical role in leveraging the comparative advantage of different actors, such as development partners and the private sector, to mobilize and secure necessary resources targeted in specific areas or themes. They facilitate collaboration, align and synchronize contributions, and promote transparency and accountability by providing insights into needed resources, priority sectors and available pipelines of investable projects.

Large-scale partnerships to mobilize investments in climate action can take different forms. While Just Transition Partnerships (JETPs) which were first introduced during COP26 focus on decarbonisation targets in the energy sector to phase out coal-fired power, Egypt's Country Platform for the Nexus of Water, Food and Energy (NWFE نُوَفِّـي) Program offers a practical and replicable model of the concept of platforms to mobilize climate investments based on country priorities. It integrates a set of high priority projects for adaptation and mitigation, bundled around the nexus of the three main pillars of Water, Food, and Energy and selected through a prioritization process led by the Government.

Another proposed framework on the international level is the Climate Investment Mobilization Framework, which lays the grounds for an international multi-stakeholder platform that would be aligned with the needs and priorities of both developed and developing countries. It leverages a network of professional experts to strategically allocate catalytic finance to projects through blended finance vehicles to mobilize private investment at scale.

Achieving climate targets by 2050 will require shaping new pools of capital. Other innovative non-blended instruments that monetise mitigation and adaptation outcomes, such as carbon and resilience credits, can improve profitability and catalyze private investment.

Enhancing the Investability of Climate Projects Through Carbon Markets

Carbon markets offer projects in developing economies a potential new revenue stream by placing a monetary value on greenhouse gas emissions, usually in the form of carbon credits, and facilitating their trade. They are an important tool for climate action, especially as means to support transitions in hard-to-abate sectors and where reductions remain extremely costly.

Effective Carbon markets have the potential to reduce the cost of implementing NDCs by upto $250 billion annually by 2030. Governments could explore opportunities for integrating carbon-trading strategies and establishing strong regulatory systems and standardised pricing schemes to promote transparency, as well as strengthen the integrity of carbon markets.

Article 6 of the Paris Agreement, which was ratified in 2021 at COP26, provides a rulebook and guardrails for the use of carbon markets by governments. This allows countries to voluntarily pursue the development and use of carbon credit mechanisms and cooperate with one another to achieve their emission reduction targets. Under Article 6, countries can also authorize carbon credits – so called Internationally Transferred Mitigation Outcomes (ITMOs) – for transfer to another country or entity. This authorization mechanism can, in theory, enable voluntary market credits to interact with compliance schemes and inter-country carbon trading.

Governments, with support from bilateral and multilateral development partners, can shape how the voluntary market interacts with broader policy objectives. Governments can create the enabling environment for carbon projects by reducing regulatory uncertainty that hinders private investment into climate projects that rely on carbon markets for revenue. This includes, for example, assurance that carbon projects being developed today have a clear pathway to authorisation, and for nature-based carbon projects, that there are transparent processes for land rights allocation to developers. They can provide clarity on intended climate action and sustainable development pathways, Article 6 implementation and carbon rights.

Governments need to enhance capacity-building and readiness for carbon project development. They can scale support for early-stage carbon projects to grow the pipeline of investable opportunities and improve access to carbon markets. While there is capital available for carbon projects after they have been sufficiently de-risked or are already issuing carbon credits, the pipeline of investment-ready opportunities remains limited. Early-stage support for project design, feasibility studies, and capacity-building for local organisations and new entrants is essential to grow the pipeline of carbon projects. Catalytic support can be in the form of grants, repayable grants, or convertible instruments common to early-stage private investment.

Bilateral and multilateral development partners, guarantee and insurance providers, as well as private sector actors, can develop and deploy a suite of tools to de-risk carbon projects in developing economies such as insurance products tailored to carbon projects, and they can utilise blended finance approaches to improve the risk-return profile of projects. This can be done through the provision of first-loss capital, technical assistance, guarantees, or design-stage funding to cover the costs of developing these structures.

> *Following the same rationale of carbon credits, the Guidebook introduces a novel approach to monetising resilience in the agriculture sector. In LICs, agriculture accounts for 25% of GDP and 40% of jobs and is one of the most vulnerable sectors to the adverse effects of climate change.*

Monetising Resilience for Climate Action

Investing $1.8 trillion globally in areas such as early warning systems, and climate-smart practices over 10 years could produce $7.1 trillion in total benefits. Therefore, climate investment aiming to enhance the resilience in the agriculture sector, especially targeting smallholder farmers, will significantly foster food security.

Despite its urgency, climate finance does not flow sufficiently for resilience efforts. One reason for this is that it has been difficult to distinguish adaptation from development. Moreover, it is hard to measure the "additionality of adaptation'' from climate related funds. Other challenges include the difficulty to create uniform standards of different context-specific resilience programs, thereby reducing the ease of transforming adaptation activities into an assets class.

Creating resilience credits could help address those challenges, by serving as an incentive for private investors to target resilience enhancement. Measuring resilience accurately could monetise economic and financial benefits in the form of credit in the Agriculture sector.

The overall transaction process for creating and monetising benefits of any specific resilience project can start from development partners and philanthropies who can provide catalytic first loss capital by pooling resources into a facility, managed by a third party (i.e. multilateral entity), and facilitate the overall credit enhancement of intermediaries (i.e. farmers organisations).

Another form of credit enhancement support could be grant, equity investment, or guarantees. This credit enhancement support in agriculture can be used to encourage off-take agreements with private investors to buy surplus yield (in a scenario where surplus yield is the key output of the project) from intermediaries.

Similar to carbon markets, resilience credit markets require a well-established regulatory framework to be able to create the necessary enabling environment that promotes the engagement of the private sector. Whether resilience credit

trading could be linked to carbon markets requires further assessment, including understanding and analysing legal requirements.

A Governance Structure for Just Climate Finance

> *To overcome the inherent challenge of delivering effective international public finance and to unlock the potential for climate finance, all stakeholders need to cooperate to strengthen the current governance structures.*

Currently, there is no single overarching global governance structure for climate finance. The public capital in the climate finance ecosystem is the result of individual funding and financing decisions by a multitude of both multilateral and bilateral institutions. The decisions on allocation and provision of climate finance resources are hence governed by each institution's policies.

The institutions with a predominant or exclusive mandate for the provision of climate-related finance constitute only a small share of the total volume of climate finance. In 2020, these institutions accounted for less than 4% of the $83.3 billion of climate finance tracked. Decisions for climate finance are still largely driven by public development finance, thereby showing the need to analyse governance aspects of the international concessional funding architecture.

Development effectiveness principles provide a useful benchmark for assessing arrangements for providing climate finance. The development effectiveness agenda established several broadly accepted principles that constitute practical, normative guidance that governs the delivery of concessional funding. These principles are ownership, transparency, results, and inclusive partnership.

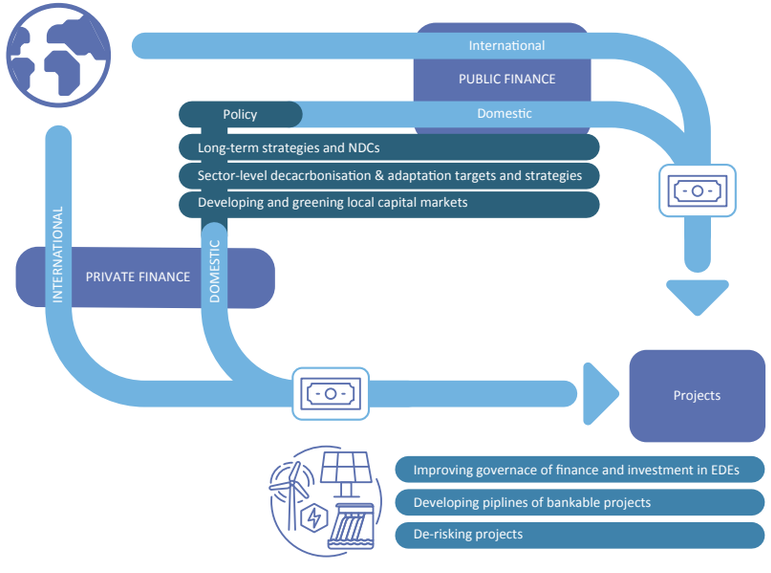
Paris-alignment of all financial flows – and stronger governance around efforts to that end – will be critical to efforts to channel commercial finance toward productive climate action. Private financial institutions are increasingly committing to aligning their portfolios with the Paris goals and seeking opportunities to invest in the transition to a low carbon, climate-resilient future.

To promote transparency and accountability, the predictability of international climate finance should be enhanced. This could be done through increasing the transparency of climate flows, as it would assure developing countries that their ambitious domestic climate plans will be backed by international support. Increasing transparency will also help in holding development partners accountable for how they define, account for, and report official development assistance related to climate action. Additionally, governments mainstreaming climate action in their development strategies and policies will allow for domestic co-ordination and clear allocation of responsibilities, and will grant development partners with greater visibility on their climate targets.

The climate finance ecosystem is also in need of unified, coherent, reporting methods and information systems. Different stakeholders adopting similar approaches will help in the production of quality data, which will further enable governments to identify their needs and prioritize them. This will enable investors to allocate funds to countries most in need. Additionally, a coherent methodology will in turn increase transparency, and decrease fragmentation, which will also increase the accountability of development partners.

Strengthening the governance of climate finance requires more effective country-led coordination through country platforms. Bringing together governments, development partners, and the private sector, can help bridge the gap between the demand for and supply of finance, and provide fora to identify and tackle barriers to investment, improve domestic enabling environments, and optimise the deployment of the different sources of finance: public, private, domestic, and international.

Figure 4 The Climate Action Policy and Investment Ecosystem



Source: OECD

Mainstreaming Just Climate Finance in Developing Countries: A focus on Africa

> *While the Guidebook provides an actionable agenda for climate action that is applicable to developing and emerging economies at large, the practical recommendations set forth were tailored to address the needs of the African continent, highlighting the current implementable opportunities.*

The Guidebook further presents a collection of case studies that provide insight into the different ways that public and private sources of capital can engage in efficient structures for Just Financing outcomes. The case studies showcase a variety of developing country contexts and diverse levels of development including cases from Fragile and Conflict Affected States and Low-Income Countries (LICs) to cases from Middle-Income Countries (MICs). They span the different sectors, capital providers and financing approaches.

Challenges and Opportunities in Africa

African countries are facing uneven climate challenges as there is a massive need for financing for climate mitigation, adaptation and resilience yet limited resources and inadequate investment flows. Through 2030, an estimated $2.8 trillion is needed to implement Africa's Nationally Determined Contributions (NDCs).

The climate finance deployed in Africa is dwarfed by the trillions required. Average annual climate finance deployment in Africa in 2019/2020 was $29.5 billion, equivalent to 11% of the financing needed to implement NDCs and meet 2030 climate goals.

Domestic financial resources fall short of the climate financing needs. African governments have committed only $26.4 billion of domestic public resources, leaving an approximate $250.6 billion gap. These commitments are further constrained by weakening debt capacity, higher debt servicing costs, rising global inflation and low adaptive capacity.

Climate finance doesn't reach the countries that need them most - over 50% of climate finance flowing to Africa is concentrated in just 10 countries. The continent is home to more than half of the world's fragile and conflict-affected states, which are associated with high real and perceived risks. Nevertheless, most African countries have a credit rating of B or below, which hinders the flow of investments.

To support investments and attract climate finance at scale, African countries require immediate funding for project preparation, capacity building and de-risking investment opportunities that help create supportive enabling environments for the private sector.

Investment opportunities across Africa are abundant – particularly for low-carbon, climate resilient investment that helps countries meet their NDCs. Africa continues to have significant growth potential, with abundant natural resources and a growing

population. In this context, integrating Just Financing Principles into investment opportunities has the potential to accelerate climate-aligned economic development and growth that leaves no one behind.

Africa is considered to have a dynamic entrepreneurial environment which enables it to tap into emerging global sources of investments and allows it to 'leapfrog' stages of technological development in ways that are both climate-smart and equitable.

Carbon markets have the potential to unlock $180 billion annually by 2030 for Africa. Although the continent is home to some of the largest carbon sinks in the world, only 14% of the total carbon credits issued worldwide between 2002 and 2020 stemmed from Africa. Carbon markets have the potential to deliver attractive investment returns and catalyze private finance in Africa, while driving sustainable, climate-resilient development.

The potential for regional coordination and collaboration in Africa presents an opportunity for countries on the continent to further catalyze climate investments. African countries, even though politically and socially diverse, experience largely similar climate change risks and share similar investment needs. They can hence leverage these commonalities to create mobilization networks for climate finance on blended finance strategies. These can then be used to lower the perception of risk and attract capital at scale from networked financiers both at domestic and international levels. The operationalization of regional agreements and governance mechanisms can serve as the basis for countries to understand shared interest, needs and potential opportunities, and to generate financing strategies and investment opportunities that engage with large investors while at the same time evening out project and country risks.

Pairing the aforementioned opportunities with collective action would allow Africa's climate needs to be met. Across stakeholders, there is an overarching theme emphasizing the need to move up the risk curve, deploy more capital into LICs, and into higher-risk climate projects in MICs. They should also support African country governments by providing technical assistance and capacity building to enhance institutional capacities. African states likewise need to prioritize climate adaptation particularly in the agriculture sector, as well as ensure that extensive new infrastructure investments to accompany an expanding population are aligned with mitigation goals and the physical realities of a warming climate.

> *To operationalize the proposed solutions of the Guidebook, it presents a set of general overarching recommendations that can expedite climate action, and also proposes an actionable agenda for the different groups of stakeholders involved in the climate finance landscape.*

Key Recommendations

Mainstream Just Financing principles across climate finance activities that align global climate agenda targets with national development objectives; promote equitable pathways to climate finance by emphasising the right of LICs and MICs to quality and quantity climate finance; and enhance governance structures by strengthening transparency, accountability and institutional mechanisms on the national and international levels.

Implement sustainable debt mechanisms in MICs and LICs to improve countries' credit ratings, lower country risk and increase private sector confidence and interest in investing in these countries, through exploring more innovative financing structures that are conducive to leveraging domestic and international private finance.

Mobilise additional finance that goes beyond the $100bn pledge through enhanced engagement between public and private sector to unlock the trillions of dollars that are available through the private sector and other development and non-state actors, while simplifying MDBs and climate funds' access requirements for effective and equitable allocations.

Scale financing for adaptation, resilience and loss and damage through additional grants and funding deployed by capital providers, particularly for projects with little to no financial returns. These financial allocations should not compete with, nor hinder, financial flows addressing the development needs of LICs and MICs.

Improve national governments' macroeconomic management and promote public-private partnerships to create meaningful revenue streams, and strategically deploy limited resources to make climate action projects more commercially attractive.

Address perceived and real risk in developing and emerging markets to enhance trust and promote partnership by providing clarity on intended climate action and sustainable development pathways, aggregating and sharing accurate and reliable market information and transaction data on current, previous and potential investments among financial stakeholders to reduce uncertainty that can hinder private investment.

Create comprehensive accurate systems for costing climate change needs, on the short, medium and long-terms at national levels, accounting for the cost on inaction, and Integrate climate-related risks assessments in financial structures of public institutional investor, asset managers, MDBs and export credit agencies.

Generate pipelines of high impact investable projects that are Paris-aligned and contribute towards national priorities with different risk/return profiles that meet different investors' appetites to enhance their visibility on country context.

Incentivise private sector engagement in climate action through fostering enabling environments and enhancing policy and regulatory frameworks that improve ease of doing business, and create incentives for low-carbon, climate resilient investments.

Encourage stakeholders with high risk appetites to create investment assets that can mobilize private sector investments in climate-related activities they would otherwise not invest in by providing guarantees, insurance or first-loss capital, and investing in lower in the capital stack.

Advance blended finance modalities through MDBs and DFIs activities through the use of catalytic funding depending on the particular needs of each country. This can scale up catalytic grants and capital investments in the form of project financing to reduce country risk, increase investors' confidence and lower the cost of capital for climate action.

Ensure that capital providers' engagement modalities in MICs and LICs consider country capacity and market readiness when designing instruments and allocating capital. In MICs, where the enabling environment and markets are relatively mature, capital providers should choose a mode of engagement and instrument mix that can catalyze more private capital into climate projects. In LICs that need support in maturing their market conditions to attract private capital at scale, grant-based and highly concessional instruments are more suitable.

Improve LICs and MICs agility and efficiency by advancing adaptive and robust policy and regulatory frameworks to explore and capitalize on opportunities in carbon and resilience credit markets to unlock additional climate finance resources while ensuring country ownership, maximising benefits and mainstreaming just financing principles.

Enhance transparency and accountability of climate finance by introducing climate tags for budget tracking and conducting regular climate expenditure and institutional review based on budget cycles on the national level, while developing consistent, aggregate monitoring, evaluation and reporting systems with standardised methodologies on the international level.

Strengthen International Investment Agreements' role in accounting for climate investment considerations to facilitate sustainable investments in support of climate action and limit or exclude coverage of high-emission investments by recognising investors' responsibility in contributing to the transition to a green economy.

Introduction

Introduction

Context

In recent years, climate change has emerged at the forefront of every country's development agenda as its consequences seep into all aspects of the socioeconomic sphere. Yet, with the latest compounding crises of the COVID-19 pandemic and the war in Europe, the world has reached a critical juncture for climate action, where balancing priorities has become more complex and solutions require more innovative approaches.

The Intergovernmental Panel on Climate Change (IPCC) stated that over 40% of the world's population are exposed to the adverse effects of climate change, which vary by region and according to governance structure and socio-economic status (IPCC, 2022). The World Bank further estimates that climate change could jeopardize developmental gains by pushing 132 million people into poverty by 2030, particularly impacting those living in Africa and South Asia (World Bank, 2020). With this pace, "climate action failure" can potentially cause severe damage at scale in the coming years as per the World Economic Forum's 2022 Global Risk Report.

Over the past decade, climate change has been costing the world economy 0.2% of GDP ($1.3 trillion) each year due to loss and damage. As global temperatures continue to rise and climate-related risks increase, maintaining such a trajectory with the same climate policies may cost the world economy up to 20% of GDP by 2050 (McKinsey & Company, 2022), with low and lower-middle income countries potentially experiencing 3.6 times more loss than high-income countries. (World Economic Forum, 2022). In 2021, the global mean surface temperature was 1.1°C ± 0.13°C warmer than the pre-industrial baseline (World Meteorological Organisation (WMO, 2022), and is "expected to reach or exceed 1.5°C of warming" over the next 20 years (IPCC, 2021). Exceeding 1.5°C could result in severe heat waves and trigger multiple climate tipping points, including Greenland ice sheet loss, Boreal permafrost collapse, and Amazon forest dieback (Rockstorm, et al, 2022).

Heat stress is projected to cost the global economy $2.3 trillion by 2030 due to its negative impact on labor productivity. In summer 2022, heatwaves and fires affected Europe, Asia and Africa, in many places breaking long-standing temperature records (Scitech Daily, 2022). According to the International Labor Organisation (ILO), heat stress will reduce the total number of working hours by more than 2.2%- equivalent to 80 million full-time jobs, and hence will incur a $2.3 trillion loss in GDP by 2030.

Financing represents the main challenge developing countries face to adapt and accelerate climate action. To address climate change, investment in mitigation and adaptation efforts must rapidly accelerate, and must come from all forms of capital, both public and private.

Climate finance – the mobilization and provision of finance for climate-related investments – involves both a narrow and a broader definition that is now evolving. The narrow definition includes specific types of financial flows and their sources. These include development finance from developed economies, the network of development finance institutions which includes multilateral and bilateral development finance institutions, and the designated climate funds/facilities as well as those designated as official mechanisms of the UNFCCC, such as the Green Climate Fund, the Global Environment Facility, and the Adaptation Fund.

For more than a decade, the term "climate finance" has expanded beyond these development finance channels to encompass more mainstream actors of the financial system, including banks and lenders, private equity and venture capital investors, institutional investors such as pension funds and insurers, sovereign wealth funds, and others. These sources are also increasingly viewed today as sources of climate finance, albeit with very different mandates, risk-return requirements, and investment horizons.

Pledged global climate commitments may not make their way to the countries that need them the most. Back in 2009, at COP15 in Copenhagen, developed countries pledged to mobilize $100 billion worth of climate finance per year by 2020 with at least 50% to be spent on adaptation. According to the OECD, total climate finance committed in Official Development Assistance (ODA) by developed countries amounted to $83.3 billion in 2020. Far from the amount pledged, the number reaching developing countries in reality is less than 20%, most of which were directed to projects that contribute to greenhouse gas emissions reductions in middle income countries rather than low income countries (Oxfam, 2018).

Current climate finance falls short of countries' needs and is often associated with high transaction costs. The scale of climate investments needed, compounding over the years, is estimated between $4.5 trillion and $5.9 trillion- as opposed to the current flows at $632 billion- as per the Climate Investment Policy's latest 2021 report on the Global Landscape of Climate Finance and the UNFCCC Standing Committee on Finance, respectively, thus dwarfing the $100 billion pledge.

Developing countries need to invest an additional $800 billion per year on climate mitigation projects alone, by 2025 (World Economic Forum, 2022). As for adaptation costs, they are expected to reach up to $300 billion annually by 2030, as per the UN Environment Programme (UNEP). Nevertheless, in the aftermath of COVID-19, low income countries needs doubled to $200 billion, sky-rocketing to $450 billion if they are to catch up to advanced economies (International Monetary Fund, 2021). Thus, increasing the financial burden of developing countries to combat climate change.

Climate finance needs to be utilized to its full potential. The levers of all parts of the financial system are not being fully maximized, or well-coordinated to ensure different types of investors – with different abilities to bear and share risks and returns – are most efficiently aligned to achieve the best climate investment outcomes.

Increased quantity and quality of climate finance can help reduce the cost of financing, particularly for the most vulnerable and developing economies either explicitly in terms of pricing, or transaction costs involved in coordinating, mobilizing, blending, or otherwise bringing together different parts of the financial ecosystem.

Current economic conditions may limit the ability of financial sector stakeholders to increase the flow of climate-related investment. Continued COVID outbreaks, higher inflation, post-COVID debt levels, and rising income inequality is expected to reduce economic growth rates (World Bank, 2022) across the world, and hamper developing countries' financial and physical resilience to climate-related risks, even as investment needs continue to rise (due to continued warming). Growth rates in Africa have slowed (World Bank, 2022), which in turn has the potential to reduce fiscal space for public sector investment. Further, countries that are highly vulnerable to climate-related impacts may begin to see this vulnerability appear in borrowing costs for their sovereign bonds.

In view of the growing financing needs to respond to the climate agenda, the international community needs to drive more focus on deploying pledged commitments and catalyzing additional capital, allowing institutional investors to become key players in bolstering a green transition rooted in the principles of Justice and Equality.

The global private financial system has a significant role in bridging the financing gap, as it holds approximately $410 trillion in assets. According to the World Bank, even if all Multilateral Development Banks (MDBs) dedicate all their funds to the green transition, it would only amount to 4% of the needed finance, while shifting only 1.4% of global private financial assets would be sufficient to fill the climate finance gap. This, in turn, calls for promoting long-term partnerships with the business community to collaborate with governments, MDBs and philanthropies.

Investing in the low-carbon, climate-resilient economic growth of developing economies is a significant opportunity, not only for the countries themselves, but also for investors of all types. According to the International Finance Corporation (IFC), there is at least a $23 trillion investment opportunity in climate-smart projects and assets in emerging markets between 2016 and 2030 (IFC, 2016). As Nationally Determined Contributions (NDCs) become increasingly ambitious, and as corporate actors in developing countries engage with the transition towards a low carbon future, investment opportunities are poised to only increase within the next decade. Furthermore, evidence indicates that countries that are more resilient to climate change have lower costs of capital relative to countries with greater vulnerability to climate-related risks, particularly in developing countries with limited capacity to adapt to climate-related impacts.

> *"Climate change is a growing threat to our lives, to our livelihoods, and to the stability of our economic and financial systems. Investments in resilient societies, renewable energy, and green technology are urgent and vital. This requires vast sums of money—amounts that far exceed what governments alone can provide—so we need new ideas and new approaches to harness private capital to build cleaner, greener, stronger economies everywhere."*
>
> **- Dr. Kristalina Georgieva, Managing Director, International Monetary Fund**

Background and Purpose

How to translate pledges into implementable projects?

With the recent global direction towards accelerating momentum for Climate Action due to the growing scale and intensity of the effects of climate change, there is little dispute on the importance and urgency of the need for swift and collective action. Through dedicated, international concerted efforts, there's potential to push forward a transformative agenda to explore, advance and implement needed measures to build capacities on the national and international levels, leverage and catalyze finances and develop and transfer technologies to promote a climate resilient future.

COP26 witnessed a wide participation of diverse stakeholders, including the private sector, where a number of positive announcements were made as participating countries reaffirmed their commitment to the Paris Agreement goal of keeping the increase in global temperature to levels below 2°C, and better yet, to keep the goal of 1.5°C alive. Glasgow also urged developed countries to deliver on the $100 billion pledge and to double financing for adaptation.

Moreover, there has been a growing interest from institutional investors in climate financing, manifested in multiple initiatives that were launched, such as the Glasgow Financial Alliance for Net Zero (GFANZ) that has committed over $130 trillion of capital to achieve the goals set forth in the Paris Agreement by 2050.

Building on the achievement of COP26 and in light of Egypt hosting the 27th session of the Conference of the Parties (COP 27) to the United Nations Framework Convention on Climate Change (UNFCCC), the COP27 Presidency announced that its main objective is to **move from Pledges to Implementation.** It is within this context that the **"Sharm El-Sheikh Guidebook for Just Financing"** comes as a timely initiative to go beyond pledges into fostering inclusive partnerships towards a climate resilient future.

This Guidebook discusses what different stakeholders need to do to:

1. Translate commitments into implementable climate-related projects; and
2. Capture opportunities to leverage and catalyze needed finance and investments to support the goals of the Paris Agreement.

2022 is, thus, a critical year – to lay the foundation for a more robust climate finance system that mobilizes and aligns different sources through stronger coordinated efforts to be consciously directed towards, not only countries with highest emissions, but also to the countries that face the highest risks, striking a balance between mitigation and adaptation.

Through a wide and inclusive consultative process that started in September 2021 during the first edition of Egypt – International Cooperation Forum (Egypt – ICF), Egypt's Ministry of International Cooperation has been leading efforts to engage and consult with more than 100 stakeholders, including; governments, development partners, private sector, commercial and investment banks, philanthropies as well as research centers and think tanks, to define a framework for climate financing that is anchored in an equitable and just proposition.

The Guidebook emphasizes the need to scale-up investments towards climate adaptation and mitigation projects, while highlighting the importance of improved access to quality and quantity climate financing that leaves no one behind through a variety of mechanisms and tools to promote just financing.

It contributes to filling the information gap for both national governments and investors to reduce the risk and uncertainty associated with climate investments. It also identifies key barriers to private investments and proposes solutions to overcome them.

More importantly, it addresses the limited access of developing countries to climate funds and thus provides a mapping of capital providers based on their access criteria, risk appetite, regional and sectoral focus, ticket size and financing instruments.

It also proposes a set of innovative financing models that are able to catalyze climate investments and presents successful projects that can be replicated and upscaled.

> *"The World Economic Forum is committed to accelerating the just transition, through public-private collaboration. The Sharm El-Sheikh Guidebook for Just Financing is a crucial step in fostering inclusive partnerships towards a climate resilient future. "*
>
> **- Prof. Klaus Schwab, Chairman, World Economic Forum**

Methodology

The development of the Guidebook adopted a dynamic multi-stakeholder approach that started with reviewing the key literature on the international climate finance system to identify the Guidebook's contribution towards consolidating the concept of just climate finance.

Following the review of more than 20 publications, the Egyptian Ministry of International Cooperation (MOIC) initiated a series of inclusive consultations with over 100 relevant stakeholders representing Governments, Multilateral and Bilateral Partners, Private Sector, Commercial and Investment Banks, Climate Funds, Research Institutions and Think Tanks, and Philanthropies.

These consultations aimed to stir the discussions and to incorporate collective views on required actions for mobilizing just financing to facilitate a green resilient transition. This led to the conceptualization phase where the main questions the guidebook addresses were outlined, followed by an assessment of the current climate finance landscape to: identify the key stakeholders and their complementary roles, pinpoint main opportunities to accelerate climate action, striking a balance between adaptation and mitigation, and develop a clear framework with practical guidelines to enhance the investability of adaptation and mitigation investments.

The Guidebook sets out an adaptive, flexible and implementable international framework for climate action that is applicable to developing and emerging economies at large, with a special focus on Africa when drawing lessons learnt and setting forth feasible recommendations for each of the stakeholders to crowd-in private capital and ensure equitable access to just financing.

Target Audience

The Guidebook aims at addressing the stakeholders involved in the current climate finance system including governments, financial institutions and regulatory authorities, multilateral and bilateral partners, private sector firms and investors- including private equity, venture capital, institutional investors and asset managers- national development banks, commercial and investment banks, insurance and pension funds, climate funds, philanthropy/civil society, and export rating agencies.

Each of the stakeholders has a vital role to play, aligning, synchronizing and advancing these roles are key to unlock investment opportunities and push forward equitable pathways for climate action.

Regional Focus

While the guidebook presents scalable models, frameworks and structures that can be adapted to developing countries in different regions, it dedicates a chapter specifically to address the African context in the operationalization of the proposed solutions.

Contributing to less than 8% of the global GHG, the African continent is ranked as the least emitter amongst all continents, yet the most vulnerable to the impacts of climate change (IPCC Working Group III, 2022). Africa's High vulnerability to climate change combined with low adaptive capacity, put the African countries and emerging economies at risk of significant physical damage.

In 2020, the economic costs of extreme weather events in Africa were estimated in the range of $7–$15 billion and could reach $45–$50 billion a year by 2040. Nevertheless, among the 30 million people that became internally displaced due to these events, 4.3 million were located in Africa.

African countries are already spending between 3-9% of their GDP on climate change adaptation and financial needs have been exacerbated by a post-Covid19 recovery. Africa's annual needs are estimated at $250 billion from (2020-2030), which far exceeds the current climate finance flows of $30 billion per annum (Climate Policy Initiative (CPI, 2022), making Africa amongst the least recipients of climate finance with a share less than 5.5% , as opposed to the 75% inflows to East Asia & Pacific, Western Europe, and North America.

To attract climate finance in Africa at scale, de-risking investments is a crucial element. Although Africa offers the highest returns compared to most of the emerging economies, it experiences a high risk perception which negatively affects its sovereign credit rating, hence limiting access to private flows.

Sectoral Focus

Developing and emerging economies face a critical challenge in meeting the growing demands for food, water, and energy, which is further compounded by the effects of climate change. Hence adopting innovative sectoral strategies to tackle this challenge is more important than ever.

Investing in clean energy strategies and facilitating access to renewable energy and the adoption of energy efficiency measures are inevitable to reduce emissions, especially that the Energy sector contributes to 60% of global GHG emissions (Resource Watch, n.d.) .

Climate change remains a great impediment to food security in the long haul, especially for the most vulnerable countries. Food systems and the agriculture sector both contribute to and are affected by climate change, as they account for one third and 12% of global GHG emissions, respectively (Climate Watch, n.d.).

Without effective adaptation, climate change can potentially reduce yields of critical crops from 5-30% between 2030 and 2050, with almost 660 million people at risk of experiencing hunger in 2030,

Therefore, directing investments to the agriculture sector can help build resilience by increasing productivity and optimizing the efficient use of resources. According to the Global Commission on Adaptation, investing $1.8 trillion globally in areas such as early warning systems, and climate-smart practices over 10 years could produce $7.1 trillion in total benefits.

Meanwhile, the water sector is most vulnerable to the adverse effects of climate change, with 74% of natural disasters between 2001 and 2018 being water-related in the form of storms, droughts, and floods etc, affecting more than 3 billion people (UNICEF, 2022). Fostering water security and sustainable water management is, hence, key to enhancing resilience and reducing global emission.

In this context, investing in technology-based solutions to climate change mitigation, adaptation and resilient development is crucial in reducing GHGs and building resilience of communities to anticipate and respond to the effects of climate change, especially in the fields of renewable energy, droughts-resistant crops, early warning systems, seawalls, and satellite monitoring systems for climate risk.

However, there are multiple challenges associated with financing new climate technologies. For example, most climate technologies have higher risk return profiles for investors, due to their higher upfront costs in comparison to incumbent technologies. These challenges need to be addressed to truly deliver on the promises of a Just Transition through Just Financing, which may include addressing issues of additionality of climate finance to existing and promised development finance flows and ensuring the compatibility of global market instruments to developing country contexts.

Structure of the Guidebook

This Guidebook aims to accelerate transforming financial commitments into implementable projects through complementing the efforts of countries and all relevant stakeholders. It serves as a guide for developing and emerging economies to access and deploy sources of climate finance into climate-related investment projects and fosters coordinated collective action to facilitate a green, resilient, and inclusive transition.

To this end, the Guidebook covers a range of topics related to, and in service of, the climate finance ecosystem, with a focus on the immediate and unmet climate finance needs of developing countries and emerging economies. It is composed of six chapters, with each covering an area that is key to advancing the climate action agenda, as follows:

Chapter 1

The Climate Finance Landscape: Prospects and Opportunities

This chapter brings the idea of "justice" to climate finance as it provides a clear definition of Just Financing and the guiding principles as to what counts as just. It gives an overview of the climate finance landscape to identify key areas for improvement to enhance the effectiveness and efficiency of the existing climate finance system. It highlights the main stakeholders in the current financial system and the potential new players that can play a catalytic role in pushing forward a just finance agenda.

Chapter 2

Creating an Enabling Environment for Climate Investment

This chapter provides guidelines for both Governments and all relevant stakeholders on how to complement each other's efforts to create an enabling environment that can facilitate translating climate commitments into investment action – from addressing regulatory frameworks, institutional arrangements, capacity building needs and creating new markets, to setting clear climate objectives and targets and identifying priority climate sectors, that ultimately support the development of a pipeline of investable projects.

Chapter 3

Enhancing the Investability of Climate Projects

With the aim of providing guidance on how to enhance the investability of climate projects, this chapter addresses key barriers to private investment and possible solutions that can help unlock different sources of financing for climate projects. It summarizes available sources of public and private capital for developing economies, illustrating each stakeholder's risk-return profiles and appetite, in addition to financial instruments. In the end, it outlines scalable, investable models that developing countries can deploy to crowd in private investments.

Chapter 4

Catalysing Private Capital for Climate Action

The sixth and final chapter of the guidebook showcases prospects and opportunities for climate finance in Africa, highlighting the continent's needs and circumstances. It also presents practical recommendations per stakeholder, namely governments, bilateral and multilateral development partners and funding institutions, private investors and philanthropic institutions to advance the climate action agenda in the continent. Finally, the chapter presents a number of successful case studies spanning across different geographic regions and country income levels. They actively address climate-related challenges and propose solutions in both adaptation and mitigation investments, using blended and non-blended instruments/ approaches, which could be replicated in developing and emerging countries.

Chapter 5

A Governance Structure for Just Climate Finance

The Chapter underscores the importance of establishing a holistic governance system for just climate finance. Through the identification of the main components, key stakeholders in the climate governance scheme, as well as current gaps, the chapter sets forth practical recommendations for strengthening current governance structures to unlock the potential for climate finance. It also identifies key factors for promoting transparent, comprehensive, and comparable financing flows at the international and country levels.

Chapter 6

Mainstreaming Just Climate Finance in Developing Countries: A Focus on Africa

The sixth and final chapter of the guidebook showcases prospects and opportunities for climate finance in Africa, highlighting the continent's needs and circumstances. It also presents practical recommendations per stakeholder, namely governments, bilateral and multilateral development partners and funding institutions, private investors and philanthropic institutions to advance the climate action agenda in the continent. Finally, the chapter presents a number of successful case studies spanning across different geographic regions and country income levels. They actively address climate-related challenges and propose solutions in both adaptation and mitigation investments, using blended and non-blended instruments/approaches, which could be replicated in developing and emerging countries.

Sharm Elsheikh
Guidebook for
Just Financing

The Guidebook concludes with an actionable agenda for each stakeholder that lists the roles they could play to achieve just financing outcomes, and maximize the effectiveness and efficiency of the existing climate finance system in the short-run, while rethinking the international architecture in the medium and long-term.

Chapter 01

Climate Finance Landscape: Prospects and Opportunities

The Ministry of International Cooperation (MoIC) worked with lead institution: African Development Bank (AfDB)
Main Contributors: European Bank For Reconstruction And Development (EBRD), Bill & Melinda Gates Foundation, Tony Blair Institute For Global Change (TBI), United Nations Conference on Trade and Development (UNCTAD), United States Agency for International Development (USAID), World Bank

1.1 Introduction to Just Financing

There is a growing global consensus that a rapid transition to low emissions and climate resilient development pathways is urgently required to address climate change and achieve the Paris Agreement goals. The economic transformation and social wellbeing needed to tackle climate change will have to integrate principles of justice into the planning, design and implementation of climate initiatives to address many of the wider economic injustices that exist, and to achieve progress towards the Sustainable Development Goals (SDGs) by the year 2030. This transformation needs to extend to issues of access to technology, skills, employment, and access to finance, including climate finance for mitigation, adaptation, and climate resilient development.

The Sharm El Sheikh Guidebook for Just Financing offers a unique actionable framework for enabling access to equitable and inclusive financing for climate action and provides policy recommendations to support Just Financing decision-making.

> *The Guidebook defines Just Financing as financing that accounts for historical responsibility for climate change while ensuring equitable access to quality and quantity climate financing that supports resilient development pathways, leaving no one behind.*

The concept of addressing justice within the context of climate finance is not new. Several activist movements, civil society organisations, climate negotiators, academics, think tanks and large multilateral institutional actors, such as the International Monetary Fund (IMF) have conceptualized justice in climate finance through two separate but related approaches where specifics differ widely.

On the one hand, activist and civil society organisations, in addition to some climate country negotiators, have raised the issue of the negative repercussions of the climate crisis in imposing unjust financial costs and burdens on vulnerable peoples who have contributed little to Greenhouse Gas (GHG) emissions. While there is no unified stance that defines such costs and burdens, understandings of costs and burdens from climate change tend to include: rising sovereign interest rates and financing costs due to increased climate vulnerability; limited financing and fiscal space available to adapt to the onset of extreme climate events; increased public debt ratios to bear costs associated with the climate crisis; fiscal space increasingly spent on subsidizing historical losses and damages from extreme climate events; and losses in country and sectorial competitiveness due to physical/transition climate risks.

On the other hand, think tanks and governments have also approached the issue based on the right to development. They argue that justice in climate finance should not place undue burdens on countries and communities to industrialize and develop. Issues around climate finance and development encompass the focus of Capital Providers and multilateral actors on some sectors and interventions (e.g., infrastructure and mitigation) over locally prioritized agendas (e.g., agriculture and adaptation). Further, stranded assets change the risk and developmental profile and potential of developing and emerging economies (e.g., stranding of unexploited coal deposits).

[1]*All data presented and cited in this chapter has been sourced and included by the chapter authors*

Additionally, as outlined by Khan et al. (2019) in their analysis of the history adaptation finance through a climate justice lens, the underlying injustice in the delivery of climate finance has largely driven by the inequities that exist in the governance, provision, and distribution of finance at the international level.

This is complemented by Colenbrander et al. (2017) and Anantharajah et al. (2022) who argue that: i) limited installed capacity in local organisations, and ii) a bias towards the most bankable, lowest risk, highest return, and often the largest scale projects, further exacerbate inequities by sidelining vulnerable populations from access to climate finance. Together, these positions present a basis for the need to introduce a cohesive view of how to address financial inequities and biases in climate finance decision-making.

> *This Guidebook aims to cement a concept around a growing consensus that justice is a relevant and useful lens necessary to meet the goals of the Paris Climate Agreement.*

Just Financing is distinct from concepts such as climate justice and just transition in terms of its scope but similar in terms of its intended purpose (AFDB, n.d.). Those three notions seek to address the nuances found in operationalizing the principle of "Common but Differentiated Responsibilities and Respective Capabilities" (CBDR-RC) enshrined in the 1992 United Nations Framework Convention on Climate Change (UNFCCC) treaty.

Climate justice seeks an equitable sharing of the benefits and burdens derived from the climate crisis, considering the inequitable balance between responsibility and impacts of climate events, in addition to the historical and present disparity of decision-making power between industrialized societies and marginalized and vulnerable peoples (Macquarie, 2022).

Just transition narrows the scope of climate justice to focus on workers' rights and livelihoods when economies shift from carbon-intensive to low-carbon industries to ensure no one is left behind (International Labour Organisation, 2016), as emphasized by the COP24 Silesia Declaration (COP24 Presidency, 2018) and the COP26 Just Transition Declaration (International Labour Organisation, 2021). The above-mentioned concepts do not explicitly address justice issues within climate finance such as access to finance, timeliness and delivery of financing commitments, agenda-setting, project prioritization and the bearing of climate-related financial risks and costs. **A finance-specific concept is therefore warranted to better translate climate justice considerations into UNFCCC negotiations, as well as public and private financial decision-making.**

Just Financing is, thus, a process-oriented concept nestled within climate justice that aims to account for the broader economic, social, and environmental opportunities and costs of limiting global warming and to steer transition pathways to sustainable economic growth and development, while anticipating and avoiding negative distributional, equity and climate impacts, particularly for poor and historically marginalized communities.

1.1.1 Core Principles For Just Financing

> *A starting point for Just Financing is the recognition that transitions to low emissions pathways inherently have an unequal distribution of benefits and burdens. Hence, a balanced consideration between adaptation and mitigation is required. Just Financing also recognises that the impacts of climate change are and will be unequally distributed, and that lower income countries have seen fewer economic benefits of historical and current high emissions development.*

Globally, countries and communities which are disproportionately affected by climate change risks, particularly in developing countries, are more likely to bear an undue burden of transitions. This burden will also be borne by communities that are reliant on carbon-intensive sectors and industries for livelihoods and income, in addition to bearing the costs of adaptation and building resilience.

The Guidebook, therefore, introduces the following Core Principles of Just Financing that:

1. Recognise, respect, and take concrete action to support developing countries' Right to Development and Industrialization through equitable pathways. Just Financing gives developing countries the right to development and industrialization under the Paris Agreement and its negotiated principles of common but differentiated responsibilities and respective capabilities (CBDR-RC), while maintaining ownership and self-determination over their development trajectories, ambitions and aspirations.

2. Align global climate mitigation and adaptation targets with national development objectives. Just Financing requires balancing global climate mitigation and adaptation targets with national development objectives and maximizing social and economic returns while minimizing socio-environmental harm.

3. Support and fund the creation of enabling environments, and strengthening of technical capacities that are aligned with climate goals. Just Financing aligns capacities with climate goals, strengthens the sustainability of climate and development investments, and builds broader system-level resilience by expanding, improving and tailoring technical assistance, including for financial management and readiness. This financing provides clear market signals, including demand for more significant investment into mitigation, adaptation and co-benefits.

4. Require global stakeholders to actively consider and take progressive action to address historical disparities and responsibilities to meet climate needs. Just financing recognises historical disparities in driving emissions that have caused global warming, responsibilities for reducing emissions, as well as the disparities in the distribution of financing and implementing actions that enable investment in mitigation and adaptation options while also mitigating transition risks and impacts into our societies, economies, and natural environments.

5. Mainstream the concept of Just Financing across all financial stakeholders at national and international levels. The concept of Just Financing must be mainstreamed into the international financial architecture and ensure there is commitment and a delivery mechanism to improve access to climate finance from all sources, as well as financing terms that promote equality, and prevent widening inequalities, for example through increasing debt burdens.

6. Ensure right of developing countries to quality and quantity climate finance, particularly to the most vulnerable. Just Financing considers developing countries' needs for enhanced quality and quantity of financing and financing opportunities given the necessary scale of finance needed and the terms of financing and to ensure appropriate timing in the delivery of finance to meet development and climate priorities on the ground.

7. Address access, affordability, and resource allocation bias. Just Finance approaches mainstreamed within the financial architecture needs to address problems of finance insufficiency in volume, affordability, sectoral and recipient bias in the allocation of climate finance flows, and the need to finance mitigation and adaptation.

8. Promote "additionality". Just Financing flows should adhere to the principle of additionality, meaning that climate finance funding must not crowd out or fully replace other sources of capital, including importantly existing public funding (including concessional funds) or private financing. It must not displace or replace other global health and development investments, but rather complement them in pursuit of climate resilient development. It should be applied and utilized where there are gaps in financing (sources), or where its role in bearing and sharing risks that can effectively catalyze other forms of capital that would not otherwise invest.

9. Address the loss and damage caused by climate change. Developing countries are already experiencing loss and damage from climate change, which will further exacerbate even as the world works towards limiting global warming to 1.5C. Industrialized societies, which are most responsible for the historical emissions that have driven global warming, should provide disaster and resilience funding and aid support to these losses and damages in developing countries.

10. Require strong institutional governance mechanisms at the internationaland national levels. Mainstreaming Just Financing requires strong institutions and regulatory systems that create a conducive enabling environment for the development of technology markets and opportunities for climate investments in developing countries for mitigation, adaptation and for dealing with loss and damage.

11. Require robust transparency and accountability mechanisms. Just financing can only be achieved when there are systems that promote transparency and

accountability by setting standardised criteria as to what counts as climate finance. Transparency and accountability require mechanisms that enable the reporting and tracking of climate finance commitments, disbursements and flows from different sources of finance. Financing mechanisms should also ensure greater predictability of capital flows to developing countries.

12. **Is anchored on balanced multi-stakeholder participation and collective agreements that enhance international, regional, and local coordination and commitments.** This contributes towards a fairer allocation of the costs for mitigation and adaptation while equitably delivering and distributing the short, medium and long-term benefits of unlocking climate and development investment opportunities for countries and communities worldwide.

Given that countries have different circumstances, Just Financing requires alignment of multi-scalar action between and within countries, guided by a common framework and a coherent narrative for responding to the climate crisis. This will require moving faster towards implementing the Paris Agreement commitments, and ensuring workers and communities will not be sacrificed to the mission of cutting emissions and mitigating climate change (ILO 2018).

> *"The world is currently failing to meet its goal of limiting global warming to 1.5 degrees Celsius, in part because of a lack of adequate support and financing, particularly for energy transitions in low- and middle-income countries. At a time when the world faces concurrent, compounding crises — many of them caused by the changing climate — this Guidebook offers recommendations that can help mobilize financing to mitigate and adapt to climate change, empower people, and unlock economic opportunity."*
>
> **- Dr. Rajiv J. Shah, President, Rockefeller Foundation**

In line with the core principles, Just Financing strategies applied by stakeholders must be inclusive and seek civil dialogue and legitimacy from public and private sector actors. This is critical for ensuring financing climate action accounts for the social outcomes, and implications of mitigation and adaptation options are pro-workers and protect affected communities, whilst ensuring that green markets and jobs are created and shared equitably (International Labour Organisation, 2017).

In this context, the concept and core principles of Just Financing represent a call for action to assess the current global climate finance architecture and embed reforms from these principles. The Just financing principles serve as a framework to guide innovative climate finance strategies and instruments that enable consistent finance from international and national organisations, and private investors with the objective to stimulate interlinkages between climate action, inclusive growth, social and economic justice.

1.1.2 Scope of Climate Finance and Different Types of Climate-Related Finance

There are different types of finance and scopes for financing transitions, and it is important to highlight their commonalities and differences and focus the attention on the most holistic finance scope for this Guidebook: climate finance.

The IPCC 6th Assessment Report stresses the close links between climate change mitigation, adaptation, and development pathways. The report highlights that pathways for pursuing mitigation and adaptation actions should be designed and implemented within the context of sustainable development and ensure **country ownership,** to address equity and achieve poverty eradication. Actions for the eradication of poverty would need to be rooted in national circumstances and aspirations of the societies within which these adaptation and mitigation actions will take place (AR6, WGIII, 2022).

Box 1.1.1 discusses the different types of finance and the scope of their respective investments.

Box 1.1.1: Different Types of Financing

Figure 1.1.1: Sustainable Development

Source: Adapted from World Bank (2021)

Figure 1.1.1 above describes the differences in scope for "low-carbon", "climate", "green" and "sustainable" finance and their relation to environmental, social and governance (ESG) factors.

Low carbon finance refers to a variety of financial policy, system, technology, products and services to advance progress towards a low carbon economy.

Climate finance refers to local, national, and international financing from a range of public, private, and blended financing seeking to address mitigation and adaptation to climate change through the established mechanisms of the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol and Paris Agreement.

Green finance refers to all lending and investment that contributes to climate mitigation, climate adaptation and resilience, alongside other environmental objectives, such as biodiversity management and nature-based solutions.

Sustainable finance refers to investments that take social, environmental and governance (ESG) considerations into account across the whole financial ecosystem when investment decisions are being made. Sustainable financing enables investments in areas that accelerate transitions to green economies through a range of financial instruments such as green bonds, sustainability bonds, social bonds, green loans, and sustainability-linked loans.

Just Financing requires the alignment of global financing structures while building synergies with priority development needs driven by specific national and local agendas, the Just Financing principles outlined above can be useful for guiding and leveraging these different types of finance to achieve global climate mitigation and adaptation objectives under the Paris Agreement.

In this regard, achieving climate aligned socio-economic development requires that countries and institutions implement transformational changes that are necessary for addressing the common targets of minimizing unabated fossil fuel investments and adapting to climate change. This involves investments that minimize trade-offs, particularly across sectors, while also maximizing benefits. However, large amounts of financial resources are yet to be mobilized to drive the scale of transition required to address climate adaptation and mitigation goals, which requires crowding in private, as well as philanthropic funds.

> *"Achieving a just transition will not and must not be a zero-sum game. By investing at significantly higher levels, by spreading innovations for both climate mitigation and adaptation around the globe, and by ensuring adequate long-term finance for the developing world, we must make this a gain for all nations. The Sharm El Sheikh guidebook provides a practical guide for implementing this just transition. It will take extraordinary ambition in partnership among the public, private and philanthropic sectors to achieve this. But there has never been a larger opportunity for us to spur growth, solidarity and achieve better and safer lives for communities everywhere."*
>
> **- Mr. Tharman Shammugaratnam, Senior Minister and Coordinating Minister for Social Policies, Singapore**

While there is consensus that the world must rapidly transition out of carbon-intensive pathways, much debate remains on how the cost of emissions over time is accounted for and responsibilities are distributed across countries. The burden shouldered by the most vulnerable to the impacts of climate change, whose contribution to the build-up of GHG emissions is small, goes to the heart of the equity debate.

1.2 Regional Climate Profiles

Although climate change is a global problem, its effects are not experienced by countries in the same way. Debates over climate justice are deeply rooted in the UNFCCC. Article 3.1 states that "Parties should protect the climate system for the benefit of present and future generations of humankind, based on equity and in accordance with their common but differentiated responsibilities and respective capabilities"
(UN General Assembly, 1994).

Climate change produces diversified impacts on different populations and geographies, depending on both their exposure to climate-related trends or events and on their specific vulnerability to damage caused by hazards. For example, economic damages associated with climate change have been identified in climate-sensitive sectors, with consequences at regional level to agriculture, forestry, fishery, energy and tourism in different parts of the world (IPCC, 2022). Hence differences in exposure to climate hazards, differences in susceptibility to the damage caused by hazards, and differences in their capacity to cope with and adapt to said hazards determines the overall climate risk profile of a community, country or region.

There are also disparities in GHG emissions across regions, both historic and current, as well as a level of lock-in and inertia which countries face. These disparities in emissions are driven by patterns of intersecting social and economic development, natural resources availability and use, inequality, and governance (IPCC, 2022). Major disparities also exist across social groups within countries. For example, as of 2022, the top 10% of global emitters (771 million individuals) emit on average 31 tonnes of carbon dioxide per person per year and are responsible for about 48% of global carbon dioxide emissions. The bottom 50% (3.8 billion individuals) emit on average 1.6 tonnes and are responsible for close to 12% of all emissions in 2019. These disparities also tend to be distributed according to regions where the largest number of those at the bottom 50% reside in the poorer regions of Africa and South Asia.

1.2.1 Vulnerability Profiles Per Region

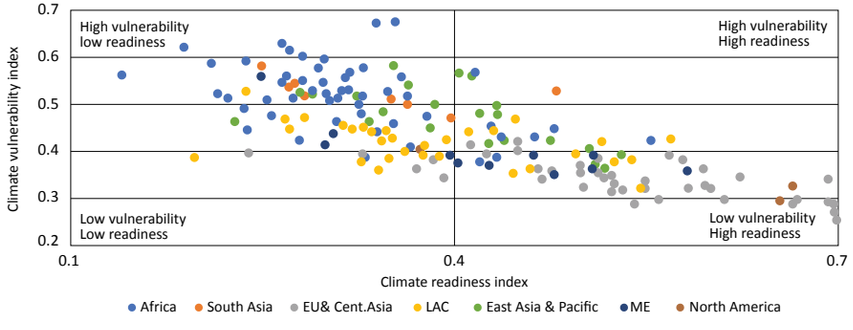
Measuring vulnerability[2] and readiness[3] to climate stressors is important to understand levels of exposure to climate hazards, susceptibility to the damage caused by hazards, and the ability of countries to cope with the effects and recover. Compared to the rest of the world, the South Asian and African countries are the most vulnerable to climate shocks – also displaying relatively low climate readiness score over the period 2010-2019. Other vulnerable countries are more spread out across Latin America and Caribbean (LAC) to island states in the Pacific. The composition of some economies in the LAC region makes them comparatively more exposed to climate-related impacts such as countries in Central America with high levels of dependence on agriculture, and economies in the Caribbean where tourism is a key economic sector (IPCC Working Group III, 2022).

[2]Climate vulnerability is a measure of a country's exposure, sensitivity, and adaptive capacity. Climate vulnerability index (CVI) is between 0 and 100, with higher values representing greater climate vulnerability, and is computed using six sectors: food, water, health, ecosystem services, human habitat, and infrastructure.
[3]Readiness is measured through a country's economic abilities, governance abilities, and social abilities. Climate readiness index (CrI) is also scaled between 0 and 100, with higher values meaning greater climate readiness, and computed using three components: economic readiness, governance readiness and social readiness.

In sharp contrast, Europe & Central Asia and North America display relatively low scores on climate vulnerability and high levels of climate readiness, which shows their higher level of resilience. Within these regions, there are also disparities across countries. For example, there is a distinctly North-South difference with southern Europe facing more climate impacts on critical sectors such as agriculture and tourism that will have deeper consequences to livelihoods.

Considering the country level disparities across different regions, Figure 1.2.1 shows that **high vulnerability and low readiness tends to be more pronounced in locations with high levels of poverty,** limited access to basic services, greater dependence on climate-sensitive occupations for livelihoods and governance challenges. Whilst development challenges that cause high vulnerability are influenced by historical and ongoing patterns of inequality between countries, they are reinforced by inequality and marginalization linked to gender, low incomes, or combinations of these. Such structural challenges limit the possibility for more inclusive and participatory decisions at various spatial levels, from local to global.

Figure 1.2.1: Classification of countries by climate vulnerability and readiness



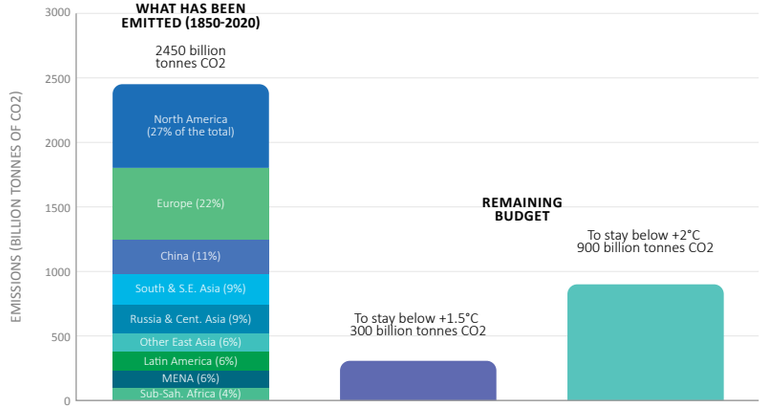
Source: African Economic Outlook 2022 (African Development Bank, 2022)

1.2.2 GHG Emission Profiles per Region

Between 1850 and 2019, humans have released around 2,400 gigatons of carbon dioxide equivalent (GtCO2eq) into the atmosphere, leaving about 300 GtCO2eq and 900 GtCO2eq in the remaining carbon budget in order to stay below 1.5°C or 2°C warming (IPCC, 2022).

Of the total carbon released since 1850, North America is responsible for 27%, Europe 22%, China 11%, South and South-East Asia 9%, Russia and Central Asia 9%, East Asia (including Japan) 6%, Latin America 6%, MENA 6%, and Sub-Saharan Africa 4% (Figure 1.2.2). The world has used over 85% of its carbon budget and, with current levels of annual emissions of 42.2 GtCO2eq, is fast depleting what remains.

Figure 1.2.2: Historical emissions vs remaining carbon budget[4]



Source: World Inequality Report 2022 (Chancel, L., Piketty, T., Saez, E., Zucman, G. et al. , 2021)

There is an evident mismatch in the emission of greenhouse gases across developing and developed countries, with the latter emitting the higher percentages of GHG. However, the effects of these emissions are not restricted by border. It is apparent that some countries, many of which are in Africa, are more vulnerable to climate risks than others, despite contributing to less than 8% of GHG (IPCC Working Group III , 2022). Furthermore, eleven of the seventeen countries that emit the least GHG are the most vulnerable to climate risks. On the other hand, twenty of the thirty-six highest-emitting countries show the lowest vulnerability to the negative impacts of climate change (Althor, Watson, & Fuller, 2016).

As will be discussed in the following section, estimates of climate finance needs vary across developing country regions; levels of finance depend on the level of exposure and overall vulnerability to climate change risk and adaptive capacity within these countries and regions.

[4]The graph shows historical emissions by region (left bar) and the remaining global carbon budget (centre and right bars) to have 83% chances to stay under 1.5°C and 2°C, according to IPCC AR6 (2021). Regional emissions are net of carbon embedded in imports of goods and services from other regions.

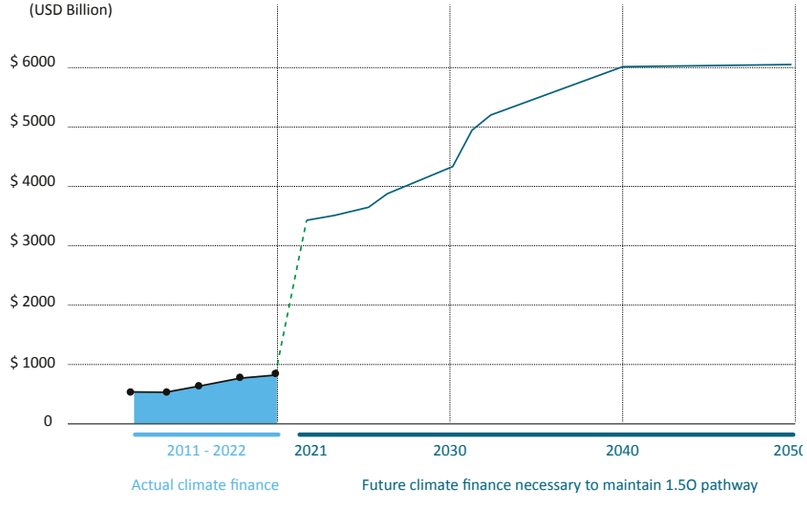
1.3 The Climate Finance Ecosystem

The global architecture of climate finance is dynamic and complex. Understanding how the ecosystem works, who the key players are, and mapping the climate finance flows and pledged commitments, as opposed to estimated needs, per region and sector, is critical for justly financing and translating financial commitments into tangible climate projects.

1.3.1. Current Climate Financing Gap (2022-2050)

The scale of climate investments needed to achieve a low-carbon transition is estimated at $4.5 trillion annually by 2030 and could reach up to $6 trillion in 2050 (CPI, 2021). Achieving this target by 2050 means that more than 590% increase in the amount of mobilized and disbursed climate finance is required (see Figure 1.3.1).

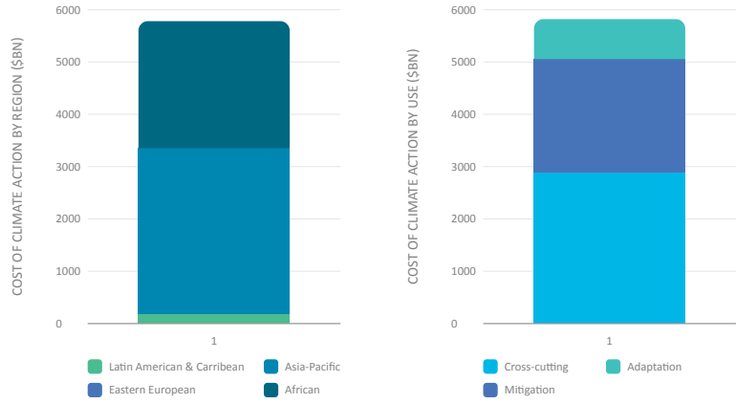
Figure 1.3.1: Climate finance gap projections



Source: Global Landscape of Climate Finance 2021 (Buchner, et al., 2021)

Nationally Determined Contributions (NDCs), which are the most comprehensively costed documents generated by developing states, further provide an indication of climate finance needs. Costed needs provided in NDCs show developing countries will need at least $5.8 trillion-$5.9 trillion up to 2030 to achieve their NDCs targets, while African countries will need $2.8 trillion (Figure 1.3.2). The climate finance gap is even bigger as **most of developing countries' actual needs are not accounted for in their NDCs, with only 41% of the needs being costed** (UNFCCC, 2021b).

Figure 1.3.2: Total Climate Finance needs for developing economies by region and by climate impact (adaptation and mitigation) based on available NDC estimates



Source: Report of the Standing Committee on Finance (UNFCCC, 2021b)

With regards to projections of adaptation costs for 2030 and 2050 in developing countries, different methods are used based on different sets of assumptions that result in varying estimates (Chapagain, Baarsch, Schaeffer, & D'haen, 2020). According to the UNEP Adaptation Gap Report (2021), which is the most recent assessment of adaptation costs, needs for developing countries total $155-330 billion by 2030 and $280-500 billion in 2050 (UNEP, 2021). Several other estimates highlight developing country adaptation needs in the hundreds of billion.

Regionally, adaptation needs are highest in the Caribbean and South Asia at $14.7-18.1 billion and $14.9-16.5 billion per year respectively, while Sub-Saharan Africa and East Asia and Pacific gaps are estimated at $12.4 – 13.1 billion and $6.5-11.9 billion annually. **However, Sub-Saharan Africa has the greatest gap relative to GDP, followed by South Asia.**

Sectorally, investment is most needed to reinforce coastal infrastructure, requiring $26 billion annually until 2050 (UNCC: Learn, 2016). In terms of climate mitigation, **annual investments in clean energy in developing countries and emerging markets need to increase to 1 trillion annually** (7 times larger than current investments) to reach low emission climate-resilient development by 2050) (IEA, 2021). Additionally, the World Bank estimates that for low- and middle-income countries to be able **to achieve their 2030 Sustainable Development Goals and still be on track to limit warming to 1.5 by mid-century, they need to invest at least 4.5% of GDP into key infrastructure development and maintenance** (Rozenberg & Fay, 2019). Sub-Saharan Africa, Latin America and the Caribbean will need the greatest investments.

1.3.2 Climate Finance Flows per Region and Sector: Climate Change Adaptation vs. Climate Change Mitigation

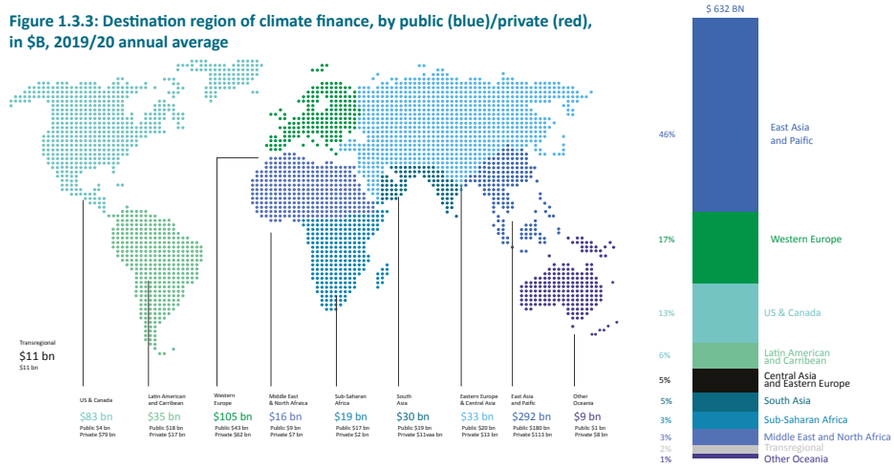
The Climate Policy Initiative's (CPI) Global Landscape of Climate Finance assessments provide comprehensive snapshots of annual climate finance flows, including breakdown of these flows from sources, financial instruments, uses, sectors and regional profile. This section summarizes some of the key highlights of CPI's Global Landscape of Climate Finance 2021 report as well as the Landscape of Climate Finance in Africa, published in September 2022.

Of the total of $632 billion global climate finance disbursed over the 2019/2020 period to both developed and developing countries, 75% of climate finance flowed to East Asia and Pacific, Western Europe, and the United States and Canada (Figure 1.3.3). East Asia and Pacific remained the primary destination, accounting for 46% of global flows, up by $43 billion from 2017/2018, followed by Europe and Central Asia (22%) and North America (13%). The lowest volume of climate finance flowed to MENA and Sub-Saharan Africa (2.5% and 3%, respectively).

Investments in East Asia and Pacific region were concentrated in China, supported by strong public spending on climate projects and conducive national policies for domestic investment. This was in contrast with investments of climate projects in economically advanced regions of Europe, US and Canada where there was a dominance of private finance, especially in North America.

Contrasting these is sub-Saharan Africa, which attracted limited flows of finance, mostly from public sources, highlighting the critical role of public finance and international sources to meet the cost for climate actions. The report also shows the limited role of private finance in economically constrained and vulnerable countries, which are perceived to have high risk profiles.

Figure 1.3.3: Destination region of climate finance, by public (blue)/private (red), in $B, 2019/20 annual average



Source: Global Landscape of Climate Finance 2021 (Climate Policy Initiative, 2021)

On a sectoral level, finance for mitigation accounts for 93% of the total global finance disbursed in 2020/21, largely dominated by renewable energy, energy efficiency and transport (IPCC, 2022). The majority of renewable energy investments were made in the East Asia and Pacific region, mainly China and Japan, followed by Western Europe, and the United States and Canada. Since 2013, these three regions have consistently attracted 65-75% of global investments, primarily financed through private capital. Transport is also another sector that has absorbed a significant share of investment in mitigation, accounting for 31% of total mitigation finance in 2019/20.

Finance for adaptation remains fragmented and small at 7% ($46 billion) of the total climate finance with little or no involvement by the private sector. This figure needs to be seen against rising needs and cost of adaptation in developing economies (UNEP, 2021).

In Africa, mitigation accounted for 49% ($14.6 billion) of climate finance flows, with 39% ($11.4 billion) for adaptation, and 12% ($3.5 billion) to projects with multiple benefits, according to CPI figures in 2019 and 2020 (Climate Policy Initiative, 2022). In terms of sectors in Africa, energy systems attracted $9.4 billion in climate finance flows, followed by $8.9 billion for other sectors that could not be allocated to a specific technology, $4.6 billion for Agriculture, Forestry and Other Land Use (AFOLU), $2.7 billion for water, $2.6 billion for transportation, and $1.3 billion for buildings and related infrastructure (Climate Policy Initiative, 2022). Energy projects have attracted the largest share of private investments due to their relatively stable risk-return profile compared to other sectors (Climate Policy Initiative, 2021).

"The evidence is clear: Developing countries are bearing the brunt of our climate crisis. 1 billion people, overwhelmingly in the Global South, will face coastal flood risk by 2050. An additional 140 million may be driven from home by climate disaster or food and water insecurity. Yet these countries remain locked out of pivotal financing at scale that could help them adapt to our changing world: African states, for example, receive less than 5.5% of global climate financial flows, and only less than 10% of all climate finance investments are targeted to adaptation solutions.

Just financing is not only a moral imperative. It is the only way we will reach our ambitious climate goals. At CIF, we have been on the front lines of driving catalytic climate finance in the developing world for almost 15 years. We have seen the challenges firsthand: Creating an enabling environment. Financing frontier, catalytic investments. Mobilizing the private sector. Yet we have also seen the power of collaboration: Bringing together key partners across government, development, financial institutions, business, and philanthropy in common cause around proven and innovative solutions.

This Guidebook is a powerful example of how we must come together around a programmatic, multi-sectoral approach — and secure a better collective future.

- Ms. Mafalda Duarte, CEO, Climate Investment Funds

1.3.3 Identifying The Key Climate Capital Providers And Resource Mobilizers

In the section below, we explore the contributions of capital providers and resource mobilisers to climate finance, as well as the main instruments used.

Although **private climate finance has increased to 49% of total flows ($310 billion)[5], there is a significant gap in climate financing, which can be turned into an opportunity to deepen private investors' engagement.** Public climate finance accounts for just over half of current funds ($322 billion), 68% of which is provided by Development Finance Institutions (DFIs) (Climate Policy Initiative, 2021). Importantly, in the context of an increasingly challenging global macroeconomic context, it is imperative to tap into private sector finance to leverage additional resources for climate finance.

[5] *This was a 13% increase from the $274 billion in 2017/2018*

Developed countries continue to benefit from global mobilisations of climate finance, and most particularly private sector finance. Assessments by CPI further show that low- and middle-income countries are mostly financing their own mitigation and adaptation actions. For the 2019/2020 period, climate projects in economically advanced regions such as Europe and US and Canada were mainly financed through private finance, while the rest of the regions sourced climate finance through public finance (Climate Policy Initiative, 2021). Africa, in particular, received the least share of private investments (1.3%) compared to other regions (Climate Policy Initiative, 2022).

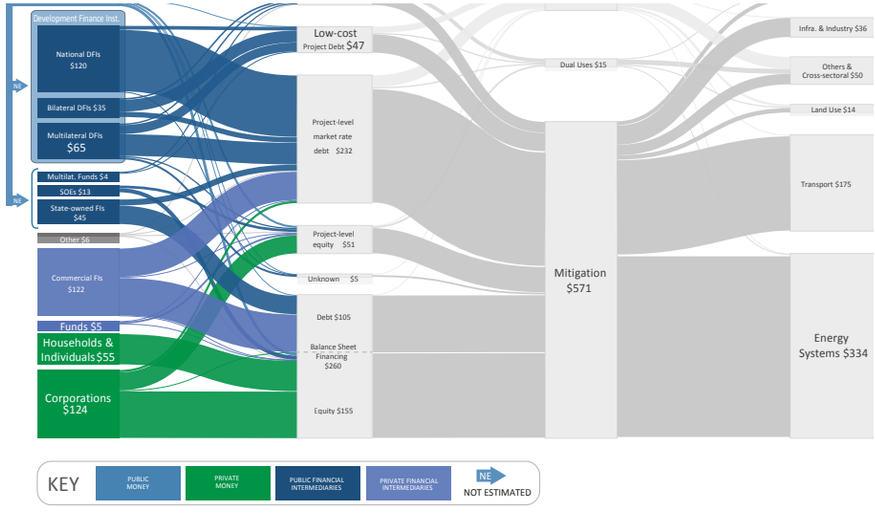
In terms of instruments, **the majority of climate finance is raised in the form of debt** (61%), of which 12% is low-cost or concessional. Market-rate debt is the largest financial mechanism used to channel climate finance. Meanwhile, grants account for 6% of total flows, primarily provided by governments.

Notably, **most (98%) of the funding for adaptation comes from public sources,** though the tracking of adaptation climate flows may be complicated by a lack of common definitions for what is a climate adaptation project, particularly within the private sector.

Multilateral Climate Funds (MCFs), themselves funded by multilateral development banks and developed (and some developing) country governments, **are funding adaptation-related sectors and efforts, but their funding remains comparatively small** ($3.5 billion). Most of it comes from two funds: the Green Climate Fund (GCF) provides almost half of the total finance from MCFs, followed by the Global Environment Facility (GEF), providing about a quarter (27%). Forty percent of total MCF flows goes toward agriculture, forestry and other land uses (AFOLU) and fisheries. Almost half (47%) of MCF finance goes to projects for adaptation or with dual adaptation and mitigation benefits, a much higher percentage than overall public finance.

Looking at sectoral allocation, most climate finance flows (80%) are allocated to energy systems and transport projects. Renewables – in particular, solar photovoltaic (PV) and onshore wind – are primarily financed by commercial financial institutions and corporations. As some renewable energy technologies become commercially viable and competitive, private investors have been keen to finance irrespective of public support. However, there has been limited progress in financing projects that focus on hard-to-decarbonize sectors, such as industry and infrastructure, as well as in adaptation sectors such as land use and water.

Figure 1.3.4: 2019/2020 Climate finance flows by source, instrument, use and sector



Source: Global Landscape of Climate Finance 2021 (Climate Policy Initiative, 2021)

More than 75% of tracked climate investments are raised and spent within the same country. Nonetheless, international flows are increasing, reaching $153 billion, primarily driven by increased investments from development finance institutions (DFIs). In general terms, bilateral and multilateral funding flows to most regions and countries. Indeed, multi-lateral development banks are willing and able to fund all countries within their region of focus (e.g., African Development Bank will fund any member country in Africa, InterAmerican Development Bank in Latin America). However, to support specific climate objectives, some MDBs and DFIs have created specific vehicles to fund either sectoral or regional agendas. For example, such is the case of the Africa Climate Change Fund (ACCF) created by the African Development Bank to support regional member countries established with an initial contribution from Germany and other European countries.

Different sources of capital for financing climate adaptation and mitigation have different risk profiles and, therefore, a range of financing methods. **Given their developmental mission and comparatively low cost of capital, national, bilateral, and multilateral development finance institutions (DFIs) can use a diverse range of instruments and terms,** from project-level market rate debt to low-cost project debt, to grants. DFIs play a particularly important role in Africa, where they are not only direct investors in projects but also Limited Partners in a significant portion of impact funds in the region. As a result, they often set the tone on topics such as ESG requirements, and more recently through setting clear goals for investments in climate mitigation and adaptation.

Multilateral funds, state-owned enterprises (SOEs), and state-owned financial institutions are the second most represented group among public investors. As they are backed by the government, their cost of funding is typically lower than that of their private local counterparts, and their preferred instruments reflect a medium to high risk appetite. **SOEs and state-owned financial institutions typically offer both corporate-level debt and equity and project-level equity.**[6] The commitment of SOEs to climate finance is important not only because of their size but also because they are typically located in high-impact sectors and allow the state to set the "tone at the top" in the private sector (OECD, 2020).

Governments typically provide direct climate funding through grants. They also provide indirect funding, which is channeled to projects through national, bilateral and multilateral DFIs, SOEs, and state-owned financial institutions. Compared to private institutions, governments have a higher capacity to take risk, although they may also be constrained by their domestic fiscal environment, sovereign credit rating, and political context. In developing countries and in Africa in particular, many governments have limited investment budgets as a result of low tax revenues collected, large budgets for pensions and public sector salaries, and inability to borrow large amounts of capital.

Corporations are the largest private source of climate finance. Similar to SOEs, corporations have a medium to high-risk appetite, and they also typically provide market-rate debt instruments. Their higher return expectations are explained by their comparatively higher cost of capital vis-à-vis public sources. Although corporations act as agents to shareholders – i.e., they are concerned with company value maximization – they are also increasingly driven by market and non-market forces to put money behind climate mitigation and adaptation projects. As of 2022, more than a third of Fortune Global 500 companies have already made public commitments to achieve significant climate milestones by 2030. Additionally, the roll-out of the Science Based Targets initiative, the Task Force on Climate-related Financial Disclosures, and other efforts are driving corporations to measure their climate impacts and invest in projects both within their direct operations and their supply chains, to reduce emissions. In other cases, climate projects – for example in renewable energy – may simply be the “business as usual” best option on a stand-alone basis.

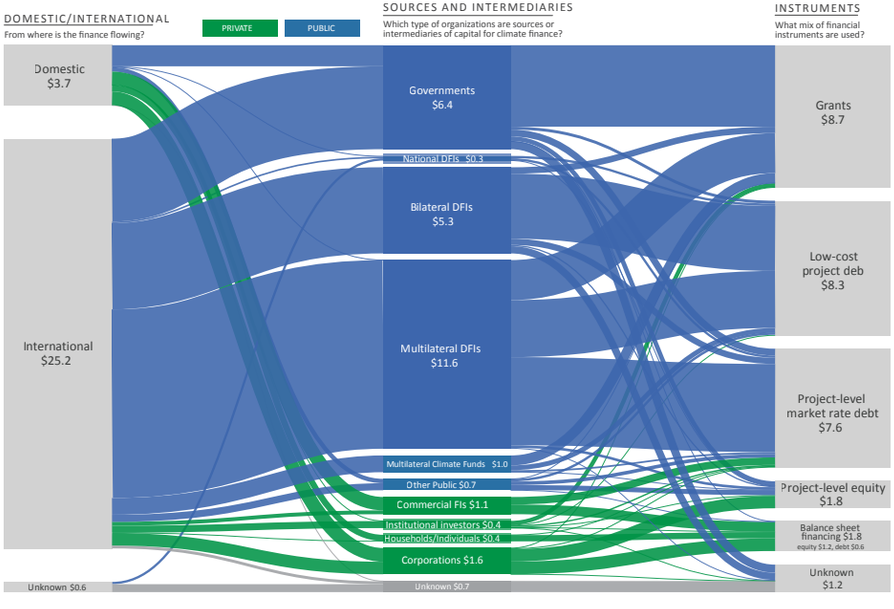
Commercial financial institutions, institutional investors, and funds have a higher cost of capital compared to government and multilateral actors and are typically looking for large deals. They also are agents to their shareholders and, in the case of large institutional funds such as asset managers and pension funds, they are subject to a fiduciary duty to their investor clients (i.e., they have the obligation to act in their best interest), which limits their ability to take risk.

[6] CPI categorization by the instrument includes both debt and equity instruments, both of which are differentiated between arrangements at the project level (i.e. relying on the project’s cash flow for repayment) and on balance sheets (i.e. funded by the assets of the recipient institution or entity). Grants, which do not usually require repayment, are the final category.

Additionally, given their low-risk appetite, need for large ticket sizes, and lack of institutional capacity to originate and due diligence direct investment into projects without a known co-investor leading the deal, pension funds and sovereign wealth funds typically invest as Limited Partners in funds rather than making direct project-level investments.

Lastly, some of these actors – **governments and national, bilateral, and multilateral DFIs – can help in improving the risk-return profile of deals to attract private investors.** By providing insurance and guarantees or de-risking capital such as first-loss tranches, public sector capital can crowd-in private investors by shifting risks or improving returns, and in doing so enlarge the pool of capital available for climate projects in the process. One example of this is BlackRock's infrastructure fund, a perpetual strategy focused on the energy transition technologies: carbon capture and storage, battery technology, hydrogen and natural gas storage, and transport. State-owned development banks and philanthropic institutions are providing 20% of the fund›s capital and will absorb any losses before other investors (Jessop & Kerber, 2021).

Figure 1.3.5: 2019/2020 Climate finance flows in Africa by Capital Provider and Instrument



Source: Landscape of Climate Finance in Africa (Climate Policy Initiative, 2022)

According to CPI, climate finance flows to Africa in 2019 and 2020 were mainly provided by MDBs and other multilateral organisations, followed by bilateral funding. The preferred channel of delivery is through the public sector, namely the recipient country's government. Debt is the most common instrument, followed by grants. The prominence of debt funding poses substantial challenges, as many developing countries are already highly indebted and under a tight fiscal stance, especially after having provided increased social support during the pandemic years and in anticipation of a global economic downturn caused by high energy and food prices.

1.3.4 Access Requirements for Major Funds

While the climate finance ecosystem can be complex, there are significant opportunities to increase the flow of funds to climate projects in developing countries. Fostering knowledge sharing within the ecosystem is key, so that projects can identify the right funders, and funders are able to identify a robust pipeline of projects meeting their criteria. At the same time, there is a need for continual innovation and scaling of financial instruments that are fit-for-purpose for climate projects particularly in underserved geographies. These projects may be higher risk, require more time to realize returns, or be a smaller ticket size than most capital providers are seeking. Finally, public and philanthropic capital continues to play a key role in mobilizing private finance. Blended finance approaches can leverage the unique capabilities and interests of disparate pools of capital to finance impactful climate projects even in many of the most challenging geographies and sectors.

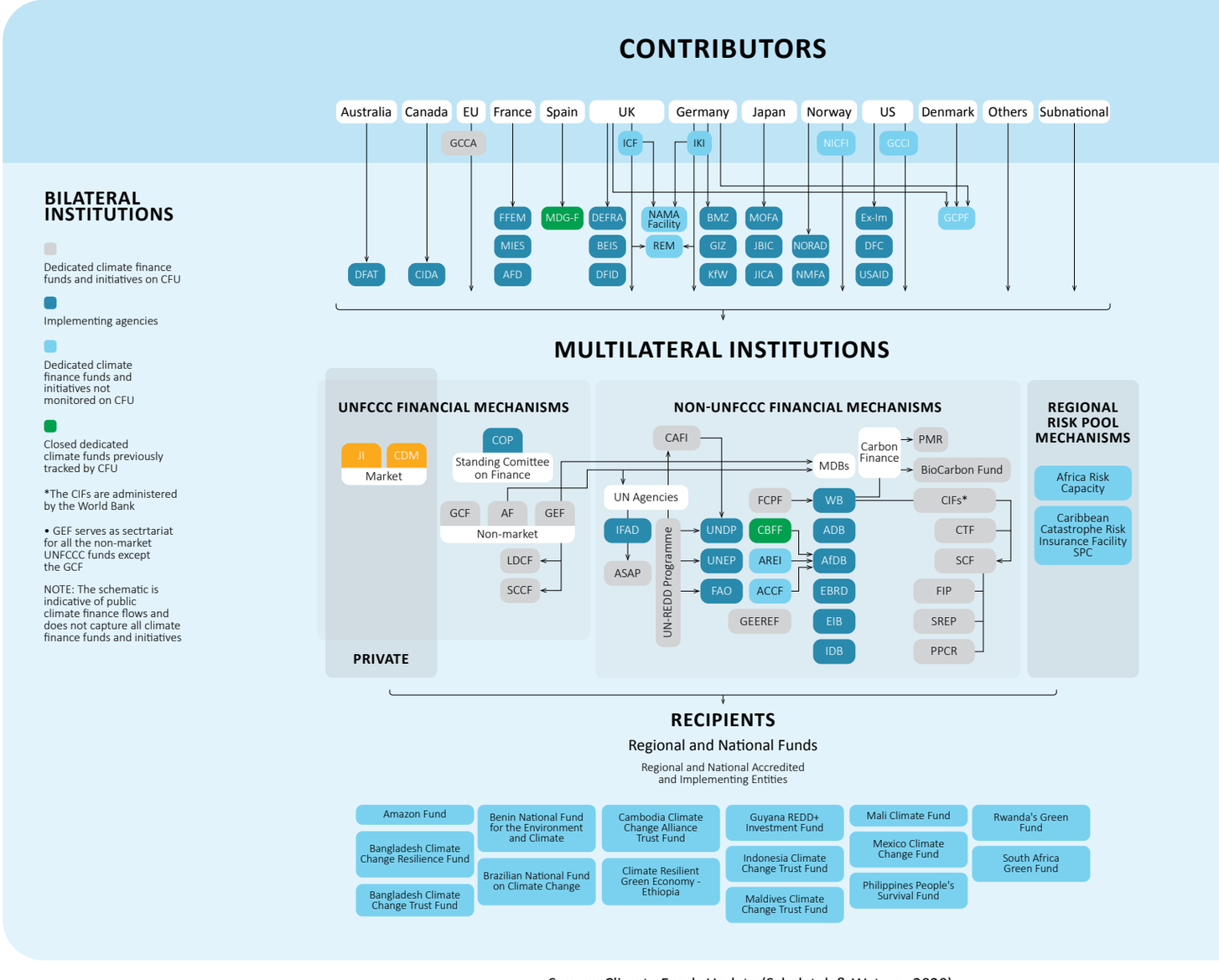
Climate funds often flow from capital provider countries through multilateral and bilateral entities to recipient countries which are mostly developing countries (Figure 1.3.6). However, MDBs may also act as trustees and implementing institutions of dedicated climate funds that, in turn, allocate funds to recipient countries. In contrast, private capital providers and philanthropic foundations often fund projects directly.

Accessing climate finance from dedicated funds can be challenging. For example, some funds, such as the Green Climate Fund, require the creation of accredited entities before disbursing any capital. **Accreditation processes often require significant technical and administrative capacity** not only to design and plan high-quality bankable and investable projects, but also to credibly demonstrate the ability to implement projects on the ground. This requires a strong capacity to monitor activities and report impact of investments, which is often lacking in developing countries and tends to be costly. Sometimes, access to finance from international climate funds has co-financing requirements which can be too onerous to obtain, especially for smaller-scale projects.

The Green Climate Fund (GCF) is one of the largest dedicated climate funds that is supporting shifts towards low-emission and climate-resilient development pathways in developing countries. Founded in 2015, it is an operating entity of the United Nations Framework Convention on Climate Change's (UNFCCC) financial mechanism but exists as a legally independent institution headquartered in South Korea. Its investment framework is based on policies, strategies, targets, and criteria to inform the design, assessment, and approval of funding decisions. The GCF has the following key characteristics: i) it is committed to funding both mitigation and adaptation. Additionally, ii) its governing board is made of an equal number from developed and developing countries, giving greater voice to recipients who can be given direct access to funding, iii) it has strong social and environmental safeguards to respect human rights (Schalatek & Watson, 2020). The GCF Programming Manual, a 252-page document, provides an overview of the GCF project or programme approval process, and it offers guidance on how to prepare and submit a funding proposal that meets GCF investment criteria.

Table 1.3.1 provides a sample of dedicated international climate funds which are important sources of finance, along with their access requirements, regional and sectoral focus, amount of finance, and instruments (see Annex for 14 additional funds).

Figure 1.3.6: Global climate finance architecture – public sources only



Source: Climate Funds Update (Schalatek & Watson, 2020)

Table 1.3.1: Selected list of international climate finance providers and their access requirements

Name	Regional Focus	Sectoral Focus	Access criteria	Size range	Instruments
Green Climate Fund (GCF)	Developing countries	GCF has eight "result areas" that cover both adaptation and mitigation initiatives, and provide a reference point to guide the GCF and its stakeholders in project development. The results areas are as follows: Adaptation: Health, food, and water security; livelihoods of people and communities; infrastructure and built environment; and ecosystems and ecosystem services. Mitigation: Energy generation and access; transport; buildings, cities, industries, and appliances; and forests and land use.	GCF investment criteria: Impact potential, paradigm shift potential, sustainable development potential, needs of the recipient, country ownership, and efficiency and effectiveness. Private and public sector entities can submit proposals for consideration for funding by the GCF Board. Operates through network of Accredited Entities (as of September 2022, there are 113 total entities approved for accreditation) and delivery partners who design and implement projects. National Designated Authorities (NDAs) are government institutions serving as the interface between each country and the Fund.	$1Ms-$250Ms+	Combination of grants, contingent grants, concessional loans, equity, guarantees and result-based finance to leverage blended finance and crowd-in private investment.

Name	Regional Focus	Sectoral Focus	Access criteria	Size range	Instruments
Global Environment Facility (GEF)	Developing countries	There are several "focus areas" that guide GEF programming directions and provide countries with the opportunity to participate in selected "Impact Programs". Focus Areas: Biodiversity, climate change mitigation, land degradation, international waters, and chemicals and waste. Impact Programs: Food systems, land use and restoration; sustainable cities; and sustainable forest management.	Access through GEF Implementing Agencies. List available on the webpage. To be eligible, all projects and programs must fulfil the following criteria: - Countries must be eligible for GEF funding - The project must be driven by the country, and be consistent with national priorities - The project must be aligned to the previously mentioned focus areas, and impact programs - The project must seek GED financing only for the agreed costs - The project must involve the public in project design and implementation	$1Ms-$10Ms	Grants, concessional loans, equity, and guarantees.

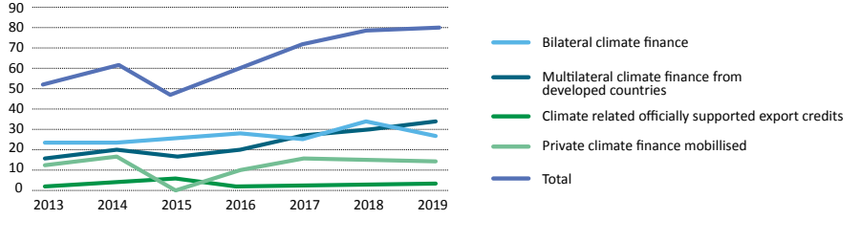
1.3.5 Pledges vs. Climate Finance Flows From Developed To Developing Countries

At COP15 in Copenhagen, developed countries pledged to mobilize $100 billion worth of climate finance annually by 2020 with at least half to be directed towards adaptation projects, which has been dwarfed in comparison to the needs. Falling short of that pledge (Timperley, 2021), actual flows of climate finance from developed to developing countries are much lower and are regionally, thematically, and sectorally imbalanced.

According to the OECD, total climate finance committed in Official Development Assistance (ODA) by developed countries amounted to $83.3 billion in 2020, with only 8% reaching low-income countries (OECD, 2020). This further augments the disparity between the regions and inequitable access to climate finance.

Figure 1.3.7 illustrates that climate finance provided and mobilized by developed countries increased from $58.6 billion in 2016 to $79.6 billion in 2019 with $62.9 billion coming from public sources and $14 billion originating from the private sector in 2019. Other assessments report lower flows, meaning that the gap between pledges and commitments could be even higher.

Figure 1.3.7: Climate finance provided by developed to developing countries between 2013 and 2019 ($bn)[7]



Source: Climate Finance Provided and Mobilised by Developed Countries: Aggregate Trends Updated with 2019 Data, Climate Finance and the $100 Billion Goal (OECD, 2021)

Although investments in mitigation seem high for developing countries, actual volumes are still small compared to investments in developed countries. For example, the IEA notes that although developing and emerging economies account for two-thirds of the world's population, they have received only 20 per cent of total investments in clean energy, having fallen by about 20 per cent since 2016 (IEA, 2021).

Developed countries have already committed to increasing climate finance flows to meet the 2025 target (OECD, 2021) (Table 1.3.2). However, even if this mobilization target was to be met, this finance would still be insufficient in comparison to the level of need.

Table 1.3.2: Pathways for developed countries to meet the $100 bn annual climate finance flows by 2025

Types of flows	2021	2022	2023	2024	2025
Public finance	66.5-70.5	74.6-77.7	82.5-85.3	89.3-92.2	94.0-94.5
Export credits			2.6		
Private finance	14.0-15.2	15.0-16.7	16.0-18.4	16.5-19.6	16.6-20.4
Total	83-88	92-97	101-106	108-113	113-117

Source: Climate Finance Provided and Mobilised by Developed Countries: Aggregate Trends Updated with 2019 Data, Climate Finance and the $100 Billion Goal (OECD, 2021)

1.4 From Pledges to Implementation: Unlocking Opportunities

Mobilising additional finance that goes beyond that $100bn will need greater engagement between private and public sector to unlock the trillions of dollars that are available through the private sector and other development and non-state actors. This will therefore not only depend on whether developed countries can mobilise the required financing for climate action to developing countries, but also whether this mobilisation is accurately reported, does not increase the debt of developing countries, targets least developed countries and small island states and ensures equal support for adaptation alongside mitigation (OXFAM, 2020).

In 2019, the multilateral development banks (MDBs) announced plans to increase the global climate investments they support to $175 billion annually by 2025 (ICB, 2019). Also, in recent years, philanthropic funds targeting climate action have grown rapidly, with funds to climate mitigation in 2020 ranging between $6-10 billion. However, they represent less than 2% of total philanthropic finance worldwide (Desanlis, et al., 2021).

Against this backdrop, COP26 presented itself as an opportune moment to bring together the world to a serious discussion around the climate agenda. With a wide participation of diverse stakeholders, including the private sector, a number of positive announcements were made as participating countries reaffirmed their commitment to the Paris Agreement goal of keeping the increase in global temperature to levels below 2°C, and better yet, to keep the goal of 1.5°C alive. Glasgow also urged developed countries to deliver on the $100 billion pledge and to double financing for adaptation. COP26 also witnessed philanthropic pledges of over $1.7 billion to support climate action (FordFoundation, 2021).

Moreover, there has been a growing interest from institutional investors in climate financing, manifested in multiple initiatives that were launched during COP26, such as the Glasgow Financial Alliance for Net Zero (GFANZ)[8] that has committed over $130 trillion of capital to achieve the goals set forth in the Paris agreement by 2050 (GFANZ, 2021). To this end, GFANZ signatories are seeking to adjust their business models, develop credible plans for the low-carbon transition, and take the necessary steps to implement those plans. In September 2022, GFANZ launched a regional network to support climate finance in Africa (GFANZ, 2022).

These commitments, and others that have followed since, offer an opportunity for different stakeholders to work with the private sector to align sustainability targets with low-carbon transition goals. The success of catalyzing additional financing hinges on the interaction and complementarity of all stakeholders' efforts. The different stakeholders can leverage their current and future competitive advantages to attract more investments, create enabling environments for investments and channel this finance to places with the greatest need for climate change adaptation and mitigation.

Governments can be a starting point for mobilizing additional climate finance, as they can create conducive, secure and predictable investment environments through policy and regulatory frameworks and strengthening the role of institutions. This will, in turn, help create the markets that can accommodate climate-related projects and develop pipelines of investable projects for the private sector that are aligned with the countries' NDCs.

Meanwhile, development partners, MDBs, and financing institutions have a key role to play. First, through providing technical support to upgrade national institutional capacities and advance the investment landscape. More importantly, they can push forward private sector engagement through concessional funds, grants, and pledges by philanthropic groups, to de-risk private sector investments and create first loss positions vehicles to improve portfolio ratings in developing countries. The role of development partners is thus indispensable in supporting projects' preparations phases to attract needed private capital.

[8] GFANZ is a global coalition of leading financial institutions, including banks and asset managers

In addition to the actors providing finance, there are other actors providing support services to accelerate mitigation and adaptation actions. As an illustration, financial regulators are requiring financial institutions and companies to comprehensively assess physical and transitional climate-related risks. Climate modelers are joining efforts to link climate-related risks with macroeconomic and financial risks; some of these models also integrate modules on energy systems, agriculture and land use, and demographics, among other considerations. The results of the latter can, in turn, inform credit rating agencies to anticipate and communicate potential changes in the probability of corporate and government default. Beyond the financial ecosystem, civil society lobbies and think tanks are crucial to putting emissions reduction and resilience building high on the priority list of policy makers and investors.

1.4.1 Areas for Improvement

While the international community needs to rethink the climate finance architecture in the medium and long-run to crowd-in investments at scale, this Guidebook identifies the short-term opportunities that can be seized to maximize the effectiveness and efficiency of the current system.

Addressing synergies between climate finance and other types of financing: Delivering climate finance that is separate and additional to ODA development finance promotes trust between developing and developed countries. It also provides opportunities for leveraging special delivery mechanisms for climate finance, which are more effective at targeting the root causes of vulnerability to climate change. However, ensuring ODA is climate aligned can contribute towards de-risking investments in climate change and adaptation, while also contributing towards greater efficiency of funding allocations, as this ensures that the development benefits generated from ODA spending are protected from climate change risks.

Enhancing coordination between multilateral finance institutions and capital providers: This is to provide more consistent financial support, reduction in debt of developing countries to encourage synergies between fiscal and monetary policies and financial assistance that could compensate for over-exposure to climate change risks and boost resilience (Ameli, et al., 2021).

Strengthening mitigation actions and raising the ambition of adaptation efforts and commitments: The IPCC 6th Assessment's Working Group 2 report concluded that some impacts of climate change are irreversible, even under highly ambitious mitigation regimes. This implies that while strong mitigation is the way to minimize impacts and long-term costs, increased ambition in terms of adaptation, particularly for finance and implementation, is critical to prevent exacerbating existing gaps. When dealing with a global crisis with differentiated responsibilities, it is crucial to recognise that the advanced economies and developing economies face different realities and challenges, requiring different resources, capacities as well as different priorities. Recognising the different realities is an important step toward implementing context-relevant actions.

Shifting capital flows to the most needed areas: To date, finance has followed markets and investment opportunities. The record so far shows the poorest regions and their citizens have benefitted little from climate finance flows, partly because of high regulatory, economic and financial and project risks on investments in mitigation and adaptation. Further, the global climate finance architecture could be improved by eliminating redundancies, simplifying processes and getting finance flowing not only faster, but also to the right projects.

Enhancing efforts by governments in developing economies to build institutions and develop human resources to create the enabling conditions for investment and implementation. Countries that have the capability and capacity to navigate the changing regulatory environment are well positioned to spur greater investment. They would also be able to develop local content policies that are in line with their capabilities and aspirations. Their internal confidence would be an important enabler to build trust, experiment with new innovations and appeal to institutional investors to become more involved in so-called 'risky' clean energy and climate resilient projects.

A vision for the transformative change that leaves no one behind must be central to institutional innovations for climate financing. Achieving this requires the internalization of the Just financing principles in the design of projects and implementation of interventions for mobilizing finance and for implementation of climate adaptation and mitigation. To be contextually relevant, countries must identify what Just Transition means for them and their specific national and local circumstances.

Enabling conditions, discussed in more detail in Chapter 2, include a range of drivers such as:

a. Institutional capacity – the building and strengthening of organisations by providing expertise to improve planning, decision-making processes, empowerment, social capital, and an enabling environment (IPCC, 2018).

b. Policy instruments – tools and techniques used by governments to achieve a specific set of goals or promote specific policies (Hettiarachchi & Kshourad, 2019).

c. Multi-level governance arrangements – the interaction among levels of government when designing and implementing public policies with subnational impact (OECD, 2022).

d. Technological innovation – demand-led technological change that leads to significant system-level change and may be characterised by exponential growth.

Exploring incentives for the private sector in adaptation. It is widely known that the private sector is yet to be involved in meaningful ways in adaptation projects, particularly in developing countries. The enabling policy and regulatory frameworks for private sector contribution to adaptation finance therefore need to be in place. Part of this will also require changing narratives to challenge the idea that adaptation means costs without benefits.

The following chapter focuses on the complementary roles of government, together with the various stakeholders, in creating enabling conditions to promote climate investments.

Chapter 02

Creating an Enabling Environment for Climate Investment

The Ministry of International Cooperation (MoIC) worked with lead institution: United Nations Development Programme (UNDP)
Main Contributors: United Nations Conference on Trade and Development (UNCTAD), International Fund for Agricultural Development (IFAD), NDC Partnership, Microsoft, International Labour Organisation (ILO), European Investment Bank (EIB), Islamic Development Bank (IsDB), Climate Finance Advisors (CFA)

2.1 Introduction

According to just financing principles that underscores developing countries' right to develop and industrialise and their leadership in setting their development trajectory, governments need to identify the technical and financial gaps that hinder the progress towards a sustainable and resilient future. This strategy should account for national competitive advantage and at the same time acknowledges the international direction towards low-carbon emissions.

While governments have a leading role in creating enabling environments for climate investment, advancing the transition to a low-carbon pathway is dependent on the interaction and complementary efforts of all stakeholders. A broad engagement of stakeholders in a country's climate-related needs assessment, planning, resource mobilisation and implementation ensures just and equitable outcomes.

This Chapter discusses the importance of identifying climate investment needs on national levels through prioritising key sectors for climate investments, accurately costing and budgeting needs and risks, while capitalising on the needed interaction between different stakeholders. Finally, the Chapter highlights the mechanisms and market tools for creating an enabling environment to facilitate the implementation of climate investment strategies and plans.

It is worth mentioning that the guidelines presented here are general and will require tailoring to each country's unique fiscal circumstances, climate ambition, and technical and institutional capabilities.

2.2 Multi-Stakeholder Engagement Approach

Engaging relevant stakeholders across core actions, while accounting for their objectives and interests, **enables more robust climate investment mainstreaming and mobilizes support from stakeholders.** It also improves the alignment of global climate mitigation and adaptation targets with national development objectives; considers the priorities of diverse stakeholders, and identifies domestic, international, and private finance sources. Further, it creates the opportunity to address access, affordability, and allocation bias, and better demonstrates the right to quality and quantity of climate finance.

Relevant stakeholders should include governmental actors (line ministries, coordinating ministries, new entity that may be established, etc.) as well as bilateral and multilateral development partners, MDBs, private sector, capital providers, philanthropies, think tanks and civil society (Inter-American Development Bank, 2021).

2.3 Climate Investment Needs Assessment

Climate investment needs assessment should be country-driven and linked to national policy and planning documents across all sectors, and strongly focused on implementation in the short, medium and long terms. Robust process includes mapping of existing climate investments and sources of climate finance against planned objectives to identify gaps. Moreover, an adequate assessment requires an evaluation of the country's climate risks over time (including physical risks), to help reduce its vulnerability to climate change, and identify opportunities to invest in resilience.

In this context, countries would define a set of investments and supporting activities that can enhance mitigation and adaptation actions required to achieve climate agenda targets. At this stage, both large and small-scale projects are identified. Project investments can be estimated as large-scale intervention (e.g., electrification of public transport, promoting climate-smart agriculture practices) or at specific level (e.g., development of an urban light-rail transit system).

The central government may work together with sectoral agencies and climate experts to validate the complete set of investments (planned and prospective). Technological advancements over time will shape the options available to decision makers. Relevant stakeholders can assist in identifying and validating investment needs, including specific projects and activities. Stakeholder engagement may enable the selection of coordinated climate action, prioritised based on cost-effectiveness.

Finally, the needs assessment process should be undertaken on a regular basis to respond to national and international changes and address arising vulnerabilities to ensure countries are agile and responsive to changing contexts.

2.4 Process for Sectoral & Technological Prioritisation

Sectoral prioritisation in the context of Just Financing principles means that transitioning to low carbon is not a question about how countries should move from carbon-intensive development to climate resilient pathways. It should rather ensure the burden of historic, current and future emissions is shared by all countries in a responsible and equitable way, in line with the Paris Agreement.

The drivers of economic growth and development differ between countries depending on a multitude of factors, including for example: which sectors are primary or significant drivers of GDP activity, the fiscal and socioeconomic context, a country's development trajectory, as well as environmental sustainability.

The need to balance adaptation and mitigation financing is imminent. For example, while the annual tracked total financial flows for climate mitigation has increased in total volumes, these financial flows remain biased towards mitigation technologies and sectors and still fall short of the scale needed (Working Group III Contribution to the IPCC Sixth Assessment Report (AR6), 2022). Therefore, countries need to strike a balance between mitigation and adaptation while preparing their climate strategies and Nationally Determined Contributions (NDC).

Processes for sectoral decarbonisation require systemic approaches that consider carbon emissions from the combination of land and ocean resources and foster clean and energy efficiency technologies, sustainable food production, building cleaner cities and curbing deforestation and land degradation (United Nations Environment Programme, 2021). Therefore, staying on the 1.5°C trajectory means taking real actions to cut approximately 30 gigatonnes (Gt) of greenhouse gas emissions annually by 2030 (United Nations Environment Programme, 2020). As a result, focusing mainly on industrial-related emissions and transport will not be enough.

The selection of high-impact sectors for decarbonisation needs to take into consideration the surrounding communities and the workforce employed in such sectors. The path to a green economy has the potential to create millions of jobs. Yet, it will disrupt the labour market with some sectors contracting and others growing and expanding, resulting in new skill-set requirements. This, in turn, will create a labour skill-gap between green sectors and carbon-intensive sectors that would hinder the transition process if not addressed, particularly in developing and emerging economies.

National and local contexts will be critical for advancing the transition to a low-carbon, climate resilient economy through just financing. For example, Technology Needs Assessments (TNAs) and Technology Action Plans (TAPs) under revised NDCs reflect the technology priorities of countries. Clearly highlighted in these programmes are opportunities in agriculture, energy efficiency, renewable energy, early warning, climate observation, resilient infrastructure, transport, and water sector development that sit across the interface between mitigation and adaptation (Technology Executive Committee, 2021). Their implementation should be context specific, as vulnerable communities require tailored support and urgent funding to cope with loss and damage already produced by climate change.

Technology-based solutions to climate change mitigation, adaptation and resilient development need to be driven nationally by governments who would have a clearer understanding of their circumstances and priorities. Involvement of a wider constellation of financial actors, including the private sector and communities, is critical for interventions to be fair and equitable, and to balance feasibility with desirability and legitimacy of technology and sectoral projects and solutions to meet in-country demand. This is especially relevant in the role that technology financing can play in NDC implementation and the necessary synergies to stimulate the uptake of technologies to accelerate efforts to achieving NDC targets at the same time as delivering on national development agendas and maximising social returns.

However, **there are multiple challenges associated with the different processes of technology and sectoral financing.** Understanding these challenges is required, inter alia, to assess sectoral and technological potential, barriers and risks at national-level including legal, legislative, market and workforce restructuring combined (Jenkins K. E., 2019). For example, most climate technologies that have the potential to generate higher outcomes for adaptation and mitigation have higher risk return profiles for investors, due to their higher upfront costs in comparison to incumbent technologies.

2.5 Costing, Budgeting, and Financing of Climate Investment Needs

Estimates of how much financing is needed to achieve climate objectives can inform budget planning, as well as support the identification of optimal sources and instruments to finance the gaps. It can also enhance the visibility of the pipeline of investable projects to the private sector.

NDCs serve as a venue to provide a level of financial and costing detail that support well-defined climate objectives and signal to the international community the funding and financing requirements to meet those objectives.

According to the United Nations, all 193 Parties to the Paris Agreement have issued at least their first NDCs. However, it is estimated that only 41% of submitted or revised NDCs have been costed (UNFCCC, 2021).

Costing each action involves identifying the cost for sub-actions, including the capital up-front fee, ongoing maintenance, capacity-building, and the human resources needed for implementing the NDCs targets. This then allows for understanding and quantifying a country's climate financing gaps and puts countries in a better position to develop a strategy for filling those gaps from various sources, both public and private.

2.5.1 Costing

The process of costing NDCs may require support to combine the needs assessment, sector prioritisation, and the undertaking of costing out the pipeline of investments that support the country's NDC targets. The cost estimate should be prepared from a bottom-up analysis, where the cost of each investment is calculated based on a clear understanding of the specifications of a proposed intervention (e.g., price and volume of required materials), including understanding the revenue model of the project, programme or asset (this is important for understanding which capital sources may be relevant for the investment).

The cost estimates of each NDC investment should differentiate operating costs and capital costs, and all investments should integrate climate-related physical risk assessments such that they inform changes in operating costs over the life of the asset.

Assessing social, economic, and environmental benefits of proposed investments while considering national and subnational development plans, sustainable development goals, and just financing principles is also critical. This better informs investments and further incentivises investors as it takes into account several aspects that play a role in the asset. It also ensures alignment with other sustainable development initiatives. Furthermore, total investment needs can be disaggregated by NDC target or outcome, and by sector.

It will be important that NDCs factor in the cost of inaction, or an inability to raise the necessary funding and financing to meet a country's climate-investment needs on time. While the investments needed to mitigate and adapt to climate change may be significant, the costs of loss and damage if countries don't act to combat climate change are significantly greater and will further increase as inaction continues. Inaction could also exacerbate inequalities, and beyond disaster aid could also put pressure to reinforce or expand public safety net programs, particularly for the poor and most vulnerable (Climate Finance Advisors, 2019).

> *"Every year, those living between the tropics of Cancer and Capricorn face losses and damages three to four times more than elsewhere. And this year, that was epitomised by the devastating floods that submerged a third of Pakistan. That loss became less invisible to others this year, as America and Europe endured extreme floods, heat waves and forest fires. All of humanity will be on the frontline if mitigation does not occur fast enough. That is why we need to provide access to a global balance sheet to fund mitigation efforts everywhere, backed by a new issue of Special Drawing Rights: a global mechanism backed by a global currency, to accelerate the delivery of global public goods. Because we are so close to the 1.5 degrees warmer trigger for cascading effects, the speed and the quantum of mitigation matter. So we must prioritise fast mitigation, such as a sharp reduction in methane emissions. The reality is, two hundred years of industrialisation has already baked in 1.2 degrees of warming, so even rapid mitigation is not enough from here. We need triple lending by the World Bank and other Multilateral Development Banks, in return for an additional focus on providing concessional finance for climate-vulnerable countries to invest in climate resilience. And we need a more shock-absorbent international financial system with every debt instrument carrying natural disaster and pandemic clauses. While these simple ideas will make a difference, they do not require any country to write a cheque to any other today. In addition to this, we will also need a new international mechanism, such as a levy on fossil fuel prices as they slip back from elevated levels, to deliver grants or grant-like funding for reconstruction after a climate or slow-onset event. It has never been more apparent what COP must deliver."*
>
> **- Hon. Mia Amor Mottley, Prime Minister, Barbados**

2.5.2 Budgeting

Climate action and sustainable development are inextricably linked. Therefore, climate investments should not compete for budget resources with other public programs, but rather establish the synergies, where mainstreaming climate considerations fosters the transition to resilient development pathways.

Developing countries, especially after compounded shocks, may experience a tightening of their fiscal space. The IMF notes that a tight fiscal space will constrain the government's ability to provide resources for a given need thus jeopardising its long-term fiscal sustainability or economic stability. It also constrains the government's ability to take on debt, currently a crucial instrument for funding climate projects. Reviewing their fiscal space allows governments to identify avenues for integrating climate risks and the cost of climate actions into their macro-fiscal frameworks.

To lay out climate projects and allocate their budget, countries may consider classifying projects in need of funds into three categories while analysing their climate finance needs. The first category includes projects that reduce emissions but will not be implemented without initial concessional and/or grant support for system planning or project preparation. These projects are difficult to launch due to large preparation costs and high risks. One way to address that is to engage development partners from an early stage to acquire needed technical assistance and concessional support (grants) to translate them into implementable projects.

The second category is for projects that reduce emissions but are not commercially viable when only their domestic benefits are accounted for. Hence, funding these projects necessitates financial support either from domestic sources or from international sources. This is especially relevant for low-income countries, for example, for investments in electricity grids or storage that will enable private investments in renewable energy. While technical progress and economies of scale are likely to increase the return of such projects over time, they often make economic sense even before commercial viability. In these cases, concessional resources can reduce the cost of the transition.

The third category is for the interventions that are in a form of compensation and may bring no financial returns, even though they bring large social benefits essential for a just transition. These types of interventions need public or philanthropic funds to be realised.

The support of the international community is vital to an effective prioritisation exercise in developing countries. Development partners can support country governments with the expertise, capacity building, and funding needed to assess the costs and benefits of adaptation and mitigation activities, as well as their developmental co-benefits.

Governments might consider introducing climate tags for budget tracking and conduct regular climate expenditure and institutional review based on the national budget cycle. Climate finance readiness requires capacities to monitor, report, and

verify the flows and impacts of national climate finance. The introduction of climate tags for budget tracking ensures transparency in financial flows. Furthermore, by conducting regular climate expenditure and institutional reviews based on the national budget cycle, national governments may hold line ministries and government agencies accountable for the effective delivery of funds.

A final round of legislator scrutiny may ensure that budgeting supports the key objectives for climate action. During this exercise, institutionalising a legislative committee for climate is advisable to cross-check policy adherence, feasibility, and affordability of proposed budget submissions, among other determining factors. Such scrutiny ensures compliance with an effective financing channel/system and holds all intermediaries accountable for their role in fighting the adversities of climate change.

2.5.3 Financing Climate Investment Plans

Due to tight fiscal space, competing development priorities and historical responsibilities for climate change, most developing countries need international support, whether in the form of finance, technical assistance or technology transfer (Pauw, Castro, Pickering, & Bhasin, 2020). For African countries, 85% of climate activities included in their NDCs are conditional on the availability of international funds.

Therefore, countries need to consider creating a national-level strategic financing plan for the pipeline of climate investments. Such assessment will by definition entail assessing various sources of public and private capital and development of both strategies and tactics to accessing that capital which ensures both (i) the effective and efficient utilization of public capital (domestic and international), and (ii) the ability to maximize, wherever possible, private capital that a country can catalyse, whether through direct investment, capital markets, or other channels.

Improving country allocation processes first requires mapping of the various sources of capital, how they can be used, including along the project cycle, from early stage through to more mature approaches, such as through funds and aggregation vehicles, as well as capital markets. In general, funding sources can be categorised as:

- **Domestic Public Sources,** including tax revenues and national budgets, sub-national budgets, domestic public financial institutions, public pension funds;
- **Domestic Private Sources,** including local banks, local equity and venture capital (VC) investors (where available), firms and SMEs balance sheet financing, consumer savings and households;
- **International Public Sources,** including development finance institutions, bi-lateral donors, some sovereign wealth funds (SWFs), and international climate funds (e.g GCF, Adaptation Fund, GEF);
- **International Private Sources,** including commercial and investment banks, institutional investors/pension funds, insurance companies, asset managers, equity and vs. investors, philanthropy, high net-wealth donors.

Each of these has different risk appetites and can be brought together in varying ways to fund and finance a country's climate investment pipeline. Chapter 3 goes into more detail explaining the various financial actors within each category, their general approach, instruments and risk-return profiles, while Chapter 4 describes different types of innovative financing models which can be relevant as countries undertake a strategy for funding and financing the pipeline of climate investments.

In addition, countries need to identify where to use various financing approaches and instruments, to move from a "funding" model to a "financing" model for those low-carbon, climate-resilient investments.

2.6 Fostering an Enabling Environment

Establishing a robust enabling environment involves creating a set of interrelated conditions at both national and local levels that facilitate and support the progress toward achieving a specific goal (Akhtar-Schuster, Thomas, Stringer, Chasek, & Seely, 2010). Fostering an efficient and conducive environment entails the development of regulatory and institutional arrangements, capacity building as well as creating and deepening markets for low carbon development pathways.

Within this context, **creating a conducive environment for private investment is crucial to unlock and strengthen climate investment flows.** Supportive business regulations help channel investments, including foreign direct investments, by addressing some of the key obstacles to increasing investor confidence. This includes instituting adequate protection mechanisms and addressing transaction costs, such as information asymmetry and cost of contracting, which may be difficult for investors to mitigate. They also help to properly allocate different types of risks to stakeholders most able to bear them.

2.6.1 Regulatory Framework and Institutional Arrangements

The laws and regulations related to climate finance must establish long-term targets that set the strategic direction of the country's efforts towards realizing their climate agenda and NDCs targets. Long-term targets play a pivotal role in helping policy makers to identify the adaptation and mitigation activities that are compatible with a country's development trajectory (UNFCCC, 2020).

Meanwhile, the legislative framework provides short term and intermediate targets which will determine the trajectory towards the long-term objectives. Intermediate targets may include strengthening adaptive capacity, building resilience, and reducing vulnerability (World Bank, 2020a), while short-term targets can provide a functional framework for addressing the risks and vulnerabilities (UNFCCC, 2020).

Framework legislation may identify the policy instruments that public institutions are going to use to support the national climate agenda, and these instruments may include measures to raise the capacities of public entities, households, and businesses to reduce emissions. It can also include fiscal regulations (World Bank, 2020a).

The regulatory framework should ensure incorporating the social aspect and cost of the reform process to support the equitable transition to a low-carbon pathway. For example, carbon taxes and fossil fuel subsidy removal could have a negative impact on the workers in the intensive carbon sector; therefore, it is crucial to develop social protection programs to support displaced workers (Błachowicz, et al., 2021).

Therefore, **the legislative reform should be a dynamic process** in terms of conducting regular assessments for all regulations to ensure that they meet their intended economic and social objectives efficiently and effectively (UNFCCC, 2020), in addition to designing policy instruments to accommodate changing circumstances such as technological change (OECD, 2021).

Furthermore, **the legislative framework may establish mechanisms to coordinate the government's response to climate change** across the process of policy development, implementation, and evaluation (Commonwealth Climate Finance Access Hub, 2022).

Finally, without a comprehensive framework of regulations, that includes for example tax and tariffs reforms and incentives, it will be difficult for developing and emerging economies to create an enabling environment to attract more investments to support the national climate agenda (World Bank, 2015).

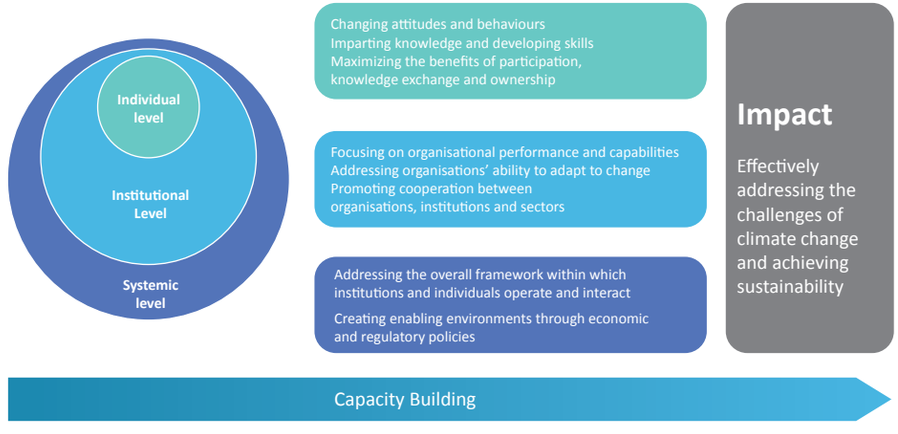
To ensure the effectiveness of the national climate change strategies' implementation, countries need strong institutional and coordination mechanisms. As climate change is a cross-sectoral issue, it is required to establish an external entity outside of ministries that can act as a coordinating body for the implementation of mitigation and adaptation activities across priority sectors with different stakeholders (UNDP, 2017). This dedicated coordination body needs to have a well-defined governing framework stating its mandate and it should be given the authority to oversee other government agencies' activities to ensure their alignment with national climate action strategies (World Bank, 2020a).

Additionally, coordination should be conducted to align efforts at each government level (horizontally) and across national, regional and local tiers of government (vertically). This includes the alignment of long-term climate action plans, sectoral prioritisation, and national, regional and sectoral strategies.

2.6.2 Capacity Building

Based on the 2016 UNDP's Developing Country Support Needs for the Implementation of Nationally Determined Contributions (NDCs) survey (UNDP, 2016), 61% out of the 58 developing countries which participated in the survey reported the need for capacity building to create efficient coordination mechanisms.

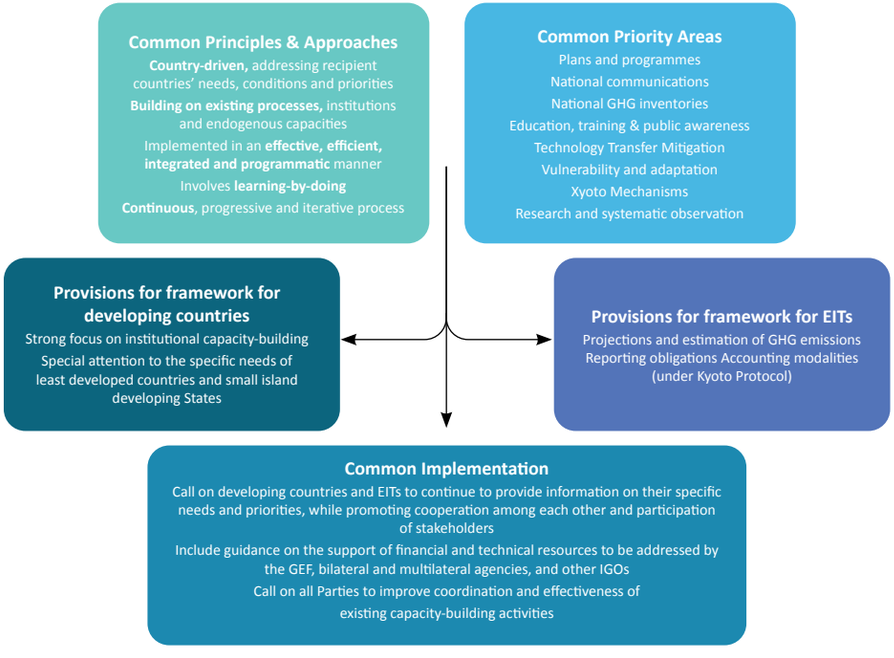
Figure 2.6.1: Capacity-Building In the UNFCCC Process Encompasses Activities at the Level of Individuals, Institutions and Systems



Source: Building Capacity in the UNFCCC Process (UNFCCC, n.d.)

Although they were published in 2001 during COP7, the UNFCCC capacity building frameworks to developing countries and economies in transition are still applicable as they provide guidance on capacity needed to effectively achieve climate action strategies on individual, institutional and systemic levels (see **Figure 2.6.1**). Raising awareness and changing individual behaviours are crucial to engage key stakeholders in climate action activities and gain the necessary support. As per **Figure 2.6.2,** education, training and public awareness are one of the priority areas for the capacity building framework for both developing and emerging economies.

Figure 2.6.2: Overview of Common Elements and Specific Provisions in the Capacity-Building Frameworks for Developing Countries and Economies in Transition



Source: Building Capacity in the UNFCCC Process (UNFCCC, n.d.)

Moreover, building the capacity of different institutions involved in planning and implementing climate strategies based on the context of each country is also needed so that climate change plans are effectively implemented not only on the national level but also on sectoral level (UNFCCC, 2018). As an illustration, national institutions often need improved data collection and management, in addition to producing the right policy-relevant information, hence it is critical to build statistical capacity on the institutional level to monitor and report on data related to climate change/action (UNDP, 2017).

For economies in transition, raising institutional capacity is key in areas such as GHG emissions' estimation, accounting and reporting, whereas capacity building to conduct adaptation activities is needed for developing countries' local governments and communities. Furthermore, capacity building on a systematic level supports the development of long-term strategies, sectoral plans, reforms and legislations that can create an enabling environment for climate investment.

2.6.3 Creating Markets for Climate Investment

Given the systemic nature of climate risks, policy makers, central banks and financial regulators need to be actively involved in its identification and management of climate risks. Integrating climate considerations into the main elements of financial governance, disclosure, standards and metrics, and monetary policy can help transform the financial system in ways that catalyse financing for climate mitigation and adaptation and resilience (Climate Finance Advisors, 2019).

The policies adopted by central banks and financial regulatory authorities affect macroeconomic variables of the country through designing and implementing monetary and fiscal policies aiming towards stabilising the financial markets of the country. These entities, particularly in developing countries, have multiple objectives, focusing on poverty reduction, employment and economic growth in addition to price and financial stability.

Central banks and financial regulatory authorities have pivotal roles in supporting governments and relevant stakeholders towards creating new markets, through allocating credit to specific priority sectors by setting interest rate controls, lending quotas for commercial banks and lending schemes for green projects. Furthermore, these entities can support public development institutions through purchasing their securities and equities, using differential discount rates to allocate credit to capital climate aligned projects.

Financial Regulatory authorities can also establish credit ceilings on low priority activities, imposing differential reserve requirements to influence the allocation of credit in favour of priority projects. Importantly, central banks and financial regulatory bodies must coordinate their efforts with private sector and international financial institutions to conduct studies, knowledge exchanges, forums, roundtables and focus group discussions to raise greater awareness and encourage the adoption of environmental, social and governance (ESG) principles and Environmental and Social Risk Management (ESRM) tools in banking operations, which will reflect positively on creating sustainable market opportunities.

There are several climate finance policy levers that governments can use to help attract private sector capital in climate investment. Subsidies and tax incentives for climate action can be powerful policy tools to promote green investments. Gradually eliminating tariffs on green products would send the right signals to investors and manufacturers about the country's commitment towards green transition (WEF, 2021).

Enhancing public-private dialogue is also necessary to advise the government on opportunities where markets can be expected to work and where they are likely to fail. This can promote confidence between the public and the private sector, make policies more predictable, and thus minimise risks for the private sector. It can also lead to jointly planned, financed and implemented initiatives.

Further, **partnership between multinational firms and local SMEs is a powerful tool that private companies can depend on** such partnerships lead to strengthen local entrepreneurship, create skilled employment, and promote knowledge- and technology-transfers which eventually contribute in creating an enabling environment for private investments.

2.7 The Role of International Investment Agreements in Strengthening Countries' Enabling Environment for Climate Action (by UNCTAD)

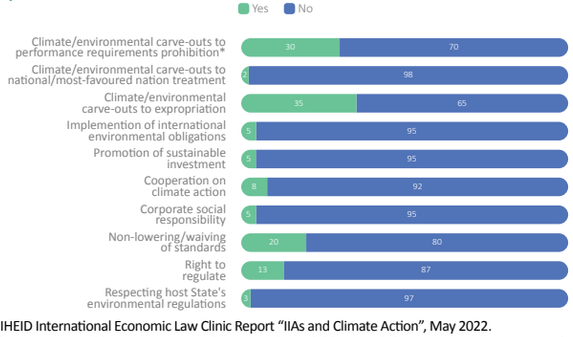
2.7.1 The International Legal Framework for Investment and Climate Action

IIAs contain substantive protection standards for foreign investors and investments, coupled with access to investor–State treaty arbitration, known as investor–State dispute settlement (ISDS).

IIAs proliferated in the 1990s as an instrument of global investment policymaking and have become increasingly contentious over the past decade, including due to the fast-growing number of ISDS claims and States' increased exposure.[1] The urgency of climate action has recently heightened attention to the need to reform the IIA regime.

Most IIAs, especially old-generation ones concluded before 2010, fail to safeguard sufficient room for regulatory action for the protection of the environment and addressing climate change. In virtually all past ISDS cases, claimants used old-generation IIAs as the legal basis. New-generation IIAs fare better in providing clarified substantive provisions and improved procedures. Nevertheless, questions remain whether new-generation IIAs are sufficiently robust to support and not hinder climate action. Even in new-generation IIAs, climate change-related provisions are not prevalent (Figure 2.7.1). For instance, new-generation IIAs do not make distinctions between sustainable investments and high-emission investments in their scope.

Figure 2.7.1: Selected provisions relevant to climate action in IIAs concluded between 2010–2021 (Percent)*



Source: UNCTAD, based on IHEID International Economic Law Clinic Report "IIAs and Climate Action", May 2022.
Note: The survey analysed 347 IIAs signed between 2010 and 2021, with available texts. *The percentage concerns only the IIAs that include performance requirements provisions, i.e. 103 out of the 347 analysed IIAs.

[1] *For the evolution of the IIA regime, including the shift from the era of proliferation to the era of re-orientation, see UNCTAD World Investment Report 2015.*

While IIA reform is underway in many countries, a lot remains to be done as the stock of old-generation IIAs continues to limit the capacity of countries in implementing measures needed for the protection of the environment. The narrow time window available to keep warming within 1.5°C, and the unprecedented aggregate scale of potential investor-state claims that may be associated with climate measures such as fossil fuels phase-outs, call for States to both deepen and accelerate reform processes. These reforms could for example, promote and facilitate investment into climate-friendly projects, and limit or exclude coverage of high-emission investments under IIAs. Intergovernmental and multistakeholder dialogue can play a role in identifying and devising IIAs that promote and facilitate sustainable investments, in support of climate action.

A transition to a green economy will require investment into research and development (R&D), implementation of new technologies, and infrastructures necessary for the sustainable use of such technologies. Some IIAs, including those from new generation, pose obstacles to States' initiatives aimed at creating conditions necessary for the transition particularly in developing countries by prohibiting performance requirements and technology transfers. New IIAs should encourage development of local technological capacities by limiting or eliminating prohibitions of performance requirements especially in green and sustainable technologies.

Strengthening investor responsibility for the protection of the environment in IIAs. New generation IIAs increasingly recognise investors' responsibility in contributing to the transition to a green economy (e.g. Canada–Mongolia BIT 2016, Serbia–Türkiye BIT 2018). States may consider including references to various standards of corporate social responsibility (CSR), responsible business conduct (RBC) standards and other codes of conduct as applicable to foreign investors within the scope of the treaty. States may also reiterate in the treaty that investors are responsible to comply with domestic law and specifically oblige investors to comply with various environmental impact reporting practices (e.g. Morocco–Nigeria BIT 2016).

In addition to ensuring the right of States to regulate under IIAs in a general manner, IIA reform needs to address the following issues to be able to effectively contribute to climate change action:

- Distinguishing climate-responsible investment in the scope of the IIA
- Strengthening investor responsibility for the protection of the environment in IIAs
- Promoting and facilitating investment in clean technologies through IIAs

2.7.2 Distinguishing Climate-Responsible Investment in the Scope of the IIA

New treaties may define what constitutes sustainable investment (including climate-responsible investment) in the treaty. This can be done through numerous ways:

- IIAs may specify the characteristics of sustainable investment in the definition of covered investment.
- States may use various indicators, such as climate-related financial disclosures, low-carbon/greenhouse gases footprint, biodiversity protection as well as characteristics related to the economic, social, and governance dimension of foreign investment.[2] States may also include exhaustive or non-exhaustive lists, schedules, or annexes of covered investments (e.g. investments in renewable energy and clean technology) that may be periodically reviewed.
- States may include procedural classification mechanisms to be used by foreign investors that give the State discretion over determining whether a specific investment qualifies as sustainable.
- An emerging option is to limit or exclude coverage of high-emission investments under IIAs.

2.7.3 Strengthening Investor Responsibility for the Protection of the Environment in IIAs

As mentioned earlier, States may consider including references to various standards of corporate social responsibility (CSR), responsible business conduct (RBC) standards and other codes of conduct as applicable to foreign investors within the scope of the treaty. They may also make references to the relevant ILO and human rights conventions as well as climate change and environmental conventions (e.g. UNFCCC, Paris Agreement) in IIAs.

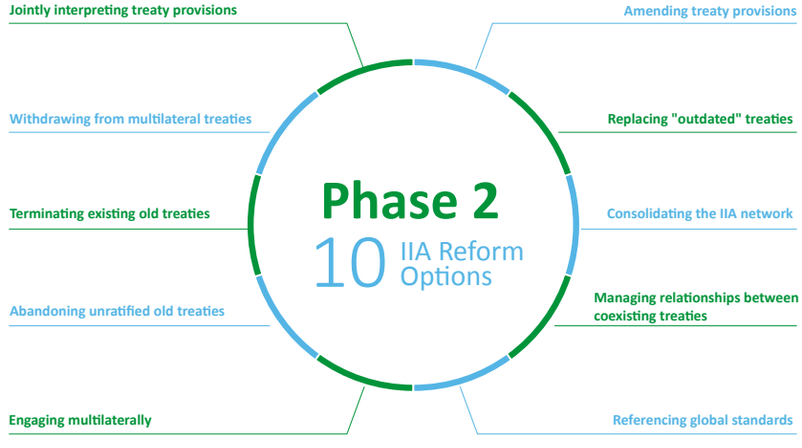
States may also reiterate in the treaty that investors are responsible to comply with domestic law and specifically oblige investors to comply with various environmental impact reporting practices (e.g. by requiring the maintenance of environmental management system, or conduct of an environmental impact assessment).

[2]http://e15initiative.org/wp-content/uploads/2015/09/E15-Investment-Sauvant-and-Mann-Final-1.pdf; https://www.fsb-tcfd.org, also Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), International Integrated Reporting Council (IIRC), Climate Disclosure Standards Board (CDSB) and Carbon Disclosure Project (CDP).

2.7.4 Policy Options for An Effective Climate-Responsive IIA Reform

UNCTAD's 2018 Reform Package for the International Investment Agreements Regime analyses the pros and cons of the various policy options available to States to implement in order to reform their stock of IIAs **(Figure 2.7.2)**. Countries can adapt and adopt these options to pursue the reforms in line with their policy priorities. These policy options may be taken into account for climate-responsive IIA reform. Determining which of these policy options is right for a country in a particular situation requires a careful and facts-based analysis that should ultimately reflect a country's international investment policy direction and national development strategy. The options are not mutually exclusive and can be used in a complementary manner.

Figure 2.7.2: UNCTAD's 10 IIA Reform options



Source: UNCTAD, 2022

IIA reform options can be adapted specifically to climate change with two broad strategic objectives:

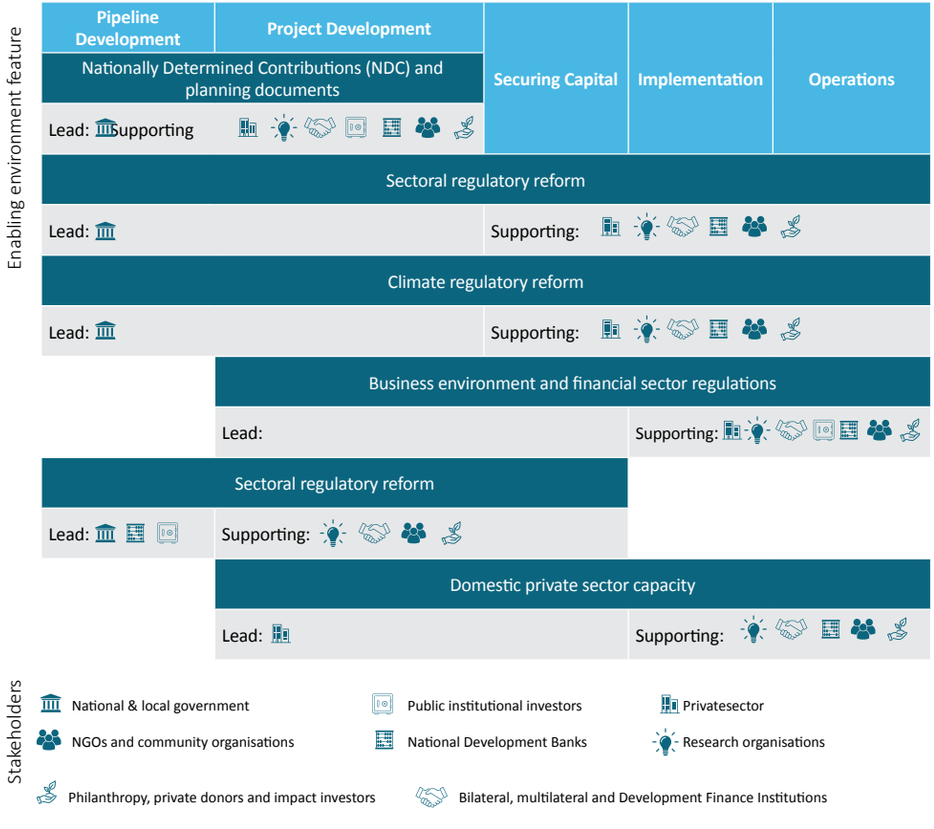
1. Minimizing the risk of ISDS for measures taken for the protection of the environment or for mitigating climate change; and
2. Ensuring that IIAs pro-actively promote and facilitate investments that are conducive to climate change objectives.

Effective and holistic climate-responsive IIA reform may require a reconceptualization of the scope, purpose and design of IIAs. These policy options may take the form of multilateral, bilateral/regional, and unilateral action.

2.8 Inclusive National Framework

To achieve the volume of climate finance necessary to address country mitigation and adaptation needs, it is crucial to mainstream climate considerations, both risks and opportunities, throughout the global and domestic financial systems. Public funds may be used to de-risk projects to attract private capital, particularly in new areas or technologies for the country. Countries vary in their approaches to financial governance with some having clear and delineated agency roles and functions for prudential regulation, monetary policy, securities regulations, consumer protections and tax and budgetary policies. Nonetheless, each of these functions can be important to address climate risks through better assessment and management, as well as through the development of financial policies which incentivise sustainable, climate-resilient investment (Climate Finance Advisors, 2019).

Figure 2.8.1: Roles of Key Stakeholders in Strengthening an Enabling Environment for Climate Finance



Source: Climate Finance Advisors, 2022

In conclusion, enabling the enactment of sound climate-related financial and business policy, requires joint efforts of all stakeholders to enhance their capacity to understand climate-related considerations, as previously indicated in the beginning of the Chapter. Regulators and policymakers possess powerful tools to promote investment in climate-aligned and low-carbon opportunities in their countries, and particularly to promote investment in adaptation (Climate Finance Advisors, 2019). Meanwhile, other stakeholders play an important role in facilitating the flow of capital to priority investments, including climate change. In light of that, Figure 2.8.1 identifies the key enabling environment features for each stage in the project pipeline, and the stakeholders that lead or support in developing that feature.

Despite its limitations, the public balance sheet remains an important source of capital, particularly in new investment areas. Spending policies should prioritise investing in critical infrastructure that will support and incentivise low carbon private sector investments, as well as social safety nets to facilitate equitable pathways. Moreover, governments should adopt market-responsive policies such as competitive procurement systems, and reverse auctions to unleash competition and mitigate budget risks. Feed-in tariffs also should be carefully managed to avoid lock-in of technology and to allow for rapidly changing technology costs.

Additionally, national governments have a responsibility to set up systematic, transparent, and just processes for non-state actors to provide input and feedback on the design and implementation of enabling environment reforms, including multi-stakeholder dialogue processes and grievance mechanisms.

International public sector stakeholders' primary role is often in providing technical assistance funding for developing countries to strengthen their enabling environments. Additionally, these stakeholders have accumulated knowledge and expertise in both developing enabling environments and supporting developing countries in doing so, making them invaluable partners in the technical side of policy reform and capacity-building. Moreover, these stakeholders have convening power to create knowledge-sharing platforms and structures, including across organisational structures. International public sector actors can reinforce the investment environment through engagement on climate priorities, and by investing and co-investing in climate opportunities in developing and emerging economies.

Private sector can provide invaluable insights on the gaps and opportunities in a country's enabling environment. They can liaise with governments to ensure that climate risks and opportunities are adequately accounted for in the regulatory framework, particularly for the financial sector and key real sectors, to ensure that incentives and risks are properly distributed, and capital is appropriately allocated. They are crucial to engage in costing NDCs and developing national climate project pipelines as part of NDC investment plans. Private stakeholders can also enact certain enabling actions, such as helping develop pipelines of climate-related projects, with appropriate support as needed from other actors, including development partners.

Philanthropic foundations and private capital providers can be an additional source of highly concessional funding and climate expertise alongside development partners. They can provide both technical and funding support for capacity building and other technical assistance activities.

Like the private sector, civil society may not directly contribute to the enabling environment in most countries, but it is a crucial partner for governments planning enabling environment reforms through multi-stakeholder dialogue and engagement. Non-governmental organisations (NGOs) often represent underserved members of society. NGOs need to be able to liaise with governments to ensure that their constituents' interests are considered in the development of enabling environment reforms. For this reason, it is vital that NGOs take part in multi-stakeholder engagement processes to ensure representation and equity for issues and populations that may be underrepresented in the private sector. Research-focused NGOs, on the other hand, may provide academic and research expertise to public sector decision makers on issues important to enabling environment reforms.

While creating a conducive enabling environment for climate investments with robust regulatory frameworks and institutional frameworks and capacity building can facilitate the preparation of investable projects, it doesn't necessarily guarantee investability. To that end, Chapter 3 discusses the key determinants of investable projects and the common barriers to private investments in developing and emerging economies.

Box 2.8.1: The Fight for Climate Capital, by Mr. Jay Collins, Vice Chairman of Banking, Capital Markets and Advisory at Citi

The Just Finance Guidebook is a critical tool for policy makers and private sector executives seeking to understand the broad spectrum of issues around climate finance facing both LICs and MICs. The Guidebook is the result of months of intense collaboration among an extraordinary group of stakeholders. What follows is my attempt to lay out a series of best practice priorities for developing economy ministers that reinforce many of the themes and content contained within the Guidebook. This document reflects a personal perspective, based on a career of providing development finance advice to sovereigns.

Financial sovereign leadership is fundamentally about winning the competitive fight to attract, maximize and deploy scarce capital efficiently to the economy. For climate finance in the developing world, this intensely competitive dynamic of capturing and maintaining sustained investment is enormously complex, fraught with sometimes seemingly insurmountable challenges, particularly given the current torrential macroeconomic wind and plethora of externalities blowing against climate ambitions. Yet the fight must be fought. Ultimately, over time, like it or not, climate investment capital will flow faster across borders to the most ambitious, to those decision makers that develop a climate finance pathway with vision and clarity and then relentlessly execute against it. The contrary is true as well. In the course of implementing their Net Zero commitments, the potential for financial institutions and markets to "strand" sovereigns is high. So, if you are a senior government official with responsibilities in the areas of climate finance, what might your best practices be? What priority action steps improve your chances to fund both mitigation and adaptation policy objectives in a way that creates jobs, and increases the likelihood that you win the race to attract capital? What follows are eight best practices which should be considered:

1. Intensely Engage the Private Sector in the Development and Implementation of Your Nationally Defined Contributions (NDC)

While the world is currently in crisis across many fronts, from food and energy to war and inflation, there is a long-term green investment paradigm shift happening below that crisis that will alter the flows of investment capital over time, as radically as did the industrial and digital revolutions. These green flows are up for grabs. In that context, as a sovereign, you should seek private sector input and support for your NDC and use it as a barometer to stress test viability and drive multi-party alignment toward its goals. NDCs are generally uneven around the world, without a guiding standard for best practice, making them often difficult to compare and qualitatively disparate. Many reflect tremendous

integrated strategic planning, with cross functional expert input and technical work that creates a strong backbone for the resulting sovereign commitments. Other NDCs are unfortunately pieces of siloed work that fall far short of any theoretical best practice.

There must be a higher standard for best practice of NDCs, aided by the technical resources of international financial institutions. Remember, the NDC and the Long Term Strategies (LTS) will ultimately have great influence over much of a sovereign's future economic, social, financial, and political future. NDCs will lay the informational framework for how net zero committed overseas private sector institutions will direct and deploy climate capital, away from you or toward you.

A glaring yet all too common flaw in the NDC development process is the degree to which sovereign decision makers commit to a climate transition process and policy actions with little to no consultation or buy-in from the private sector. The potential of the private sector- including both local and global companies, and global and local financial service providers- to provide value to your NDC creation process, to help operationalize your NDC and to provide the backbone of the execution process is tremendous. The private sector can provide feedback on energy transition plans, mitigation and adaptation strategies, and assessments of their own contributing ambition. Most constructive and net zero committed global corporations, banks, insurance companies and institutional investors are formulating detailed operating plans against their own goals and commitments. Many are preparing for significant disclosures and for markets to demand performance against their disclosed commitments, and they will invest accordingly, away from you or toward you. Private sector task forces should be set up to constructively engage sovereigns on the next phase of their NDC development and implementation. The aggregate plans of the largest private sector players in and of themselves will form a significant part of your country's ability to deliver against your pledges.

As a Minister, imagine conceptually that in terms of FDI, the top 10-20 foreign direct investors in your country determine the bulk of the glide slope for the next decade of your climate commitments, and may largely determine the degree to which your country is able to achieve its Paris ambition. If those companies are not only consulted but embraced in the process of defining commitments, the credibility of NDCs will be markedly enhanced. For example, the global so called "hard to abate" sector leaders in the world are developing sectoral pathways and developing massive technology capital investment plans. Of course, many of them are large investors and operators across the developing world and will allocate capital as they transition. If a fast-moving consumer goods company, as another example, is planning to invest in a facility where it knows it will have to roll up its product level carbon footprint and disclose its

Scope 3 emissions, it will most certainly compare the transition plans of the competing host country sovereigns before deciding where to invest. These multinational corporations' investment strategies can make or break your ability to achieve your ambition. Iterative and intense dialogue is required to ensure that the investment planning process of multinational corporations is aligned in a way that benefits your country. That will require your intense engagement so that capital flows move toward you, not away from you.

2. Develop an Overarching Green Vision and a Sustainable Theme

A country can have a climate plan without a vision. However, a plan that is a demonstration of a focused vision can be extremely powerful; the secret sauce to attracting investment is a cohesive theme- a green vision around which projects are bundled and an attractive investment environment is created.

If you dissect the most important sustained and scaled investment programs in the world, they have extraordinary similarities. Be it banking hubs, technology centers of excellence, or trade and investment zones, if successful, they will have provided an enabling investment environment with a targeted geographical location, solid infrastructure, and a predictable legal, regulatory and tax framework. They will include partnerships with universities to ensure research, human talent and academia are deployed against established priorities. They will create a entrepreneurial environment that produces innovation and rapid capital formation. Those countries will have high standards of transparency and rule of law. In those successful thematic ecosystems, governments will have generally provided the initial roadmap, with a vision to catalyze the policies and planning, which will include directing funding and in-kind contributions, like real estate and investment incentives.

One ingredient in a compelling and enabling environment for investment is often underestimated and that is the power of an investment theme. If developing countries attempt to boil the ocean, with a shotgun approach of storytelling and initiatives around a myriad of sectors and projects that don't hold together, they rarely succeed. On the other hand, countries with more focused visions around a theme, clearly understood and articulated often succeed; from the Panama Canal to Silicon Valley, a clustered or thematic hub approach is a powerful driver. It also allows specific investor targeting rather than multi-investor group meetings. The thematic investment approach isn't just true in logistics or technology, it is and will hold equally true along the sustainable investment journey. The theme can center around green hydrogen or green fertilizer, ag-tech accelerators built around a scaled agriculture

initiative, or carbon credit market making infrastructure built on the back of a planned coal early retirement plan. They can be nature-based themes that save oceans or forests. Themes can center around offshore wind farms or advanced storage research and development linked to local sustainable rare mineral extraction projects. The point is that the adaptation and mitigation themes are there for the taking and will provide an organisational discipline around which you attract sustainable and climate investments. The more advanced the country, the more themes can be handled simultaneously.

Egypt's NWFE investment paradigm is a fantastic example of this thematic approach. It bundles energy, food, and water into an understandable construct, into a package of projects that tell an ambitious and cohesive story and provide a discipline around country priorities. It allows the grant and development finance community to align around a set of projects within the overarching vision, and then backs components of the package. It allows the private sector to assess individual projects within the context of a cohesive plan with synergies and a sense of momentum. This is a model approach that can be adapted broadly to a multiplicity of NDCs and even country Voluntary National Reviews (VNRs). The nexus between energy, water and food is also a paradigm that can be used beyond Egypt, as the three pillars are inextricably linked and the interplay between them mutually reinforcing.

Climate finance is often defined by the glass half empty challenge of transition away from generations of fossil-fuel-driven industrialization, and its resulting costs and breakage. Yet, those countries that organize themselves early to compete for what is likely to be the single largest investment paradigm shift of our time will come out net winners. The green investment boom will be driven through to emerging market countries that set themselves up as climate friendly hosts to the Scope 3 conscious investors, and that are already reconstructing investment plans around rolling up their global carbon footprint and reporting it to Net Zero committed investors. The dislocation and reallocation of economic investment will be as transformational as the industrial revolution, and the benefits of localizing scaled green technology investments will be tremendous.

3. Prioritize Project Development

The NDC is a climate strategy and the pathway to NDC implementation is through projects. The winners of the fight for green capital will be the sovereigns that prioritize new project creation and development, by conducting full feasibility analysis for each prioritized project. The priority should be to aggressively organize the government to develop NDC meaningful projects, and then fund feasibility studies through grants, and target multilateral

technical assistance to take projects to the stage where they can be financially assessed. This stage is often underappreciated, but it can't be skipped. You can't jump from "project concept" to structuring financing alternatives and catalytic funding strategies without a feasibility analysis; it is all too common for senior government officials to show bankers short concept papers for projects and ask to provide feedback on bankability. Project finance bankers, for example, looking to assess project viability and structure will expect a "data room" of plans, which would include the feasibility study and the operating financial model against which funding scenarios can be contemplated.

One of the greatest roadblocks or gaps in development finance is the shortfall in the development community's resources allocated to accelerate project design and development. The scramble to design projects and the shortfall in capability is very similar to what has happened in the infrastructure space; the lack of global resources dedicated to project development in infrastructure has been a challenge for decades, resulting in years of frustration around the "lack" of bankable deals. The same is true now in the climate finance space. Whether developmental institutions pool resources and collaborate within a new structure, or they all dramatically increase their teams in this space separately is a choice to be made. However, regardless of where these resources sit, a global dramatic step up in specialized resources and funding for feasibility analysis and technical advice is required. Your country must call for and fight for these resources. Several countries have commissioned consulting studies ahead of energy transition project design. These studies create an operational detailed multiyear energy plan around which projects can be constructed. With concrete and detailed project plans that fit into both the operational energy transition plan and the sustainability vision, it will be relatively easy to assess the viability of the NDC's commitments, and to benchmark implementation progress. Keep in mind that NDC financing plans simply can't be created without projects. The corresponding ability to attract official sector catalyzing capital and the soft circling of potential private sector funding associated with a country's NDC will increasingly relate not just to the greenness of individual projects, but to the pathway ambition of the entire country.

4. Focus Relentlessly on Your Enabling Environment

As is the case in Egypt, and in many of the Just Energy Transition Partnerships (JETP), investors expect a local 'enabling environment' that is conducive to investment. This typically includes regulatory, tax, economic, political, and social requirements. It also must address the issues specific to the energy sector and its own enabling environment; this could include Power Purchase Agreements, regulatory requirements and stability, subsidy and tariff modification, disclosure requirements, grid investment requirements, and offtake agreements, etc.

As the JETP process is rolled out by the G7 and negotiations proceed with JETP committed countries, several things are clear. One is that if this process works, whereby a country agrees to increased climate ambition in return for a specific developed country official sector support package around which private sector monies can be mobilized, then it can be replicated more broadly. The process at this point lacks a consistent framework where ambition is essentially priced transparently, but it is the right starting point. The JETP approach could eventually include more of the highest emitting countries in the world and contribute greatly to accelerated deployment not only of the original $100 billion and beyond from developed countries, but also provide a framework for private sector engagement. The JETP process also forces a discussion of a true viable energy strategy that is unique to each country; it does not mandate a "jump to green" but a negotiated transition pathway that considers individual country needs and dynamics. Very importantly is that the JETP process encourages a difficult but necessary dialogue over the enabling framework of each country. GFANZ has begun to provide detailed feedback of what is required for the private sector to be crowded into the climate plans of countries in scale.

Where developing economies are often facing heavy debt burdens and funding constraints, it is inconceivable to develop an NDC that relies heavily on projects funded largely by the sovereign. Banks and financial institutions fund the real economy by funding private sector entities backing projects with sponsors capable of executing projects. In many cases therefore, the enabling environment is the skin in the game, and the sponsors, domestic or international, provide the funding, off balance sheet or on balance sheet.

5. Seek Official Money to Maximize Mobilized Capital

As Chapter 4 makes clear, blended finance is hard. In addition, not all development capital is created equal. While all developmental tools ultimately can lower the cost of funding, they do so in ways that vary greatly in terms of efficiency. It is often easier for developing countries, particularly LICs, to take concessional loans and grants on a stand alone basis rather than structure bespoke transactions that mobilize the private sector. That said, if a project has financial viability, in the age of scarce capital resources, blending is essential.

Imagine you are given a choice. On the one hand you can take a $1 grant, with no obligation to pay it back, but the likelihood that you may need that $1 dollar again and again every year. On the other hand, you can use that $1 as a risk buffer to mobilize flows of 5 to 8 times that much, creating an ongoing economic concern. Yes, you may even pay that $1 back so it can be recycled. The choice should be simple. Unfortunately, the capacity to structure

transactions within the Official Development Assistance (ODA) community is still limited and there is no mandate from OECD sovereigns to significantly increase blending within the overall pool of grant money. We simply must change this dynamic.

On top of this, most MDBs are both mandated to and managed to lend, representing a clear bias toward concessional and senior lending. Funding models where only the private sector pain point is surgically dealt with in the capital structure by the MDBs and the rest is crowded in by the private sector would mobilize significantly more for your country. However, the current guidance given the MDBs by their shareholders prevents them from taking the kind and size of risk that would give the developing world several times the capital of what they see now.

The recent G20 report on Mulitilateral Development Bank's Capital Adequacy Frameworks has created considerable controversy and debate within developmental circles. It was long overdue. We now have a discussion in the public domain of what has been known and relatively ignored for years: development banks need to take more risk. The MDB risk construct backed into largely by a rating agency risk paradigm that targets a AAA risk rating has meant that many MDBs manage risk so conservatively, that it is often impossible for them to play a catalytic role that would maximize mobilized climate or sustainable capital. While GFANZ institutions are committed to operationalize their net zero commitments, those institutions are generally constrained by fiduciary and regulatory guidelines such that they ultimately take very little non-investment grade risk. Those that take non-investment grade emerging market's risk are at, or near, their risk capacity, and the churn rate or redeployment of their non-investment grade exposure from brown to green is markedly insufficient to meet the developing world climate needs.

It is extraordinarily frustrating, if not maddening, for many LIC and MIC countries to hear, despite the trillions of net zero committed monies from the financial community, that those funds have limitations on them that prevent them from meeting the extraordinary funding needs of the non-investment grade developing world. Changing the regulatory and prudential frameworks of financial institutions that were put in place after the financial crisis precisely to prevent them from taking weak credit risk is as unlikely as it is unwise. Nor is it the right thing for pension funds to tell their pensioners that they are ignoring their fiduciary responsibilities and investing in "B" country risk. Yet the world needs to solve this problem. We need to structure developing country climate projects such that the risk is mitigated enough to boost them up into the sweet spot of the bulk of the green capital appetite – investment grade. This is why we need blended finance structures that include capital layers that absorb risk and that provide a "junior" buffer. This won't happen if MDBs are given more capital with the same risk model; that will result in more of the same.

Imagine that MDB success were truly measured not by deployed capital, but by mobilized capital, such that instead of taking predominantly senior risk, like that of a global commercial bank, MDBs truly took components of risk surgically targeted to maximize the amount of capital mobilized by the private sector. In that case, the pockets of tremendous risk innovation we have seen within the MDBs would be the norm, not the exception. I often say, we need one hundred MIGA's. This is because so many climate projects need sovereign non-honoring, political risk insurance or breach of contract protection. These so called "risk wraps" must be part of your tool kit.

Fundamentally, unless the shareholders of the MDBs mandate significant adjustments to the overarching risk capital construct, the resources that the MDBs have to unlock scaled private sector capital will remain limited. As G7 and G20 leaders are now more than aware of these issues, there is hope for change… maybe even around the corner.

In the meantime, financing of the likes explained in this Guidebook will be skewed toward the most proactive, the most creative and the most ambitious countries; if you want to win the fight for green capital you must put concrete projects into the MDB queue and fight for them.

6. Climate Finance SWAT Teams

Mark Twain said that history doesn't repeat itself, but it does rhyme. In this case climate finance rhymes with infrastructure finance. Green finance is and will be fundamentally done on a project finance basis. The infrastructure funding challenges of construction risk, currency risk, long tenure, political and regulatory risk, off taker risk, etc are by and large similar within the climate finance space. Which means that the decade old challenges of global developing world infrastructure and the needs to utilize a variety of risk mitigating tools to address those challenges all echo in the climate finance world. One helpful solution is for you to repurpose your infrastructure teams into a team of climate financiers. If you don't have those resources, outsource components of it to local infrastructure investment banks or infrastructure boutiques. This can be extremely helpful in structuring climate deals toward bankability.

How much of the overall funding requirements for mitigation and adaptation initiatives within the NDC will be required from the government budget, how much and what type of official support is required, and how much official support is needed to mobilize from the private sector, are questions that can only be answered at the project level. Your government, as a best practice, should create a central team that can support these projects. A climate finance "SWAT" team would help centralize the best practices around the interaction with external

financing agencies and entities, including Export Credit Agencies, local, regional, and global development banks, philanthropies, NGOs and Climate Funds. Don't underestimate the power of Export Credit Agency know how on the team, as many ECAs have insurance, low cost funding and even comprehensive coverage capabilities.

Such a SWAT team could be housed in the Ministry of Finance, in the office of the Presidency, in your Sovereign Wealth Fund if you have one, or like in the case of Egypt, in a Ministry for International Cooperation.

7. Target International Sponsors

There is no question that the fiscal limitations and debt dynamics of the developing world limit the debt capacity and cost of climate finance projects done on the balance sheet of the government. The solution during this period therefore is to look for international sponsors, companies that have the ability to invest equity and operate projects. You need sponsors that will invest in the energy transition, mitigation and adaptation space. From renewable and green hydrogen projects to desalinization and large agroindustry projects, such as drip irrigation systems, there are large global sponsors that will show up to a competitive project if the enabling environment is acceptable and the process is well run. The more thematic the better.

Corporate investors can be given the responsibility to bring financing, and to work with ECAs, MDBs and other capital providers to manage their funding costs and risk. They can pool equity and debt with increasingly committed sovereign wealth funds. In addition to the enabling environment, part of the solution here is the vision. That has to be married with the incentives, or in-kind contributions that a government can make to incentivise bidders. The important point here is that while the sponsor may create an off-balance sheet vehicle, or invest on their balance sheet, such an approach avoids further fiscal and debt strains on the government. PPP initiatives and government agencies focused on this area are essential for this process to succeed.

8. Outcome Bundling

Climate capital of all kinds is now prepared to pay for outcomes. In fact, this may be one of the most important global trends in the move to fund Paris alignment. Investors aren't just interested in knowing that their money is used purposefully against a sustainability objective. They want to achieve targeted outcomes. Outcomes can be greater ambition in an NDC for carbon pathways and emission reduction, or commitments around any one or multiple SDG targets, from more rhinos to more forests. Building on the concept established in ENEL's first Sustainability Linked Bond, whereby the funding is linked to a specific commitment (as opposed to a specific use of proceeds), now more than ever a variety of financing instruments and sources of capital can be bundled around a KPI that is measurable, verifiable and within the reasonable control of a government to deliver.

Bundling involves first finding an "outcome payor", essentially an NGO or philanthropic organisation that is willing to grant and or lend concessionally against a chosen outcome; this anchors a funding structure that may include additional guarantees, loans or a bond that mobilizes more around the KPI. If you, as a sovereign, seek to achieve a sustainability or climate outcome and you are prepared to commit to it in return for funding that achieves a significant cost advantage over your market funding rate, then outcome bundling may make sense for you.

Of course, the bundling can include structures such as official debt exchanges for sustainable investment (debt for sustainability swaps) where part of the structure includes a sovereign that exchanges debt in exchange for the KPI or outcome. As was the case in Belize, such a structure can also include a debt buy back feature that takes advantage of the efficiently priced capital to reduce deeply discounted market debt. In the future, these structures will create and imbed carbon credits that improve the viability of the transaction.

The type of entities that have a role to play in outcome bundling have grown significantly in recent years; they include NGOs and philanthropic funds, creditor sovereigns, UN agencies, climate funds and infrastructure funds, as well as national, regional, and multilateral development banks. In addition to ODA grant funds, there are philanthropic institutions and NGOs that are prepared to take a higher risk slice of the capital structure around which more loan and bond capital can be bundled. Organizing significant bundled funds around specific climate and sustainability objectives (linkages or outcomes) will require more standardisation of governance and KPIs so as to decrease the time spent structuring and increase size and replicability of the transactions.

Conclusion

The current macro environment makes climate ambition and financing in the developing world extraordinarily challenging. Nonetheless, we can't lower our guard or our ambition. The developed world will simply have to create constructs that radically improve the pace and scale for capital to flow into the developing world. Given the myriad of energy security issues which must simultaneously be considered, many countries will take two brown steps backward before they can take three green leaps forward.

There are core practices that if followed will make the difference between promise and peril. The peril of inaction may come sooner than many think, as regulatory, citizen or market action may come in waves, as so called "tipping points" where brown activity is castigated not gradually but on a sudden basis.

The promise of a disciplined implementation of the above steps not only avoids the potential perils of climate change inaction, but will allow you to seize the significant benefits of green investment capital. This capital has many benefits that will inevitably flow to countries with ambition and a committed green pathway. And if you have ambition and follow the above steps, never stop fighting for your share of the green capital.

Chapter 03

Enhancing The Investability of Climate Projects

The Ministry of International Cooperation (MoIC) worked with the lead institution: United States Agency for International Development (USAID) Main Contributors: European Bank for Reconstruction and Development (EBRD), International Finance Corporation (IFC), United Nations Conference on Trade and Development (UNCTAD), Climate Investment funds (CIF), International Labour Organisation (ILO), International Fund for Agricultural Development (IFAD), BloombergNEF, Islamic Development bank (IsDB), African Development Bank (AfFB) and Tony Blair Institute for global change (TBI).

3.1 Introduction

Investing now in projects that reduce emissions and which remove carbon that has already been emitted is critical to achieving the targets of the Paris Agreement. Given the effects and impacts that a changing climate is having today across the world, financing adaptation and resilience measures required by countries and communities is a necessity to hinder and mitigate the more devastating impacts on vulnerable communities, which will continue to accelerate as long as emissions continue to rise.

Investments in both mitigation and adaptation are thus critical. As discussed in Chapter 1, there is a lack of both quality and quantity of climate finance to meet needs in developing economies and there is evidence that the gap in financing is growing

(see Box 3.1.1 for an illustrative example)[1].

Box 3.1.1 Investment Flows in Energy Transition Technologies[1]

At a global level, BloombergNEF data shows a record high investment flow into energy transition technologies in 2021 at $785 billion, a 24% spike from the previous year. Energy transition technologies include renewable energy, CCS, electrified heat, electrified transport, energy storage, hydrogen and nuclear. The emerging markets and developing economies (EM&DEs) categorization is based on the IEA classification (non-OECD countries, minus China, plus Mexico, Colombia, Chile and Costa Rica).

Still, despite the overall growth, energy transition investment inequality is widening between developed and developing economies, highlighting the need for expanded international support. Energy transition asset finance slipped 1% in 2021 in EM&DEs but jumped 28% in developed countries. EM&DEs saw energy transition asset financing sink 9% from a peak of $73 billion in 2018 to $67 billion in 2021. Meanwhile, in richer nations investment jumped 53% over the same period. The share of global energy transition asset finance flowing into EM&DEs reached the lowest level recorded in 10 years, with just 8% of the total in 2021, compared to a peak of 20% in 2012.

Source: BloombergNEF

[1]***Energy transition technologies:*** *are technologies, practices, and techniques that support the process of replacing energy sources from fossil fuels to renewable and low-carbon sources.*

However critical these climate investments are, they must also be just in nature – they must balance the historical responsibility of climate action while ensuring equitable access to quality and quantity climate financing that leaves no one behind. The impacts of climate change have the potential to exacerbate already existing inequalities. In this regard, the risks climate change brings to investments may result in unintended consequences such as limiting the climate finance flows to the most vulnerable communities and countries that are least able to access the necessary capital to address climate change.

> *Therefore, climate financing must, as a result, not simply flow to those projects deemed "investible" by the markets, but should flow also to projects, programs and initiatives that deliberately focus on closing the vulnerability gap as well. In this context, the definition of "investability" becomes important.*

In this chapter, **"Investability"** means the **potential and capacity of a project to attract non-public investment; the quality of being attractive or profitable to invest in.**

The investability of climate projects matters because:

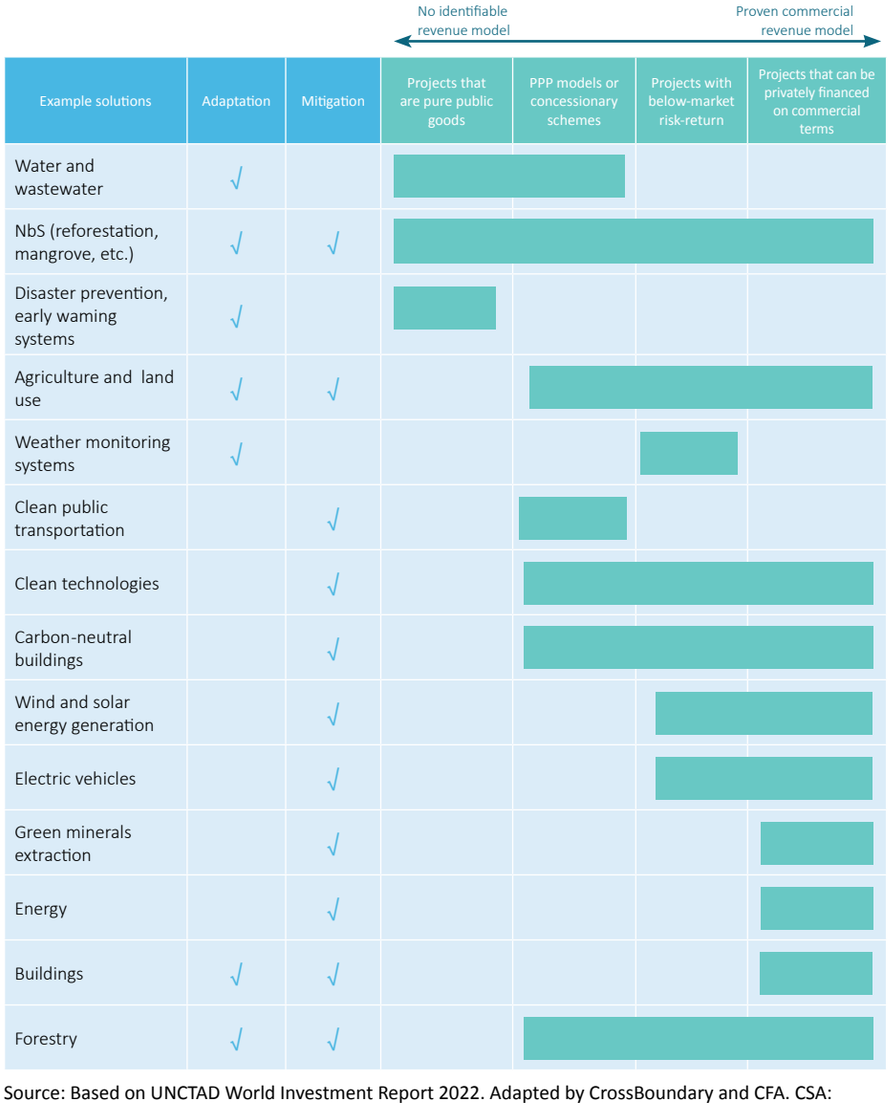
- The costs of addressing climate change – both risks and opportunities – far exceed the availability of the limited public capital, whether domestic public budgets or international development cooperation finance (almost entirely from developed countries' public budgets).
- Private investment will be necessary, regardless of a country's ability (or the international community's ability) to garner more public capital for climate investment, as the private financial system holds approximately $410 trillion in assets, 1.4% of which is sufficient to fill the climate finance gap, while the total funds of MDBs if fully dedicated to the green transition, will only amount to 4% of the existing climate finance gap.

However, the range of investments that are attractive to private investors is dependent on both:

- An investors' own mandate, risk tolerance, and instruments; and
- A project's return profile, which is a function of its riskiness and the context (country, business enabling environment, market trends, regulations, etc.) in which a project is developed/operated.

In all markets the attractiveness of a project for private investors depends on the existence of a clear revenue model and on project- and country-level risks. **Figure 3.1.1** provides (for illustrative purposes only) examples of climate-related investments mapped by where they typically fall on an investor returns spectrum.

Figure 3.1.1 Scope for private investment in climate change mitigation and adaptation projects



Source: Based on UNCTAD World Investment Report 2022. Adapted by CrossBoundary and CFA. CSA: Climate Smart Agriculture. NbS: Nature-based Solutions

While fully commercial examples exist for all project types in all sectors, as a general rule projects that do not have an identifiable revenue model are more likely to require support from public or patient capital, while projects that have some identified revenue streams, such as energy generation from wind and solar, should have little trouble attracting private investment. In contrast to mitigation, pure adaptation projects are more likely to be public goods as in many cases their economic benefits contribute to avoiding the damage costs of climate change, yet, they do not generate sufficient financial returns. Nevertheless, some adaptation measures – such as adaptation technologies for drought resistant seeds and solar-powered cooling systems or software services for climate-risk data and analytics – have revenue streams and addressable markets, and may be commercially viable business models in some contexts. Furthermore, building in "resilience" measures in all assets – including core infrastructure for communities – by directly addressing climate-related financial risks can be decisive in a project's overall return profile, and can move a project from not "investable" to "investable" simply by lowering climate-related financial exposure over the life of the asset.

Developing economies present unique challenges for private investors. These challenges span macro-level, sector-level, and firm-level, and they require supporting actions from government, bilateral and multilateral organisations, philanthropies, and the private sector to unlock mutually beneficial investment opportunities. Given the importance of a robust enabling environment, funding to strengthen the regulatory framework, business enabling environment and information systems can increase "investability" for all investments in most developing economies has the potential for greater private and recurring private investment.

This chapter begins with a discussion of the **determinants of an investable project**. It then lays out different types of public and private financial actors to further explain investability from the perspective of different investors, including understanding their role, function and requirements for investing. The chapter then discusses **approaches to improve the investability of climate projects** based on the returns profile of different types of financial actors – covering considerations of financial and economic returns. The third section lays out the major challenges to the investability of climate projects. The chapter concludes with examples of **scalable, investable models for climate mitigation and adaptation investments.**

3.2 Determinants of an Investable Project

3.2.1 Factors Determining Investment

Capital providers seek risk-adjusted returns that fit their distinct profile or mandate, which is often driven by fiduciary duties. When evaluating an investment opportunity, investors weigh the potential return against the risk of the opportunity. The required rate of return for an investment is the minimum return that an investor will accept in order to compensate for the level of risk of the investment (often called "risk-adjusted return"). The risk-adjusted return of an investment is broadly determined by the fundamentals of the company or project (such as profitability, cash generation, management and governance, stage, and societal impact), and by the conditions of the market (such as market size and trends, competition, and macroeconomic environment including inflation, interest rates, currency prospects, and other external factors such as regulations and political risk). Table 3.2.1 Factors determining investment summarizes common determinants of investment at each level of analysis.

Table 3.2.1 Factors determining investment

Level of analysis	Determinants of investment
Country level	a. Macroeconomic stability
	b. Political stability
	c. Sovereign credit rating
	d. Rule of law and contract enforcement
	e. Soft and hard infrastructure availability
Sector level	f. Sector-specific regulations supporting private sector action and capacity of regulators to engage and enforce regulations
	g. Market fundamentals (size, demographics, stage of development, trends)
Firm level	h. Profitability and cash generation
	i. Competitive positioning
	j. Management team experience
	k. Corporate governance
	l. Financial controls including annual audits
	m. Operational capabilities and risk management
	n. Transaction costs
	o. Societal impact and values alignment
	p. Fit with investor's portfolio and capabilities (potential synergies)

Notably, many of the factors determining the attractiveness of an investment are not directly influenced by the project proponent, but also influenced by the developer, the firm or corporation itself. Furthermore, the country and sector-level factors, despite being out of the direct control of the investor or the project proponent, still present a pivotal and defining context that influences largely any specific investment.

3.2.2 Requirements for Investability Vary Based on The Source of Capital

Different capital providers each have their own mission and mandate, cost of capital, time horizon for realizing returns, and volume of capital to deploy (as shown in Table 3.2.2 Requirements for investment by capital source)[2] and described further below. Understanding the limitations and strategies of each capital source and their willingness and ability to take risk is important for assessing the fit of a particular project for investment. While investors with greater appetite for risk can invest in projects or companies at earlier stages with no immediate cashflows to distribute and uncertainty in the exit strategy, investors with a lower capacity to take risk will prefer investments with proven business models, stable cashflows, and clear exit strategies.

Returns on investment are only achieved when profits are returned to the investor, so investors will often need to employ different strategies to achieve their goals in developing economies compared to developed markets. Debt provision offers straightforward returns through the repayment of the loan, plus periodic interest, but returns can be modest when the borrower has a good credit profile. In contrast, although equity investments may offer investors higher returns in the medium to long run, dividends are not always certain[3] and liquidity is achieved through a liquidation event such as a follow-on investment, the sale of the company to other investors, or through an initial public offering (IPO). Compared to developed markets, developing countries offer substantially less liquidity opportunities for private capital, whether (for example) because there are fewer take-out investors in a market, fewer IPOs or fewer follow-on investments. In some cases, investors can utilize mezzanine instruments – a hybrid of debt and equity – that offer both the upside potential of equity and the periodic returns of debt, but this can take more time to structure and requires more detailed documentation to ensure full understanding of the intricacies involved (Akyianu & Janice, 2018), increasing transaction costs.

The various sources of capital can also play different roles in a transaction, for example:

- Lead investor (generally asset owners such as institutional investors),
- Asset managers, which are organisations intermediating investment from investors to project sponsors, and/or
- Financial arrangers, organisations providing finance directly to the entity implementing the project(s), using its own funds and/or funds provided by investors or asset managers.

All three categories can be domestic or cross-border, which is a particularly important distinction for financial arrangers, which can be (for example) domestic/regional banks, or even microfinance institutions, or cross-border financial institutions.

[2] It is worth noting that these preferences hold true for any type of investment, climate-related or not

[3] Equity investments into infrastructure projects typically generate returns through cash flows throughout the life of the project, in proportion to ownership.

Table 3.2.2 Requirements for investment by capital source[4]

		Source of capital	Type of entities	Relative Risk appetite (low, medium, high)	Instruments	Relative Return Expectation	Investment stage (early, mid, late stage)	Typical Ticket Size (USD)
PRIVATE CAPITAL	1	Private equity	Private Equity Funds	High	Mostly equity	>15% IRR	Early, mid and late stage	>$10Ms to $1B
	2	Venture capital	VC funds	High	Equity	>30% IRR	Early	$100Ks to $10Ms
	3	Corporate Expenditure	Multinational and other corporations	Low to high	Equity (typically buy and hold)	Expected return greater than corporate's cost of capital	Early, mid and late stage. Depends on strategy and investment drivers (e.g. own expansion, investment in innovation)	$Ms to $100Ms
	4	Private Institutional investors and asset managers	Endowments, Insurance Companies, Mutual Investment Funds, Equity Fund Manager, Debt Fund Manager, Hedge Funds, Insurance Brokers, Pension Companies and Funds	Low	Invest through mutual funds, tradeable securities (stocks and bonds), smaller portion in PE funds	>8% IRR	Depends on strategy; Typically, late	$10Ms to $100Ms
	5	Private debt providers	Local Commercial Banks, Microfinance Institutions, International Financial Institutions, Private Credit Funds	Low to medium	Commercial debt	<15% IRR	Typically mid-late; can be greenfield	$Ks to $100Ms++
	6	Philanthropy, Private capital providers and impact investors	Philanthropy, foundations,	Medium to high	Grants, and commercial or concessional debt	None to low expected return	Depends on strategy from early to late	$Ks to $10Ms
DOMESTIC SOURCES OF PUBLIC CAPITAL	7	Government Finance	Governments or public entities, State-owned Enterprises (majority government owned)	Medium to high	Concessional debt or grant	None to medium expected return	Depends on strategy; from early to late	$10Ks to $Bs
	8	National Development Banks	National Development Banks	Medium to high	Grants, and commercial or concessional debt; (occasionally equity)	Low-medium expected return	Depends on strategy; from early to late	$Ks to $10Ms
	9	Public Institutional investors and asset managers	Sovereign wealth funds, Public Pension Funds	Low	Invest through mutual funds, tradeable securities (stocks and bonds), smaller portion in PE funds	>8% IRR	Depends on strategy; Typically late	$10Ms to $100Ms++
INTERNATIONAL SOURCES OF PUBLIC CAPITAL	10	Bilateral, multilateral & Development Finance Institutions	Development finance institutions (DFIs), multilateral development banks (MDBs), bilateral development agencies, climate funds	Low to medium	Grants, and commercial or concessional debt; (occasionally equity)	Low-medium expected return	Typically mid-late	$10Ms to $100Ms
	11	Export Credit Agencies (ECAs)	Government-backed entities, semi-governmental entities, private lenders	High	Debt, trade finance, guarantee or support agreement	Low expected return	Typically mid-late	$Ks to $10Ms

Source: CrossBoundary (Chapter 3), Convergence and CitiGroup (Chapter 4), and Climate Finance Advisors.

More description is available in the Annex

[4]***Table 3.2.2*** *shows the most typical requirements by capital source. However, specific vehicles will go outside of these ranges, particularly on ticket size and expected returns. Similarly, it addresses the main sources of capital. Entities such as insurance companies under their underwriting businesses also play a critical role in providing risk protection that allows for greater capital to be invested. Some of the capital sources, most notably bilaterals and multilaterals, can also provide guarantees and insurance products.*

Box 3.2.1 : The Finance in Common Coalition

The Finance in Common (FiCS) coalition, launched in 2020, is a unique global go-to platform for all +500 public development banks (PDBs) across the world. Representing collectively more than 23 trillion $ of assets and approximately 12% of total global investment, i.e. more than 2,5 trillion $ each year, FiCS aims at highlighting the key role PDBs can play in supporting the transition of economies and financial systems towards sustainability, while leaving no one behind and addressing the most vital and pressing needs of countries and vulnerable groups.

Since 2020, FICS members have worked to align their activities with the objectives of the Paris Agreement, as stated in their ambitious joint declaration. In this regard, they have massively increased green and climate finance commitments, reaching a record level in 2021, with 82 billion $ from multilateral development banks and 224 billion $ from national development banks members of the International Development Finance Club (IDFC).

The third edition of the Finance in Common Summit (FiCS) took place from the 18th to 20th of October in Abidjan, Ivory Coast. Co-organised by two major multilateral development banks (MDBs), the African Development Bank (AfDB) and the European Investment Bank (EIB), in association with the World Federation of DFIs (WFDFI) and its five regional associations, it highlighted the commitment of PDBs to ensure just transitions and increase adaptation finance. In this regard, two new initiatives were launched: the FICS Coalition on Resilient Cities and Regions, and the African Alliance of Subnational Development Banks, to reinforce SDB's intermediary role in the presence of 40 African SDBs representatives. Furthermore, a declaration of the Alliance of African Ministers for Urban Development Financing, in the presence of 15 African ministers in charge of cities, was released as a contribution to COP27 and 2023 global agenda, through the "Finance your cities" high-level conference

In the Summit's final communiqué, FICS Members called on their national authorities and respective constituencies to unleash their full potential and convert PDBs into SDGs enablers by supporting ambitious outcomes at COP27, by strengthening PDBs' mandates to systematically align with the SDGs, the Paris Agreement and the future Global Biodiversity Framework, increasing substantially adaptation finance, strengthening PDBs' capital base and financial capabilities at scale, granting them access to key multilateral funds, encouraging the elaboration and implementation by PDBs of common guidelines and methodologies for the institutional alignment with the Paris Agreement and the SDGs, as well as the characterization of sustainable development investment, and by supporting the re-channeling of Special Drawing Rights to MDBs, in order to fund national and regional banks, and bridge subnational financing gaps.

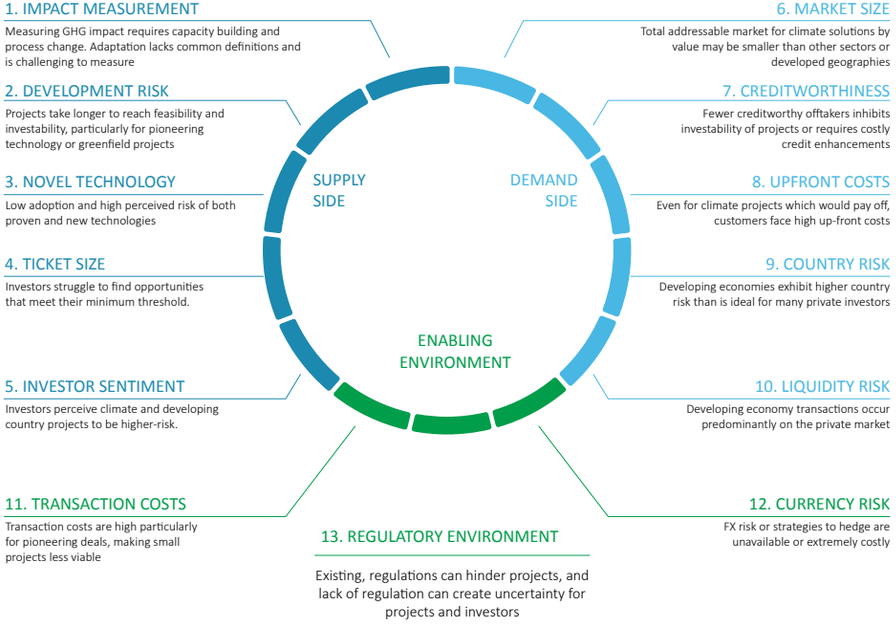
The 2023 Summit will take place in Latin America, at the invitation of ALIDE and IDB.

3.3 Challenges to The Investability of Climate Projects

This section discusses the supply-side, demand-side, and enabling environment key challenges faced by climate projects, within the context of the investment. It is followed by sections which introduce solutions to these challenges in the form of investable, scalable models for financing climate change mitigation and adaptation.

While challenges faced by climate projects largely mirror those faced by any investment in developing economies, there are several which may be particularly salient for climate projects; not all will be present in all investments. Figure 3.3.1 illustrates how many of these challenges relate to climate mitigation projects, which span the supply-side and demand-side of climate solutions, as well as the investment process. Section 3.5 of this chapter presents a set of scalable, investable models for climate mitigation and adaptation projects which address these challenges.

Figure 3.3.1 Challenges to investability of climate projects in developing economies



Source: CrossBoundary and CFA

3.3.1 Supply Side Challenges

1) Impact Measurement

While impact measurement is a key consideration for certain types of investors, such as development banks, philanthropies and public investors, it has become increasingly important even for investors who did not explicitly consider it in the past. As more private investors look to deploy capital toward climate projects, climate change mitigation, monitoring and reporting on greenhouse gas emissions, along with a series of social impact metrics, is becoming an additional requirement for investing and one that can require new capabilities. For example, to date, impact investors in off-grid energy have been concerned with co-benefits such as economic development, employment and poverty alleviation, health, and other SDGs. As more investors look at off-grid renewable energy as a climate solution both for reducing emissions and improving resilience through distributed infrastructure, off-grid companies will also be expected to report on their climate impacts. This is typically a new function that requires additional resources, skill-building, as well as changes in business culture, processes, and information systems to capture and report the necessary data.

For adaptation projects, the impact measurement challenge is even more pronounced. Particularly for private sector actors, the definition of an adaptation project is not necessarily clear, nor is the set of metrics for credible and comparable reporting across activities. A wide range of projects could fall in this domain, from land restoration to weather forecasting, to agricultural resilience. As a result, assessing the full scope of adaptation activities, and placing a value on adaptation outcomes, is challenging. At the same time, in the context of just financing, accounting for these co-benefits is critical to mobilize funding for climate adaptation in regions that are most vulnerable to climate change despite contributing the least to it.

2) Development Risk

Development risk is defined as the risk that investors and operators bear during the development stages of a project, before commercial operations begin. Investors and operators bear much higher risk during the early stages of a project; for example, in infrastructure, this represents the time prior to the Commercial Operation Date (COD) of the asset. In developing economies, investments sometimes take longer to advance from idea to feasibility, bankability and deal close. Projects face a range of obstacles, from lack of regulation or changing regulation to difficulty procuring and importing equipment, to reliance on manual labor for construction, which may cause significant delays in implementation. Investors often cite lack of investment-ready project pipeline as a leading constraint on their investments in emerging and frontier markets, and for climate adaptation in particular.

Development partners and public funders play an important role in de-risking early-stage projects during the development phase to get them to investability. They have funded numerous project preparation facilities, and DFIs are increasingly funding

project development work in-house. What is critical for these efforts to be successful is the availability of sufficient funding, ease of accessing this funding, technical and financial capacity among developers and project proponents (both public and private) and the ability to align incentives among these stakeholders around the desired outcome of mobilizing private investment.

3) Novel Technology

Novel technology risk encompasses adoption risk and actual technology risk vis-à-vis local creation of novel technology. While Venture Capital investors often specialize in companies developing novel technologies, most capital providers, for instance, growth stage private equity investors and philanthropies, do not usually engage in projects with still unproven technologies. Not all climate projects have technology risk, but many face additional perception of risk from investors because they are deploying a proven technology for the first time in a particular market. For some proven technologies, such as batteries for energy storage, the challenge is posed by local and regional investors who are not as familiar due to the lack of local proof points.

However, emerging markets can be extremely important for deploying some emerging technological approaches, particularly for mitigation. One example is “green” hydrogen, which could be transformative for some countries, such as in Egypt, a promising location to produce green hydrogen due to the country’s natural gas infrastructure, geographic location and ports, and renewable energy potential. Public policy, and potentially public funding, may be required to catalyze the sector and increase its perceived “investability” by private investors.

4) Ticket Size

In nascent and under-capitalized markets, many investors struggle to find opportunities that meet their minimum threshold, as fewer companies and projects can reach sufficient scale. A notable exception is the renewable energy sector where projects tend to be larger, and thus there is greater private investment. Yet even projects in the renewable sector face challenges in achieving adequate scale to align with investors’ requirements. The challenge of ticket size is particularly relevant for nature-based climate solutions such as conservation enterprises and climate-smart agriculture which represent more nascent sectors that have not yet reached scale. Small deals may be aggregated or bundled into investment vehicles to reach minimum ticket sizes.

5) Investor Perceptions

While many investments in climate projects and in developing countries have higher real risks, an additional hurdle these investments often face is investors’ heightened perception of risk. One example is that investors perceive the quality of many Asset Managers and Financial Arrangers active in LICs & MICs to be below their expectations compared to High-Income Countries, and often below requirements.

3.3.2 Demand Side Challenges

6) Market Size

For an investor to determine investability, “market size” could be a driver. A small market, or a market already inundated with many incumbents (thus resulting in a small addressable market to capture) may influence a new investor’s appetite to move into a new market. Some developing economies have smaller addressable markets, and thus the potential for climate investment is perceived as limited for several reasons, including low per capita GDP, low GDP for certain small countries and small island developing states, or for some services (such as water services) there may be limited willingness to pay given historical provision by public sector. Companies operating in small markets must take a different strategy to achieve scale and to be attractive targets for investment. This typically involves export to nearby markets with similar characteristics. Investors want to see a large total addressable market so that they can be assured that the company can grow and achieve sufficient scale to achieve the required return on investment.

7) Creditworthiness

Creditworthiness is an issue all investors assess. For energy investments, offtake agreements with reliable utilities or State-Owned Entities can be decisive in an investor’s perception of creditworthiness and provide confidence to an investor in the future revenues of the project or company. In emerging and frontier markets, there are fewer creditworthy offtakers, which can inhibit investability or require de-risking mechanisms such as a guarantee on the offtake from a more creditworthy third party. For example, the government of South Africa offers various support mechanisms to support Eskom, the state-owned electric utility, and the independent power producers in providing low-cost electricity, including credit and payment guarantees (Bachmair, Aslan, & Maseko, 2019).

8) Upfront Costs

Even for climate projects which would ultimately reduce the customer's costs over time, companies face challenges with up-front costs and the shift of expense from an operating expense (OpEx) to capital expenditure (CapEx). For example, in the renewable energy sector, large businesses with high power requirements and unavailable or unreliable grid connections are prime customers for on-site solar PV systems. Similarly, large businesses are increasingly needing to manage their own waste treatment systems and other infrastructure, and to retrofit buildings to reduce their greenhouse gas emissions and ensure resilience of assets to a changing climate. While the return on investment for many of these projects are positive, there are several financing challenges that can prevent companies from making the investment. These include high up-front costs which are challenging for companies which do not have a large balance sheet and are unable to access local debt; the shift in expenses from OpEx to CapEx; the long payback period to realize return on investment; and often the need to take on a new activity outside of the core business. In the example of waste management, the company must shift from paying a recurring landfill fee – an operating expense – to making a large up-front capital expenditure in a new asset which will sit on its balance sheet. Furthermore, it must now operate or outsource operations for this asset which is not its core business. Even if the project results in positive return on investment, the company may not proceed due to these financing challenges.

9) Country Risk

Generally, developing economies exhibit higher country risk than is ideal for many private investors. The median sovereign risk rating of the 140 LICs & MICs (ex-China) is "B-" Highly Speculative from the Big 3 Rating Agencies (Moody's, S&P, and Fitch). Using country ceiling conventions[6] , this implies most public sector and private sector debt investment opportunities in LICs and MICs are "B" and "CCC" rated. These ratings are too low for most private investors, whose fiduciary requirements limit them to investments rated Investment Grade and "BB." Thus, even projects assessed by Financial Arrangers (who find the country risk acceptable) to be commercially bankable will be perceived very often by Investors and Asset Managers as beyond their fiduciary limits. Innovative instruments which combine diversification and subordination of funding to create assets that meet investors fiduciary requirements and mitigate portfolio risk are one way that country risk could be addressed.

10) Liquidity Risk

Developing economies tend to have immature, inefficient and highly concentrated local capital markets and so transactions occur predominantly on the private market. This deters investors who require or seek public market investments, due to liquidity requirement, or those who require an exit via IPO or other sale.

[6] ***Country ceiling*** *methodologies described by Fitch here.*

3.3.3 Enabling Environment Challenges

11) Transaction Costs

Transaction costs are defined as the costs of making a financial deal or transaction. These include search and information (finding the deals, partners, gathering information), bargaining and decision costs (negotiation, due diligence), and policy and enforcement costs (verification, legal validation, monitoring).

Transactions costs do not tend to scale down for smaller projects, as the amount of effort, diligence, legal, financial and technical resources for smaller projects are often similar to larger projects. Because of high transaction costs, capital providers for climate projects often require a larger target ticket size than the typical investment opportunity in emerging and frontier markets. Thus, with limited management fees, there is little incentive for a fund to pursue an investment that falls below its minimum size threshold. Smaller projects may also be less profitable due to fixed costs such as legal fees. Transaction costs (especially data, information, and knowledge gaps of investors investing in new developing markets) also affect investment overall into developing countries. Technical assistance solutions which support project preparation and increase the overall private investment into developing economies could help to lower transaction costs.

12) Currency Risk

In almost all cross-border investments, there is a potential for investors to be exposed to currency risks throughout the life of their investment. Investors prefer to be repaid in the same currency as their investments to avoid such risks, and projects that generate revenues in different currencies present challenges. This challenge is more important in countries with volatile exchange rates, and less important if the local currency is relatively stable or pegged to the dollar. Furthermore, in times of economic and market stress, hard currencies (e.g., US dollar, Euro) tend to appreciate, deterring appetite for investment opportunities in emerging markets. While investors can hedge their currency exposures, in practice, hedging can be costly for most long-term investments in emerging and frontier markets; concessional capital could be used to reduce currency risk at portfolio level.

13) Regulatory Risk

Often, climate projects face non-existent, unclear, or conflicting regulation in relation to planned or current operations. In situations where there is no regulation in place, existing rules can leave gray areas or create conflicting interpretations, the uncertainty of which hinders investment. When regulations are in place there is also the risk that a change in existing laws materially affects current operations, or that a potential project is not granted a license to operate – all of which affects the financial viability of the project and attractiveness for investment.

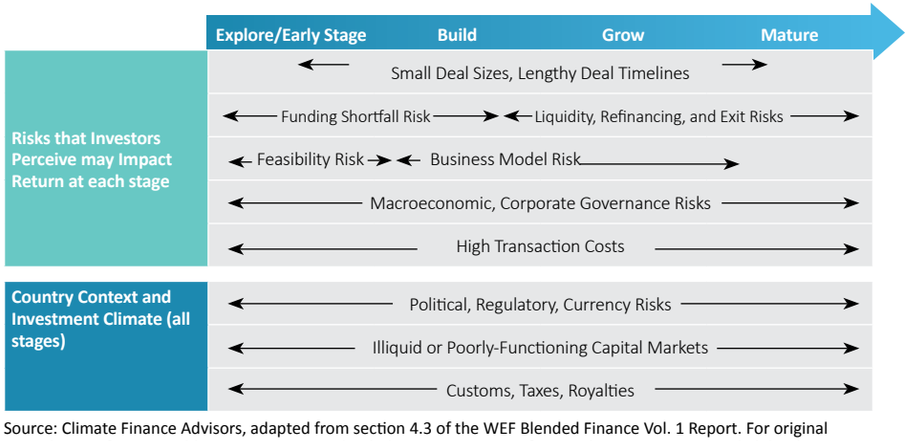
3.4 Strategies to Enhance Investability of Climate Projects

There are two important principles necessary to remember when considering strategies to enhance the investability of climate investments:

- **Not all investments exist at the same level of maturity,** with some investments at very early stages of development (e.g. start-up enterprises), and some at very mature stages of development (e.g. existing utilities, conglomerates or other well-established corporations).
- **Most projects have different return profiles,** even those at similar levels of maturity. This is due to a number of factors, including many of the challenges to investability outlined in Section 3.2.

These two realities exist across all investments in all markets. The World Economic Forum has identified common risks that investors perceive may impact returns (e.g. "investability") at each stage of enterprise/project maturity life cycle.
(See Figure 3.4.1)

Figure 3.4.1: Life Cycle/Stage of Maturity of Project and Enterprises



Source: Climate Finance Advisors, adapted from section 4.3 of the WEF Blended Finance Vol. 1 Report. For original text, please refer to: World Economic Forum: Blended Finance: A Primer for Development Finance and Philanthropic Funders, 14 July 2015

However, investments that address climate change – whether reducing emissions (mitigation) or addressing the resilience requirements in a warmer world (adaptation) – bring with them greater public good benefits, and in many cases economic returns which are in addition to the financial return requirements of investors. Understanding some of the nuances around investability at each stage of the project/enterprise lifecycle will be important for deploying strategies to enhance such investability, and also to understand how to scale investments in markets.

Climate projects with different return profiles may require different levels and types of support from patient or public capital which can bear and share risks more readily in return for economic returns and public goods. Not all climate investments require such support, and many investments in energy, transport, water and other sectors can be financed on fully commercial terms today without public sector support, in part because their financial economics make sense, and the regulatory and policy environment is supportive. However, for many climate investments in developing economies, and some climate investments in developed economies, public or patient capital is still required to catalyse or mobilize investment and ensure that the project is realized faster than the market might otherwise act.

Economic returns are important for public investors and funders, who are tasked with deploying public (often taxpayer) capital. Just Financing requires aligning global climate mitigation and adaptation targets with national development objectives and maximizing socio-economic returns while minimizing socio-environmental harm. Unlike financial returns, which focus solely on the perspective of commercial investors, economic returns take a broader societal perspective by assessing the positive and negative economic, social, and environmental outcomes of an investment. Measuring and enhancing the economic returns of a project are critical for prioritizing the deployment of limited public and philanthropic capital toward climate impact and other social objectives. Taking these elements into account at the outset of a project can address potential negative externalities, increase positive externalities, and enhance investability by providing justification for catalytic capital in the transaction.

Projects with high economic returns can have a wide range of financial returns, from fully commercially viable to requiring full or partial public funding.

For those projects with high economic returns but low or uncertain financial returns, investability can be enhanced through:

a. Policy and market-level actions;

b. Improving the risk-return profile of the investment;

c. Addressing other transaction-level barriers.

Figure 3.4.3 provides illustrative strategies for deploying public funding to improve the risk-return profile of an investment [at each stage of maturity/ in the context of public-private partnership (an approach often deployed for infrastructure and utility investments)] in projects with strong economic returns in order to make them more investable.

Figure 3.4.3 Strategies to enhance investability across the returns spectrum [7]

Projects that are pure public goods	PPP models or concessionary schemes	Projects with below-market risk-return	Projects that can be privately financed on commercial terms
Projects with low or uncertain financial returns but high economic returns are well-suited for public funding Policies can be implemented to enhance investability by putting a price on positive or negative externalities and enabling market-based mechanisms for delivering climate and social outcomes		Blended finance is an approach that can improve the risk-return profile in order to meet private investors' requirements	Investment facilitation can overcome transaction-level barriers and coordination challenges for otherwise investable projects

Source: UNCTAD and CrossBoundary.

More details on innovative finance including blended finance, carbon and resilience credits are provided in Chapter 4 as well as illustrative case studies showing strategies to enhance investability for projects that have a commercial revenue model, are provided in Chapter 6.

Ensuring that projects with high economic returns – such as climate investments – but low or uncertain financial returns, are investable is an important aspect of a country's public policy and the deployment of the tools at its disposal, including public sector investment, and the ability of a government to make policy, design (financial) incentives, enact standards and other regulations that serve to "drive" investment with the right outcomes.

[7] *These strategies are not all-encompassing but represent key concepts which will be explored in this chapter*

Some policy levers that public policy makers and governments can do to support climate investments with uncertain financial returns include:

- Quantifying economic returns, which can be particularly important for fostering accountability and transparency of public expenditures. Importantly optimizing economic returns alongside financial returns may require quantification of climate-related benefits and the avoidance of potentially devastating effects from a transaction. (See Box 3.4.1) for an example.

Box 3.4.1 Quantifying Economic Returns

Quantifying Economic Returns includes Assessing the Cost of Inaction

Some investments should be evaluated by also factoring in the cost of inaction. As an example, if water catchments are not protected in cities such as Mexico City, Cairo, and Beijing, the price to be paid for the consequences in the not-so-distant future will far outsize the investments opportunities in the present. Similar examples exist in cities where green infrastructure such as mangrove restoration and protection represent a cost-effective way to avoid coastal erosion and its associated social and economic costs.

There are multiple strategies for quantifying economic returns of a transaction, such as incorporating environmental and social externalities or assessing counterfactual scenarios. A social discount is then used to place a present value on future costs and benefits of a project. While quantifying impact can be relatively straightforward for mitigation projects focusing on reduction or sequestration of greenhouse gases, quantifying climate impacts for adaptation projects is more complex. For example, the value of a plot of primary forest should include not only the value of its timber, but also the various ecosystem services it provides, including carbon reduction, watershed protection, prevention of soil erosion, preservation of biodiversity, local cooling, and more. Measuring these climate benefits, alongside other co-benefits to society, requires buy-in and collaboration across private, public, and non-profit sectors.

- Employing directed policy including properly designed regulations, tax, and subsidies which align financial and economic returns. Specifically, employing financial incentives to foster activities that generate positive externalities and avoid negative ones.[8]
- Removing harmful subsidies which run counter to climate objectives, are "mal-adaptive", or are explicitly promoting negative climate impacts.

[8] *For example, taxes for companies and households on activities and products that are harmful to the environment, sustainability incentives such as grants and discounts for the purchase of goods that support sustainability, levies on packaging, and plastic taxes are all approaches that governments can explore.*

3.5 Scalable, Investable Models for Climate Mitigation and Adaptation Projects

The section addresses solutions in the form of investable, scalable models for mitigation and adaptation that provide economic returns from clean energy, decarbonization, resource efficiency, and adaptation actions. While not comprehensive, the selected models have demonstrated successes in developing economies and can be replicable across geographies, stakeholders, and sectors. Many of the models have potential applications across both climate mitigation and adaptation. (See Table 3.5.1)

Table 3.5.1 Selection of Investable, Scalable Models for Mitigation and Adaptation

Model	Most relevant application(s)	Model structure	Economic returns in target sector(s)	Challenge(s) addressed	Type(s) of project addressed	Capital sources	Key stakeholders & roles
1. AssetCo & DevCo structure to aggregate assets	Mitigation (off-grid energy)	Aggregation of multiple assets into an AssetCo after de-risking development, allowing for isolation of risk between company and operator and aggregation of projects across geographies	**Off-grid energy:** emissions reduction by replacing diesel generators Enhancement of energy access	Development risk, Novel technology, Transaction costs, Market size, Upfront costs	Projects with below-market risk-return	Philantropies and impact investors, Bilateral & multilateral funders, Commercial banks, Private market funds, Sovereign Wealth Funds	Minigrids need governments to provide regulation that ensures customer exclusivity, regulated pricing, subsidies, and/or guarantees. They would also benefit from further concessional funding from multilaterals and philanthropies
2. Results-based financing to expand market-size for climate products and services	Mitigation (off-grid energy) Adaptation (climate-smart ag-tech)	Scheme where the funder pays for delivery of specific outcomes to achieve improvements or reduce cost of product or service	**Off-grid energy:** emissions reduction through replacement of diesel generators & kerosene; enhancement of energy access **Climate-smart ag-tech:** food security through technologies enhancing agriculture productivity such as solar pump irrigation, or the use of resilient crops	Impact measurement, Novel technology, Market size	PPP models or concessional schemes Projects with below-market risk-return	Bilateral & multilateral funders, Public funding, philanthropies and impact investors	Capital providers can scale funding that incentivises the achievement of desired environmental and social outcomes, and provide TA that enhances organisations' capacity to deliver. Monitoring and evaluation tends to be costly and can gain efficiencies by making use of technology and advances in data management
3. Sustainability-Linked Bonds to reward achievement of impact targets	Mitigation (decarbonization action) Adaptation (resource efficiency e.g., water, waste management, water treatment)	Bond whose characteristics change if the issuer fails to achieve a specified environmental or social target	Depends on the target linked to issuance (typically resource efficiency and decarbonization)	Impact measurement, Upfront costs	Projects that can be privately financed on commercial terms	Institutional investors, Commercial banks, philanthropies and impact investors	Investors need to increase their demands concerning the targets and monitor closely to penalize issuers who display greenwashing practices. Issuers need to set challenging targets and report transparently. Regulators can improve the enforcement of penalties for faulty disclosure practices
4. Corporate offtake agreements to unlock project finance for creditworthy customers	Mitigation (off-grid energy) Adaptation (waste management, water, nature-based solutions)	Long-term offtake (e.g. power purchase agreements) for commercial and industrial (C&I) customers, unlocking project finance	**Off-grid energy:** Decarbonization of industrial operations through cheaper and cleaner sources of energy **Additional sectors:** Waste management, water treatment, nature-based solutions, carbon credit projects	Development risk, Novel technology, Creditworthiness, Upfront costs	Projects that can be privately financed on commercial terms	Corporates, Bilateral & multilateral funders, Commercial banks, Private market funds	Governments need to ensure clarity in regulation and allow for liberalized markets when appropriate. Greater support with investment facilitation and other measures should be taken by capital providers to facilitate bankability of long-term agreements in emerging sectors such as nature-based solutions.

Model	Most relevant application(s)	Model structure	Economic returns in target sector(s)	Challenge(s) addressed	Type(s) of project addressed	Capital sources	Key stakeholders & roles
5. Green infrastructure fund to coordinate diffuse beneficiaries	Adaptation (water, urban development)	Green infrastructure funds can pool investment across multiple public and private sources, to provide patient capital or subsidies for the implementation of green infrastructure	**Water:** Increased ability of populations and businesses to t and high-quality water **Urban green roofs:** Mitigation of the heat island effect (higher temperatures experienced by urbanized areas), particularly during daytime	Impact measurement, Market size, Upfront costs	PPP models or concessionary schemes, Projects with below-market risk-return	Corporates, Bilateral & multilateral funders, Commercial banks, Public funding	NGOs often play an important convening role. Municipalities, corporations, and other beneficiaries should run return on investment analysis on alternative solutions and harness public-private partnerships to create long term funding mechanisms
6. Pay As You Save to eliminate up-front cost to consumer	Mitigation (transportation, energy efficiency)	Utility or other service-provider covers up-front financing of cost-saving activity and passes this on to customers over time; customers' tariff remains equal or lower as a result of the cost-savings activity	**Transportation**: Emissions reduction by electrifying public transportation **Energy efficiency:** Emissions reduction by reducing energy use	Novel technology, Creditworthiness, Market size, Upfront costs	PPP models or concessional schemes	Public funding, Bilateral & multilateral funders, Commercial banks, Private market funds	Municipalities and governments should encourage creditworthy private or public service providers to evaluate and apply this scheme. Utilities and other service providers can invest directly or seek outside capital
7. Parametric insurance to lower transaction costs	Adaptation (natural disaster recovery, agricultural insurance)	Parametric or index insurance schemes cover the probability of a predefined event occurring (e.g., drought, hurricane)	**Natural disaster recovery:** Disaster recovery, increasing policy-holder beneficiaries' resilience **Agricultural insurance:** food security	Impact measurement, Transaction costs	Projects that can be privately financed on commercial terms, and Projects with below-market risk-return	Philanthropies and impact investors, Bilateral & multilateral funders, Corporates	Insurance providers offer parametric insurance products. Governments and concessional funds providers can de-risk investment by funding parametric insurance on projects that need the extra support
8. Technology business accelerator to address barriers to investment into novel technologies	Mitigation Adaptation	Accelerators can help build the ecosystem for early-stage companies. They prepare and aggregate investment opportunities to ease the search process for capital seekers and capital providers	Greater access to climate technologies and services across sectors	Development risk, Transaction costs, Novel technology	Projects that can be privately financed on commercial terms	Bilateral & multilateral funders, Public funding, Philanthropies and impact investors, Private market funds, Commercial banks	Funders support acceleration and convening services

Source: CrossBoundary (Chapter 3), Convergence and CitiGroup (Chapter 4), and Climate Finance Advisors.
More description is available in the Annex.

Box 3.5.1.Statement by Glasgow Financial Alliance for Net Zero

Mobilizing private finance to the energy transition in emerging markets and developing economies (EMDEs) is critical to reaching net zero emissions by 2050. The IEA estimates that, by end of the decade, $1 trillion of additional annual investment in EMDEs' energy transition alone will be needed to achieve net zero. Research undertaken for GFANZ suggests that energy transition finance to EMDEs over last 5 years has flatlined at around $70bn per annum. We therefore need a 15x increase over the balance of this decade.

Unfortunately, there are considerable barriers to boosting this financing, particularly: insufficient project preparation and pipeline development; limited deployment of de-risking and risk finance from concessional finance organisations; and inadequate collaboration between MBDs/DFIs and private finance, including on data. GFANZ has been working to help address these issues – including by advocating for and supporting new 'country platform' approaches, which could substantially improve the three issues simultaneously.

A large part of the financial system – 40% of private financial assets – is now committed to net zero through GFANZ. Financial institutions are therefore increasingly looking to invest in and lend to transition-aligned assets. Sufficient capital is looking for projects, but there are not enough investible projects to finance.

As the Sharm El-Sheikh Guidebook for Just Financing correctly stresses, a new financial architecture is needed to address this challenge. GFANZ advocates a number of key solutions.

First, MDB reform is necessary to ensure that MDBs and DFIs have explicit mandates to support EM&DEs' just transitions by mobilizing private finance at the scale and leverage required. Concessional lenders should aim to crowd in closer to the 8-10x of private finance needed, as opposed to ratios that currently average at best 1:1.

Outside of reform, MDBs and IFIs can do better now. The G20's MDB Capital Adequacy Framework shows how increasing MDB/DFI institutional risk tolerance and financing capacity and scaling the use of guarantees and originate-to-distribute models would support the systemic change required to crowd in private finance. Additionally, the UNFCCC points out that public guarantees can offer a fifteen times multiplier effect on the scale of low-carbon investments generated with such support, compared to a 1:1 ratio in direct financing. Greater use of public guarantee structures can crowd in private finance.

Second, we need accelerated and broader application of Country Platforms for Large Emitting EMDEs. GFANZ has from the start advocated new County Platforms as a way to pool, blend, and match all types of finance to EM&DE's domestic climate plans. This is a way to address head-on the three bottlenecks identified by above. The G7 have identified Just Energy Transition Partnerships to build out a version of this concept for large, complex, and high-emitting emerging markets. These also intend to address domestic enabling environments, including and going beyond project preparation. If successful, the JETP model could be extended to other countries. GFANZ is working to support the partnerships in Indonesia and Vietnam by helping bring together the structuring expertise (and potentially balance sheets) of six of the world's largest financial institutions.

Although the G7 process will not cover all countries, other countries can use the key insights from country platforms to deploy better concessional finance to mobilize private finance in support of their climate strategies. To that end, GFANZ is supporting Egypt in the development of their Nexus for Water, Food, and Energy platform. In the absence of official engagement, GFANZ is providing private finance expertise and advice on how to best design the platform to crowd-in private finance. We are also advising on what is required before proposed projects are bankable from a private finance perspective – examining data/information, enabling environments, project preparation, and de-risking. Smaller scale country pilots – such as the Climate Finance Leadership Initiative (which has successfully financed its first largescale project in India, and recently launched in Colombia and South Africa)- can also help facilitate this collaboration and preparation support with domestic climate priorities.

High quality carbon credit markets must play a key role in providing EM&DEs with additional capital to protect natural sinks, decommission stranded assets, and develop their clean infrastructure. The largest carbon sinks are in EM&DEs. Without sufficient capital for protection and conversation, natural sinks stand to be exploited and destroyed – imperilling the global carbon budget. Work must turn rapidly from building the guardrails on supply and demand for carbon credits to supporting EM&DEs to appropriately deploy and develop them – including, but not limited to, as part of JETPs and country platforms. Carbon credit markets are also important to credible frameworks for the managed phaseout of stranded assets. Financial sector net zero commitments must not disincentivise the deployment of finance to support the responsible early retirement of stranded assets – and so GFANZ is working with others to develop guidance to ensure this is not only permissible but incentivised, with appropriate guardrails in place to prevent greenwashing.

Going forward, more donor and philanthropic capital should be targeted toward supporting EM&DE's project preparation. The Global Infrastructure Facility (GIF) was set up in part to address this pressing bottleneck, but more capacity is needed to be deployed at pace. This can be done in support of JETPs and country platforms, which should provide a pipeline of projects that are a part of the domestic government's climate plan to achieve net zero. These projects inevitably require extensive planning prior to being investible from global financial institutions, which is often beyond the capacity of the domestic country. International financial institutions such as GIF and the World Bank can help, but additional direct capacity support to the host country will still be needed. Again, country platforms can provide the engagement mechanism to efficiently match global finance, DFIs, capacity support, and domestic climate projects. The involvement of MDBs and donor governments – both financially and from capacity perspective – can help to de-risk projects financially and politically and potentially play a role in signalling that projects are consistent with net zero commitments.

In sum, the challenge is great but must be overcome to avoid climate catastrophe. To succeed, we need a multi-faceted approach catalysed by valuable resources like the Sharm El-Sheikh Guidebook for Just Financing. Urging private finance to invest more in EM&DEs will not be successful. MDBs and DFIs must deploy risk capital and guarantees to a much greater extent, ideally in light of reform but also without it. More resources must be deployed to project preparation, as well as broader reforms in domestic economies to support enabling environments. And greater collaboration, including but not limited to data sharing, must be facilitated across governments, MDBs/DFIs, philanthropy, and private finance. Building country platforms (including but not limited to high-quality JETPs) is one way to try to tackle all of these issues at once.

Chapter 04

Catalysing Private Capital for Climate Action

The Ministry of International Cooperation (MoIC) worked with the lead institution: Citi & Convergence Blended Finance
Main Contributors: International Fund for Agricultural Development (IFAD), United States Agency for International Development (USAID), International Finance Corporation (IFC), Tony Blair Institute for Global Change (TBI), Climate Investment Funds (CIF), Islamic Development Bank (IsDB), BloombergNEF, European Investment Bank (EIB)

4.1 Introduction

It is estimated that $5.9 trillion in aggregate investment will be required between now and 2030 to implement the mitigation and adaptation investments identified in existing Nationally Determined Contributions (NDCs) in developing economies (United Nations Framework Convention on Climate Change, 2021), including low-income countries (LICs) and middle-income countries (MICs).

This is well beyond the financial resources of developing economies and the Official Development Finance sector. However, private investors control or manage approximately $410 trillion of global financial assets, an amount well beyond today's total investment needs of developing economies to address climate change[1] (Financial Stability Board, 2021).

The COP26 Climate Finance Delivery Plan (the Climate Finance Delivery Plan) and G20 Sustainable Finance Roadmap (the G20 Roadmap) published in 2021, both identify catalysing private investment as critical to achieving the goals of the Paris Agreement and 2030 Agenda.

With insufficient domestic financial resources in developing and emerging economies, and constrained public balance sheets, cross-border private investment can play a greater role, but most investment opportunities are beyond the fiduciary investment requirements of most private investors; meaning, they simply do not meet the risk-return requirements necessary for most private investors.

For the purposes of this chapter, fiduciary investment requirements entail: an investment asset that (i) meets an acceptable overall risk profile within an investor's risk tolerance (e.g., a debt investment rated Investment Grade) and (ii) earns a market-equivalent risk-adjusted return.

There is a need for developing, advancing and deploying innovative finance approaches that are able to catalyse private capital towards mitigation and adaptation projects. This Chapter presents blended finance modalities that have proven to be efficient and introduces other common and innovative instruments that monetise mitigation and adaptation outcomes, such as carbon and resilience credits, which can improve profitability and catalyze private capital.

4.2 Blended Finance Approach

For the past 15 years, Blended Finance has demonstrated how to create fiduciary investment assets that effectively catalyse private investment. Blended finance transactions are, by definition, realized when public or patient capital (often called "concessional capital") is brought to a transaction for the purposes of bearing greater risks for lower returns, or to help share more risks within a transaction, so that private investors are able to participate in such transaction when previously the risk-return profile for their funding was imbalanced. This process – of taking public, patient

[1] The Financial Stability Board's Global Monitoring Report (December 2021) estimated total Global Financial Assets around $469 trillion, with around $410 trillion controlled by the private sector. Estimated distribution: (i) 81% in High-Income Countries, (ii) 14% in China and (iii) 5% in LICS & MICS (ex-China) (Financial Stability Board, 2021).

concessional money and investing into a project with the explicit purpose of taking more risk and lower returns – is premised on blending these forms of capital, and the result is: public capital "catalysing" private investment.

In 2021, more than 200 private sector investors collaborated to research and publish several reports[2] identifying their interest to invest in purpose investment mandates - such as Environment, Social and Governance (ESG) Investment, Sustainable Finance, Climate Finance, Green Finance and Impact Investing. In those reports, investors expressed their willingness to utilize blended finance as key approach to scale climate investment in LICs & MICs, and they have a strong interest to allocate a portion of their capital if the investments meet their fiduciary investment requirements of (i) acceptable overall risk profile and (ii) market-equivalent risk-adjusted returns.

Since the overarching goal of the Guidebook is to increase climate investment in LICs & MICs for a Just and climate-resilient pathway, it is critical to understand the main financial intermediation channels and investment challenges associated with that. The key is to increase the quantity and quality of investment provided by Investors/ Asset Owners[3] and Asset Managers[4] to the thousands of Financial Arrangers[5] providing loans and equity investments to companies and projects in LICs & MICs.

Best practice blended finance solutions not only increase the quantity of investment, but also the quality in line with Just Financing principles. For example, all other things being equal, (i) equity financing is more aligned with sustainable investment than debt, (ii) local currency financing more than hard currency financing, (iii) long-term more than short-term, and (iv) public markets more than private markets. They can also mobilize both cross-border investment and domestic investment, but also support and complement domestic financial institutions operating in LICs & MICs.

Box 4.2.1: Blended Finance Definitions

The OECD DAC defines blended finance as "the **strategic** use of **development finance** for the **mobilisation** of **additional** finance (from private investors) towards sustainable development in developing countries," (OECD, 2022a)

DFI Working Group defines blended finance as the "**Combining concessional finance from donors or third parties alongside DFIs' normal own account finance and commercial finance from other investors, to develop private sector markets, address the SDGs, and mobilize private resources".** Blended finance solutions can be structured as debt, equity, risk-sharing, or guarantee products with different rates, tenor, security, or rank. Under select facilities, they can also be performance-based incentive structures. (DFI Working Group on Blended Concessional Finance for Private Sector Projects, 2017)

[2] Private-sector "calls to action" include the Glasgow Financial Alliance for Net Zero Reports, Impact Taskforce Reports, Net-Zero Asset Owners Alliance Report, GISD Alliance Report, Sustainable Markets Initiative Reports, and the Investors Leadership Network Report.

[3] Asset Owners are investors in financial assets (e.g., debt and equity) which are originated/arranged by third parties. They can include pension and insurance companies, sovereign wealth funds, MDBs, and DFIs.

[4] Asset Managers intermediate investment from investors to Climate and SDG projects – either directly to organisations implementing the project or indirectly to financial arrangers. They include equity/debt/hedge fund managers or insurance brokers.

[5] Financial Arrangers provide finance directly to the entity implementing the projects, using its own funds and/or funds provided by Asset Owners, Investors and/or Asset Managers. These can include international and domestic banks, MDBs, and equity/credit funds.

The most significant barrier to private sector investment in developing economies is high country risk (perceived and actual), which means that most investment opportunities in those markets may struggle to meet the fiduciary investment requirements of private investors. Deploying blended finance for climate mitigation and adaptation investments strategically, efficiently, and effectively can ensure that the benefits of a green economy transition are equally shared, and that the burdens are not disproportionately borne by developing economies least responsible or able to bear them. Blended finance has been promoted as an important approach to achieving development impacts, in particular for those investments where concessional and/or patient public capital can functionally fill the financing gap (either through actual financing, appropriate risk sharing or guarantees) to enable private capital to invest.

Being strategic in the application of blended finance approaches should, by design, help to catalyse public and private investment into the most high-priority climate projects identified by governments, such as projects that contribute to achieving NDCs, and which address climate resilience and adaptation. By being more effective in the deployment of concessional catalytic public sources, the ability to mobilize private investment that has been previously unable to invest in developing economies should be realized. This will require many of the key channels of concessional and catalytic capital – the MDBs, Bilateral development agencies, DFIs, NDBs and philanthropies – to bear more risks.

Table 4.2.1 shows that 73% of low and middle income country sovereign risk ratings are rated "B" or lower - beyond the fiduciary risk limits of most investors. The de-risking that catalytic capital can effect is even more important in periods of rising interest rates and in circumstances where MICs and LICs experience sovereign debt vulnerability.

Table 4.2.1: Sovereign Risk Ratings for LICs & MICs

	SOVEREIGN RISK RATINGS					
Number of Countries	**A- or better**	**BBB**	**BB**	**B**	**CCC or lower**	**Total**
Upper Middle-Income Countries	2	8	9	15	12	46
Lower Middle-Income Countries	0	3	6	18	7	34
LICs & LDCs	0	0	1	14	28	43
Total	2	11	16	47	47	123
Percent of LICs and MICs						
Upper Middle-Income Countries	4.3%	17.4%	19.6%	32.6%	26.1%	32.9%
Lower Middle-Income Countries	0.0%	8.8%	17.6%	52.9%	20.6%	24.3%
LICs & LDCs	0.0%	0.0%	2.3%	32.6%	65.1%	30.7%
Total	1.6%	8.9%	13.0%	38.2%	38.2%	
22% of UMICs, 9% of LMICs and 0% of LICS & LDCs are Investment Grade						
59% of the 46 UMICs are rated B or lower- **Highly Speculative** or worse						
73% of the 34 LMICs are rated B or lower- **Highly Speculative** or worse						
98% of the 44 LICs & LDCs are rated B or lower- **Highly Speculative** or worse						
76% of the rated 123 LICs & MICs are rated B or lower - Highly Speculative or worse						

Source: Convergence, based on ratings by Standard & Poor's, Fitch and Moody's (Trading Economics, n.d.), and the OECD's Country Risk Classifications (OECD, n.d.)
For countries' income level, the OECD DAC list (OECD, 2022b)

In order to address the risk perception of many developing economies, the development finance community can develop a strategy, along with concrete actions, to partner with investor groups to create investment assets that meet investors' mandates, including the provision of public sources of funds deployed to (i) de-risk investments to be within fiduciary and prudential risk limits and (ii) create market risk-adjusted returns. The use of development finance and climate finance to mobilize private investment should follow best practice, funding the most efficient and effective blended finance solutions, including the risk reducing structures advocated by the IMF in its July 2022 Staff Climate Notes report (Prasad , Loukoianova, Feng, & Oman, 2022) (see **Box 4.2.2** below).

Box 4.2.2: Mobilizing Private Climate Financing in Emerging Market and Developing Economies

De-risking by public financial resources is likely needed to fully scale up private capital participation in climate finance in EMDEs. While private sector investors can provide a large share of financing, the public sector can underwrite more risks, take on equity/junior tranches, provide guarantees and credit enhancements, as well as help with project selection and assessment, capacity development, and diversification for the private sector. Public-private synergies in this area would provide a multiplicative effect. The public sector could choose to accept below-market returns for the risk it takes in return for positive climate outcomes, thereby significantly lowering the cost of capital to potential borrowers.

Mitigation and adaptation investment projects are often too small with respect to institutional investors' requirement of diversified asset pools. Blended financing structures, such as asset backed securities (ABSs), could be used to leverage public money and attract institutional investors. Public sector investments in the junior/equity tranches of ABSs can bring down the risk of senior tranches which can then obtain investment grade ratings, making them attractive to a wide range of investors, including institutional investors. Such an arrangement would create a new green asset class dedicated to phasing out coal and replacing it with renewables.

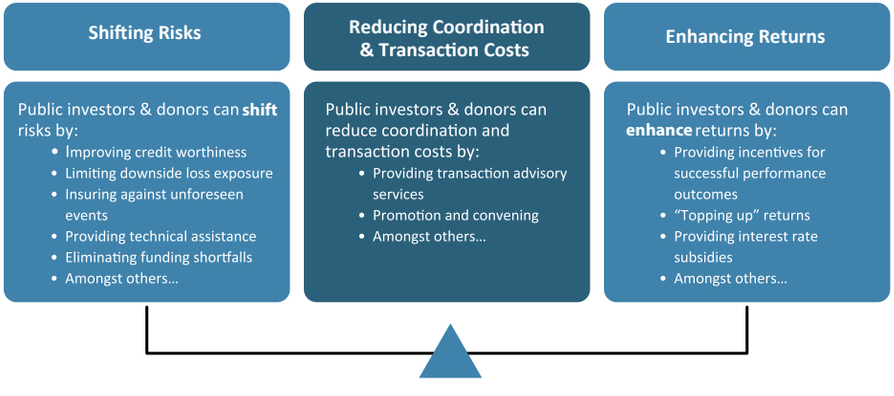
More climate financing resources could be channeled through MDBs by increasing their capital base and reconsidering their approaches to risk appetite through partnerships with the private sector supported by governance and management oversight. MDBs can play an additional role to help countries structure financial products in such a way to take equity stakes and thus attract private sector capital. Public equity investments are important to help delivering on the annual $100 billion commitment by developed countries in support of climate action in EMDEs

The Resilience and Sustainability Trust, approved in spring 2022, extends the IMF's existing lending toolkit to longer-term lending programs associated with climate change. Where EMDEs have limited fiscal space, the RST financing could help play a catalytic role to attract private investments for climate-related finance. The RST can act as a catalyst in leveraging private sector financing, although its implementation will be gradual with a few pilot cases to begin with.

Source: IMF Staff Climate Notes (Prasad, Loukoianova, Feng, & Oman, 2022)

Blended finance is a structuring approach in which capital from the domestic public sector, development partners, or philanthropies is deployed to shift risk or manage returns, in order to bring risk-adjusted returns to a point which is aligned with the requirements of commercial investors (Figure 4.2.1). Blended finance lowers the risk of an investment through the structuring around four key levers of an investment: tenor, pricing, rank (e.g. senior or subordinated, or mezzanine), and/or security (e.g. whether there is security for the investment). These levers are how concessionality benefit of the blended finance investment manifests in the transaction. Blended finance can be deployed across all instruments including debt products, equity or equity-like investments, guarantees, insurance, provision of a first-loss tranche, and even grants that support project preparation or offer technical assistance.

Figure 4.2.1: Blended Finance Approach

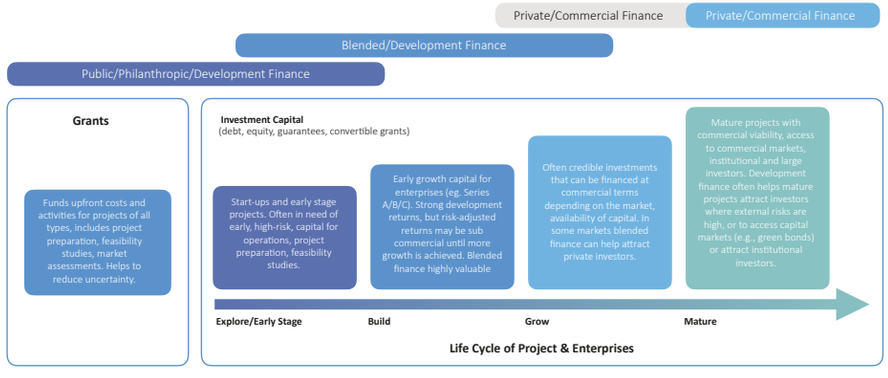


Source: CrossBoundary, adapted from Convergence

Blended finance can also be used to enhance returns through incentives, interest rate subsidies, and directly enhancing returns. Finally, it includes activities discussed such as development partner-funded transaction advisory services, and promotion and convening, which help to address high transaction costs in developing economies.

Blended finance is seen as an important tool for supporting projects with the potential for a commercial revenue model but below-market risk profile. It may not be a useful approach for projects that have little or no potential for having a commercially sustainable revenue model or non-profit models (they may be more suitable for funding from purely public sources). Likewise, blended finance approaches would not be appropriate for investments that are already commercial and where private investors may obtain a commercial return without the risk sharing or bearing characteristics of blended finance, as doing so may be distortive to the market. Figure 4.2.2 shows a general paradigm of where blended finance may be relevant across the maturity of a project (from early-stage to fully commercial).

Figure 4.2.2: Where Blended Finance may be used across the Project Lifecycle



Source: From Funding to Financing: Transforming SDG finance for country success (WEF, 2019)

Table 4.2.2 reproduces the DFI Working Group's views on when concessional funding is justified in blended finance transactions.

Table 4.2.2: Justified Use of Blended Finance

Item	Description
In which situations is blending justified?	**To finance projects, which (i) have insufficient financial returns or have too high real or perceived risks to attract sufficient private sector finance at sustainable terms but (ii) have high economic benefits.** There are a range of reasons for these conditions to be met: institutional or market failures, sub-optimal investment situations (e.g. regulatory environment), existence of detrimental externalities, inadequate institutional development, etc. To **de-risk projects through TA** by supporting, i.e., project preparation, implementation, capacity building and/or project development.
Why is blending justified?	**Blending is only justified at a minimum level of concessionality or return-risk trade-off** in order to make the project sufficiently attractive for other sources of financing (incl. MDB finance), preferably private sector finance. **Blending has to be fully in line with the policy objectives of the respective development partner or funder** in order to achieve a range of policy objectives such as: climate/ environmental related targets, private sector development, access to finance, to develop and support competitive and stable markets, meeting poverty alleviation objectives, engaging in lower/middle income countries
What can blending contribute to?	Blending grants with IFIs/DFIs loans and equity can contribute to: • **Mobilize additional financing:** crowding in financing that otherwise would not be part of the financing package • **Accelerate:** enabling previously earmarked financing to be formally approved and committed to the project • **Policy alignment/conditionality:** adjust the nature of project components to achieve higher social and economic returns/impact (e.g., social/climate considerations)
How is impact achieved through blending?	• **De-risking or enhancing the development scope of projects, paving the way for project realization** • **Project concepts and scales change** to bigger, faster, better quality, redesigned, refocused (on policy priorities), wider/tailored geographical scope, i.e. lower/middle income countries.

Source: Joint Report December 2021 Update (DFI Working Group on Blended Concessional Finance forPrivate Sector Projects, 2021) & DFI Working Group Enhanced principles

Section 4.2.1 describes successful blended finance approaches in de-risking transactions at project and portfolio level.

4.2.1 How Blended Finance can address Investment Barriers

As described in Chapter 3, country-level, sector-level, and firm-level challenges can present barriers to investment in developing economies and while country-level reforms are critical they cannot always be addressed on a short timescale (Figure 4.2.3).

This section focuses on firm-level barriers, which typically fall into two categories: transaction costs and information asymmetry. These firm-level barriers create an intermediation gap between sources of capital and viable investment opportunities. Blended finance can support investment facilitation approaches that can overcome transaction-level barriers that hinder otherwise investable projects.

Figure 4.2.3: Barriers and Solutions for Investing in Developing Countries

Systemic failure	Country-Level	Sector-Level	Firm-Level	
	Macro-Level Constraints	Lack of Capital for Risk/Return	Transaction Cost	Information Asymmetry
Barriers to investment	A **lack of quasi-public goods,** worsened by **sub-optimal policy decisions** and **legal barriers,** impedes ease of doing business and scares investors: • Lack of physical infrastructure (transport, energy, water) • Lack of soft infrastructure (educated workforce) • Poor enabling environment	The **uncertainty, limited liquidity, and returns** of investing in frontier markets make it difficult to justify investment and mitigate risk: • High perceived risk may discourage actually beneficial transactions • Genuine constraints may mean the risk/ return profile is less than that of developed markets	**A lack of expertise, bandwidth, and/or geographic presence** hinders parties from overcoming information gaps and initiating, managing, and completing the transaction process: • Investors face challenges accessing leads, negotiating with sponsors, and structuring deals • Entrepreneurs face challenges connecting with capital sources, articulating value, and negotiating terms	**A lack of trust, prior experience, and/or other imbalance of information,** potentially worsened by poor property rights and contract entorcement: • Investors lack knowledge of market characteristics and participants assume they are at a significant disadvantage • Entrepreneurs lack transaction experience and knowledge of market-standard terms, and fear exploitation
Interventions to address barrier	**Large-scale policy reform and infrastructure development** are needed to spur: • Investment climate reform (improving ease of doing business indicators, etcetera) • Infrastructure investment of all types • Educational initiatives and scholarships	**Deployment of incentives and de-risking** can be achieved through: • Blended finance (first loss, concessional capital, grants) • Pooled finance (shares risk, provides liquidity) • Insurance (political risk, credit, etc.) and other guarantees	**Provision of expertise, surge support, or geographic presence** can: • Lower search costs of both capital providers and entrepreneurs in the business ecosystem • Fill information gaps on markets, sectors, and companies • Manage the investment process to close	**A neutral investment facilitation** advisor can: • Conduct independent screening te mitigate adverse selection • Provide legal templates and give the weaker counter-party sufficient capabilities to negotiate • Facilitate completed transactions that signal and attract other credible players

Source: Investment and Facilitation Revisited (Runde, Cusack, & Tilleard, 2019)

Transaction costs and information asymmetries. High transaction costs due to lack of expertise, scale, or geographic presence can hinder investability. Both entrepreneurs and investors face high transaction costs in developing countries, largely due to challenges in identifying opportunities and establishing relationships between the two parties. Often, foreign investors lack local presence, expertise in the market or sector, and access to quality investment opportunities in geographies they are less familiar with. At the same time, business owners face challenges connecting with capital sources, as well as articulating their value and negotiating terms. These challenges raise the cost of an otherwise attractive transaction.

Similarly, information asymmetries can impede trust-building between counterparties. Business owners and entrepreneurs in underserved markets may not be well-versed in working with investors. This lack of experience can cause uncertainty, mistrust, and general concerns about exploitation. Simultaneously, as many developing countries have minimal market data, investors who are new to these geographies face

challenges in understanding local market dynamics and trends. These hurdles can be exacerbated by weak property rights and legal systems for upholding contracts (Runde, Cusack, & Tilleard, 2019).

Addressing the "pioneer penalty." Unlike the first-mover advantage seen in developed markets, first movers in developing markets often incur the opposite: a "pioneer penalty" (Collier, Gregory, Ragoussis, & Collier, 2019) For investors, entering a market early can offer advantages such as working with lower valuations and less competition, but it also comes with the additional costs of navigating unfamiliar terrain, such as working with less experienced counterparties and service providers and lack of data for pricing risk. For companies, entering a new market can require additional workforce training, testing of the regulatory environment, and often vertical integration to fill infrastructure or value chain gaps. These activities generate public goods from which future entrants benefit. As a result, supporting first-movers – both investors and companies – can have an outsize impact and justify subsidization of transaction costs.

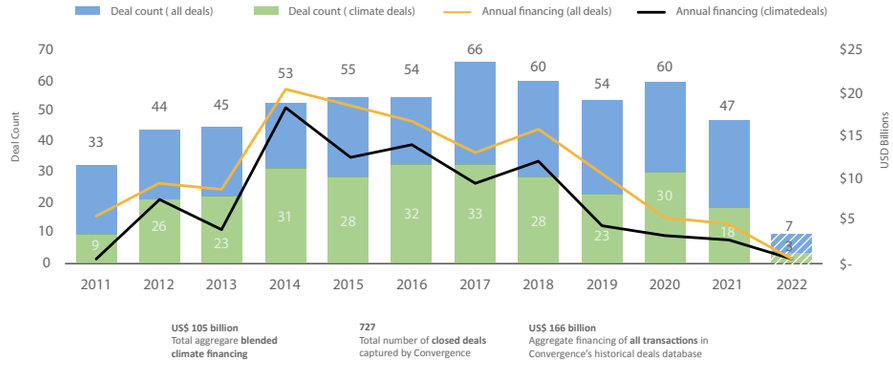
Investment facilitation is an approach to addressing firm-level barriers to investment. By providing neutral intermediation between capital seekers and capital providers, an investment facilitation advisor can lower search costs on both sides; fill information gaps on the market, sectors, and specific companies; and offer hands-on support to manage the investment process through to close. The advisor can also conduct independent screening of investment opportunities to mitigate adverse selection; support negotiations and structuring to ensure that parties are on equal footing; and facilitate completed transactions that signal attractiveness of the market and increase the interest of other credible players.

Funding investment facilitation activities can offer capital providers high leverage on a limited supply of catalytic capital. Instead of investing directly into a particular company or project which is fundamentally viable but facing firm-level barriers to investment, the development partner can instead address these barriers and unlock a much larger volume of private capital for the investment. It is also worth noting that a focus on facilitating pioneering transactions can provide important upward feedback about the enabling environment and motivate policy change. Often it is only when a deal is on the table, with a clear barrier to investment, that the specific policy issue can be clearly identified and addressed.

4.2.2 Blended Finance "Archetypes"

Global Blended Finance transactions tracked and reported show that, on average around 55 concessional blended finance transactions close each year, raising a total of around $10 billion per annum (Figure 4.2.4). Of these amounts, around 50% of transaction numbers and 75% of financing volumes have climate as the sole or primary sector/objective (Convergence, 2021).

Figure 4.2.4: Concessional Blended Finance Transactions, Total and Climate, 2011-2022



Source: Convergence

There are mainly four archetypes as summarised in Table 4.2.3 and Figure 4.2.5. The most prevalent archetypes are blended finance structures that absorb risk to create investment assets that mobilize private sector investors, MDBs and DFIs to invest in transactions they would otherwise not invest in.

Table 4.2.3: Four Archetypes Concessional Blended Finance Transactions

Archetype	Description	Comparative Advantage
Concessional Capital	Public or philanthropic investors provide funds on below-market terms within the capital structure to create investment assets for private sector investors and/or MDBs & DFIs- provide an additional layer of protection to private investors lower the overall cost of capital.	The most common form of concessional blended finance with the ability to effectively and efficiently mobilize private investment.
Guarantee/Risk Insurance	Public or philanthropic investors provide credit enhancement through guarantees or insurance on below-market terms	The second most prevalent approach to de-risk private investment. Highly effective since the guarantors are usually governments with "AAA" and "AA" risk ratings. Since guarantees do not count as ODA, they are not currently efficient for OECD DAC members.
Technical Assistance	Transaction is associated with a grant funded technical assistance facility that can be utilized pre- or post-investment to strengthen commercial viability and developmental impact	Technical assistance is most commonly grant-based financing to support the development of programs, funding vehicles or other requirements to enable an investment to be realized. While typically not combined with investment capital, technical assistance support is often a critical component of a blended finance transaction/funding vehicle.
Design-Stage Grant	Transaction design or preparation is grant funded (including project preparation or design-stage grants)	Like technical assistance, grant-based design stage funding can be decisive in whether a blended finance transaction is able to be structured and developed.

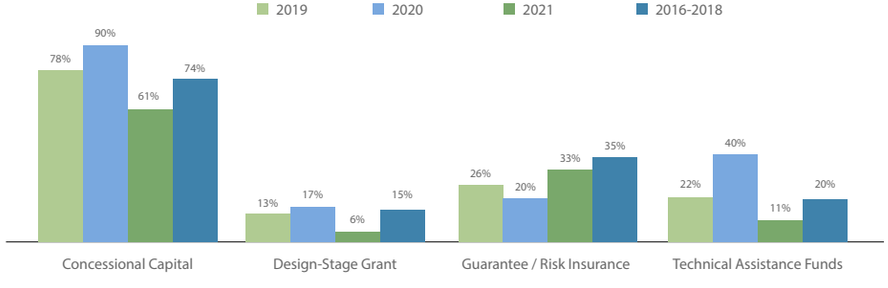
Source: Convergence Blended Finance Primer (Convergence , n.d.)

The first two archetypes, (i) Concessional capital and (ii) guarantee / risk insurance, are often used by the public or philanthropic sector to create an investment opportunity with acceptable risk-return profiles for the private sector. Concessional funding includes scenarios where the public or philanthropic capital provider takes a higher risk profile for the same or lower rate of return or the same risk profile for a lower rate of return.

The second and third archetypes, design-stage grants and technical assistance, are not direct investments in the capital structure, but improve a transaction's probability of achieving bankability and financial close and/ enhance the viability of the project and improve impact measurement.

The most prevalent form of risk participation is when a development partner provides Concessional Capital into a blended finance structure (around 75% of blended finance transactions) (See Figure 4.2.5 below).

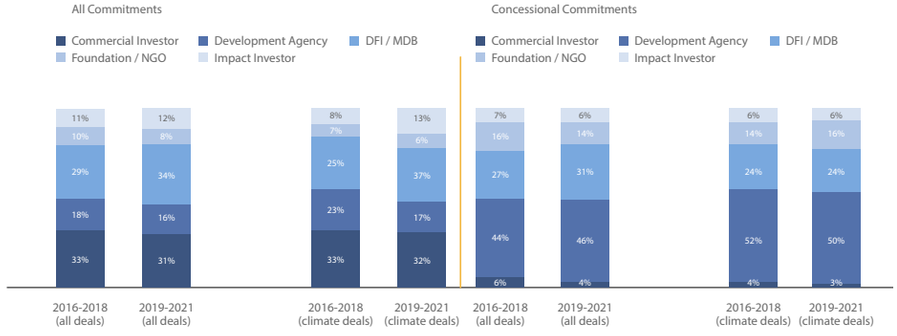
Figure 4.2.5: Frequency of Blended Finance Archetypes in Climate Blended Finance Transactions



Source: Convergence

As for the main capital providers in concessional blended finance for climate, Commercial investors come first with around 33% of commitments (with businesses, financial institutions and institutional investors the most active commercial investors). MDBs and DFIs are the next most active with around 30% of commitments (both deploying their own capital and concessional capital from development partners) and finally, development agencies were the third most active with around 20% of commitments as depicted in (Figure 4.2.6).

Figure 4.2.6: Financial Commitments in Concessional Blended Finance for Climate: Organisation Types



Source: Convergence

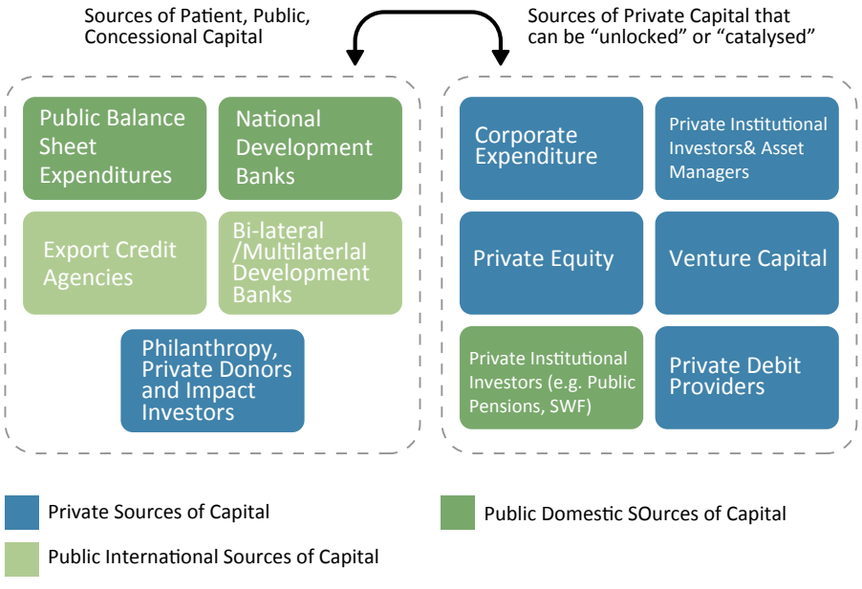
In addition, philanthropic foundations and funds have been increasingly important contributors to finance. For example, foundations committed an average of approximately $1 billion specifically for climate action in developing economies in the two years between 2018-2020 (OECD, 2021a).

4.2.3 Sources of Concessional and Catalytic Funding for Blended Finance

Chapter 3 outlines in detail the various sources of capital that can be deployed to scale up financing for mitigation and adaptation investments. These sources are categorized generally as (i) Private Sources of capital, such as debt providers, private equity, venture capital, philanthropies and institutional investors, (ii) domestic public sources of capital, such as the public balance sheet and national development banks, and (iii) international public sources of capital, such as MDBs, Bilateral development institutions, and export credit agencies. Importantly, though, not all these sources of capital are able to bear or share risks in order to catalyse investments, and as explained earlier in this chapter some are restricted by their investment mandates.

Figure 4.2.7 Outlines the general grouping of capital providers that could be potential sources of concessional or catalytic capital for Blended Finance approaches.

Figure 4.2.7: Sources of Capital in Blended Finance Transaction.



Source: Climate Finance Advisors, 2022

Successful and scaled private sector investment mobilization to LICs & MICs requires development and climate-focused organisations - such as OECD DAC members, MDBs and Bi-lateral development banks, philanthropic foundations, and concessional climate finance providers – to allocate a small but tangible portion of their financial resources on concessional terms intentionally to create – through blended finance applications – the fiduciary investment assets for private sector investor.

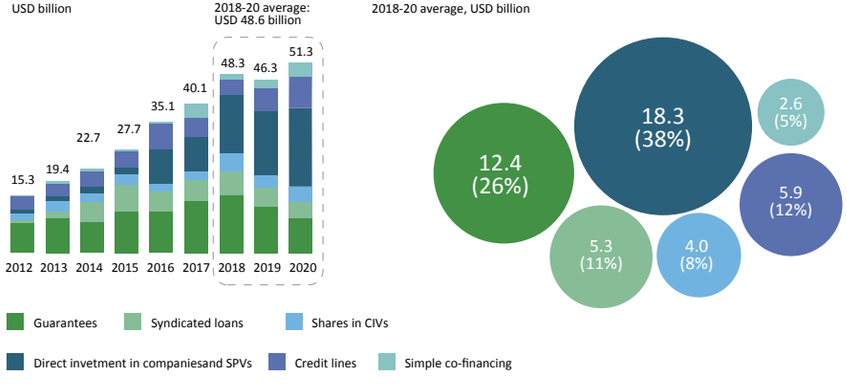
A. The Role of Official Development Finance in Blended Finance and Mobilization

As set out in Chapter 1 and above, an estimated $5.9 trillion aggregate investment is needed to implement the NDCs in developing economies to 2030. CPI estimates that the actual investment occurring in developing economies is only around 10-15% of the level required.

Both the COP26 CDP and the G20 Roadmap suggest that the official development finance sector can play a pivotal role in mobilizing private-sector investment and expertise to developing economies. The OECD reports that gross cross-border annual flows of official development finance into developing economies amount to $303 billion, which includes $207 billion from bilateral sources and $97 billion from multilateral sources (OECD, 2021b).

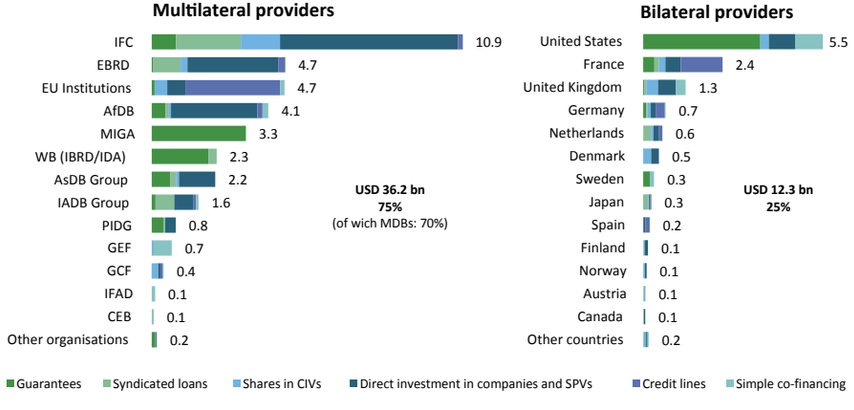
The OECD estimates the official development finance sector catalysed an average of $48.6 billion in private investment between 2018-2020 for all SDGs, of which $36 billion[6] were provided by MDBs and $12.3 by bilateral partners as shown in Figure 4.2.8 and Figure 4.2.9. Around $16 billion of the total mobilized amounts was directed to climate-related investments alone (TOSSD, 2022).

Figure 4.2.8: Private Finance Mobilized by Official Development Finance



Source: Total Official Support for Sustainable Development (TOSSD, 2022)

Figure 4.2.9: Private Finance Mobilized by Official Development Finance Organisations



Source: Total Official Support for Sustainable Development (TOSSD, 2022)

[6] *Note that the multilateral amounts in the OECD report are almost double the $20.6 billion of Private Direct Mobilization amounts reported by the MDBs and DFIs in their annual Mobilization of Private Finance Reports. So, it is possible some of the $36 billion was not private sector investment, but public sector mobilizing other public sector funding.*

These mobilization data show that official development assistance – through multilateral or bilateral development institutions or export credit agencies – is still not able to catalyse the required private investment needed to meet overall climate investment needs.

More development finance need to be leveraged as Catalytic Funding to catalyse private investments. It can be deployed either as **Catalytic Grants,** where funds are fully, mostly, or partially granted to achieve a pre-agreed outcome(s), or as **Catalytic/ Concessional Capital,** which accepts disproportionate risk or concessionary returns to improve the risk-return profile to attract private investment. Catalytic Capital is typically contracted in the form of a financial instrument (e.g., loan agreement, equity investment, guarantee, insurance contract) or as a recoverable grant.

B. Governance of Concessional Catalytic Capital and Development Finance

Concessional official development finance and climate finance has done a good job of achieving climate objectives. But only very small amounts of the $410 trillion of global financial assets controlled by the private sector were invested in or been mobilized to developing economies due to the myriad of challenges identified in Chapter 3. If official development finance and climate finance is to allocate more resources for private investment mobilization, then it would be beneficial to introduce governance objectives into the main channels of concessional and catalytic capital.

In July 2022, the G20 published the G20 Independent Review of Multilateral Development Bank's Capital Adequacy Frameworks with five high-level recommendations (Box 4.2.3) on how MDBs can provide and mobilize higher levels of investment to developing economies.

> *If these recommendations are implemented in the context of Just Financing that accounts for the socioeconomic dimensions, they would further strengthen the partnerships between MDBs, private sector and LIC and MIC governments in fostering equitable development pathways.*

Box 4.2.3: Excerpts from G20 Independent Review of Multilateral Development Bank's Capital Adequacy Frameworks (2022)

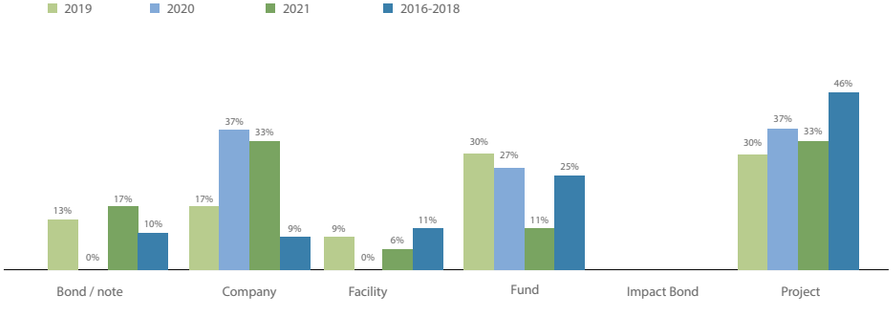
- Most MDBs began life when there were few alternative sources of long-term development finance. So their default approach is to fully fund and hold loans to maturity, which is very capital intensive. As private capital moved into direct development financing in recent decades, MDBs experimented with co-financing/syndication and innovations such as risk transfers and new classes of capital, but these efforts remain a relatively small percentage of aggregate project funding by MDBs and are mainly conducted by their private-sector arms or windows where market-oriented spreads facilitate mobilization at scale.
- Proven innovations to create more usable capital or shift loan risks to willing counterparties should be used more widely and frequently by MDBs, mobilizing financial markets as sources of development finance and potentially freeing billions of dollars in additional financing.
- Risk transfers can be undertaken for both sovereign and non-sovereign assets. For sovereign assets, however, low (below-market) margins would in many cases likely necessitate additional public subsidies to boost returns to levels attractive to private risk off-takers.
- The G20 should develop guidelines supporting risk transfers that: (1) advance the MDB mission, (2) accurately price risk, including through use of relevant granular data for risk weighting (such as from the Global Emerging Markets Risk Database (GEMs) database); (3) are scalable; (4) facilitate the transformation of MDB portfolios toward greener assets and greater development impact; (5) avoid a systematic reduction of risk appetite in investment origination; and (6) develop private markets for MDB asset classes.
- The expected potential scale of the increase is substantial, likely to be several hundreds of billions of dollars over the medium term.

Source: Boosting MDBs' investing capacity: An Independent Review of Multilateral Development Banks' Capital Adequacy Frameworks (Indonesia G20 Presidency, 2022)

4.2.4 Blended Finance "Entry Points" for Investment on Project and Portfolio Levels

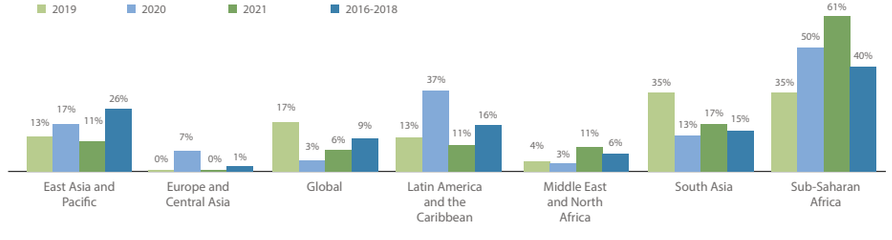
Most concessional blended finance transactions for climate have been conducted at the project/company level as opposed to the more efficient portfolio level (e.g., funds and facilities) (Figure 4.2.10). This is in contrast to blended finance transactions for all SDGs where the most prevalent approaches are portfolio-level approaches (e.g., fund and facility). This may be a driver of lower efficiencies in deploying concessional capital for climate-related investments, and perhaps also lower private investment mobilization to date. Figure 4.2.11 shows concessional blended finance climate transactions by region, 61% of these transactions were directed to the Sub-Saharan Africa region.

Figure 4.2.10: Concessional Blended Finance Vehicle Type: Climate Transactions



Source: Convergence

Figure 4.2.11: Concessional Blended Finance Climate Transactions by Region



Source: Convergence

This section outlines four common blended finance structures – or "entry points" – for investment. These common structures have the potential to mobilize private investment if replicated at scale, and are also relatively easy to implement and standardise. One blended finance structure can be applied on a project-level, whereas three structures can be applied on a portfolio-level.

A. Project Level

Designing solutions to mitigate risk differ between the case of a single project and when there are multiple projects.

Regarding a single project, risk mitigation is resource intensive and practiced only when efficient, usually for projects that require large amounts of finance, such as infrastructure, public-private- partnerships (PPP) and project finance transactions. Typical approaches are to credit-enhance specific risks or all risks, through a guarantee or indemnification. For example, GuarantCo provides guarantees to credit-enhance infrastructure projects to an acceptable level for domestic investors to finance the project. In this scenario, the blended finance credit-enhances "near bankable project" to become "bankable" projects.

As for multiple projects, risk mitigation is practiced when the underlying financing amount is small and a Single Project intervention is inefficient. Typical approaches would be to provide a partial guarantee for a portfolio of projects. For example, the African Guarantee Fund provides guarantees to local banks to expand their SME loan portfolios, with AGF providing a guarantee for 50% of each loan. In this scenario, the blended finance primarily creates additional financial recourses to finance "bankable" projects. If a component of "first-loss" funds is added to the core "pari passu" risk-sharing, then the blended finance vehicle also supports near-bankable projects to become bankable.

Blended Finance Structure 1 is applicable on the project level and provides risk mitigation (credit enhancement) to mobilize private investment, usually by transforming a commercially near bankable project to become bankable.

B. Portfolio Level

Solutions to mobilize private investors to invest in a portfolio of investments through a pooled vehicle, such as a blended fund or facility, with the portfolio investing projects. This approach is the most prevalent in blended finance. In this approach, development organisations provide funding to the vehicle (e.g., a fund) at below-market terms to mobilize private investors to invest in the vehicle. The blended finance vehicle then extends financing to a portfolio of projects in developing countries.

In this scenario, the blended finance creates additional financial resources to finance "bankable" projects. As an illustration, Table 4.2.4 shows the three Blended Finance Structures on Portfolio level.

Table 4.2.4: Blended Finance Structure on Portfolio Level

Blended Finance Structure	Description	Type of Investment Mobilised
Blended Finance Structure 2	Blends debt investment from private investors and funds from development agencies into a portfolio structure/ fund, and the fund in turn provides debt to bankable projects located in (high risk) developing countries.	Since Structures 2 and 3 usually result in small and medium-sized funds (typically less than $200 million), they generally do not mobilize institutional investors which seek vehicles of $500+ million. Less than 3% of blended finance vehicles have been in excess of $500 million.
Blended Finance Structure 3	Blends equity investment from private investors and development funds from development agencies into a portfolio structure/ fund, and the fund in turn provides equity to bankable projects located in (high risk) developing countries.	
Blended Finance Structure 4	This structure is an aggregation vehicle akin to a 'fund of funds'. Private and development finance are co-invested and a fund manager allocates investment to multiple blended finance vehicles (such as blended finance structures 2 and 3). This approach can create the scale needed to mobilise institutional investors.	To mobilize institutional investors' capital

"Taking place a few weeks ahead of COP27, third edition of the Finance in Common Summit (FiCS), aimed to send a loud and clear signal: Public Development Banks are powerful allies of UNFCCC to accelerate the implementation of just energy transitions. By mobilizing more that 300 billion $ of green and climate finance in 2021, the Multilateral Development Banks and the International Development Financing Club (IDFC), demonstrate that strong mandates are able to unleash climate investments on the ground. If all public development banks (PDBs) were to commit to a similar ratio as IDFC, they could extend more than 500 billion $ of climate finance per year, and mobilize much more through the private sector."

- Mr. Rémy Rioux, Chief Executive Officer AFD, Chairman IDFC

4.2.5 Role of Multi-Stakeholder Platforms in Catalyzing Private Investment through Blended Finance

The G20 underscored the power of collective action through country platforms in unlocking public and private investment to achieve impactful, climate-resilient and sustainable development (G20 Eminent Persons Group on Global Financial Governance, 2018). These multi-stakeholder platforms can play a critical role in leveraging the comparative advantage of different actors, such as development partners and the private sector, in mobilizing and securing necessary resources targeted in specific areas or themes, such as climate finance. They facilitate

collaboration, align and synchronize contributions, and promote transparency and accountability by providing insights into needed resources, priority sectors and available pipelines of investable projects.

Large-scale partnerships platforms to mobilize investments in climate action can take different forms. Just Transition Partnerships (JETPs) which were first introduced in 2021 during COP26, set out an example of a multi-stakeholder partnership that aims to mobilise private capital towards NDC decarbonisation targets in the energy sector through the use of blended finance models, by pooling grants, concessional loans and risk sharing instruments (European Commission, 2021).

JETPs rely on governments' transformational energy policy reforms that can eventually help amplify the amount of funds mobilized that account for countries' development priorities and contexts, while delivering socioeconomic opportunities and benefits. Since its launch with South Africa with the EU, UK, Germany, France and the US announcing a deal worth $8.5 billion for phasing out coal-fired power over 3 to 5 years, the JETPs expanded to other countries, namely, Indonesia, India, Vietnam and Senegal.

Egypt's Country Platform for the Nexus of Water, Food and Energy (NWFE نُوَفِّي) Program offers another practical and replicable model of the concept of Platforms to mobilize climate investments based on country priorities. It integrates a set of high priority projects for adaptation and mitigation, bundled around the nexus of the three main pillars of Water, Food, and Energy and selected through a prioritization process led by the Government. NWFE نُوَفِّي aims at providing opportunities to mobilize finance, avail technical assistance, and catalyze private investment, through innovative financing modalities including blended finance to support the country's green transition, reflecting the interlinkages and complementarity between climate action and development efforts.

Another proposed framework that can be applicable on the international level to link projects of different LICs & MICs to international capital providers is the Climate Investment Mobilization Framework (the Framework)[7]. It is a simplified, pragmatic evolution of (i) the COP26 Climate Finance Delivery Plan (COP26 CDP) (UK COP26 Presidency, 2021) that identifies 10 guiding principles for Developed Countries to achieve the $100 billion annual climate investment target and (ii) the G20 Sustainable Finance Roadmap (the G20 Roadmap) that describes 19 actions to increase SDG investment in LICs & MICs (G20, 2021). As a complement to the COP26 CDP and G20 Roadmap, the Framework describes practical, near-term-achievable, granular actions and funding requirements that could be pursued in 2023 onwards.

The following Box describes the objectives, components, and operational solutions of the Framework as proposed by Citi and Convergence Blended Finance.

[7] *The Climate Investment Mobilization Framework is a proposed model by Convergence Blended Finance and Citi, the lead authors of this Chapter, as a platform that leverages a network of professional experts to strategically allocate catalytic finance to projects through blended finance vehicles to mobilize private investment at scale.*

Box 4.2.4: Convergence and Citi proposed Climate Investment Mobilization Framework

The Framework[8] focuses on the four most important components of the blended finance definition: (i) strategic, (ii) development finance, (iii) mobilisation and (iv) additional finance. The Framework is centered on five Investment Mobilisation Objectives listed below and identified by a cross-section of key stakeholders (e.g., LIC & MIC governments, investors, development agencies, MDBs and DFIs):

1. Increase the number of commercially bankable projects: Private investors and development finance institutions cite a lack of bankable projects as one of the most significant challenges in LICs & MICs. The Framework identifies five concrete activities to increase the number of commercially bankable projects, including awarding Catalytic Capital to transform near-bankable projects to become bankable.
2. Increase the quantity and quality of investment in commercially bankable projects: Even if the Framework increases the number of commercially bankable projects, the median sovereign risk rating of the 140 LICs & MICs (ex-China) is "B-" Highly Speculative. Given country risk ceiling conventions (Fitch, 2020), most commercially bankable projects in these countries will have risk ratings equivalent to "B" and "CCC"- beyond most investors' fiduciary investment limits. Currency risk is also a major investment barrier for debt and equity investors, and often results in high risk to borrowers and beneficiary countries jeopardising debt sustainability.

   The Framework includes awarding concessional Catalytic Capital from public and philanthropic organisations to Blended Finance Vehicles that de-risk the underlying investment risk and create fiduciary investment assets, ensuring a large supply of investment will flow to those commercially bankable projects[9]. The Framework identifies how to increase the quantity of investment, but just as importantly, the quality of investment aligned with debt sustainability in LICs & MICs (e.g., more equity and local currency debt as opposed to hard currency debt jeopardising debt sustainability).
3. Link the supply of investment capital to high-priority projects: The first two actions will mobilise investment to LICS & MICs, but given the supply of investment will continue to be below required levels, the Framework includes activities to prioritise investment to high priority projects (as determined by national authorities), such as projects achieving countries' Nationally Determined Contributions.

[8] All Framework funds are targeted to sustainable climate investments aligned to the Paris Agreement and subject to the five OECD Blended Finance Principles (including minimum concessionality) (OECD, 2022b).

[9] In addition, since most cross-border investment will flow to projects with large ($10+ million) investments needs, the Framework bolsters domestic financial intermediation to invest in smaller projects.

4. Increase knowledge and access for private-sector investors for investment in LICs & MICs by creating an Investment Mobilisation Hub: Many private investor reports in 2021 identified a lack of good-quality investment data and information, and a lack of access to investment assets. The Framework calls for a centralised and curated Investment Mobilisation Hub to address all the cited challenges, furnishing investors with the data/information they need to make rationale investment decisions and reducing the gap between perceived and actual investment risk.
5. Improve investment climate in the long term: The first three activities would catalyse investment by deploying concessional funds and MDB & DFI non-concessional resources more strategically and collaboratively. But providers of concessional funds (e.g., OECD DAC members and foundations) are only prepared to allocate these resources as part of a medium-term plan towards attracting private, MDB & DFI investment at regular commercial terms (without the need for concessional funds).

The Framework consists of seven main components as described below.

1) Catalytic Funding Network[10]

- OECD DAC members, Developed Countries and philanthropic foundations could establish a network of organisations prepared to allocate Catalytic Funding to the best proposals globally that mobilise private investment to climate projects in LICs & MICs.
- The current system of individual organisations allocating Catalytic Funding to some proposals is inefficient and does not result in scale mobilisation. The creation of the Network will move the activities from fragmented and non-strategic to collaborative and strategic
- A Network Manager would collaborate with members to operate open calls for proposals requesting mobilisation / blended finance proposals, with the proposals assessed and evaluated collaboratively to award scarce financial resources to the best proposals
- The Network will lead to a significant increase in leverage of Catalytic Funding particularly if targeted Key Performance Indicators are adopted and pursued by the Network members, MDBs and DFIs.

[10] A good current example of awarding Catalytic Grants that can serve as a template for the Catalytic Capital Facilities is the SDG Impact Finance Initiative Design Funding Window that transparently describes the competitive call for proposals, the SDGs targeted, eligibility criteria and assessment criteria.

2) Catalytic Capital

- Private investors, MDBs and DFIs continually cite high country risk as the leading reason for low levels of private investment in LICs & MICs.
- Likely the main reason why the amounts of private investment mobilised by Official Development Finance remain low is due to very low supply of concessional Catalytic Capital.
- A critical mass of concessional Catalytic Capital from public-sector and philanthropic-sector organisations is essential to create the scale of fiduciary investment assets to achieve the Paris Agreement.
- Award Catalytic Capital to (i) best investment mobilisation proposals globally and (ii) MDB & DFI Blended Finance Mobilisation Vehicles.

3) Catalytic Capital Facilities

- The amount of Catalytic Capital will likely remain below the levels required; therefore, it is important to optimise the benefit of this scarce resource.
- Evidence over the past decade of public-sector organisations allocating small amounts of Catalytic Capital has demonstrated very low levels of mobilisation and significantly long decision making.
- Providers of Catalytic Capital could establish several Catalytic Capital Facilities where the funds are committed by an Investment Committee(s) of professional experts from a combination of development, development finance and private investment operating at commercial speed decision-making and allocating funds via a menu of financial instruments (e.g., loans and equity) as opposed to grants.
- There could be multiple and targeted facilities, such as Climate Adaptation for Africa, providing development organisations choices where to allocate their funds.

4) Catalytic Grants

- Although Catalytic Capital is much more important to alter the risk-return to create fiduciary investment assets for private investors, Catalytic Grants are important, especially to create commercially bankable projects.
- Catalytic Grants could be awarded to the best investment mobilisation proposals globally, especially at the project level.

5) Investment Mobilisation Hub

- Private investors continually identify a lack of high-quality investment data and information in LICS & MICs, influencing them to remain invested in Developed Countries.

- The Hub could provide investment data/information to catalyse investments in the short-term, and in the medium-term narrow the gap between perceived high risk and actual medium risk of investing in LICs and MICs.
- Network members could fund the creation of an Investment Mobilisation Hub (e.g., website and resources) as a centralised and curated resource to support the mobilisation of private investment – providing the investment data, information and access required by private investors.

6) Governance of Concessional Catalytic Funding

- 12 years after the Copenhagen target to provide and mobilise $100 billion of climate finance, and seven years after the SDGs and Paris Agreement, total investment and private investment mobilisation amounts remain low.
- There are adequate financial resources in the Official Development Finance system, but very low amounts are directed towards total investment and private mobilisation.
- Establishing Key Performance Indicators for the governance of Catalytic Funding will provide the feedstock for a generation of Blended Finance Vehicles that will create the fiduciary investment assets in high demand by private investors.

7) Governance of non-concessional funds of MDBs, DFIs and NDBs

- MDBs, DFIs and NDBs have huge comparative advantages developed over 50+ years centered on financing good-quality development projects.
- These organisations have executed their mandate well, but their primary mandates were established in the 1950s-1990s – the private investment world has changed dramatically and the climate crisis is upon us.
- The CDP and G20 report identify the MDBs and DFIs could play a more prominent role in providing more financing and mobilising more private investment.
- Government shareholders of MDBs and DFIs could update their governance to align with the 2030 Agenda by establishing Key Performance Indicators that will significantly increase the volume of investment these organisations arrange and distribute to private investors, while fully deploying their capital consistent with prudential requirements.
- LIC and MIC governments that own NDBs could govern them to help create commercially bankable projects.

The following table identifies the primary investment challenges in LICs & MICs constantly identified by Investors, Asset Managers and Financial Arrangers, and describes how the Framework successfully addresses the challenge to mobilise private investment.

Primary investment challenges addressed by the Framework to mobilise private investment at scale:

Investment challenge in LICs & MICS	Framework Solution
Commercially unbankable projects: Many individual projects are perceived by Financial Arrangers to be commercially unbankable or near-bankable.	Framework identifies five activities and funding to increase the universe of commercially bankable projects.
	Framework includes Catalytic Capital awarded for project-level risk mitigation to transform near-bankble projects to become bankable.
High country risk: The median sovereign risk rating of the 140 LICs & MICs (ex-China) is "B-"Highly Speculative from the Big 3 Rating Agencies (Trading Economics, n.d.). Using country ceiling conventions, this implies most public sector and private sector debt investment opportunities in LICs and MICs are "B" and "CCC" – beyond most private debt investors' fiduciary limits of Investment Grade and "BB." As an example, the median risk rating of Canadian bank assets is "A-", nine notches above "B-". And the average risk rating of German insurance company assets is "A", ten notches higher.	High country risk means that even projects assessed by Financial Arrangers (who find the county risk acceptable) to be commercially bankable will be perceived very often by Investors and Asset Managers as beyond their fiduciary limits. The Framework includes Catalytic Capital awarded for portfolio-level risk mitigation that combine diversification and subordination of funding, including in the three most effective and efficient blended finance structures, to create fiduciary investment assets for investors.
Currency risk is major investment barrier for debt investors and equity investors, and often results in high risk to borrowers and beneficiary countries jeopardising debt sustainability.	The Framework includes Catalytic Capital to reduce currency risk at the portfolio level and boost sustainable investment (e.g., more local currency debt and equity compared to hard currency debt dominance).
Small investment amounts: Climate and SDG Investment needs of most individual projects are low (e.g., less than $5 million) – usually below a minimum size threshold to attract cross-border Investors and Asset Managers directly.	The Framework supports portfolio-level Blended Finance Vehicles that provide investors diversification and scale. These funds will be made available by Asset managers to Financial Arrangers to finance projects of all sizes.
Investors perceive the **quality of many Asset Managers and Financial Arrangers** active in LICs & MICs to be below their expectations compared to High-Income Countries, and often below requirements.	The Framework awards Catalytic Capital to the best proposals globally based on competition. The increase in Catalytic Capital will attract high-quality, global Investors, Asset Managers and Financial Arrangers to cross-over into LICs and MICs.
Stigma of Emerging Markets and Frontier Markets label impedes cross-border investment	Catalytic Capital will be awarded to Vehicles that create investment assets in high demand by private investors, aligned to purpose investment themes like ESG, Climate Finance, Green Finance, Sustainable Investment and Impact Investing, where the Vehicles' investments will be in LICs and MICs.
Significant data, information and knowledge gap of Investors for LICs & MICs causes them to continue to invest in High-Income Countries	The Framework creates an Investment Mobilisation Hub with main objective to increase total investment and private investment flows.
Predominance of **private market** transactions deters Investors who require/seek public market investments and inherent liquidity	Catalytic Capital would be awarded in preference to Blended Finance Vehicles that create publicly-listed investment assets

Potential Targets for Concessional Catalytic Capital

Providers of Catalytic Capital (e.g., OECD DAC members and philanthropic foundations) could (i) pledge specific annual amounts of Catalytic Capital and Catalytic Grants to be awarded through the Network and (ii) establish targets for optimum leverage, financial additionality and development impact. As an example, illustrative targets for the Catalytic Capital Facilities aligned to the Paris Agreement and Agenda 2030 could include:

- Raise at least $10 billion of Catalytic Capital per year for the first 5 years
- Achieve 10+ times leverage ratio of Private Finance Mobilised to Catalytic Capital
- 30%+ of Catalytic Capital to support mobilisation to LICs and LDCs
- 30%+ of Catalytic Capital to support project-level Blended Finance Vehicles that transform near-bankable projects to become bankable
- 50%+ of Catalytic Capital to support portfolio-level Blended Finance Vehicles that mobilise investment to commercially bankable projects
- 30%+ of Catalytic Capital to support projects that achieve successful financial close in public markets

Source: Citi & Convergence, 2022

4.3 Non-blended Finance Modalities

4.3.1 Enhancing the Investability of Climate Projects through Carbon Markets

Carbon markets offer projects in developing economies a potential new revenue stream by placing a monetary value on verified climate mitigation outcomes, or carbon credits, and facilitating their trade. There are a wide variety of project activities that have the potential to generate credits, but these activities must meet certain criteria to receive verification through a standard-setting organisation. Carbon credits can improve the investability of projects by providing revenues – often in hard currency (mitigating FX risk) – that improve profitability and allow the project to scale beyond what would be possible with only public and philanthropic capital. Carbon markets also, on the whole, help facilitate financial flows from developed countries (the primary source of demand) to developing countries (an under-tapped source of supply).

This section discusses the purpose and structure of carbon markets, key participants, project types and requirements, market trends, financing approaches.

A. Structures of carbon markets and Rationale behind them

Carbon markets support climate action across sectors and jurisdictions by placing a monetary value on greenhouse gas emissions. Carbon markets are a mechanism used to price and trade greenhouse gases, usually in the form of carbon credits. **A carbon credit represents the avoidance or removal of one metric ton of carbon dioxide or its equivalent.** Credits are generated from an intervention or activity that goes beyond business-as-usual activities. Carbon markets are an important tool for climate action, especially as means to support transitions in hard-to-abate sectors and where reductions remain extremely costly.

Carbon markets can be characterized as compliance (e.g., EU Emissions Trading Scheme and California Cap and Trade Program) **or voluntary** (e.g., for corporate and industry commitments), and they can contribute toward achievement of countries' Nationally Determined Contributions (NDCs) for global climate goals. In a compliance market, a regulator caps entities' allowed greenhouse gas emissions, and allowances can typically be traded between regulated emitters in the jurisdiction. In some cases, a compliance market will allow credits generated from outside the jurisdiction to be produced and traded as additional allowances in their program. For example, the California Air and Resources Board allows credits certified by the Climate Action Reserve and produced outside of California to be used by corporate emitters regulated by California's cap and trade scheme. Currently, the size of compliance markets is around $56 billion, while voluntary markets remain smaller, around $2 billion (World Bank, 2022a). However, unlike in compliance markets, most credits in voluntary markets are generated in developing economies. Voluntary markets are also more flexible in terms of project development and are often a source of innovation which supports the progress of compliance markets.

Voluntary carbon markets cover a wide range of uses, from corporates meeting their net zero commitments, to individuals offsetting their personal emissions, to coordinated global market-based schemes like the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). These voluntary schemes and drivers are also increasingly hybridized with other climate action and policy by governments, industries, and supply chain. Actors are motivated by a combination of consumer pressure, anticipation of regulation, mitigation of supply chain risk, reputation enhancement, and ethics.

Article 6 of the Paris Agreement, which was ratified in 2021 at COP26, provides a rulebook and guardrails for the use of carbon markets by governments. This allows countries to voluntarily pursue the development and use of carbon crediting mechanisms and cooperate with one another to achieve their emission reduction targets. Under Article 6, countries can also authorize carbon credits – so called Internationally Transferred Mitigation Outcomes (ITMOs) – for transfer to another country or entity. This authorization mechanism can, in theory, enable voluntary market credits to interact with compliance schemes and inter-country carbon trading.

To avoid double-counting, Article 6 also establishes a protocol called "corresponding adjustments" to ensure that credits are only counted toward one country's NDCs. Voluntary markets can also make use of this mechanism, and certain buyers may in the future require credits to be authorized or have a corresponding adjustment. For example, corresponding adjustments are expected to be required by CORSIA even though it is a voluntary sectoral scheme among airline companies. However, due to the nature of the voluntary market, not all credits will necessarily have these features, nor will such adjustments be necessary to ensure appropriate and integral accounting for voluntary participants. Country-level implementation of Article 6 also varies. Individual governments can choose their own requirements and features of market design, mobilize either private or public capital, and determine whether that capital is domestic or international.

B. Key Participants in Voluntary Carbon Markets

A wide range of participants enable carbon markets and carbon finance across supply-side, demand-side, and market enablers and intermediaries. Supply-side participants are involved in the production of carbon credits.

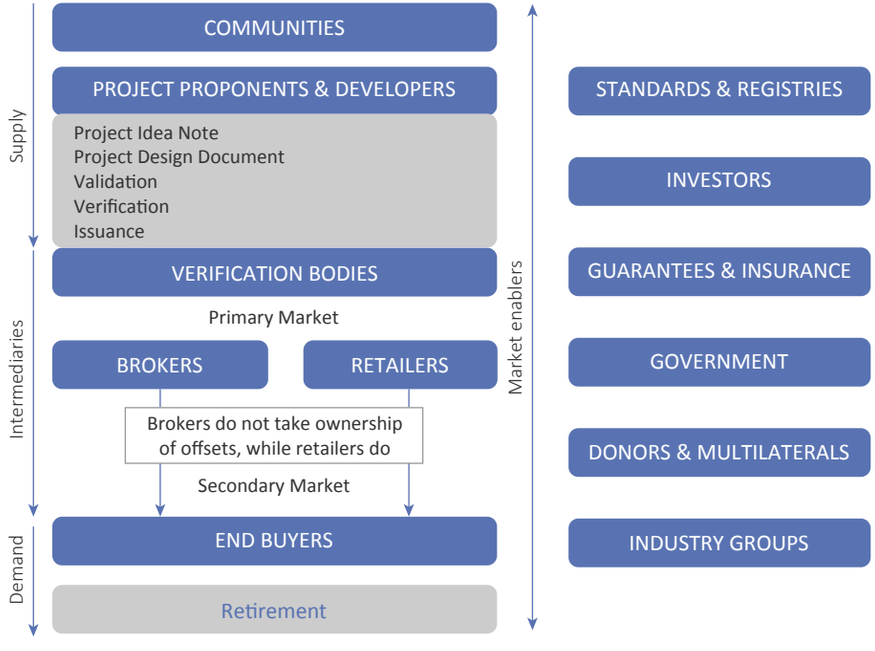
- **Project proponents** are the organisations on the ground implementing the project and with the legal rights to execute project activities
- **Project developers** can offer a range of services in developing and managing carbon projects, such as sourcing projects, coordinating with verifiers and standard-setting bodies to ensure issuance of credits, measuring and accounting for carbon and other impacts, and securing financing for the project. Developers can also be investors and/or proponents depending on the degree of vertical integration

- **Verification bodies** set and certify the methodologies for greenhouse gas accounting and measurement of impacts from project activities. Verification bodies issue a validation report and verification statement which is necessary for credits to be issued and sold
- **Local communities** are often closely involved in project implementation and participate in benefit-sharing schemes. Community members can be employed to provide services such as nursery operation, planting and coordinating activities, act as stewards of the land and forests, and undertake forest maintenance and other activities. They can also receive a share of revenues from carbon credits

Demand-side participants are involved in the purchase of carbon credits.

End buyers purchase and retire carbon credits to offset a portion of their emissions. They may buy credits on the spot market or sign offtake agreements with project proponents or developers directly. Increasingly, end buyers may also provide up-front financing for the project

Figure 4.3.1: Voluntary Carbon Market Structure and Key Participants



Source: Graphic adapted from Ecosystem Marketplace

Enablers and intermediaries do not produce or buy credits, but they support the functioning of carbon markets.

- **Standards** provide project-level methodologies for credit issuance and centralize data related to project reporting and verification
- **Registries** report and track market activities, including ownership, trade, and retirement of credits. Registries are often provided and managed from within standards bodies; however, there are also meta-registries that track across standards and their registries
- **Brokers and retailers** facilitate the sale of carbon credits. Sales can be done over-the-counter (OTC) or through exchanges. Exchanges provide more transparency through standardisation and counterparty risk control. However, given the lack of homogeneity and early stages of the market, the majority of trading currently occurs over-the-counter
- **Investors** are increasingly investing in the carbon market through a variety of approaches including:
  - Direct credit purchase through offtake agreements for subsequent sale to other buyers
  - Indirect credit exposure through scaling vehicles such as compliance market credit ETFs[11]
  - Investment funds that aggregate supply and generate returns in the form of carbon credits
  - Direct funding to projects on the ground in the form of equity or debt
- **Guarantee and insurance providers** can help mitigate project risks for investors
- **Governments** determine the implementation of Article 6 through strategies set out in NDCs and overall national climate action policy. By ensuring readiness for Article 6 authorization and adjustments, and through carbon pricing, governments can shape how the voluntary market interacts with broader policy objectives. Governments also establish the enabling environment for carbon projects, for example by creating and enforcing the legislation that defines land tenure and administration of rights concerning the activities of carbon projects. They can set other requirements as well, such as community involvement and benefit-sharing schemes
- **Development partners and multilateral organisations** support government capacity-building and readiness for carbon project development through programs such as UN-REDD, Partnership for Market Readiness (PMR), and the Forest Carbon Partnership Facility (FCPF)

[11] *An exchange-traded fund (ETF) is a basket of securities that tracks an underlying index. The largest Carbon Credits ETF is the KraneShares Global Carbon Strategy ETF KRBN with $697.84 M in assets. This ETF is benchmarked to a Global Carbon Index and offers broad coverage of cap-and-trade carbon allowances following the most liquid carbon credit futures contracts.*

- **Industry groups** are continuously evolving to provide best-practice guidance to market participants. Examples include the Integrity Council for the Voluntary Carbon Market (ICVCM), the Voluntary Carbon Markets Integrity Initiative (VCMI), the Science Based Targets initiative (SBTi), and the Oxford Principles for Net Zero Aligned Carbon Offsetting

C. What are the Types of Carbon Projects and Criteria that must be met?

Standards organisations develop and maintain a set of methodologies for project activities that produce verifiable mitigation outcomes that meet criteria around additionality, non-leakage, and permanence.

To achieve ambitious climate goals, there is an urgent need to both avoid further emissions and remove existing emissions. Although total emissions avoidance is not possible in today's highly industrialized economy, carbon emissions can be claimed to be avoided through projects that demonstrate, for example, avoided deforestation, energy efficiency gained through reduced energy consumption, or substitution of high carbon energy sources with low or zero emissions renewable energy sources. Meanwhile, carbon removals can be achieved by sequestering carbon through nature-based solutions such as reforestation, afforestation, agroforestry, biochar, and oceanic and soils improvements, or through technological and geological strategies such as carbon capture and storage or enhanced weathering techniques.

Regardless of project type, credits must meet three key criteria:

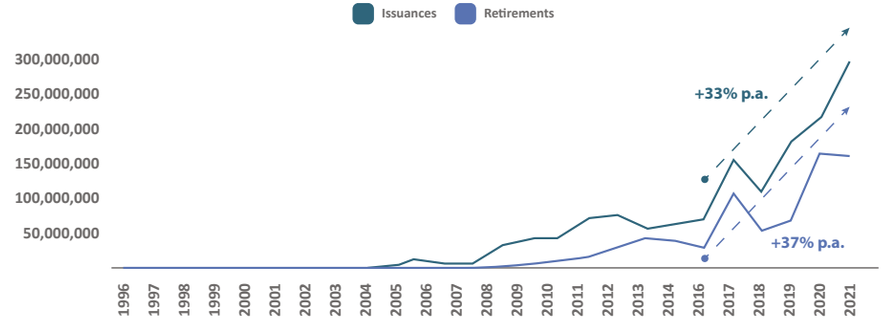
- **Additionality:** The mitigations achieved by a project must be additional to what would have happened if the project, and its financially supportive credits, had not been realized. For example, an avoided deforestation must prove that the forest would likely have been deforested at a certain rate without carbon payments, and a renewable energy project must prove that carbon credits are enabling an action that is different and better than "business as usual."
- **Non-leakage:** Leakage occurs when the benefits of a carbon market project are negated by the shifting or new production of emissions-causing activities. For instance, if a farmer decides to participate in a carbon project by means of reducing deforestation for soybean production, but another farmer increases deforestation for soybean production to meet this new demand – that would be leakage. Carbon projects must account for those leakages and attempt to provide alternatives to leakage.
- **Permanence:** Permanence is related to how long carbon is stored. It is typically thought of as a binary assessment of above or below 100 years of storage potential. In nature-based projects, permanence is often confounded by natural risk such as fires or floods. However, in accordance IPCC reports, nature-based solutions are considered to be the lowest cost and most effective immediate term solution to sequestration of carbon for elongated periods.

D. What are the Key Market Trends?

Both demand and supply of carbon credits are increasing. Price is increasing as well, especially for credits that can demonstrate high-integrity mitigation outcomes with co-benefits.

Across both supply and demand, the voluntary carbon market is seeing strong growth which is expected to continue through 2030 and beyond. Between 2020 and 2021, the size of the VCM approximately quadrupled, reaching $2 billion in 2021. The Task Force for Scaling Voluntary Carbon Markets estimates that voluntary carbon markets need to grow by at least 15x by 2030, and up to 100x by 2050. Notably, in 2021, issuances nearly doubled retirements of credits, suggesting that many buyers are making purchases either to resell or use in the future rather than to retire immediately.

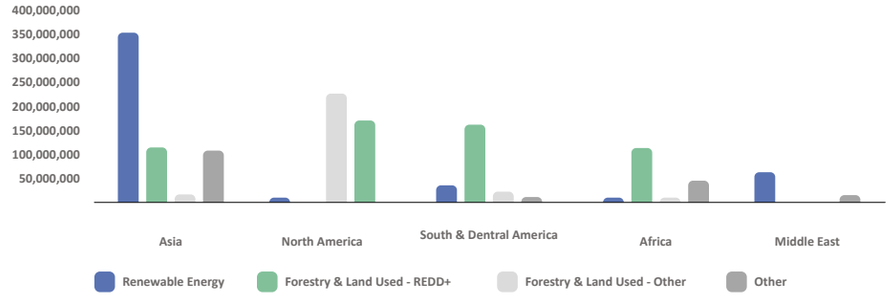
Figure 4.3.2: VCM Credits Issued and Retired Over Time



Source: Voluntary Registry Offsets Database (Berkeley Carbon Trading Project, 2022)

Most credits issued historically are from forest and land use (44%) and renewable energy projects (32%). Within these, Reducing Emissions from Deforestation and forest Degradation (REDD+) projects (26%) and improved forest management (14%) lead the first group, followed by wind (14%) and hydropower (10%) in the second. However, as renewable energy becomes fully cost-competitive with alternatives in many geographies, fewer projects meet financial additionality requirements. As a result, the two main VCM standards, Verra and Gold Standard, now restrict carbon credit issuance from renewable energy projects to only those in Least Developed Countries.

Figure 4.3.3: Credits issued by Project Type, by Region



Source: Voluntary Registry Offsets Database (Berkeley Carbon Trading Project, 2022)

North America has historically issued the most credits (27%), followed by South Asia (17%) and South America (14%). The United States is the country with the greatest number of offset credit projects (1,240), followed by India (1,110), China (805), and Turkey (467). Uganda (173), Rwanda (170), and Kenya (169) lead the count in Africa, while Brazil (165) does in South America and Vietnam (97) does in Asia (Berkeley Carbon Trading Project, 2022). Figure 4.3.3 shows how project types vary across region. In terms of buyers, U.S. corporations lead the ranking; a 2019 analysis showed that 36% of the top 50 companies in the S&P 500 were buying carbon offsets (Bindman, 2021).

Quality is increasingly important to buyers. As the market grows, carbon credits are coming under increasing scrutiny over quality, prompting many buyers to prioritize certain attributes in their sourcing and pricing of credits. Quality-driven buyers typically prefer newer vintage credits which represent more recent mitigation outcomes, removal credits over avoidance based on clearer evidence of additionality, and strong co-benefits for biodiversity, community livelihoods, climate adaptation, and other contributions to SDGs. Blue carbon projects – such as restoration of mangroves – are in especially high demand due to high density of carbon storage and multitude of co-benefits for life on land and under the sea.

The price for carbon is increasing. Carbon is not yet a commodity, and price depends on several characteristics, including the type of project, rigor of reporting, geography, and vintage (year that the associated offset credit was issued). The price of removal credits is typically well above that of avoidance, and renewable energy credits tend to fetch a much lower price than forestry and land use. Buyers are also paying a premium for charismatic projects with co-benefits.

Removal credits are increasingly in-demand but remain supply-constrained. Despite growing demand for carbon removal credits – driven in part by guidance from SBTi – they remain scarce relative to avoidance credits. Only 3% of all projects issuing credits over 2021 and Q1 2022 were pure removal projects (Carbon Direct, 2022). Removal projects are more scarce because they tend to be smaller and higher cost than avoidance projects, and they can take longer to develop.

Buyers are moving up-stream to secure future supply of credits. Anticipating future price increases as demand for high-quality credits outstrips supply, some of the largest buyers of voluntary carbon credits are signing forward purchase agreements or investing directly in projects to secure their own medium- and long-term supply. Others are setting up in-house teams and taking on project development risk themselves.

Startups are bringing advanced technologies to the carbon market. Enabled by a new generation of high-resolution satellites as well as advances in machine learning algorithms and computing power to process these inputs, these new entrants are bringing an unprecedented level of transparency, accuracy, and affordability to monitoring, reporting, and verification (MRV) of carbon sequestration, particularly for nature-based projects. They also represent investment opportunities for enabling technologies and platforms supporting carbon markets.

E. How are Carbon Projects Financed?

Carbon projects can be financed through more traditional instruments such as equity and debt, or through financial structures that return carbon credits to investors.

While carbon markets offer a potential new revenue stream for projects, they are typically verified and issued ex-post, and so up-front funding is required to invest in the activities that produce carbon credits. Additionally, there are costs associated with the project development, validation, and verification process which must be covered. If the project is too small, or the price of carbon credits is too low, then these administrative costs become uneconomical.

There are two main approaches for selling carbon credits: spot market and forward contract. In a spot market sale, the credit is sold after it is issued at the prevailing market price. In a forward contract sale, the credit is sold before it is produced at an agreed price and volume. The forward price curve can be fixed, fixed with escalation, pegged to an index such as GEO or N-GEO, or determined at the time of sale based on an agreed approach to establishing fair market price. The volume can be a set number of credits or a percent of credits.

The amount and form of up-front financing required depends on the project type, as well as the entity developing the project. Entities developing projects include conservation NGOs, for-profit agricultural or forestry companies with other business lines, carbon project specialist developers, social enterprises, and governments. Each has its unique risk appetite, ability to take on external financing, and execution capabilities. Particularly for nature-based projects, grants are a common way to finance the early stages of project development. They are typically insufficient for reaching scale but de-risk the project for private investment.

Taken together, there are five main approaches to financing carbon projects, shown in Table 4.3.1.

Table 4.3.1: Five Main Approaches to Financing Carbon Projects

Approach	Returns	Description
1. Corporate finance	USD	Project developer is a for-profit entity that raises debt or equity to finance its carbon activities. This approach is most appropriate when that entity has other business lines which are the basis of the fundraise, and it uses part of the proceeds to advance its carbon projects which are closely aligned with other business functions such as a timber business or sale of solar irrigation pumps.
2. Project finance	USD	Project developer raises debt and/or equity for a specific carbon project, ringfencing the assets of that project. Repayment is driven by revenues from the project rather than from a broader commercial enterprise. Offtake agreements or other assurance of demand are typically required to de-risk the project for investors. Project finance is common for infrastructure projects such as renewable energy but is not yet common for nature-based carbon projects. Structuring project finance deals can be more complex and costly, and so the approach is typically only appropriate for large projects.
3. Forward purchase of credits	Carbon credits	Project sells carbon credits in advance, and buyer pays for all or a portion up-front to finance the project. To compensate for the additional risk taken, the buyer pays a discounted price. An upside share may be included to incentivise long-term partnership in the case that the buyer re-sells credits for a higher price.
4. Streaming	Carbon credits	Under the carbon streaming model, which is adopted from the energy and mining industry, the buyer provides some up-front funding in return for access to a stream of credits as they are produced. The buyer also pays on-delivery for the credits under agreed purchase terms.
5. Results-based finance	N/A	Countries and some accredited entities can access pools of climate finance such as the Forest Carbon Partnership Facility, the Green Climate Fund, and the Global Environment Facility, which provide results-based payments for mitigation outcomes. Countries may also have access to bilateral funding through Article 6 to fund projects which generate tradeable credits that support the funder to reach its NDCs.

Following the same rationale of carbon credits, the next section introduces an evolving concept/approach to monetise resilience benefits in the agriculture sector to catalyze private investments.

4.3.2 Resilience Credits

Resilience is the capacity of a system to cope with, or recover from, the effects of climate change as they relate both to climate events (expected or unexpected) as well as the uncertainty caused by climate variability, while either retaining or improving the essential components of the original system. In the context of rural economies, the concept focuses on the capacity of rural communities – including their social structures and economic activities – to respond to shocks, particularly those related

to climate change and natural disasters. Such events may be of a sudden nature (e.g., typhoons) or have a slow onset (e.g., desertification).

To monetise resilience, carefully structured financial instruments can create the necessary incentives for (select) private sector investors, international organisations, third party verifiers, community-based organisations, agricultural off-takers, and farmers to join forces to achieve three objectives: I) Increase private sector investment in resilience; II) Build greater resilience of smallholder farmers; and III) Enhance resilience of food systems.

The approach explained here focuses primarily on climate resilience in agriculture sector. If proven successful, this can be replicated in other resilience sectors such as water, forests, urban development to address shocks beyond climate. Adaptation is considered as a process while resilience is framed as an outcome but they are used interchangeably.

Evidence shows that the less developed the economy is, the more it is dependent on Agriculture (van Arendonk, 2015). In LICs, it can represent up to 25% of GDP (World Bank, 2022b), and employ more than 40% of the population. For instance, over 60% of Africa's population rely on Agriculture as their source of income (AfDB, 2019).

In addition, **Agriculture is one of the most vulnerable sectors to climate change, threatening food security.** The IPCC (2022) indicates that global warming has caused a significant decrease in the crop and grassland quality and harvest stability, inducing a slowed growth in the sector's productivity in low and mid latitudes over the past 50 years. Moreover, estimates show that 30% of the world's food is produced by smallholder farmers (FAO, 2021) and up to 80% in developing economies, however they only receive less than 1.7% of climate finance (IFAD, 2020).

According to the Global Center on Adaptation, investing $1.8 trillion globally in areas such as early warning systems, and climate-smart practices over 10 years could produce $7.1 trillion in total benefits (Verkooijen, 2019). Therefore, climate investment aiming to enhance the resilience in the agriculture sector, especially targeting smallholder farmers, will significantly foster food security.

Realising resilience related impacts is attractive to most policymakers and practitioners and investors. In the agricultural sector in the rural economies, shocks can be categorised across five dimensions-climate, biological, market related, labor/health, and policy. Vulnerability to these shocks is a clear danger to most systems–food, health, education, and livelihoods overall. In this context, scale investments are needed to finance resilience-related activities.

Currently however there is inadequate investment in resilience. More precisely, climate finance does not flow towards resilience efforts sufficiently , much to the detriment of development pathways in developing countries. Yet, investments in resilience could be attractive for government and private capital. Any surplus capital generated could both be used to potentially pay dividends and re-distribute benefits to the community or be used to further bolster resilience.

[12] There are about 500 million small farms in the world. Small-scale farmers produce one-third of the world's food and more than 70 percent of the food in Africa and Asia and about 50% in Latin America. They only receive 1.7 percent of climate finance.

There are a number of reasons for this. Adaptation, a key characteristic of resilience, has been difficult to distinguish from development. Furthermore, it is difficult to measure the additionality of adaptation compared to conventional developmental finance. Third, it is difficult to standardise measurement of adaptation, particularly as it relates to different contexts. Fourth, the long-term accrual of benefits and up-front nature of investments, as well as the complexity of decision-making and management, limit the ability to finance resilience strategies. It is often difficult to fund resilience building in developing countries due to imperfect and missing markets. The fifth factor is that resilience benefits are often local and unrecognised, as well as the fact that post-hoc remedies are easier to observe than preventative measures.

It is only over time that a resilience benefit surplus can be generated, so investors need to recognise the stream of benefits over and above business as usual. Productivity increases and income streams increase as a result of these benefits. When the positive externalities of resilience are not appropriately considered, it may result in inaction, missed opportunities, and socially inefficient decisions.

Agricultural, rural development, and food security often have broad scopes and limited cash flows, making it difficult (or unmarketable) to accurately measure how inputs affect or generate outputs. In these areas, adaptability and resilience projects often involve (i) multiple interventions on the territory, landscape, infrastructure, people and livestock, and (ii) multiple agents, resulting in difficulty estimating costs and benefits. It is also possible for interventions to evade monetisation because they are not always measurable. In addition, investors may be turned off by the lag between interventions and resilience dividends.**All this means that it is difficult to transform adaptation into an assets class even though it generates benefits for society at the individual and aggregate levels.**

Conceptually any surplus generated from investments in resilience, at the individual or aggregate level (community, national) could be used to potentially pay dividends and re-distribute benefits to the individual/community or be used to further bolster resilience. On the benefits side, resilience investments generate a 'resilience dividend'[13], broadly defined as the difference in the outcomes between the scenario with a resilience approach and without. This resilience dividend may also include the benefits arising from the reduction of losses which would otherwise be incurred because of future shocks (the probability and magnitude of which may be estimated despite stochasticity).

Therefore, measuring resilience accurately could monetise economic and financial benefits of resilience practices in form of credit in the Agriculture sector. This consequently could increase the flow of climate finance directed towards adaptation and resilience. Similar to carbon markets, to trade resilience credits, a robust regulatory framework needs to be established to create the necessary enabling environment that promotes the engagement of the private sector.

[13] *https://www.rockefellerfoundation.org/blog/valuing-resilience-dividend/*

A. Understanding the Resilience Credits Ecosystem

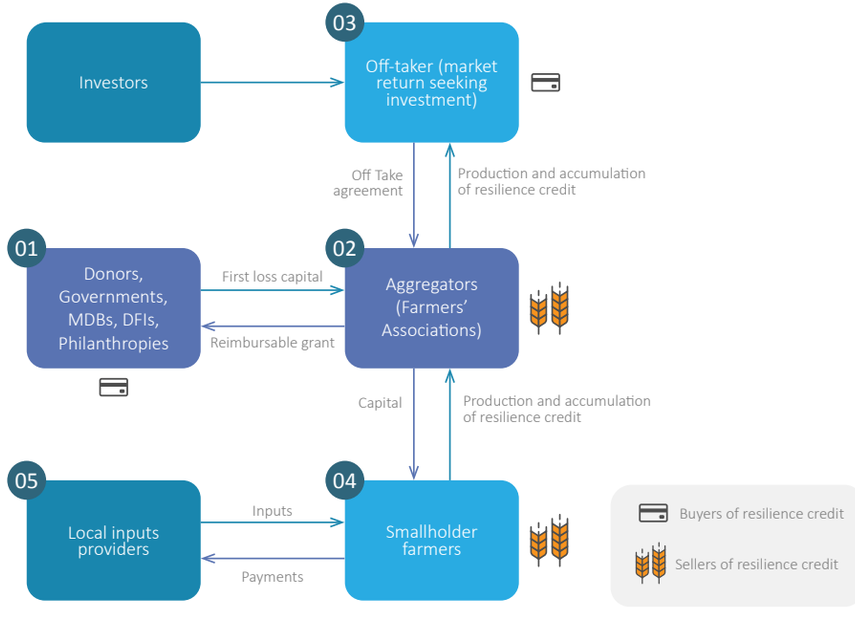
In the resilience credits ecosystem (Figure 4.3.4), there are two categories of transaction flows:

a. Commercial Transactions

The overall transaction process for creating and monetising resilience benefits of any specific resilience project can start from development partners and philanthropies who can provide catalytic first loss capital by pooling resources into a facility, managed by a third party (i.e. multilateral entity), and facilitate the overall credit enhancement of intermediaries (i.e. farmers organisations). Other form of credit enhancement support could be grant, equity investment, or guarantees.

This credit enhancement support can be used to encourage off-take agreements with private investors to buy surplus yield (in a scenario where surplus yield is the key output of the project) from intermediaries such as farmer organisations (FOs). It could also be used to access loans from banks by the intermediaries which could be the basis for on lending support to smallholder farmers. In the case of predictable capital and market, yield would be sold by the smallholder farmers to FOs who then sell aggregated yield to the private investors against off take agreements.

Figure 4.3.4: Transaction Process



Source: IFAD

b. Value Creation or Social Transaction

In the final stage of the project, a third party would verify all resilience and carbon benefits of the project. With a certain percentage of monetised benefits of resilience measured using standardised methodology, a specific value of resilience credit could be issued to smallholder farmers. The credit could then be bought by development partners, philanthropies, and private sector to incentivise the farmers to create societal value, improve resilience, and eventually protect future investment. Initially, the trading could be facilitated amongst members of a coalition of likeminded institutions. Whether the trading could be linked to carbon market requires further assessment, including understanding and analysing legal requirements. A certain percentage of the process of the sell could be channeled to the first loss capital facility in order to eventually phase out the need for development partner and philanthropic funding, and a loss and damage facility.

There are additional financial structural options that could be considered instead of first loss capital facility. These include:

1. **Resilience monetisation fund** which provides a tranche with grants or first loss protection by development partner or the beneficiary of the resilience dividend. The fund investor frontloads resilience dividends allowing governments or other agents (public utilities, state owned entities, cooperatives, etc.) to finance the upfront costs of adaptation and resilience investment.
2. **Sustainable development bonds** (Pay for Success Bonds or Social Benefit Bonds) could facilitate private investors to provide the funding and be repaid later by the development partners.
3. **Social Impact Bonds** provide a financial instrument in which commissioners or governments enter into agreements with social service providers and investors to pay for the delivery of pre-defined social outcomes.

B. Measuring and Monetising Resilience

Turning the benefits from resilience investments into a monetised asset class will require the following steps:

a. Identify potential resilience generating investments.

b. Measure resilience benefits in a standardised and verifiable manner

c. Price resilience benefits and turn these into standardised resilience units

d. Offload upfront investment risk through a first loss risk facility

e. Improve overall resilience of individual community thus safeguarding future investments

f. Creating a new asset class in form of resilience credit that can be traded

g. Generate overall societal value (i.e. improving overall resilience of the community and thus saving lives)

Each of the steps can serve as an incentive for the private sector to investment in resilience.

The proposed solution is to first measure resilience benefits using existing methodology that standardises resilience benefits irrespective of context; translate these standardised benefits into units or 'credits' that can be bought and sold on and off market. For this to occur, other steps need to be undertaken:

First, identifying cash flows are important to establish a financing instrument capable of aligning the interests of investors, donors and the stakeholders. Through adaptation and resilience interventions, there are direct and measurable benefits associated with increased production or improved quality of production in the agriculture sector. Adaptation costs may be funded by governments (or MDBs and development partners) in exchange for a later dividend. Another option is to have governments or the development partners directly pay (or subsidise) ecosystem services as a way to encourage conservation and adaptation. These approaches are important to de-risk investments from the private sector. Those monetary incentives can be financed and scaled up against specific resilience related performance.

As an example, monetising resilience dividends may be achieved under broader programs of climate smart agriculture (CSA)[14] . As the natural climate rapidly deteriorates, CSA's main objectives are to increase productivity, enhance resilience, and reduce emissions. Managing ecosystems and ensuring long-term results is a challenge for poor countries and ecosystems, since they require longstanding vision, management, and large upfront investments.

Second, financial engineering to fit the purpose of investors is required to address a variety of adaptation and resilience projects, but defining the main agents and objectives remains paramount. Investment capital is transferred to beneficiaries against an expected return using a financial instrument (as illustrated in section A). Resilience dividends are owned by the beneficiaries, and so long as the beneficiaries can measure and monetise them, they can reward investors. There are different types of beneficiaries, from governments to households, and they can be homogeneous groups or groups aggregated by technology, objective, or strategy. Through the methodology described in Box 4.3.1, both types of resilience benefits can be captured. Improving the resilience of a rural community can be different from improving the resilience of a specific crop.

Third, data and historical observations, reputable agents, and a proven, verifiable, and transparent methodology to collect the data are all necessary elements to structure this (and most) financing solutions. Data used in performance-based financing is usually reliable, produced by reputable agents, and replicable by a third party. It is necessary to collect data in order to plan the outcome of a project and to determine the relative performance, especially in light of the potential loss of capital for investors. Data must also be reliable and possibly verified by an independent third party, meaning the issuer or fund manager or other agents cannot be held liable for misrepresentations made to investors.

[14] CSA is an integrated approach to manage landscapes, crops, livestock, forests, and fisheries, together with a thorough management of the rural territory and the communities.

Fourth, it is important to recognise that pricing or monetisation resilience is economically like frontloading a future net revenue (less losses minus investment) i.e. a dividend, with an expected value and estimated volatility (given the uncertainty around the probability of the shock occurring and the impact that it would have). Insurance works in a similar way. Investments in resilience can theoretically be priced with stochastic models that project experiences of an indicator or an index by frontloading future dividends. Additionally, the underlying benefit is a change in status (a project), and data must be de-trended. Pricing is determined by a net positive dividend (resilience premium), which is determined by a variety of factors. These include: a) cost of the investment, b) type of event (heating, cooling, rainfall, water shortage, war and civil disturbances, food shortages, famine, malnutrition, natural disasters, climate migration) to be covered, c) severity of a range of events and relative losses or missed opportunities (namely exceedance curve); d) frequency of each event in the reference range, and, additionally, e) the positive externalities (improved productivity, for example). (See Box 4.3.1).

Box 4.3.1: Resilience Credits - Translating Benefits into Standardised Units

IFAD monitors and measures resilience building as a Recovery Index through subjective measures of resilience and a Shock Exposure variable.

It first designs and monitors for resilience: The Resilience Design and Monitoring Tool (RDMT) of IFAD helps design and monitor the performance of resilience building interventions during project implementation. It helps to identify resilience-building interventions ex ante and track their adoption and effectiveness in enhancing rural households' resilience capacities. An adoption score is generated that checks if the household has access to resources promoted by resilience enhancing interventions. The result question seeks to verify the effectiveness of the intervention in reducing the impacts of shocks and stressors. Resilience is observed through the specific results the different interventions aim to achieve (e.g. reduction of crop losses despite shocks and stressors; access to water despite shocks and stressors; increased access to markets despite shocks and stressors). Long-term impacts of the interventions of food security, income and poverty reduction, are derived from the successful achievement of these results.

IFAD then measures resilience through a recovery index. The recovery index is measured through the self-assessment of a farmer's perceived ability to recover from shocks. The Ability to Recover (ATR) index is the mean value of respondents' responses across all climatic (and in many cases non-climate) shocks experienced. The incidence of experience of each shock is a binary variable to determine if the shock was experienced or not. A household Shock Exposure is first computed which is the weighted average of the incidence of experience of each shock (a variable equal to one if it was experienced and zero

otherwise), and is multiplied by the perceived severity of the shock. ATR is then calculated using the response to the question 'After experiencing the shock, is your household better off, same as before, better off than before?'. The Ability to Recover is the mean value of the respondent's responses to this question, averaged across all climate shocks experienced. To ensure comparability between recovery ability of households with different exposure to shocks, IFAD computes the Corrected Ability to Recover Index (ATR corrected). This uses three variables: the exposure to shock multiplied by its severity (an ordinal variable that ranges from 1-4), a livelihood/income diversification at the household level, and the number of shocks that the household has experienced (in the past year). In the third step, a shock-exposure-corrected index is calculated to measure the ability to recover from various climate shocks/non-climate shocks. To do this, the Ability to Recover at the household level (ATRh) is regressed on the Shock Exposure Index at the household level. The estimated empirical equation is:

$$ATR_h = a + b * shock\_exposure_h + \varepsilon$$

This index is computed for intervention areas that IFAD works in and also for areas that IFAD does not, but which are otherwise comparable in most other ways (also called ''comparison groups''). IFAD uses GIS for-sample selection to create a rigorous counterfactual and ensures treated and control areas match in terms of climate histories, shocks. IFAD combines household data with high resolution geo-referenced climatic data in order to use objective indicators to understand climate shocks, to estimate technology adoption under different shock conditions, and to estimate the impact of a project on livelihoods accounting for climatic patterns.

Finally, recognising that shocks are not individual, the corrected ATR_h-corrected is computed as:

$$ATR_{h\_corrected} = ATR_h + \hat{b} * (Y - shock\_exposure_h)$$

Where Y is the mean of the shock exposure index across households. This mean can be calculated across agro-ecological zones or other geographic scales. The corrected measure essentially measures the ability of a household to recover, as a deviation from the overall community/aggregate mean. IFAD uses the same questions across contexts to ensure that the measures are standardised and comparable. The aggregate measure is then converted into a percentage change. Because the method is the same, and applicable to a range of contexts, comparability and verifiability are ensured. At the portfolio level, a meta-analysis synthesises the coefficients from individual investments.

Source: IFAD

Guiding principles for measuring resilience include the following (see Box 4.3.1):

i. A clear definition of the boundaries of climate resilience investments and activities, as well as the risks and outputs, and the interlinkages with other assets, investments, activities, systems (to reduce adverse selection).

ii. Resilience investments and activities need to be analysed to respond to the physical climate hazards and other vulnerabilities (market, health, policy) across time using methodologies and data that are available, stable, verifiable, and replicable.

iii. The resilience investment to respond to shocks must be scoped and must pass the fit-for-purpose test. This means that it: a) significantly contributes to improve the part or full agriculture system's resilience; and b) it reduces and mitigates risks in the face of coming climate change over its operational life and does not do harm to the resilience of the system of which it is a part. This piece is critical and requires thorough analysis and adaptability given the uncertain and stochastic nature of climate change or macroeconomic risks.

iv. A trade-off analysis may be required to evaluate potential mitigation tradeoffs and to potentially lower requirements for climate resilience focused assets or activities whose benefits considerably outweigh an alternate outcome, for example such as increased GHG emissions in the event of a natural disaster or a shock. Monitoring and evaluation is required to ensure that the investment is flexible enough to changing conditions, new risks and shocks, unforeseen situations, changes in technology and institutional framework, and in general that assets and investments continue to be fit-for-purpose.

C. Proposed approach: Six step model

The step by step model is illustrated Figure 4.3.5

Figure 4.3.5: Type of Resilience Indicators to Support Measurement

Source: IFAD

1. **Conduct a dynamic baseline survey** with a pool of potential beneficiaries & other stakeholders to collect data, while including relevant historical data. Specific subtasks of this step include:

   - Collect available data to analyse, assess, identify geographies, communities, beneficiaries, & their state of development, as well as potential for and vulnerability to various types of shocks (climate, food security, wars and conflict, prices, etc.)
   - Assess governments strategies as well as current or programmed assistance of the international community.
   - Use IFAD analytical models, GIS and other tools to assess how different shocks, investments and development initiatives and strategies impact income, health, wealth dynamics and create impact pathways.
   - Agree an objectively verifiable set of measurements of resilience/adaptation and social development (human capital and access to basic services).

2. **Use a model to calculate probable resilience benefits while designing an investment.** This step should produce clear targets with outcome and output indicators to value improvements in the baseline conditions. It is important these are standardised in order to make the model replicable in other geographies and similar conditions **(see Box 4.3.1).** These indicators include:

   - **Shock events:** Use a catalogue of historical data on shocks/events and actual losses associated with those events;
   - **Output indicators per event:** Use a catalogue of the experiences of the output indicators per event (improved/deteriorated) (see Figure 4.3.5);
   - **Cost of losses:** Estimate monetary losses given improvements or deteriorations in the output indicators; and
   - **Outputs of project activities:** Calculate improvements or deteriorations of the output indicators due to project activities/initiatives.

3. **Consult with the investors' community** to assess the appetite for investing in resilience benefits based on the objectively verifiable output/outcome indicators. These investors may be categorized into three rough categories:

   - Structuring firms such as banks, specialized modelling firms, other specialized entities insurances, think tanks, academia, donors, and foundations.
   - Investors and development partners for concessional or commercial capital. The former would include governments, philanthropists, DFIs, and impact investors. The latter may consist of banks, real money investors, assets managers, or impact investors.
   - Commercial sector stakeholders such as banks and non-bank financial institutions financers, off takers to support value chain investments, and other MDBs, DFIs and IFIs.

4. Deploy catalytic first loss capital (in the form of grant/equity/guarantee) for credit enhancement for buying/selling entities (i.e. Farmers Orgs). This step should facilitate potential off take agreement with the private sector. For this step, it is critical to start tracking GHG emission and resilience benefits against targets as soon as implementation begins. The first loss capital is only one example of instrument that could be used. Resilience impact funds, climate funds, impact investment funds are examples of other instruments.
5. Sell produce to off takers; This could be facilitated through a zero percent loan or a reimbursable grant. This step should also include verification by a third party before a resilience credit is issued (see section on transaction flow for more information).
6. Assess the impact of project specific results. Examples of predicted results may be increased community resilience, income, general welfare, societal value creation, and an increased contribution to the delivery of the Paris agreement.

Box 4.3.2: How can Resilience Monetisation and Credit Incentivise the Private Sector?

The concept of resilience monetisation and credit can incentivise the private sector for several reasons. It:

- Identifies investment opportunities.
- Provides incentives across the value chain of players including to the private sector to invest in resilience.
- Follows a blended financing approach, including ability to offtake risks
- Opens up the possibility of creating resilience credit as a separate asset class
- Provides an opportunity for value creation (beyond market return) for financiers.

Source: IFAD

Figure 4.3.6: IFAD's Resilience Indicators

CHANGES	INDICATOR	Calculation
Ability to recover	Ability to recover from shocks	Subjective measure of (perceived) resilience capacity in the aftermath of one or more shocks, developed using the IFAD methodology
	Ability to recover from shocks - climatic	Same as above - disaggregated for climatic shocks only
	Ability to recover from shocks - other	Same as above - disaggregated for non-climatic shocks
Exposure	Exposure to shocks	The shock exposure measure is a weighted average of the incidence of experience of each shock (a variable equal to one 1 if it was experienced and 0 otherwise), multiplied by the perceived severity of the shock.
Livelihoods	Livelihood/income diversification (GINI SIMPSON INDEX)	GSI = 1 - ∑αi2 where αi is the gross income share from the ith household income source
Severity	Number and severity of shocks	Number of shocks that affected the hh during the last 12 months Severity of shocks (1-4) multiplied by respective shocks
Estimate impact by comparing outcome indicators of beneficiaries to that of a matched counterfactual/comparison group using quasi-experimental econometric methodologies ex-post		

Source: IFAD

Chapter 05

A Governance Structure for Just Climate Finance

The Ministry of International Cooperation (MoIC) worked with the lead institution:
Organisation for Economic Co-operation and Development (OECD)
Main Contributors: Climate Finance Advisors (CFA), International Labour Organisation (ILO) &
International Fund for Agricultural Development (IFAD)

5.1 Introduction

This chapter outlines the current governance structures relevant to climate finance and identifies practical recommendations for strengthening governance to unlock the potential for climate finance.

Decisions taken in the UNFCCC process provide the overarching normative framework for climate finance. This framework recognises that climate change is a collective responsibility, but that countries vary significantly in their contributions to emissions and vulnerability to the impacts of climate change. At the same time, there is no single overarching global governance structure covering financing for climate action (OECD, 2019) (OECD, UNDP, 2020).

Although no common definition of climate finance has been formally agreed upon, according to the UNFCCC Secretariat, "Climate finance refers to local, national or transnational financing—drawn from public, private and alternative sources of financing—that seeks to support mitigation and adaptation actions that will address climate change," (UNFCCC COP26 Presidency, 2022). This chapter uses definitions established in Chapter 1 of the Guidebook and Article 2.1c of the Paris Agreement. This does not prejudge the outcomes of negotiations on these topics.

- Climate finance- local, national, and international financing from a range of public, private, and blended financing seeking to explicitly address mitigation and adaptation to climate.
- Climate-aligned finance – finance flows that are consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

While dedicated operating entities exist under UNFCCC, the delivery of the vast majority of public climate finance, covering both adaptation and mitigation, takes place through the range of institutions and instruments that constitute the international concessional funding architecture. Aggregate public climate finance flows are the result of individual funding and financing decisions by a multitude of bi- and multilateral institutions, whose policies and decisions govern the actual decision on the allocation and provision of climate finance resources. To overcome the inherent challenge of delivering effective international public finance, the development effectiveness agenda established several broadly accepted principles that constitute practical, normative guidance that governs the delivery of concessional funding. These principles are ownership, transparency, results, and inclusive partnership. The principles are well-known and understood by stakeholders involved in the delivery of climate finance.

The mobilisation of private capital will also be critical for meeting the goals of the Paris Agreement. Climate Policy Initiative (2021) reports that private capital flows were $310 billion in 2020. The governance of climate finance is also critical insofar as it influences the mobilisation of private capital towards the goals of net zero and climate-resilient development. Overall, the centrality of developing country ownership, and

alignment of support behind national strategies and plans, implies a central role for governance aspects of domestic systems for the country-level allocation of climate-related finance, from both international and domestic sources. In this regard, there are typically no separate governance mechanisms for climate finance. Rather, sector governance and decisions, and the degree and fashion in which climate dimensions are integrated, define in practice the allocation of climate-related activities and resources.

This chapter identifies the following areas as being critical for strengthening the governance of climate finance, covering the systems governing international (public and private) climate finance, as well as action at the country-level by beneficiary governments:

1. More transparent, consistent, and steady flows of public climate finance help provide certainty to emerging and developing economies that ambitious domestic climate action will be backed by international support. Development partners themselves acknowledge the urgent need for greater accountability and transparency in how they define, account for, and report official development assistance related to climate, biodiversity, and the environment. It remains important for the credibility of the fulfilment of development partner commitments to ensure that information systems reflect standardised tracking of climate finance, from the perspective of both development partners and recipients. This follows the general need to strengthen ESG and SDG criteria of international finance for sustainable development (OECD, 2022a (forthcoming))

2. Beneficiary governments can maximise both the flows and effectiveness of international public and private finance by providing clear signals on their climate action plans. This includes setting clear nationally determined contributions (NDCs) to emissions reduction, national adaptation plans, and sector-level decarbonisation pathways. In turn, these would provide confidence to investors that investments are anchored in a long-term vision backed by governments.

3. More effective country-led coordination through country platforms, bringing together beneficiary governments, development partners, and the private sector, can help bridge the gap between the demand for and supply of finance, and provide fora to identify and tackle barriers to investment, improve domestic enabling environments, and optimise the deployment of the different sources of finance: public, private, domestic, and international.

As a recent OECD report on climate finance in the context of the $100 billion goal noted, climate finance figures presented in this report do not capture all finance for climate action in developing countries." Due to the geographical scope of the $100 billion goal, the figures include neither developing countries' domestic public climate finance, nor bilateral public climate finance between developing countries (so-called South-South co-operation), nor multilateral and mobilised private climate finance attributable to developing countries. Further, the figures do not include either private

finance catalysed by public policy interventions, for which there is no measurement methodology or private finance invested in the absence of public interventions" (OECD, 2022a).[2] Existing information systems for climate finance reporting vary in three main areas: currency conversion; commitments and disbursements; and, climate specific amounts, as countries adopt different approaches to calculate their climate finance contribution (OECD, 2022a). In addition, data labels and descriptions for climate finance flows vary significantly across countries, particularly among recipient countries and targeted sectors (OECD, 2022a).

5.2 Global Governance of Climate Finance

Closing the global climate action finance gap requires all stakeholders – development partners and beneficiary countries, the private sector, and the range of local stakeholders – to work more effectively as a system. International public climate finance is by and large managed and channeled through the existing international development architecture, while also responding to agreements made through the UNFCCC process. The existing governance[3] structures and architecture – including the global network of multilateral and bilateral development finance institutions – have enabled the deployment of large sums of climate finance. However, there are features of the existing system that need to be revisited to rise to the unprecedented scale and nature of the climate challenge (see, (OECD, 2022b (forthcoming)). In particular, the existing systems need to more effectively tap the huge stocks of global private capital and effectively channel them towards productive climate action in emerging and developing economies.

The UNFCCC process is the principal framework governing international climate finance. The components of this governance framework encompass (1) the commitment by developed countries to provide financial support to developing countries; (2) specifications as to the way this support should be provided; (3) the role of the operating mechanisms under the UNFCCC to serve for the provision of finance; (4) a global quantitative goal for climate finance to be delivered[4]; and (5) the alignment of all financial flows with the objectives of the Paris Agreement.

[2] *"OECD figures capture four distinct components of climate finance provided and mobilised by developed countries: (i) Bilateral public climate finance provided by developed countries' bilateral agencies and development banks; (ii) Multilateral public climate finance provided by multilateral development banks and multilateral climate funds, attributed to developed countries; (iii) Climate-related officially supported export credits, provided by developed countries' official export credit agencies, and (iv) Private finance mobilised by bilateral and multilateral public climate finance, attributed to developed countries." (OECD 2022).*

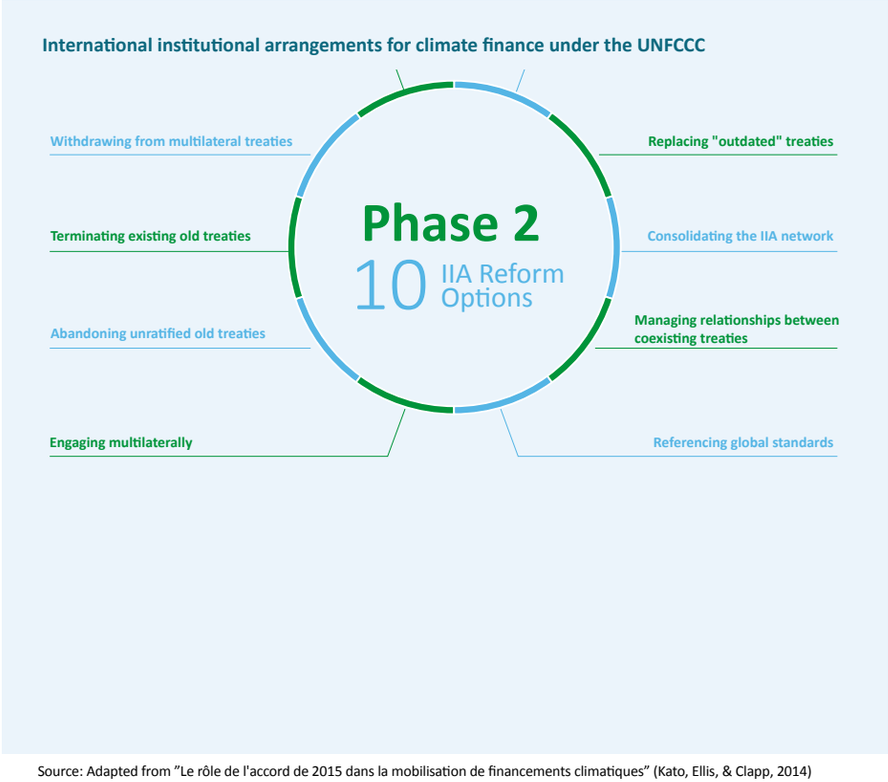
[3] *Governance is broadly understood as the act or process of governing or overseeing the control and direction of something, such as a nation or an organisation (Meriam-Webster, n.d.). The term relates to the process by which decisions are made and implemented (or not implemented). Within government, governance is defined as the exercise of political, economic and administrative authority necessary to manage a nation's affairs, or the process by which public institutions conduct public affairs and manage public resources (IMF 2007).*

[4] *Developed countries committed in 2009 to jointly mobilise $100 billion for climate action in developing countries by 2020. At COP 21, it was agreed that developed countries intend to continue their existing collective mobilization goal through 2025, and that prior to 2025 the Conference of the Parties serving as the meeting of the Parties (CMA) to the Paris Agreement shall set a new collective quantified goal from a floor of $100 billion per year.*

Box 5.2.1 Governance of Climate Finance under the UNFCCC

Under both the UNFCCC (Article 4) and the Paris Agreement (Article 9), developed countries are required to provide financial support to developing countries in the implementation of climate action, and to regularly report information on financial support provided and mobilised as part of their Biennial Reports (BRs) to the UNFCCC in a common, standardised format.

The Paris Agreement also established that the provision of scaled-up financial resources should aim to achieve a balance between adaptation and mitigation, take into account country-driven strategies, and the priorities and needs of developing countries, with a particular emphasis on those most vulnerable to the adverse effects of climate change, and confronted by severe capacity constraints. Special reference is made in this regard to Least Developed Countries (LDCs) and Small Island Developing States (SIDS), and the need for public, grant-based resources. The Paris Agreement further foresees ex-ante, indicative information to be provided by developed countries. A new reporting framework will supersede current reporting arrangements starting in 2024, with more stringent reporting rules than current reporting requirements. The more stringent reporting requirements under the Paris Agreement have the potential to significantly increase the transparency of information on financial support provided and mobilised by developed countries. The Financial Mechanism established under the UNFCCC is designated to facilitate provision of financial support to developing countries. Further provisions in this regard relate to efficient access to financial Mechanism established under the UNFCCC is designated to facilitate provision of financial support to developing countries. Further provisions in this regard relate to efficient access to financial resources through simplified approval procedures, and enhanced readiness support for developing countries. Concretely, these are four special funds established under the UNFCCC: Special Climate Change Fund (SCCF) and the Least Developed Countries Fund (LDCF), both managed by the GEF; the Global Climate Fund (GCF) under the UNFCCC; and the Adaptation Fund (AF) under the Kyoto Protocol.



Source: Adapted from "Le rôle de l'accord de 2015 dans la mobilisation de financements climatiques" (Kato, Ellis, & Clapp, 2014)

Beyond dedicated climate finance, the Paris Agreement also called for "making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development" (UNFCCC, 2015). Achieving flows of climate-aligned finance will require action by governments, central banks, financial regulators and supervisors, and the international system governing global financial markets. The complex nature of the task at hand, the wide number of stakeholders involved, and the limited systems of global governance managing this process, have resulted in a growing number of processes underway. Recent years have seen several positive steps being taken towards convergence, including through the private finance agenda under the UK's COP26 presidency (Carney, 2021), and through the G20 Sustainable Finance Working Group.

Paris-alignment of all financial flows – and stronger governance around efforts to that end – will be critical to efforts to channel commercial finance toward productive climate action. Private financial institutions are increasingly committing to aligning their portfolios with the Paris goals and seeking opportunities to invest in the transition to a net zero, climate-resilient future. The following sections outline the principles, tools, and mechanisms that can be drawn on and expanded to facilitate the more effective deployment of climate finance, including scaling up private capital mobilisation.

To reach this goal, businesses have a critical role to play in the climate transition, in particular through innovation and investment. A successful transition will also require that companies address and manage the climate-related risks of their activities. Governments can help companies play their part in the transition by ensuring that national corporate governance frameworks incentivise both companies and investors to address climate challenges.

To ensure that corporate governance frameworks are fit for the climate transition, these frameworks should promote corporate access to market-based financing. For investors, sustainability disclosure is essential to help investors better understand the risks they face and to more efficiently allocate capital towards the companies that may potentially be better able to thrive in a low-carbon environment. A growing number of investors are focusing on sustainability issues and demanding better corporate sustainability disclosure. Investment funds that label themselves as environmental, social, and governance (ESG) compliant – or sustainable – received a record $600 billion in net inflows in 2021.

The G20/OECD Principles of Corporate Governance, the global standard for corporate governance, are being revised and will provide new guidance to help governments regulate key aspects of corporate sustainability. The OECD report on Climate Change and Corporate Governance identifies three main challenges for corporate governance and sustainability that are reflected in the revisions of the G20/OECD Principles:

- **More reliable and comparable disclosure standards on sustainability information are needed** – The ability of shareholders and stakeholders to effectively engage with companies on climate transition priorities will depend on them having access to high-quality information on how companies are addressing climate-related risks and opportunities. As the OECD has noted: "While financial standards already require disclosure on how climate change may impact a company's business, a number of concerns have been identified with respect to the structure, comparability, and reliability of such disclosure" (OECD, 2022b). Moreover, "a growing number of jurisdictions have established regulations or initiated public consultations on proposals to mandate companies to disclosure sustainability information according to a specific reporting standard" (OECD, 2022b).
- **Company boards need to take account of the interests of all stakeholders** – Company boards must develop a good understanding of stakeholder interests – including employees, customers, and local communities – to effectively address the risks and opportunities that a company faces in relation to its future sustainability. As stated in the G20/OECD Principles of Corporate Governance, "the corporate governance framework should recognise the rights of stakeholders (…) and encourage active co-operation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises." Dialogue between directors, executives, shareholders and stakeholders should be promoted and boards should also better consider material sustainability risks and opportunities.

- Shareholder engagement is a vital driving force for changing business practices – The mechanisms to help shareholders assess companies' climate transition strategies need to be developed further. As part of this, shareholders need to engage with company boards to ensure these strategies are followed. Investors are allocating a growing share of their portfolios to sustainability and ESG-related funds and shareholders have expressed an emphasis on their engagement on climate-related issues. In some cases, this stronger focus on shareholder engagement can help advance flows of capital to climate-related investments if such investments are seen as responsive to shareholder priorities as part of a broader strategy (OECD, 2022b).

The revisions of the G20/OCDE Principles of Corporate Governance, to be adopted in 2023, are addressing these challenges, with a view to shaping corporate governance frameworks and policies that support the transition to a low-carbon economy.

In addition, philanthropies can also play an important role in privately funded development and climate finance. In recent years private philanthropy has begun to reshape the development finance landscape as well as make a significant impact on climate finance flows. According to the OECD, private philanthropic foundations such as the Bezos Earth Fund, Bill & Melinda Gates Foundation, and the Children's Investment Fund Foundation (CIFF) have largely increased their financing towards climate action in developing countries and provided over $1.5 billion for climate action in developing countries in 2020, mainly through activities in the agricultural, environmental protection, and energy and transportation sectors (OECD, 2018b)

Philanthropies can support improved governance for "just financing" in developing and emerging economies by investing in capacity building and skills development, particularly in public institutions, around the key principles for Just Financing. They can also support efforts to measure results from just financing investments and increase their own institutional internal capacity to identify, prioritise, and respond to opportunities to invest in climate projects that fit with the Just Financing principles.

5.3 The International Public Finance Architecture and Implications for Delivery and Governance

The UNFCCC agreements provide a clear framework and guidance for climate finance but do not directly determine the allocation of resources. Instead, the overall picture is the result of a patchwork of political commitments, and individual funding and financing decisions by a multitude of bilateral and multilateral institutions. Each of these institutions has its own governance arrangements and policies that govern decision-making on allocation of financial resources.

The institutions with a predominant or exclusive mandate for the provision of climate-related finance constitute only a small share of the total volume of climate finance. In 2020, these institutions accounted for less than 4% of the $83.3 billion of climate finance tracked by the OECD's assessment of progress toward the $100 billion goal. A substantial share of the resources of dedicated climate funds are co-financed or channeled through, existing institutions of the international architecture.

From a supply side, funding streams are characterised by different areas of focus, mandates, and approaches of the respective institutions. For multilateral institutions, the respective governing body, representing their membership, approves relevant policies. Bilateral development partners decide individually which country to assist and to what extent. Such decisions are based on provider's individual values, goals, and criteria, shaped by specific contexts and historical relationships: each provider has their own priorities and incentive framework (Ericsson & Steensen, 2014).

Meanwhile, the demand for climate finance is shaped by the regulatory and policy frameworks that exist in the respective destination jurisdictions. By necessity, there is a division of accountability between those providing climate finance and those receiving it. For international public finance, development partners need to provide accountability for the use of their resources provided to recipient countries to their governments and the public, while there must also be accountability for resources used within the recipient country. The external accountability required by the development partners invariably affects the recipient government's accountability to its domestic constituents (Allan, 2013). As such, the effective delivery and use of international climate finance is not merely a simple transfer of money, but instead implies a partnership between providers and recipients.

[5] The full list of Countries, Territories and Organisations Adhering to the Busan Partnership for Effective Development Co-operation can be found here: https://www.oecd.org/dac/effectiveness/busanadherents.htm

5.4 Effectiveness Principles Relevant to Climate Finance Governance

Development effectiveness principles provide a useful benchmark for assessing arrangements for providing climate finance. In 2011, four core principles of effectiveness were endorsed by more than 150 countries, territories, and organisations at the Busan High Level Forum on Aid Effectiveness.[5] The four development effectiveness principles are:

- **Ownership** of development priorities by developing countries: developing countries set national priorities, and international partners align support behind those, using country systems, where possible.
- **Focus on results**: development co-operation seeks to achieve measurable results, by using country-led results frameworks, monitoring, and evaluation systems.
- **Inclusive partnerships**, recognising the different and complementary roles of all actors.
- **Transparerncy and mutual accountability**: between development partners and developing countries, and their respective constituents, with joint responsibility to ensure development co-operation information is publicly available.

These principles provide a normative governance framework for the delivery of international support to developing country partners. The Busan Partnership Agreement identifies climate change as a priority for effective international development, and highlights the commitment to "promote coherence, transparency, and predictability across our approaches for effective climate finance and broader development co-operation". It further emphasises continuing to "support national climate change policy and planning as an integral part of developing countries' overall national development plans, and ensure that – where appropriate – these measures are financed, delivered and monitored through developing countries' systems in a transparent manner" (OECD, 2011).

The effectiveness principles are also relevant to climate finance. Analysis of what enables effective climate finance in the context of development co-operation identified that the international climate finance community is widely aware of the development effectiveness principles and their relevance for the delivery of concessional funding (Ye Zou & Ockenden, 2016). It further found a shared view among recipients and providers of important preconditions of effective climate finance. These include notably: mainstreaming climate change into development planning and policies; co-ordination and clear allocation of responsibilities, tracking and monitoring systems for climate finance in recipient countries; readiness and ease of access to climate funds; and the engagement of civil society, local government, and the private sector. The establishment of robust and credible transparency systems is a pre-condition for achieving effective outcomes. Providers highlighted the importance of monitoring and evaluating the results associated with finance flows, while recipients prioritised building systems for tracking the finance flows.

Key priorities that have been identified by developing countries regarding the delivery of climate-action closely mirror those identified in the development effectiveness agenda. Least developed countries, for instance, emphasised the importance of transparency and, where possible, predictability, for practical purposes of effective planning and management of resources; supporting country priorities, plans, and approaches, and focusing on long-term support, while avoiding fragmented approaches (LDC Group, 2017). Further efforts by developed and developing country partners are needed to apply these principles for climate finance, and more generally for delivering effective support on the ground.

There is also a need to enhance the predictability of international climate finance. A good understanding of expected future support is essential for the effective planning, management, and use of support received. At the same time, projections or spending intentions are not captured in data that record historical flows. Some development partners have clear global commitments with regard to their future support. Other development partners have domestic institutional arrangements that preclude making such commitments. At the same time, experience from the forward spending database for development finance has demonstrated basic challenges for predicting forward spending comprehensively. Moreover, given that forward spending information is primarily relevant for concrete planning purposes at the country level, the use of such forward information would in essence be conditional on being available for country-level disaggregation. Country-level coordination mechanisms that are linked to policy and investment planning can support forward planning.

Fragmentation directly challenges and undermines national ownership and alignment behind national plans and strategies. Fragmentation occurs when too many development partners provide limited amounts of support in too many countries, often based on their own approaches and systems. Fragmentation complicates the architecture and delivery of concessional funding, can seriously impair its effectiveness and is a particular challenge in the poorest countries. It puts a strain on governments' administrative capacities, increases development partners' costs, duplicates their efforts, and leads to the uneven distribution of concessional funding (OECD, 2012). Its roots lie in the division of accountability between development partners and recipients that constitute a basic, practical governance challenge for the delivery of effective international concessional funding.

A substantial bureaucracy has evolved for the delivery of support to developing countries, both to ensure required accountability for finances within development partner systems and in light of capacity constraints in local administrations. The associated procedures and systems of individual development partner institutions imply both significant challenges of coordination and harmonisation. Especially where domestic systems are still weak, fragmentation carries a significant risk of undercutting public financial management in recipient countries, instead of reinforcing their central role for accountability and fostering their further development. Poor integration of development partner support either with efforts financed through domestic resources or with those of other development partners inhibits the efficient delivery of concessional funding as well as strengthening country systems (Allan, 2013).

Consequently, fragmentation and lack of harmonisation also have immediate adverse impacts on the ability to jointly manage for results. The use of individual results systems by development partners hinders a coherent approach to results management at the country level (see Box 5.4.1 below). Evaluation functions and related results monitoring and management functions are themselves considered to be part of good governance (see for example the OECD's recommendation on public policy evaluation (OECD, 2022d)). In this context, indicators, monitoring, and evaluation integrated within an integrated results management system (which goes from strategies that reflect policy priorities down to implementation, and monitoring & evaluation) assume an important function in an overall approach for effective governance.

Box 5.4.1 Using Common Indicator Frameworks to Measure the Results of Climate Action

Developing and adopting sound indicators to measure the results of climate action is critical, as it facilitates coherence of efforts across partners. However, comparative analyses conducted in Bangladesh, Ethiopia, Kenya, Myanmar, Peru, Samoa and Uganda point to persistent technical, organisational and country-specific issues that slow down the adoption of common indicators and lead to fragmented support. These include: i) the slow pace of mainstreaming the climate-related indicators across national plans, sectors and subnational governments, which disincentivises alignment of climate finance with national monitoring systems; ii) insufficient climate-related data availability and use at the country level, which encourages parallel data gathering exercises; and iii) development partner headquarters' requirements for project-specific results data, which tends to lead to incompatible indicators and data. For example, development partners use 40 different variations of an indicator on access to electricity (from renewable sources) in Ethiopia, which leads to fragmented monitoring, data incompatibility, and a lack of a comprehensive country picture of coverage and progress – critical for effective policies and programming decisions.

Multi-stakeholder dialogues on the use of common indicators for sustainable development in Sierra Leone and Malawi in 2022 called for stronger collective coherence and co-ordination, and support for efficient (joint) monitoring and data platforms, capacity building and investments in data, to address the disconnect between financing, monitoring and decision-making.

Source: Achieving SDG Results in Development Co-operation: Summary for Policy Makers CITATION OEC212 \l 1033 (OECD, 2021); Inclusive dialogue in Sierra Leone and Malawi: Working Together Towards Joint Results CITATION OEC2b \l 3084 (OECD, 2022e)

Increasing the effectiveness of climate finance requires enhanced ownership of the development process by those who are meant to drive and sustain it. This includes a recognition of the specific context and circumstances of partner countries. In practice, it implies development actors work to align their support as well as other flows with national developing countries' plans and priorities for climate and environmental action; the need for harmonising climate change and development-related results frameworks at country level, balancing short-term results and longer-term objectives, such as capacity development, learning and knowledge sharing.

Against this backdrop, members of the OECD Development Assistance Committee (DAC) recognised the importance of reinforcing effectiveness principles in their climate activities. In the 2021 OECD DAC Declaration on a new approach to align development co-operation with the goals of the Paris Agreement on Climate Change, DAC Members stated that "the development effectiveness principles, to which the DAC remains committed, must be applied systematically to how we use development co-operation to support the goals of the Paris Agreement" (OECD DAC Members, 2021). In the run-up to COP27, a stocktake summarising the commitments made by members of the DAC will be prepared.

5.5 Understanding and Developing Existing Information Systems

Overall, climate finance reported to the UNFCCC and data on climate-related development finance have strong interlinkages and overlaps (OECD, 2022a). The linkages arise from the fact that public climate finance activities are, for the most part, also development finance activities, and therefore reported both to the UNFCCC and the OECD DAC. Furthermore, the majority of DAC members use their Rio markers data reported to the OECD as a starting point for their submission to the UNFCCC, through the use of coefficients and other adjustments. At the same time, there are also differences in the data concerning objective, methodology, granularity and detail,standardisation, quality checking, and country coverage.

The OECD Creditor Reporting System (CRS) database provides activity-level information on the quasi-totality of underlying flows. As such, OECD CRS data constitutes a publicly available source that allows identification of flows at the activity level. However, in the absence of an agreed definition and harmonised reporting practices for climate finance, it is not yet possible to establish a full picture of the actual flows to developing countries that account as climate finance in the UNFCCC context. This picture is complicated further when including private climate finance flows.

The development of national and subnational capacity in developing countries to be able to track and report the public and private climate finance flows, as well as outcomes, remains a necessary priority. Many developing countries face significant capacity constraints in tracking, gathering and collating the information needed to prepare reports under the UNFCCC. As outlined by the OECD Climate finance Provided and Mobilised report from 2022, on the ground, climate finance is directed toward multiple actors at national and sub-national levels (OECD, 2022a). In practice, it is the national governments that are reporting such information. This renders detailed tracking particularly complex and challenging in the absence of sophisticated tracking systems. While international support has been provided to some developing countries for the preparation of their corresponding Biennial Update Reports (BURs), submitted by non-Annex I parties to the UNFCCC (mostly developing countries), many countries state in their BURs that they do not have the technical, staffing and financial resources needed to be able to compile the information requested.[6] As of August 2022, 75 non-Annex I countries had not yet submitted a BUR.

To better harmonize existing information systems and improve both the quality and consistency of information on public and private climate finance flows, the OECD Creditor Reporting System (with its "Rio marker") would benefit from more multilateral contributions, and those of non-DAC providers[7] , and extend its applicability also to disbursements. Additionally, multilateral development banks, and export credit providers, should aim to comprehensively report to the OECD DAC. Under the updated climate reporting frameworks of the UNFCCC, Annex I and non-Annex I parties should increase consistency and detail in reporting. In particular, technical assistance support should be provided for countries that state technical capacity limitations in their BURs to improve the tracking of climate finance flows for both mitigation and adaptation. Useful mechanisms include the development and/or adoption of green finance taxonomies and alignment with large investors, development partners and recipient parties and actors (Brown & Corfee-Morlot, 2011).

[6] In this regard, the data available online on the new statistical measurement of Total Official Support for Sustainable Development (TOSSD) - recognised by the United Nations Statistical Commission as a data source for indicator 17.3.1 in the SDG global indicator framework to measure development support - could be helpful to these countries.

[7] Currently all members of the OECD Development Assistance Committee (DAC) and 20 providers beyond the DAC report to the CRS. Furthermore, 65 multilateral organisations provide data to the OECD.

Box 5.5.1 Transparency in the Reporting of Climate Finance Flows

Transparency about qualitative and quantitative information on flows of climate finance is essential for accountability and building trust. Despite efforts to strengthen this aspect of governance, there is scope to further improve the quality and consistency of reporting at the international level. Reporting of information on climate-related flows is currently being undertaken by a variety of different actors (countries, multilateral financial institutions, public and commercial data providers), for different purposes and using different processes. Some providers of climate finance follow formalized processes for reporting. These include the UNFCCC reporting framework and the OECD DAC common reporting system.

Climate Finance Reporting Under the UNFCCC

Under current UNFCCC reporting arrangements, Annex II Parties have the obligation to regularly report information on the financial support they provide to developing countries. Such information is to be reported as part of their Biennial Reports (BRs) to the UNFCCC through a set of Common Tabular Formats (CTFs) i.e., standardised tables that comprise mandatory reporting fields such as recipient country or region, climate-specific amounts, type of finance (adaptation, mitigation, cross-cutting), sector. Nevertheless, despite the standardised nature of these tables, and because reporting rules provide only general guidance on what is to be reported and how, the information reported on financial support provided is still largely inconsistent across different Parties (Falduto & Ellis, 2019). For example, countries use different definitions and levels of granularity to indicate the targeted sector of a contribution.

The Paris Agreement's Enhanced Transparency Framework (ETF) strengthened the reporting framework for climate finance, particularly by expanding the scope of information that must be reported. Reporting rules under the ETF, which will be implemented starting in 2024, in fact:

- Expand the scope of reporting from Annex II countries to all developed countries and other Parties that provide support
- Require developed countries to report information on the private finance that they mobilise through their public interventions, and
- Introduce improved and more detailed CTFs for the reporting of both financial support provided and mobilised.

These elements, together with the increased detail of the ETF reporting guidelines compared to current reporting rules and can lead to significant improvements in the granularity, transparency, and consistency of data on financial support provided and mobilised.

Climate-Related Development Finance Reporting Under the OECD DAC's Creditor Reporting System (CRS)

Beyond information on climate finance provided and mobilised reported by developed countries to the UNFCCCC, data on climate-related bilateral and multilateral flows to developing countries is also available through the OECD DAC's Creditor Reporting System (CRS). The OECD DAC climate-related development finance database includes bilateral flows from Governments and their development agencies; multilateral outflows from Multilateral Development Banks (MDBs) and multilateral climate funds; and finance provided through philanthropic foundations that report through the statistical system

However, while amounts of climate finance provided reported by developed countries to the UNFCCC are climate-specific, i.e., they attribute a specific climate finance value to an underlying flow. The OECD DAC CRS database on climate-related development finance, instead, captures the actual face value of a flow that has climate change objectives either as principal or significant components. As a consequence, climate finance allows to account a specific value that is however based on the coefficient or share of underlying flows, based on different reporting practices by development partners, so that it is not easily matched with underlying flows and their face value. OECD CRS Rio marker data is based on an agreed common approach for reporting, that does not attempt to attribute a specific value to the climate component. While it does not provide information on the shares or components that are specific to climate finance, it corresponds to the value of the actual underlying transactions.

5.6 Domestic Governance Context

Country ownership is at the core of effective partnerships for climate action, as well as for overall sustainable development. Climate finance is most effectively deployed if is part of a wider ecosystem of external support, anchored in a domestic vision and action, and underpinned by the required policy and regulatory environments. Strong domestic governance is therefore not just critical to achieving country-level climate action but can also help to more effectively navigate the complex international systems through which climate finance is deployed.

Clear, decisive, and time-specific targets for climate action from beneficiary governments are key for the effective use of development finance. At the highest level, governments setting ambitious Paris-aligned nationally determined contributions (NDCs) and long-term strategies, including net zero commitments, and national adaptation plans, can provide a strong signal of intent to development partners and investors. Doing so creates a benchmark against which all investments can be measured.

Box 5.6.1 OECD Guidance for Climate Resilience

Recent guidance for climate resilience developed by the OECD for developing country governments as well as for development partners identifies five key dimensions for multi-level governance that can support effective climate resilience. It includes a checklist setting out five key action areas for:

- identifying and including key stakeholder groups, in particular the most vulnerable, for building inclusive governance arrangement;
- facilitating collaboration across different levels of governance, with a view to empowering local action;
- developing governance mechanisms for adaptive decision making; focusing on coherence across different development agendas;
- integrating climate risks and opportunities throughout a policy cycle (REF).

While developed specifically in the context of resilience and adaptation, these governance dimensions would also be highly relevant in the area of mitigation.

Source: OECD- Strengthening Climate Resilience CITATION OEC \l 1033 (OECD, n.d.)

Implementation of high-level targets or strategies requires buttressing long-term economy-wide targets with clear, credible, and actionable sector-level targets, including in the energy, transport, industrial, land-use, and agricultural sectors. These sector targets, in turn, will often need to be underpinned by regulation, fiscal measures, and other supporting policies.

In practice, when it comes to real sectors and concrete allocation functions of resources, there are no separate governance systems for climate finance. The allocation outcomes are instead a function of how climate dimensions have been integrated into existing processes and mechanisms that determine resource allocation.

Moreover, climate action often requires approaches that go beyond tightly defined sector decisions, reflecting the major economic transformation that is required to achieve climate objectives, the systems nature of the transformation, and strong interdependencies between climate and wider economic objectives. Decisions on electricity generation, for example, will need to be intimately tied to wider plans for industrial development, transport and industrial decarbonisation, and investment in wider social and economic infrastructure. Sector-level strategies therefore need to be developed in a coherent way, working through tensions, and exploiting synergies across different sectors. This requires strong central oversight and strategy from governments, given the large number of public and private sector stakeholders involved.

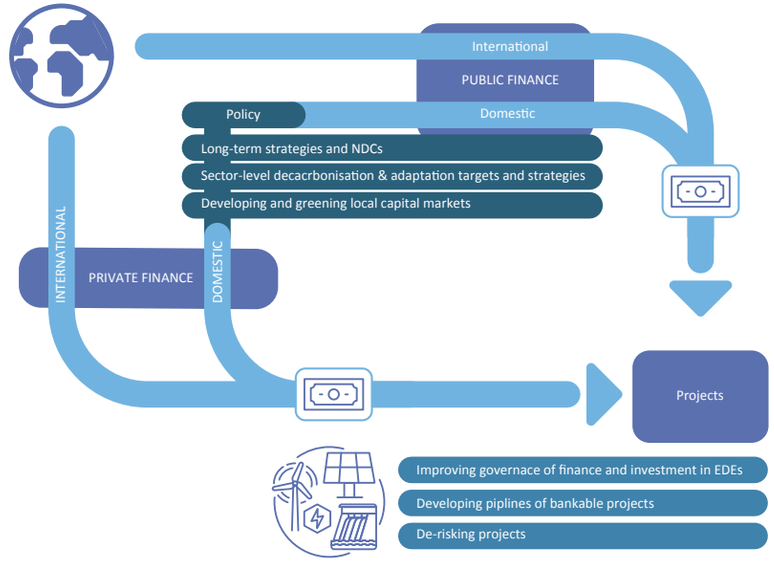
5.7 Domestic Governance and International Support for Mobilisation

The domestic macroeconomic, policy and regulatory settings are the central levers that govern the enabling environment for private investment and finance, as set out in this Guidebook. As such, they also define the parameters within which development partners can undertake efforts to mobilise and unlock private investment and financing for climate action, and the viability or relative price and competitiveness of real economy investments, and thus the scope and nature for developing a project pipeline.

Capacity constraints have been among the most significant barriers to implementing climate action in developing countries and achieving the climate objectives set under their NDCs. Despite significant investments in capacity development across partner countries to enhance readiness, many of them still lack the necessary capacity to understand climate risks, develop project proposals on climate mitigation and adaptation, access necessary funding, and implement and monitor the necessary measures, which provide key elements of a governance framework. Recent in-depth analysis for enhanced capacity for climate action confirmed the need to further prioritise and focus on supporting capacities on access to finance, the sustainability of capacity development, and programming capacity support at country level to align and dovetail with countries' priorities for long-term capacity development. Such support to capacity development is also a key part of a holistic approach to the direct mobilisation of private climate investment (Casado Asensio, Blaquier, & Sedemund, 2022). It plays a key role in providing a basis for the development of pipelines of bankable projects, and the de-risking of projects, where blended finance approaches can be pursued and the role of public development banks is particularly relevant (G20, 2021), and constitute themselves additional elements that can help advance an enabling ecosystem.

Comprehensive financing strategies are critical to achieve maximum impact for climate action. Decisions on where best to deploy scarce domestic and international public finance can be best optimised with reference to governments' various policy and infrastructure investment priorities. As well as giving development partners and commercial investors a clear sense of a government's priorities, robust coordination and governance, which includes development partners and the private sector, can help to more effectively draw on international (public and private) finance by providing governments with a holistic view on what is available, and what steps or policies are needed to mobilise it. This enabling ecosystem can be illustrated as shown in Figure 5.7.1 below.

Figure 5.7.1 The Climate Action Policy and Investment Ecosystem



Source: OECD

The OECD's recently published Blended Finance for Clean Energy (OECD, 2022c) sets out how development practitioners can better coordinate policy- and project-level decision-making to optimise the deployment of different sources of finance. Moreover, the OECD DAC Blended Finance Principles (OECD, 2018a) and related guidance can help in the mobilisation and alignment of finance. In 2022, the G20 adopted G20 Principles to Scale up Blended Finance in Developing Countries, including in Least Developed Countries and Small Island and Developing States, drawing on these and the DFI Blended Finance Operating principles.

As noted, for 2020, of the $83.3 billion of climate finance towards the $100 billion goal, less than 4% of this total was accounted for by the climate funds related directly to the UN Convention and the Kyoto Protocol, or less than 5% if excluding mobilised private finance accounting only for international public finance. Moreover, in light of limited direct delivery capacity, a substantial share of their resources is co-financed, or channeled through, existing institutions of the international architecture.

As a consequence, decisions for climate finance are still largely driven by public development finance, thereby showing the need to analyse governance aspects of the international concessional funding architecture. As mentioned, there is no single overarching governance that drives climate development finance, but rather each development bank, each development partner decides where finance is allocated.

With this in mind, effective co-ordination should include the following elements:

- Defined, robust, and specific sector decarbonisation and adaptation strategies, with time-bound targets.
- Capitalising on development partner expertise and technical assistance, resource capacities and policy support to support the development of sector strategies, the development of standardised documentation to facilitate replication, and project preparation to develop pipelines of bankable projects at scale.
- Working with bilateral development partners, local financial institutions, and commercial finance alliances (for example the Glasgow Financial Alliance for Net Zero) to develop sectoral financing strategies that identify which projects require public finance, identify potential sources of public and private international finance, and to develop local capital market solutions to support these ends.
- Drawing on private sector experiences and expertise to identify market failures, risks, and barriers to investment, at the country, sector, and project levels; and agree shared strategies to address them.
- Drawing on development partner support and international commercial financial institutions' expertise to support the deepening of local capital markets, through short-term project-specific partnerships with local financial institutions, and longer-term policy support, capacity building and partnerships towards capital markets development.
- Robust governance to facilitate strong senior and working relationships between the various parties at both the strategic and project levels; update and consult partners on wider policy reforms; steer delivery; work through tensions and blockages; and monitor and report progress.

Such co-ordination, including through country platforms, could form part of a wider governance approach and can help governments, development partners, and the private sector identify barriers to investment and solutions to overcoming them in a holistic way. This can help ensure that public finance strategies, including any decisions to deploy climate finance, are taken as part of a more comprehensive process of improving enabling environments, for example through wider reform efforts.

Critically, strong co-ordination among all interested stakeholders can ensure that the deployment of climate finance is targeted, optimised, and preserved for where it is most needed: to where it can have the highest impact. It can also facilitate the transfer of knowledge and expertise from the private to the public sector, supporting the development of local capital markets and the wider investment and infrastructure ecosystem.

A number of multilateral and private sector-led initiatives exist to this end. These provide a strong foundation on which to deepen and broaden the co-operation required to effectively deploy climate finance. Country platforms are emerging as a potential model for climate finance to bring all the different stakeholders together, identify financing needs, coordinate actions and to mobilise financing.

Country platforms build on the concept of country-level 'concessional funding information management systems' or 'concessional funding management platforms' that evolved in the context of the concessional funding effectiveness agenda, and integrating into this a dimension of resource mobilization. Examples for country platforms include: Development Gateway; Integrated National Financing Frameworks (INFFs); World Bank Country Platforms; and most recently, Just Energy Transition Partnerships. These country platforms intend to help national governments set financing needs and priorities, whilst tracking climate-related expenditures. In some cases, they may also provide avenues for technical assistance for country-owned transitions, such as South Africa's Just Energy Transition Partnership announced at COP26.

5.8 Stakeholder Recommendations on How to Strengthen Global Climate Finance Governance in terms of the New Reporting Framework

In addition to the recommendations above, to strengthen the global climate finance governance system, and considering the new UNFCCC reporting framework, the application of the four core principles of effectiveness endorsed in 2011 at the Busan High Level Forum on Aid Effectiveness (OECD, 2011), yields the following stakeholder recommendations.

Table 5.8.1 Recommendations for Stakeholders

Stakeholder	Recommendation
National and sub-national governments	Ownership National development frameworks such as fiscal spending plans including investment incentives, financial regulatory guidelines (green taxonomies and climate risk disclosure mandates), sectorial decarbonization pathways, as well as sub-national actor (regional and municipal governments) climate action investment and development plans must all be aligned with the overall goals of the national NDC to allow the integration of spending and investment promotion plans with the country's wider climate strategy. Focus on results Development plans, fiscal incentives, and regulatory guidelines should be guided by a clear theory of change that aims at overcoming barriers and/or enabling increased investment in results-oriented projects and initiatives aligned with NDCs. There should be a clear way of connecting advancements in domestic policy, with overarching metrics associated with mitigation and adaptation goals in the NDC. Inclusive partnerships When possible, and to align with the Just Transition principles, local community organisations, as well as private sector actors, and subnational governments, should be involved in formulating development policies that connect multi-sector interests and climate-specific results with a common development direction, particularly in sectors where severe disruptions may be required to meet NDCs (e.g., energy and land use). Transparency and mutual accountability When possible, national and subnational governments should invest in developing technical capacities to better track climate finance flows, both public and private, following standards previously discussed (Rio markers and UNFCCC BURs), as well as develop partnerships to constantly report progress made, as well as set targets and/or reference values to ensure mutual accountability with implementors (domestic and/or international).

Stakeholder	Recommendation
Private sector investors	Ownership Domestic and international private sector investors should seek to report and align investments, and when possible, impact results, with local green finance registries. Additionally, when projects contain explicit climate impacts, these should be clearly communicated in terms of how they align with the country NDC and, if relevant, subnational development goals. Focus on results Investment impact measurement and evaluation frameworks should be aligned with local development M&E frameworks when possible. Inclusive partnerships Align with international and/or domestic initiatives to align climate investment priorities for focus countries, as well as with frameworks for reporting and tracking. Transparency and mutual accountability Adopt best-in-class methodologies for finance classification, reporting, and transparency, and when possible, make information on volume and type of flows and investment instruments public to contribute towards transparency in primary and secondary green finance markets.
MDBs and bilateral development partners	Ownership Organisational mandates and strategies should seek to align and adapt to local NDC needs and priorities, thus making clear connections with a country's climate goals. Focus on results Investment and development impact measurement and evaluation frameworks should be aligned with local development M&E frameworks when possible. Inclusive partnerships Align with international and/or domestic initiatives to align climate investment priorities for focus countries, as well as with frameworks for reporting and tracking. MDBs and bilateral development partners can also serve as mediators to support in-country capacity building and sectoral alignment, including by providing grant financing to improve processes such as BUR and OECD DAC reporting. When possible, MDBs and bilateral development partners should not duplicate existing verification and/or administrative mechanisms on M&E, for example. Transparency and mutual accountability Adopt best-in-class methodologies for finance classification, reporting, and transparency, and when possible, make information on volume and type of flows and investment instruments public to contribute towards transparency in primary and secondary green finance markets.
Philanthropies	Ownership Organisational mandates and strategies should seek to align and adapt to local NDC needs and priorities, thus making clear connections with a country's climate goals. Focus on results Investment and development impact measurement and evaluation frameworks should be aligned with local development frameworks, when possible. Inclusive partnerships Align with international and/or domestic initiatives to align climate investment priorities for focus countries, as well as with frameworks for reporting and tracking. Transparency and mutual accountability Adopt best-in-class methodologies for finance classification, reporting, and transparency, and when possible, make information on volume and type of flows and investment instruments public to contribute towards transparency in primary and secondary green finance markets.

Chapter 06

Mainstreaming Just Climate Finance in Developing Countries: A Focus on Africa

The Ministry of International Cooperation (MoIC) worked with the lead institution: African Development Bank (AfDB)
Main contributors: World Bank, Climate Finance Advisors (CFA), Convergence, United States Agency for International Development (USAID), Climate Investment Funds (CIF), European Investment Bank (EIB), European Bank for Reconstruction and Development (EBRD), Citi, Islamic Development Bank (IsDB), International Finance Corporation (IFC), Bill & Melinda Gates Foundation, International Fund for Agricultural Development (IFAD), Food and Agriculture Organisation (FAO), and Japan International Cooperation Agency (JICA).

6.1 Introduction

This chapter focuses on how the solutions, frameworks and structures presented across the Guidebook can be implemented in the African context. There is a massive need for financing for adaptation and resilience, and an equally important need to invest in low carbon development pathways so these countries' economic prosperity is not disproportionately disadvantaged.

The following sections highlight the continent's needs and challenges and pinpoint prospects and opportunities for successfully mainstreaming just financing across Africa. A practical set of key recommendations is put forward to the key stakeholders that compose the climate finance landscape, namely governments, multilateral and bilateral development partners, private investors, and philanthropic institutions, in order to catalyze additional capital and advance the climate action agenda on the continent.

The chapter concludes with a number of successful case studies spanning across different geographic regions and income levels and actively addressing climate-related challenges. The cases propose solutions that address adaptation, mitigation, or both through the deployment of blended and non-blended instruments/approaches that could potentially be replicated across developing and emerging countries.

6.2 Climate Financing Challenges and Needs in Africa

African countries are the least climate-resilient globally, with low climate readiness scores. Despite contributing to less than 8% of the global GHG, in 2019, half of the countries most impacted by climate change are located in Africa. The continent's high vulnerability and low adaptive and technological capacity make it susceptible to significant physical damage (African Economic Outlook, 2022).

In 2020, extreme weather events cost the African continent between $7–$15 billion and are projected to incur further losses up to $50 billion a year by 2040. Nevertheless, these events have resulted in the internal displacement of 30 million people worldwide, 14% of whom were located in Africa.

Africa faces disproportionate climate challenges over the next decade—there is a massive need for financing for climate mitigation, adaptation and resilience yet limited resources and inadequate investment flows. Through 2030, an estimated $2.8 trillion, or approximately $277 billion annually, is needed to implement Africa's Nationally Determined Contributions (NDCs) (Tonkonogy, et al., 2022). Yet, these needs are underestimated due to lack of timely and verifiable data and technical expertise to conduct accurate assessments. Costing of needs in NDCs is a persistent challenge in developing countries, particularly in Africa where over 40% of identified needs were not

costed (United Nations Framework Convention on Climate Change (UNFCCC), 2021) and cost estimates for adaptation accounted for only 24% of total costs (Guzman, Dobrovich, Balm, & Meattle, 2022).

Domestic financial resources will not meet the needs — African governments have committed only $26.4 billion of domestic public resources, leaving an approximate $250.6 billion gap, which must largely come from domestic and international public sources (Guzman et al., 2022). These domestic commitments are further constrained by weakening debt capacity, higher debt servicing costs, public balance sheets that have been negatively impacted by the COVID pandemic and domestic structural constraints such as low savings rates, sizable informal sectors, weak institutional capacity and rising global inflation.

Average annual climate finance deployment in Africa in 2019/2020 was $29.5 billion or 11% of the financing needed to implement NDCs and meet 2030 climate goals, with the vast majority of investment coming from public and development sources of capital (Guzman et al, 2022). MDBs and DFIs have provided the bulk of external financial resources to advance Africa's development agenda. These resources have been increasingly complemented by numerous philanthropic entities, such as the Gates Foundation, and NGOs, such as The Nature Conservancy. However, the funds deployed by these institutions in Africa is dwarfed by the trillions required. Private capital, including from domestic sources, represents about half of total climate finance globally, but in Africa the private sector comprises only about 14% of climate finance flows (Guzman et al, 2022).

Climate finance doesn't reach the countries that need them most — over 50% of climate finance flowing to Africa is concentrated in just 10 countries. The continent is home to more than half of the world's fragile and conflict-affected states, which are associated with high real and perceived risks (World Bank, 2022). Nevertheless, according to S&P, there is only one investment grade country in Africa, while 16 African countries out of 24 assessed are rated B and below (S&P Global, 2022).

African countries experience several challenges in accessing climate finance from dedicated funds. Although international climate finance mechanisms, such as the Green Climate Fund, have implemented simplified approval processes that have more straightforward access requirements (Green Climate Fund, 2022), a considerable gap remains in low-income countries (LIC), and Small Island Development States in Africa, which have received comparatively less climate finance from international public and private sources (Climate Finance Advisors, 2019).

Public and private Investors in Africa face many of the same macroeconomic, sectoral and firm-level challenges and barriers to investment that are observed in other developing and frontier markets. This is discussed in detail in Chapter 3.

As climate investments are relatively new asset classes, financial institutions have a shorter track record in assessing the project risks of these investments as compared to other types of assets. This also affects their ability to conduct early phase project development which consolidate into larger-scale investable projects that are sustainable and provide multiple benefits for climate and sustainable development in Africa.

Recent disruptions to global supply chains and trade in the energy and agricultural sectors is additionally impacting Africa in an unprecedented manner. Food and energy prices are exceptionally high and increasing rapidly, worsening inflationary pressures and constraints to national economic activities. African countries need bilateral and multilateral development support across the range of financial stakeholders to promote sustainable development while addressing the stress effects of COVID-19, climate change and compound impacts from other economic drivers, including the war in Europe, price inflation, and rising interest rates.

Detail in NDCs of African countries will determine starting points for each country. Although 51 out of 54 African countries have developed and submitted revised NDCs, evidence from recent assessments show variations in the level of detail in these NDCs. While some countries are likely to have strongly outlined NDCs, others have only presented high-level narratives of future planned action for their determined contributions, requiring further support in terms of planning, financing, implementing and ultimately enhancing the climate commitments and converting them into investable projects.

Governments from African nations are linking their NDC commitments to their respective country's sectoral and social development strategies and are actively building "investable" pipelines that reflect their NDC goals, which seek to leave no one behind. However, 85% of climate activities included in the NDCs are 'conditional' contributions, which are dependent upon the availability of international funds. African countries hence need significant public and private financing to support sectoral transitions across all sectors, and financing to build-in resilience to the impacts of climate change.

To support investments and attract climate finance at scale, African countries require immediate funding for project preparation, and capacity building that help create supportive enabling environments and de-risk private capital.

Innovative financing structures are required to mobilize both domestic and international private finance for climate projects. According to the African Economic Outlook (2022), African countries have extensively used plain debt instruments, often on non-concessional terms, to finance adaptation and mitigation efforts. This is particularly challenging now as 22 countries are at risk of experiencing debt distress. The disproportionate use of debt instruments is likely to further increase Africa's debt burden and present debt sustainability challenges. Therefore, the countries must explore more innovative financing structures that are conducive to leveraging domestic and international private finance. However, as only one country in Africa is investment grade, the DFIs should play a more prominent role in providing a safety cushion for private investment by shouldering first loss risks through various risk transfer and risk mitigating financial instruments, particularly for climate adaptation projects.

6.3 Africa's Potential

Investment opportunities across Africa are abundant – particularly for low-carbon, climate resilient investment that helps countries meet their NDCs. Africa continues to have significant growth potential, with abundant natural resources and a growing population. In this context, integrating Just Financing Principles into investment opportunities has the potential to accelerate climate-aligned economic development and growth that leaves no one behind.

Africa has a strong natural resource potential. It is home to 30% of global mineral reserves, a quarter of the natural global biodiversity, and a rich endowment in renewable energy, such as solar, wind and green hydrogen, which represent new market opportunities for Africa's low carbon transition.

The continent has seen substantial economic growth, with domestic and foreign trade growing 300% over the past decade, outpacing the global average of 196% (Signe, 2021). Outstanding opportunities exist for the internal trade of material goods across Africa as part of broader trade patterns.

Promoting intra-African trade under the African Continental Free Trade Area (AfCFTA) has potential to enhance African capacities for localization and development of regional value chains, thus contributing to accelerating growth and attracting FDI across the Continent. This can increase the share of intra-African trade of total trade from 18 to 50% by 2030 (World Economic Forum, 2022).

New green trade initiatives have already been underway across the continent, which explore leveraging the AfCFTA to address climate action and green innovation. The reorientation of trade from external partners to African neighbors can potentially help Africa reduce emissions while supporting its industrialization goals. There is also an opportunity for Africa to contribute towards the reduction of global CO2 emissions by promoting localization and development of regional value chains on the continent.

Structural trends such as population growth, a demographic dividend and rapid urbanisation may provide a tailwind to economic growth. Africa's population is growing rapidly and expected to double by 2050, to comprise more than a quarter of the global population (Signe, 2021; United Nations, 2022). Furthermore, this population is young, the median age on the continent is only 19 (United Nations, 2022), compared to 30 globally and 40% of the population is under the age of 15 (United Nations, 2022). This may offer a "demographic dividend," or an age structure that generally benefits economic growth due to a higher future proportion of working-age adults. To harness this opportunity, investments in education and capacity building of youth and ensuring the upskilling and reskilling of the labor force paves the way for a just and inclusive green transition and promotes the quantity and quality of green jobs.

Moreover, urbanization is on the rise; as by 2030, Africa will be home to nearly 20 cities with at least five million inhabitants each (Leke & Signe, 2019); two thirds of the estimated population growth is expected to be in cities (OECD and Sahel and West Africa Club, 2020). These trends offer opportunities but also pose risks to human development and growth if low carbon and climate resilient development pathways, and especially critical infrastructure, are not financed adequately.

Digital connectivity is also accelerating across the continent and new technologies may allow Africa and other regions to 'leapfrog' stages of technological development in ways that are both climate-smart and equitable. For example, Africa is home to the second-largest mobile phone market globally. Digital connectivity is also accelerating across the continent. By 2025, Sub-Saharan Africa is expected to have 614 million cell phone subscribers and 475 million mobile internet users (GSMA, 2020)[1]. By the same year, internet activity and commerce is expected to contribute to at least 5% of the continent's total GDP (IFC and Google, 2020). The continent can leverage the increasing global appetite for investments in green technology sectors and support innovation and entrepreneurship to develop smart solutions that address Africa's emerging challenges.

The Africa start-up and venture capital scene is vibrant and while African venture funding comprises only a tiny proportion of global venture rounds, it is growing swiftly. In 2021, the capital raised through equity rounds into African tech startups totalled roughly $5.2 billion, more than tripling of the capital raised in 2020 ($1.4 billion) (Partech Partners, 2021). Despite the important role of in technology in offering solutions to the challenges of access to banking, transport and energy, and its potential to allow Africa to "leapfrog" many high emitting business models, climate-tech is currently underdeveloped, with only about 0.2% of venture capital funding for climate-tech going to startups in Africa (Alafaa, n.d.). This underscores a significant untapped potential for venture capital, private equity and other sources of capital to become an important and valuable contributor of climate finance in Africa.

While socio-economic resilience is a long-sought ambition in Africa, new technology options, with solar, wind, batteries and grid improvements can reduce reliance on unabated fossil fuels to drive industrialization (Way, Ives, Mealy, & Farmer, 2022) (Lovins, Urge-Vorsatz, Mundaca,Kammen, & Glassman, 2019). Falling costs for clean technologies can support the transition, global climate action agendas and national development agendas to effectively achieve low-carbon industrialization in Africa. There are clear trade-offs in choosing energy systems transition pathways to support economic development objectives while remaining within the global carbon budget. African countries have the opportunity to realize their renewable energy potential, leapfrogging models of high carbon industrialization, and drive sustainable economic development as their economies grow and prosper.

Carbon markets have the potential to deliver attractive investment returns and catalyze private finance in Africa, while driving sustainable, climate-resilient development. Although the Continent is home to some of the largest carbon sinks in the world, only about 14% of the total carbon credits issued worldwide stemmed from Africa between 2002 and 2020 (Kenewendo, Ogunbiyi, & Nganga, 2022).

African countries can leverage existing opportunities linked to the diverse climate finance landscape and investment potential to create a stronger enabling environment for climate investments. Opportunities lie in the continent's strong

[1] In Sub-Saharan Africa mobile internet users are expected to increase from 272 million (26 percent of the population) in 2019 to 475 million (39%) in 2025, and 65% of people will own smartphones by 2025.

climate policy environment, and long history of climate change planning and development of institutional environments for the implementation of these strategies and plans. This means that the institutional structures that can act as a basis for the development of enabling environments for climate investments already exist in some countries. For example, some African countries already have strong coordinating mechanisms for climate financing, as well as strong national financial institutions, such as development banks that can be used to kickstart processes for the development of policy and regulatory frameworks for climate investments.

The still-emerging climate finance coordination landscape across African countries is an opportunity to develop structures that can respond to both short and long-term needs for financing transitions. As the climate finance landscape in Africa is diverse, developing strong national and regional institutions will need to focus on coordination to ensure finance flows effectively to address African priorities.

African countries, even though politically and socially diverse, experience largely similar climate change risks and share similar climate investment needs. The potential for regional coordination and collaboration in Africa presents an opportunity for countries on the continent to further catalyze climate investments. For example, the revised NDCs of most African countries consistently identify financing needs for the energy, agricultural, forestry, coastal zone management, transport, and water sectors (Guzman, Dobrovich, Balm, & Meattle, 2022).

"CrossBoundary is committed to driving blended finance solutions in underserved markets globally – reflecting our core belief in the importance of Just Financing in accelerating progress toward both climate and development goals. Tackling the climate crisis is a collective undertaking that requires an unprecedented degree of collaboration. Strategic use of limited public resources to unlock private capital is critical for scaling investment into underserved markets which may be particularly vulnerable to the effects of climate change.

As investment managers and advisors, we see great opportunity in Africa. More than half of our staff are based in Africa, and we are actively developing and financing projects across the continent, pairing lasting climate mitigation, adaptation, and development impacts with strong financial returns. There is enormous need to both continue driving capital absorption into existing infrastructure solutions for climate mitigation and adaptation, and to bring new business models to bear – particularly for nature-based solutions. We look forward to collaborating with other stakeholders to implement the recommendations of the Sharm El Sheikh Guidebook for Just Financing."
- Mr. Matthew Tilleard and Mr. Jake Cusack, Co-Founders, CrossBoundary

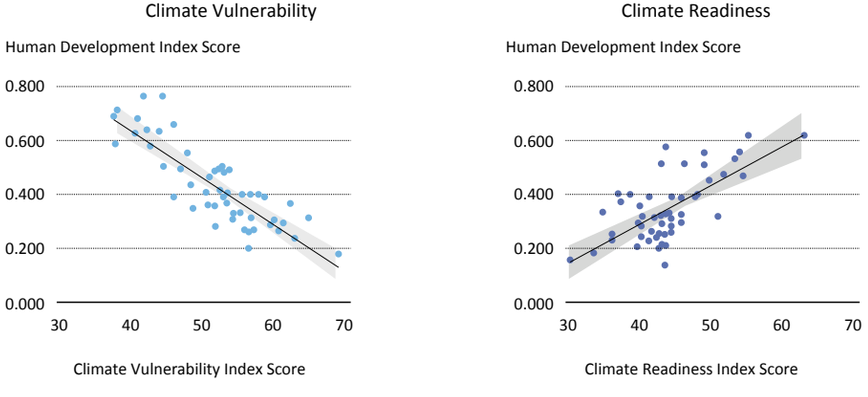
A. Differing Pathways to Financing Low Carbon, Climate Resilient Development

Development and transition pathways across African countries vary based on a country's context, including the level of human development and climate resilience, which determines the country's readiness to mobilize finance for the low-carbon transition plans emerging from the NDCs.

There is a strong association between Human Development Index (HDI), on the one hand, and climate vulnerability, readiness, and climate resilience, on the other — climate vulnerability scores and the HDI generally demonstrating an inverse relationship (see Figure 6.3.1). Countries with high climate resilience in Africa, such as Mauritius, Algeria, Egypt and South Africa are also those with high human development indices and therefore are more likely to have high economic diversity and capacity to innovate, with strong institutional, financial and technical capacities that more effectively identify and reduce vulnerabilities (African Development Bank, 2022). Those with low climate resilience, such as Mozambique, Equatorial Guinea and Chad are more affected by climate risks and have lower HDI, and therefore need more resources to develop the required capacities to implement the procedures identified in earlier chapters.

This distinction is discussed below by dividing the African countries into three groups.

Figure 6.3.1 Human Development Index Scores, Climate Vulnerability Scores, and Climate Readiness Scores for African Countries, Average 2010–19



Source: African Economic Outlook (AfDB, 2022)
Note: Data are weighted by GDP per capita at PPP

The different challenges facing the varying economic contexts in African countries (Middle Income Countries, Lower Middle-Income Countries, and Low-Income Countries) are outlined below:

- Middle-Income Countries (MICs)
  MICs have a higher Human Development Index (HDI) (e.g., South Africa) with lower levels of vulnerability - due to stronger institutional and technical capacities to respond to climate change risks, and high readiness for climate finance, often with access to both domestic and international sources of finance, including international capital markets (African Development Bank, 2022). They are therefore likely to have greater capacity to develop detailed NDCs that indicate outlines of overall plans for adaptation and mitigation, with comprehensively costed activities and programme packages.

  These countries' institutional capacities are also stronger, in comparison to other countries on the continent, meaning that they can generate and implement NDC implementation plans across sectors and line ministries. These countries also have greater access to both public and private financial resources through domestic and international sources of finance due to their high levels of climate finance readiness.

  These countries will therefore have clear national climate change strategies, plans and institutions which can be leveraged as starting points for advancing the implementation of NDCs. Both existing and new domestic and international stakeholders can also be mobilised to contribute to enhanced actions towards financing the transition to a low-carbon pathway. Countries such as Zambia, which have stronger coordination mechanisms for climate finance, can also use these pre-existing enabling environments to lead the translation of actionable commitments that match investment needs.

  As institutional capacities already exist alongside the presence of more diversified economies and higher access to basic development services within populations, investments for low-carbon transitions that also increase the climate resilience of communities should focus on further increasing or maintaining current levels of resilience while anticipating future climate change risks.

- Lower Middle-Income Countries (LMICs)

  LMICs are countries with relatively low HDI (e.g., Kenya and Nigeria) but have relatively strong degrees of institutional capacities. However, they remain highly vulnerable to climate change risks. LMICs are also likely to have less advanced readiness for climate finance and will therefore need to strengthen legal and regulatory mechanisms, as well as institutional and technical capacities to increase readiness for mobilizing finance for implementing NDCs. They have less access to international capital, and are considered less 'investable' than MICs, and have shallower domestic capital markets.

  Translation of commitments into actions will require that these countries start by further strengthening existing institutions while identifying existing technical and financial capacity gaps. These financing needs can be addressed through various innovative financial actions that may increase international and domestic revenue flows (identified in Chapter 4 and 5). In such countries, while the landscape of key stakeholders is likely to be well known, these stakeholders are usually less directly engaged in climate change policy development and implementation, meaning that these countries will need to engage in stakeholder mobilization before they can be engaged in the planning process.

Prioritizing green sectors for investments in LMICs should therefore aim to scale up resilient infrastructure projects alongside strengthening existing governance institutions and frameworks to plan and manage future climate change risks. Furthermore, significant de-risking is required to catalyze private investment in these countries.

- Low Income Countries (LICs) including Small Island Development States (SIDS)

  These African countries have low HDI, and therefore are associated with high vulnerability to climate impacts combined with very limited readiness for catalyzing and accessing domestic and international climate finance, and are often fragile or conflict affected. LICs in Africa such as Sudan, Somalia, and Chad, have less detailed NDC goals and targets. This means that initial investments will need to be dedicated towards generating a detailed outline of NDC goals. These countries require the greatest amount of support in terms of finance and capacity building to realize their climate goals, yet, have the least access to finance.

  Projects in these countries face difficulty to attract private investors due to high real and perceived country risk. MDBs and bilateral funders have a central role in supporting public balance sheets, developing low carbon and climate resilient infrastructure and building capacity in partnership with national governments. Evaluations have found that Low-Income Countries (LIC), require rapid improvements in policy and regulatory environments, through, for instance, stronger national level coordination mechanisms.

  Key stakeholders, even though already present within these countries, will require more time to mobilize as they are likely to exist in silos and operate in a fragmented landscape. The countries are also likely to have weak institutions, whose strengthening is necessary for translating commitments into actions. The absence of coordination structures means governments must establish stronger coordination mechanisms before wider stakeholders can be mobilized and engaged.

  Priority areas for enabling transitions and increasing climate resilience are those that reduce exposure to climate change risks while also developing economic, institutional, and infrastructural capabilities for transitions.

6.4 Recommendations for African Countries

Advancing the climate action agenda will require collective action, enhanced coordination and knowledge sharing. To operationalize the proposed solutions of the Guidebook, recommendations have been categorized according to the different groups of stakeholders involved in the climate finance landscape, including governments, Multilateral and bilateral development partners and funding institutions, private investors, and philanthropic institutions.

> *The recommendations below are applicable not only to African countries, but also to Small Island Developing States (SIDS) and to Low- and Middle-Income Countries (LICs and MICs) in other parts of the world.*

Across stakeholders, there is an overarching theme emphasizing the need to move up the risk curve, deploy more capital into low-income countries, African states, and SIDS, and into higher-risk climate projects in MICs.

SIDS face a unique set of challenges when it comes to climate change, namely existential risk due to sea level rise and the corresponding need to invest heavily in climate adaptation in the short-term, in addition to the more general challenges of investment into a small market. African states likewise must prioritize climate adaptation particularly in the agriculture sector, as well as ensure that extensive new infrastructure investments to accompany an expanding population are aligned with mitigation goals and the physical realities of a warming climate.

A. Governments

"The number one priority of the (18) African presidents, my institute supports, is investment. Much of this is climate related: from the renewable energy systems that will power the continents growth and industrialisation to the investments in irrigation and cold storage communities need to make to halt growing food insecurity. At around a quarter of a trillion dollars per year, these investment needs are vast and largely unmet. My institute engages with African Governments and Global investors and it is a tragic paradox that despite there being no lack of institutional finance looking for long term investments, very little is being channelled into Africa where the needs are highest.

Egypt's "Guidebook for Just Financing" is an important and practical tool to addressing this issue. It takes a system wide view of a complex topic and shines a light on the issues that need to be addressed to get finance flowing to where it is most needed. Beyond this, it provides clarity on what is expected from each of the actors involved in developing and financing projects on the continent: from the work governments need to undertake in preparing bankable projects and creating a secure, transparent environment for investment to the role development finance institutions and philanthropists can play in catalysing and de-risking. Egypt's NWFE initiative (Nexus of Water Food and Energy) puts these principles into practice and is a powerful example of the work Governments need to do: linking a vision to strategy, policy and then the global outreach to finance a home grown climate transition plan. I would urge governments and financiers to read the Guidebook and reflect on where they can do more to address an issue that is as crucial for Africa's development as it is for the planet."

- Sir Tony Blair, Founder and Executive Chairman, Tony Blair Institute for Global change

Generate more comprehensive costings of climate change needs, for the short-, medium- and long-term which requires sufficient technical capacity at the national level. Governments need to generate accurate and comprehensive costings of their climate finance needs for priority sectors as well as programmes. This will generate information that can be used for the development of investment plans, as well as guiding investors.

Remain abreast with developments in the climate finance landscape, as well as identify resource, institutional and technological capacity needs for creating an enabling environment for investments. Governments should develop and constantly update maps of the climate finance landscape, identifying sources of finance, destinations as well as mechanisms used to transfer this finance. These can be useful for informing discussions and plans for scaling up finance to meet country climate change adaptation and mitigation goals. African countries should constantly identify their capacity gaps to understand what is needed for developing an enabling environment to translate commitments into actions.

Develop and implement plans for leveraging innovative climate finance mechanisms and sources that leverage countries' climate finance landscape while seeking to attract new investors. The alignment of investment strategies with national development plans can also only be achieved through government coordination mechanisms in the design and implementation of investment strategies. It is through these that countries can identify innovative financing strategies and mechanisms that are appropriate for desired outcomes and that fit the funding landscapes.

Crowd in private investors. Especially in higher-income countries, the public sector should focus on crowding in private investors. It can do this by focusing its own investments in climate projects with strong economic returns but which do not generate sufficient financial returns. The public sector should establish public-private partnerships where there are meaningful revenue streams, and it should deploy its limited resources strategically to make projects more commercially attractive.

Generate pipelines of projects for blended finance, that are fit to local contexts, aligned with development needs and with different risk/return profiles that meet different investor needs: This means that pipelines of specific projects should be informed by the national priorities, including development, mitigation, resilience and adaptation needs and the national innovation strategies around technology-based solutions. The energy, agriculture, water, and health sectors, essential for sustainable development, should be prioritized alongside infrastructure investments. Project pipelines should seek to balance large, medium, and small-scale projects against technical and financial capabilities and request, when needed, support from the international community to strengthen these capacities. The different risk-return profiles of these projects should also be prioritized to create credible opportunities for engagement with foreign investors whose needs match these profiles.

Identify investment needs for the high-risk sectors and regions and develop and implement plans for engagement with MDBs and bilateral development partners to attract financing to these sectors. Blended financing needs for different sectors and projects vary. Those projects and sectors with the greatest risk should therefore be prioritised, particularly for grant-based catalytic funding and concessional blended financing. This is useful in the short term, as it helps markets mature and builds investor confidence in these investments. Other projects and sectors that are considered to have less risk should instead be funded using commercial based blended finance mechanisms. This can work to crowd in private sector investors both in the short and long term.

Reduce project risk for high priority projects: Countries can implement a series of interventions that reduce project risk for investments, such as through ensuring transparency in decision making in the procurement of land for project site, ensuring that investments are aligned with the needs of the communities within which they are implemented.

Improve the enabling environment for climate investment. Arguably the most impactful actions that the government can take are those which improve the enabling environment for investment. This includes improving ease of doing business, rule of law, and contract enforcement; working with the private sector and investors to design and implement sector-specific policies and/or clarify gray areas in existing policies; pricing positive and negative externalities such as carbon sequestration (positive) or emissions (negative); removing subsidies for harmful industries; reducing import tariffs for machinery and equipment; supporting critical financial infrastructure such as national collateral registries for commercial lending; and engaging with credit rating agencies to ensure they are not under-rated due to lack of information.

Reform procurement policies to prioritize climate outcomes. The public sector is often the largest customer in an economy, purchasing infrastructure such as roads, buildings, food, and transportation. Reforming procurement policies to require low-emissions construction and consideration of future climate risks can be an enormous lever for both mitigation and adaptation. Outside of public procurements, these goals can also be achieved through regulations such as building codes and proper enforcement.

Enhance sound macroeconomic management. Local savings serve as an important source of long-term investment. However, macroeconomic management needs to be enhanced to avoid concentration of savings in high-yielding government bonds that crowds out investment in economically productive activities. Prudent economic policies can lower the yields on government bonds and encourage institutions to diversify into riskier asset classes, as was the case in Brazil.

Develop strong national level coordination mechanisms that enable stronger transparency and accountability in how finance is allocated and used in mitigation and adaptation projects, as well as channeling of finance to priority sectors: Low-income countries including the Small Island States first need to develop coordination

mechanisms for climate financing, which will enable them to access and manage climate finance from different sources, through national communications, such as revised NDCs, prioritize sectors that have win-win outcomes for both development and climate change adaptation and mitigation. Beneficiary countries advance greater accountability and transparency by building strong national development and climate plans with clear accountability and transparency mechanisms, to ensure that all flows of climate finance to Africa can contribute towards development objectives alongside climate goals.

Develop national level results, monitoring and evaluation systems and tools that incorporate principles of just financing of transitions. Governments should set clear, decisive, time-specific targets for climate action, including long-term strategies, NDCs, and national adaptation plans, underpinned by sector-level pathways. This is so that countries can continually assess their progress towards transition goals and implement measures that enable system-wide transitions that are aligned with climate and development targets.

Leverage the potential of regional collaboration to create networks for mobilization of climate finance. On one hand, in addition to the investor catalytic financing networks identified in this guide, African countries can also use commonalities in financing needs as well as complementarities in capacities and needs to establish network mechanisms for recipient countries coordination on blended finance strategies. These can then be used to lower the perception of risk and attract capital at scale from networked financiers both at domestic and international levels. On the other hand, institutional investors, which are critical for generating climate investments at scale, are more likely to make large climate investments (IRENA, 2020). The operationalization of regional agreements and governance mechanisms can serve as the basis for countries to understand shared interests, needs and potential opportunities, and to generate financing strategies and investment opportunities that engage with large investors, while at the same time evening out project and country risks.

Develop stronger governance of national development banks. Managing country risk requires that national governments underwrite the projects for which investments are needed. National development banks can be instrumental in achieving this. National governments should create stronger governance mechanisms for the establishment and management of development banks, which can be used to mobilise finance and underwrite projects that require private sector investments.

Recognise the different and complementary role of all actors. Processes for the development and operationalisation of different governance mechanisms for climate finance at the national and sub-national level should ensure inclusiveness of all relevant stakeholders, in particular those most vulnerable, and leverage localised and community-driven approaches for implementation and sustainability.

Generate data on risks, investment allocation and track outcomes of investments for mitigation, adaptation, and co-benefit projects. clear and consistent information on climate risks, investment risks and landscape of investments in blended finance can help highlight existing gaps for both national governments as well investors while also highlighting opportunities for investments across mitigation and adaptation. This is important not just for LICs and SIDS, but also for MICs both in the short and long term for all African countries, particularly amidst the changing funding landscape and increasing climate change risks.

Build technical capacity to assess the scale of carbon sinks to tap into the value of natural assets and provide accurate estimates of the amount of carbon stored in the country's ecosystem. It's important to foster carbon-market collaborations and establish robust government-to-government and cross-regional climate financing facilities to address carbon price volatility, and develop the country's technical capacity (Eziakonwa & Gomera, 2022).

Engage with private sector actors to help unlock mutually beneficial carbon projects.

Provide clarity on intended climate action and sustainable development pathways, Article 6[2] implementation of the Paris Agreement, and carbon rights to reduce uncertainty that can hinder private investment.

B. Multilateral And Bilateral Development Partners and Funding Institutions

Increase support by providing technical assistance & capacity building to enhance individual capacities that enable identification of funding needs requires the national and local levels. The flexibility in multilateral and bilateral funding institutions means that there is scope for these stakeholders to fund these activities.

Deepen impact by shifting out the risk curve. Development finance institutions and other catalytic capital providers can do more to mobilize private investment. DFIs could generate a sizable impact by shifting out the risk curve. These activities could include seeding early-stage and/or greenfield projects to create an investable pipeline, providing guarantees or first-loss capital, and investing lower in the capital stack (i.e., through mezzanine and equity positions). In principle, this could help crowd private capital into the senior positions. Alternatively, the DFIs could play a more active role in syndicating senior debt to private investors. Likewise, exiting to private investors after the investments have been de-risked would allow DFIs to redeploy capital into new climate investments. Focusing on sectors which are less proven is another important role for DFIs, especially in climate adaptation.

Consider country capacity and market readiness when designing instruments and allocating capital. In Middle Income Countries, where the enabling environment and markets are relatively mature, development partners should choose a mode of

[2] *Article 6 of the Paris Agreement allows countries to voluntarily cooperate with each other to achieve emission reduction targets set out in their NDCs*

engagement and instrument mix that is appropriate to catalyze more private capital into climate projects. In Low Income Countries that need support in maturing their market conditions before they can attract private capital at scale, development partners should concentrate on providing that support via mostly grant-based and highly concessional instruments, to enable the local institutions to develop and implement measures that result in investment environment reforms that support blended finance investments.

Enhance partnerships with national actors for capital deployment. Many of the best climate solutions (e.g. small-scale PV, minigrids, small-scale hydro, small-scale climate-smart agriculture) require low volumes of capital distributed to many companies and projects. DFIs are not always set up to do such small deals, and so partnering with local lenders who can move capital to smaller-scale efforts is critical. For example, CIF's intermediated financing approaches, in partnership with European Bank for Reconstruction and Development (EBRD) and IFC, helped enable private participation in the energy efficiency sector in Turkey by working through national financial intermediaries thereby allowing the existing networks and client base to be leveraged.

Strengthen climate mitigation and adaptation criteria and key performance indicators for financing climate aligned projects. DFIs often play a leading role in establishing impact criteria, particularly in regions, such as Africa, where they are important Limited Partners for regional private equity funds. For example, the IFC's Performance Standards on Environmental and Social Sustainability are widely used to ensure that projects avoid negative impacts on local communities among other potential risks. Continuing to raise the bar and clearly communicating climate impact criteria sends an important market signal to project developers, companies, and new funds.

Simplify climate finance access mechanisms, particularly for low-income countries to access finance for enabling transitions. Processes for accessing finance should be simplified and applied across the international climate finance landscape to increase access to climate finance by low-income countries in Africa. This can be supported by capacity building and additional financial support to increase financial readiness and overall investability of projects.

Prioritise allocation of blended grant-based catalytic funding to LMIC, LIC and SIDS countries in Africa, particularly for scoping, funding project preparation, technical assessments, financial readiness, and early project development. Grant-based catalytic funding can enable countries to invest in sectors that would not otherwise attract funding at market rates. This can be issued in the short term to support maturity of markets and develop the required technical expertise in blending instruments by actors at the national level in African countries. Because this type of capital for blended finance should be used to overcome barriers to market formation, it should be withdrawn once functioning markets have been established. Therefore, appropriately allocating blended grant-based catalytic funding requires co-creating and planning with stakeholders across the project cycle, ensuring scoping phases lead to realistic funding and project preparations and that technical assessments increase financial readiness in-country.

Use grant financing to invest in the riskiest parts of the capital structure through use of subordinate instruments such as subordinated debt and junior equity, in addition to de-risking tools such as guarantees and insurance. The role of these as first loss instruments can be leveraged to reduce investor risks and therefore create acceptable risk-return profiles for investors, and encourage investments in sustainable development in emerging markets, e.g., those in low income countries while also lowering the cost of capital for climate change and development projects that is more affordable for those in these economies. Guarantee or insurance mechanisms, which are less used in blended financing, offer the greatest potential for strengthening these African markets.

Implement sustainable debt mechanisms for African countries. Many African countries, most of which are low-income countries, have high sovereign debt vulnerabilities and high debt levels, which limits their capacities to make climate investments and reduce country risks. Efforts by multilateral and bilateral finance institutions and capital providers to improve debt sustainability for these countries will improve countries' credit ratings and increase private sector confidence and interest in investing in African markets.

Co-invest in climate investments with local financial institutions. DFIs should partner with local financial institutions to generate commercial capital for climate investments. Mobilising commercial capital can strengthen domestic investment environments and replace concessional blended financing mechanisms. This can also contribute towards sharing of risks between the DFIs and local financial institutions. Further support for local financial institutions can also be through provision of capital that can then be turned into climate investments and further strengthen the domestic private sector.

Ensure alignment in allocation of finance to development, climate adaptation and mitigation priorities of African countries: This means that development partners and international finance institutions should align country-level assistance with relevant plans NDCs, NAPs, LTSs, Disaster Risk Reduction Strategies and other climate-resilient national plans as appropriate, supported by the latest available science, and work through them to develop in-country capacity, to facilitate ambitions and effective climate action.

Ensure that the development of governance frameworks, climate policies and financing pathways are inclusive for all relevant stakeholders to limit fragmentation and increase legitimacy. How finance is governed at the international level determines the outcomes that are generated at the national and local levels. The design and implementation of these governance mechanisms at the international level should therefore be inclusive through ensuring the participation of African governments and other stakeholders such as domestic and regional private sector investors.

Advance greater accountability and transparency in delivery of climate finance. This encompasses transparency and accountability in how they define, account for and report climate-related international public finance, including ensuring that accurate and periodic reporting of information on how much climate finance is allocated and disbursed to African countries, is made publicly available.

C. Private Investors

Clearly communicate requirements for investments in different countries. Individual investors have important information about the practical challenges they face in a particular deal or geography, and should provide clear guidance to countries on what minimum conditions need to be met for them to invest in these countries. This upward feedback from market actors is critical to climate and business policy design and can often be collated and actioned through development partner-funded technical assistance programs. It will enable countries seeking to create an enabling environment for these specific investors to tailor targeted interventions for these private sector actors.

Ensure that investments in African countries are Paris-aligned and contribute towards national development and climate change priorities. This means that private sector actors should seek investments that contribute towards country-led results frameworks for climate action and sustainable development. Achieving this will require closer collaboration between national governments and private sector investors, even in the early stages of project design. To achieve this, private sector investors should therefore make credible, verifiable steps towards alignment.

Allocate a proportion of financing towards adaptation and resilience projects. Low Income Countries and SIDs require financing to address their high levels of vulnerability, and these can only be achieved if the private sector demonstrates willingness to invest in programmes that generate adaptation and resilience benefits.

Design new fit-for-purpose investment vehicles. Design of new investment vehicles is critical for unlocking climate finance at scale, particularly in the 2050 timeframe. There are two principal changes that could be helpful. The first would be broader utilization of blended finance, such as a guarantee or first loss capital, which reduces real or perceived risks for private investors. The second would be a willingness to depart from the typical 10-year private markets fund structure with a 2% management fee. Investors and their Limited Partners should be open to designing funds with longer durations as well as higher management fees for smaller funds. In addition, capital providers could fund technical assistance vehicles to accompany funds with mandates in challenging geographies and subsidise set-up fees for these vehicles. This support to General Partners is especially impactful for first-time fund managers as well as women and minority fund managers who may face greater challenges in fundraising.

Make first investments in new geographies and sectors. Investors' first deals in a new geography or sector are typically the most difficult as they require time and resources to get up-to-speed on the market as well as the specific opportunity. Global climate funds with mandates covering African states should look for opportunities to make their first investments alongside trusted co-investors and advisors, in order to learn and potentially unlock a much larger set of high-impact, financially attractive

investment pipeline. DFIs, who are looking to mobilize private investment, are strong potential partners for institutional investors and can bring local expertise and relationships as a co-investor or offer credit enhancement tools such as guarantees and political risk insurance.

Make data and information on previous investments transparent and available to African countries. Engage in partnership discussions with national public sector financing institutions. Communication is critical for African and broader stakeholders to understand uncertainty and risk, and communicate preferences for risk-return and cost impacts. In turn, this will enhance trust and partnership prospects and enable African countries to better tailor project pipelines to investor needs based on patterns of previous investments.

Commit to providing direct 'patient' capital climate investments. Between 2016 and 2021, institutional investors directly funded less than 1% of clean energy projects in emerging and developing countries but were more involved in secondary transactions such as project acquisitions and refinancing of energy assets (International Energy Agency, 2021). As of 2020, 3.6% of institutional investors provided direct financing for renewable energy projects in Africa (IRENA, 2020). For the African continent to catalyse climate investments to where they are needed the most, institutional investors will need to demonstrate willingness to increase their direct financing of climate projects in Africa.

D. Philanthropic Institutions

Provide grant financing to governments to support the development and implementation of climate aligned projects that are not commercial and can only be implemented by public financing.

Support governments, through grant financing, to improve the enabling environment for climate finance through developing technical and institutional capacities at the national level. Philanthropies and private capital providers play an important role in supporting improved governance through providing technical assistance to developing countries to create enabling environments conducive to scaling climate finance from a wide range of capital providers, align their financing strategies with their development goals, as well as implement measures that will position them for better access to long-term finance. This assistance is particularly important where the enabling environment is currently weak and therefore concessional funding to climate projects has limited ability to crowd in private finance. For example, clean energy finance has been dramatically influenced by countries' adoption of policies such as auctions and feed-in tariffs for renewable energy. This should be through grant-based financing, and possibly in partnership with multilateral and bilateral funding institutions to enable coherence and coordination.

Fund investment facilitation services, particularly for pioneering climate transactions. Philanthropies and private funders can support activities that unlock private capital by addressing high transaction costs and information asymmetries. These activities can include investment facilitation by a neutral intermediary supporting both the capital seeker and capital provider in a particular transaction. Investment facilitators act as local or regional technical assistance hubs, facilitating activities through all stages of the investment process from origination (convening investment pipeline, value chain analysis, networking), due diligence (building financial model, marketing materials, commercial and legal due diligence), negotiation (contributing with template legal documents, relationship management, market information), and deal closure (offering value creation plans, governance recommendations, monitoring). In short, investment facilitation reduces transaction costs by providing due diligence and transaction analysis, partially paid for by capital providers, and reduces information asymmetries by acting as neutral honest brokers. Crucially, investment facilitation reveals information that feeds back into policy and can be a catalyst for meaningful reform. Other activities can include promotion and convening, such as building deal rooms to match-make between capital seekers and capital providers.

Expand de-risking mechanisms such as first-loss tranches, insurance, hedging and technical assistance facilities. Private capital providers and philanthropies are some of the most flexible sources of capital, and so they are well-positioned to provide de-risking mechanisms that will catalyze commercial investment. Examples include taking first-loss or other junior positions in an investment; supporting technical assistance facilities for climate funds in underserved markets; funding RBF schemes that provide reliable revenue streams to enable or expand private sector involvement in an otherwise challenging sector; assuming currency exchange risks or providing the resources for partial or total hedging; and funding insurance policies that might be required.

Support market-enabling tools with public benefit. Often, market-based solutions build upon public goods. In developed economies, these are often funded by the public sector. In developing economies, they may need to be funded by private capital providers or philanthropies. Examples include the collection of ecological data to understand how ecosystems are responding to climate change, weather data collection providing early warning systems, and maps and models that estimate physical climate risk.

Provide grant-based seed capital that can be used to catalyse private sector investments into blended instruments. Over the 2018-2020 period, Africa received 22% of international philanthropic flows targeted towards climate action (OECD, n.d.). Although very little, these funds can be allocated towards activities that have the greatest potential to catalyse private sector investments.

Scale up catalytic grant and capital investments in African countries in the form of project financing. These will be essential for lowering country risk, which will in turn increase investor confidence in African markets and lower the cost of capital for climate investments.

Box 6.4.1 Climate Change: The largest CO2 emitters must bear their fair share of the cost by Dr. Akinwumi A. Adesina, President of the African Development Bank

Africa is one of the smallest emitters of greenhouse gasses on the planet. Yet our continent continues to bear the brunt of the impacts of climate change.

Through the use of fossil fuels, the industrialized world has created unimaginable wealth for its citizens. In contrast and in exchange, the people of Africa have received unimaginable suffering: floods, droughts, and other man-made climate disasters, that are destroying the future of millions.

The fact is, Africa accounts for less than 3% of global historical emissions, compared to 23% for China, 19% for the United States, and 13% for the European Union.

Climate change is the world's problem and not Africa's alone to bear. It is only fair therefore that those who emit the most, bear a commensurate share of the costs.

With the 2022 UN Climate Change Conference (COP27) only weeks away, the clock is ticking and not in the right direction. It is imperative that industrialized countries take the responsibility for closing the climate financing gap seriously ... before it is too late.

Let us be clear. There is no shortage of money. What is needed is strong political will.

The massive global solutions-oriented approach to the Covid-19 pandemic proves that with international solidarity, resources can be made available quickly and at scale.

Over two years, from January 2020 to September 2021, $17 trillion was injected into the global economy to respond to the economic fallout of the pandemic. G20 countries pulled together almost $15.3 trillion (or 90%) of these fiscal measures. There is therefore no doubt, that the G20 countries can easily mobilize and deliver $100 billion in climate finance per year for developing countries.

Promise made must be promise kept.

The greatest single threat to humanity today is climate change. It places a heavy burden on the world's poorest and its most vulnerable. Climate change distorts landscapes, ruins economies, dislocates whole populations, escalates insecurity, and daily threatens the lives of billions of people.

According to the African Development Bank's 2022 African Economic Outlook, between 1986 and 2015, climate change eroded 5% to 15% of the continent's

GDP per capita growth a year.

Africa faces an existential crisis.

Recently I was in Cabo Verde, a small African island State, that had not received rainfall in four years! Each day, the ravages of climate change are evident from Cape Town to Cairo.

The principle of common but differentiated responsibility is at the core of climate justice and just energy transitions.

As such, I strongly support the Sharm El-Sheikh Guidebook for Just Financing, for several good reasons:

It forges a common path for climate action in Africa and it outlines the key role of each stakeholder in translating financial commitments into implementable projects. It also clearly lays out the climate financing gap on the African continent and proposes an actionable agenda to close that gap.

Climate finance inflows to Africa are currently not commensurate with the continent's needs and its marginal contributions to global warming.

The African Development Bank estimates that climate finance must implement the continent's nationally determined contributions, which range between $118.2 billion to $145.5 billion per year through to 2030.

Yet, even though it is the least resilient region of the world, and with high vulnerabilities and low readiness to climate shocks, Africa received only $18.3 billion of climate finance on average per year.

Just transitions must go hand in hand with just financing.

In this regard, the Sharm El-Sheikh Guidebook for Just Financing provides a clearer definition of climate finance and just financing. It ensures better coordination and harmonization of funding requirements, and it highlights the need for greater attention to climate vulnerable countries, without displacing other development financing or increasing debt vulnerabilities.

COP27 has been dubbed "the African COP" for good reason. The event presents a once-in-lifetime opportunity to strongly make Africa's case for more climate financing support.

The Sharm El-Sheikh Guidebook for Just Financing is a clear vehicle to achieve this overarching objective. It also clearly advocates for Africa's right to leverage its enormous resource endowments—including renewable and non-renewable energy—to spur its own economic growth.

Simultaneously, Africa will continue to harness opportunities in the fast-expanding global green growth technologies and markets, where it has unique

competitive advantages- including, renewable energy, materials, components, products, and services.

To manage short-term energy security concerns, the African Development Bank will continue to support African countries in creating conducive environments for successful energy transitions, mobilizing climate finance, and scaling up investments to leverage the continent's wind, solar, hydro, and geothermal resource potential.

Ultimately, Africa's energy transition boils down to a just "carbon headroom," that is growth enhancing and not in opposition to the continent's development objectives.

The success of the COP27 will hinge on how the conference addresses Africa's climate finance gap, the continent's plans for a just energy transition, and innovative approaches to building capacities for climate-related projects.

To achieve its goals, COP27 must propose a clear roadmap on how to remodel the current global climate finance architecture and align it with countries' nationally determined contributions and Sustainable Development Goal financing requirements.

For now, the structure of the global climate finance architecture continues to mirror the current global finance architecture. This makes it extremely difficult for climate finance to be channeled to countries most in need of it.

The Sharm El-Sheikh Guidebook for Just Financing therefore proposes a road map for accessing the quantity and quality of climate financing that leaves no one behind.

The African Development Bank Group therefore fully supports the development, launch and implementation of the guidebook, which will be pivotal to translating financial pledges into implementable projects, in line with Egypt's COP27 Presidential Agenda.

The African Development Bank Group—along with other regional and international partners—is proud to have contributed to the guidebook through our participation in stakeholder consultations led by Egypt's Ministry of International Cooperation. We are pleased to have also led the preparation of the Landscape of Climate Finance, and to have provided input on the regional implications for Africa.

The Sharm El-Sheikh Guidebook for Just Financing aligns with the African Development Bank's own actions on climate finance and just financing. We are addressing bottlenecks to access climate finance by African countries. In 2021, climate finance represented 41% of total loan approvals, a 7% increase since 2020.

Our flagship initiatives, like the Africa Adaptation Acceleration Program (AAAP)—developed with our AAAP partner, the Global Center on Adaptation—and the Adaptation Benefits Mechanism, the African Financial Alliance on Climate Change, or ClimDev Special Fund-Africa, to mention but a few, are all designed to scale up climate finance for Africa by mobilizing resources from both the private and public sectors.

The African Development Bank Group is resolute in its commitment to continue working with the COP27 Presidency and Egypt's Ministry of International Cooperation, along with other regional and international partners, to ensure a successful launch of the Sharm-El-Sheikh Guidebook for Just Financing.

Our collective aim is simple ... to avert a climate catastrophe by finally turning political commitments and pledges into concrete actions for just financing in Africa.

6.5 Case Studies

The case studies presented below provide insight into the different ways that public and private sources of capital can engage in financing structures for Just Financing outcomes. It includes examples that each of the financial actors identified in Chapter 3 of this Guidebook, as well as examples the represent each of the Blended Finance Archetypes described in Chapter 4 of this Guidebook.

The selection of case studies presented here showcase a variety of developing country contexts and diverse levels of development including cases from Fragile and Conflict Affected States and Low-Income Countries (LICs) to cases from Middle-Income Countries (MICs). There are cases from every region and cover both adaptation and mitigation investments.

The case studies span a variety of sectors, sponsors and financing approaches, from providing grant-based capacity building and technical assistance to smallholder farmers in the Sahel through the African Integrated Climate Risk Management Programme, to financing the development of the world's largest Concentrated Solar Power (CSP) Plant in Morocco using public and MDB debt financing, to the issuance of sophisticated sustainability-linked bonds by a private healthcare company in South Africa. Some cases showcase innovative approaches to catalysing private capital such as on-lending into difficult-to-finance sectors through local commercial or development banks as in the case of IGREENFIN by IFAD and mobilizing international flows of private capital by engaging institutional investors or international private debt providers in an end-to-end suite of project preparation, equity and debt blended finance support, as illustrated in the Climate Investor One case study.

The following tables (Table 6.5.1 and Table 6.5.2) highlight successful examples of investments that are actively addressing climate-related challenges in both adaptation and mitigation, using blended and non-blended approaches, that could be replicated in developing and emerging countries.

Table 6.5.1 Blended Finance Case Studies

#	Case Study	Mitigation or Adaptation	Description	Financial Actors	Project/ Investment Amount	Catalyses Private Investment	Catalyses Private Flows	Blended Finance Archetype	Income Level of Project Country
1	Private Sector Investments to support Gender-Responsive Climate-Resilient Investments in Tajikistan	Adaptation	Financing facility targeting Tajikistan's private sector and providing low-cost debt finance and technical support to farmers, small businesses, and households to enable them to adopt new water-efficient and energy-efficient technologies.	• Bilateral, Multilateral & Development Finance Institutions	~$12.6 million	Yes- local banks and real-economy	No	Concessional Catalytic Capital & Technical Assistance	LIC
2	Establishing The World's Largest Concentrated Solar Power (CSP) Plant in Morocco	Mitigation	This first-of-its kind commercial scale deployment of CSP in the region has been fully operational since 2019, supplying power to over 2 million people in Morocco. Project level risk mitigation in the form of guarantees to increase innovative solar power generation in Morocco. PPP structure.	• Bilateral, Multilateral & Development Finance Institutions • Public Balance Sheet	~$3.4 billion	Yes- real-economy	No	Concessional Catalytic Capital	LMIC
3	Turkish Sustainable Energy Financing Facility (TurSEFF and Commercializing Energy Finance Project (CSEF)	Mitigation	Through the TurSEFF financing facility, CTF-EBRD funding provided credit lines (debt to five commercial banks, for on-lending to SMEs to finance energy efficiency and renewable energy projects. The CSEF programme CSEF supports the leasing of energy-efficient equipment (replacing older inefficient equipment) to potential SME clients. CTF finance was blended with IFC's own account funding to provide credit lines to three leasing firms.	• Bilateral, Multilateral & Development Finance Institutions	TurSEFF: $347 million CSEF: $123 million	Yes-local banks and real-economy	No	Concessional Catalytic Capital	UMIC
4	Demonstrating the Bankability of Community Forest Enterprises in Mexico Through Climate Investment Funds' Forest Investment Program (FIP)	Both	Concessional loans/debt and guarantees channelled through local financial intermediaries to support community forest enterprises in the creation of financially and environmentally sustainable businesses in forest landscapes.	• Bilateral, Multilateral & Development Finance Institutions	~$22 million	Yes-local banks and real-economy	No	Concessional Catalytic Capital, Guarantee / Risk Insurance & Technical Assistance	UMIC
5	IGREENFIN by IFAD	Mitigation and Adaptation	The programme supports Public Development Banks in five African countries to finance the transition toward a greener financial system for increased investment in low carbon emission and climate resilient smallholder agriculture. The programme has a three-pronged approach, a Green Financing Facility provides concessional debt for on-lending, a technical assistance facility and a regional support facility, funded by concessional loans and grants from variety of multi-lateral development partners.	• Bilateral, Multilateral & Development Finance Institutions • National Development Banks	$178 million	No	No	Concessional Catalytic Capital & Technical Assistance	LICs

Table 6.5.1 Blended Finance Case Studies

#	Case Study	Mitigation or Adaptation	Description	Financial Actors	Project/ Investment Amount	Catalyses Private Investment	Catalyses Private Flows	Blended Finance Archetype	Income Level of Project Country
6	La Jacinta, Natelu, and Casablanca Giacote Solar Photovoltaic (PV Projects	Mitigation	Blended loan and bond finance for 200MW program to attract private sector participation in the development of solar photovoltaic power plants and increase the share of renewable energy in Uruguay's energy matrix	● Bilateral, Multilateral & Development Finance Institutions ● Private Institutional Investors and Asset Managers ● Private Debt Providers	$352 million	Yes – real economy and financial investor	Yes	Concessional Catalytic Capital	HIC
7	Mocuba Solar	Mitigation	Blended debt financing package from IFC supported the Mocuba Solar plant in Mozambique, one of the world's first climate mitigation projects to be strategically designed to also be part of a country's adaptation strategy. The IFC investment was structured to minimize the project's tariff to be more compatible with current customer tariff.	● Bilateral, Multilateral & Development Finance Institutions ● Corporate Expenditure	~$84 million	Yes- real-economy	No	Concessional Catalytic Capital	LIC
8	CrossBoundary Energy Access (CBEA)	Mitigation	Project finance platform that and owns solar mini grids for electrification across Africa. CBEA uses an innovative blended finance approach to invest in mini-grids and provide 24/7 grid-quality power to households and businesses in rural Africa. The project finance facility is a blended capital structure with a mix of equity, concessional mezzanine, and senior debt on a deal-by-deal basis in Morocco. Project level risk mitigation in the form of guarantees to increase innovative solar power generation in Morocco. PPP structure.	● Private Equity ● Philanthropy, private donors and impact investors ● Bilateral, Multilateral & Development Finance Institutions	~$150 million	Yes	Yes	Concessional Catalytic Capital	LICs and MICs
9	Solar in West Bank/ Gaza: Massader School Rooftop and PRICO Solar	Mitigation	PRICO Solar and Massader School Rooftop are the first-of-their-kind private sector investments to unlock large-scale distributed generation in the West Bank and Gaza. A blend of own account and concessional debt finance from development partners helped both projects achieve project finance structures which included local private sector investment in the case of PRICO (a real estate developer) and the Palestinian Investment Fund in the case of Massader. The blended structures allowed the project to demonstrate the commercial viability of renewable energy investment in the West Bank and Gaza.	● Bilateral, Multilateral & Development Finance Institutions ● Public Institution Investors ● Corporate Expenditure	~$47 million	Yes- real-economy	No	Concessional Catalytic Capital	LMIC
10	WaterCredit Investment Fund 3	Adaptation	Tiered blended finance fund that provides debt financing to financial institutions and enterprises serving the water and sanitation needs of families living in poverty in Asia.	● Philanthropy, private donors and impact investors ● Bilateral, Multilateral & Development Finance Institutions	~$50 million	Yes – local banks	Yes	oncessional Catalytic Capital & Guarantee / Risk Insurance	LMICs

Table 6.5.1 Blended Finance Case Studies

#	Case Study	Mitigation or Adaptation	Description	Financial Actors	Project/ Investment Amount	Catalyses Private Investment	Catalyses Private Flows	Blended Finance Archetype	Income Level of Project Country
11	Climate Investor One	Mitigation	Climate Investor One is a blended finance vehicle designed to accelerate the development, construction, and implementation of renewable energy infrastructure projects in emerging markets. Comprised of three inter-linked investment funds, the Development Fund (project preparation grants, the Construction Equity Fund (equity, and the Refinancing Facility (debt, CIO provides fit-for-purpose financing across the project finance lifecycle. Mobilizes both.	• Institutional Investors and Asset Managers • Bilateral, Multilateral & Development Finance Institutions	$850 million	Yes – equity and debt	Yes	Concessional Catalytic Capital	LICs & MICs
12	Danish Climate Investment Fund	Both	Tiered blended finance fund that invests in low-carbon and climate-resilient projects in developing countries. The fund is structured similarly to a private equity fund, with a 10-year term and a market-based management fee. IFU and Danish state are the fund general partners, and several public pensions funds and a foundation are limited partners.	• Public Institutional Investors • Public Balance Sheet • Philanthropy, private donors and impact investors • Bilateral, Multilateral & Development Finance Institutions	~$220 million	Yes	Yes	Concessional Catalytic Capital	Various
13	Rural electrification project supported by the Nigerian Electrification Project (NEP)	Both	NEP aims to address an energy access gap by providing electricity to households, MSMEs, health and education facilities in rural communities, by deploying off-grid solutions such as mini-grid, Solar Home Systems (SHS, captive power plants, and productive use appliances. In a given project financed under this programme, the capital structure would consist of a results-based finance grant from NEP, equity funding from the commercial investor and developer and debt funding from the commercial investor and developer.	• Public Balance Sheet (via REA and NEP • Bilateral, Multilateral & Development Finance Institutions • Undisclosed 'commercial investors'	~$1.2 billion	Yes- financial investors	(Not disclosed)	Concessional Catalytic Capital & Technical Assistance	LMIC
14	Mezz Tower Guarantees	Mitigation	Use of MIGA guarantees to facilitate the financing and development of high-standing office facilities and integrated business services for a 17-storey office tower (Dijbouti International Business Centre in downtown Dijbouti City). The office tower includes an energy efficient design.	• Export Credit Agency (MIGA • Bilateral, Multilateral & Development Finance Institutions • Corporate Expenditure	$78.3 million	Yes	Yes	Concessional Catalytic Capital & Guarantee/Risk Insurance	LMIC
15	Islamic Development Bank and TRINE Crowdfunding Platform for Energy Transition	Mitigation	Crowdfunding financing platform that facilitates sustainable investments through debt financing to accelerate energy access in developing countries. Investments in all eligible loans will be matched by IsDB up to 33%. Lending is to off grid solar energy companies.	• Bilateral, Multilateral & Development Finance Institutions • (Private individual investors (through Trine's crowdfunding investment platform)	~$4 million	Yes- crowd funding and real-economy	No	Concessional Catalytic Capital	LMIC

Table 6.5.1 Blended Finance Case Studies

#	Case Study	Mitigation or Adaptation	Description	Financial Actors	Project/ Investment Amount	Catalyses Private Investment	Catalyses Private Flows	Blended Finance Archetype	Income Level of Project Country
16	Aceli Africa	Adaptation	Catalytic market facility offering concessional financing in the form of financial incentives to lenders that then provide commercial financing to agricultural small to medium enterprises in Sub-Saharan Africa	• Philanthropy, private donors and impact investors • Bilateral, Multilateral & Development Finance Institutions	$75 million	Yes – financial investors and real-economy	Yes	Concessional Catalytic Capital Design stage grants	LICs and MICs
17	Climate Finance Facility	Both	Specialized lending (debt facility designed to increase private investment in climate-related infrastructure projects in the Southern African Development Community (SADC region). Concessional funding from DBSA to crowd in private co-investors	• National Development Banks • Bilateral, Multilateral & Development Finance Institutions	$110 million	Yes- financial investors and real-economy	No	Concessional Catalytic Capital Design stage grants	LICs & MICs
18	African Local Currency Bond Fund	Both	The fund makes senior anchor investments and provides technical assistance to support first-time or innovative local currency bond issuances from financial institutions and companies operating in developmental sectors in African countries. Seeded by KfW, there are now two broad capital tranches in the fund—equity and senior debt, although the terms of each investment are individually negotiated. Equity is contributed through paid-in share capital, which is redeemable long-term, but take a first-loss position in the capital structure. DFIs, impact investors, and institutional investors can invest in senior loans.	• Bilateral, Multilateral & Development Finance Institutions • Philanthropy, private donors and impact investors	$107 million	Yes – financial investors	No	Concessional Catalytic Capital & Technical Assistance	LICs & MICs
19	Emerging Africa Infrastructure Fund	Both	Blended multi-donor fund that operates as a specialized development finance institution (DFI) providing debt financing for sustainable and climate-related infrastructure investments in Africa.	• Bilateral, Multilateral & Development Finance Institution • Private Institutional Investors and Asset Managers	$1.05 billion	Yes – financial investors and real-economy	Yes	Concessional Catalytic Capital & Technical Assistance	LICs & MICs
20	Tropical Landscape Finance Facility	Mitigation	Tiered blended finance vehicle to provide debt financing to local projects and companies in Indonesia that are focused on green growth and sustainable rural livelihoods. First transaction is a sustainability bond for PT Royal Lestari Utama, and Indonesia rubber company	• Bilateral, Multilateral & Development Finance Institution • Corporate Expenditure • Private Institutional Investors and Asset Managers • Philanthropy, private donors and impact investors	$95 million	Yes – financial investors and real-economy.	Yes	Concessional Catalytic Capital Design stage grants	LMIC

Table 6.5.1 Blended Finance Case Studies

#	Case Study	Mitigation or Adaptation	Description	Financial Actors	Project/ Investment Amount	Catalyses Private Investment	Catalyses Private Flows	Blended Finance Archetype	Income Level of Project Country
21	Sistema.bio	Mitigation	Tiered blended finance social enterprise that deploys its corporate capital to grow a business that sells small-scale biogas digesters and appliances. A blend of various types of capital – grants, concessional finance, and commercial debt and equity – have been used to support the company's expansion.	• Corporate Expenditure • Philanthropy, private donors and impact investors • Private Equity • Venture Capital • Bilateral, Multilateral & Development Finance Institution	~$25 million	Yes	Yes	Concessional Catalytic Capital	LICs & MICs
22	KaXu Solar One CSP Project	Mitigation	Financing and development of a 100-megawatt (MW) concentrated solar power (CSP plant in the Northern Cape Province in South Africa). The concessional debt financing (including from CTF enabled commercial investors to invest in the project.	• Bilateral, Multilateral & Development Finance Institution • Private Debt Providers	Not disclosed	Yes	Yes	Concessional Catalytic Capital	UMIC
23	Climate-Smart Food Systems Fund	Both	Climate impact fund to help address key challenges of the global food system. It is expected that the Fund will provide long-term expansion debt financing along with technical assistance (grants to 20 to 30 small and medium enterprises (SMEs operating in Asia Pacific, Latin America, and Africa.	• Bilateral, Multilateral & Development Finance Institution • Private Institutional Investors and Asset Managers • Philanthropy, private donors and impact investors	$200 million	Yes	Yes	Concessional Catalytic Capital & Technical Assistance	LICs and MICs
24	Al-Gabal Al-Asfar Wastewater Treatment Plant Project	Adaptation	Aims to accelerate the capacity of wastewater treatment of El Gabal El Asfar Wastewater Treatment Plant in the northeast of greater Cairo, the center of the population in Egypt, thereby contributing to improving the environment of water and sanitation in greater Cairo. This project aims to improve the quality of wastewater discharged into the drainage system in Cairo East. It intends to benefit around 8 million people living within the catchment of the Gabal Al-Asfar Wastewater Treatment Plant	• Bilateral, Multilateral & Development Finance Institution • Private Institutional Investors and Asset Managers	$1 billion	Yes	No	Concessional Catalytic Capital	LMIC
25	Africa Disaster Risk Financing (ADRiFi) program	Adaptation	Boost resilience and response to climate shocks (e.g., drought, cyclone in regional member countries. The program funds (via grants the first years of insurance premium with the idea that at the end of year 5 this will evolve into fully commercial insurance paid by signatory governments.	• Bilateral, Multilateral & Development Finance Institutions	~$30 million	No	No	Guarantee/ Risk insurance Technical Assistance	LICs & MICs

Table 6.5.1 Blended Finance Case Studies

#	Case Study	Mitigation or Adaptation	Description	Financial Actors	Project/ Investment Amount	Catalyses Private Investment	Catalyses Private Flows	Blended Finance Archetype	Income Level of Project Country
26	Affordable LEDs for all by Energy Efficiency Services Limited (EESL)	Mitigation	Aims to expand the use of LED bulbs in Indian households to improve energy-efficiency. GEF funding to support utility and customer tariffs reduced by Pay as You Save structure.	• Bilateral, Multilateral & Development Finance Institution • Public Balance Sheet	Not disclosed	Yes	No	Concessional Catalytic Capital	LMIC
27	Greater Cape Town Water Fund	Adaptation	Structured water fund to support long-term water security in the Greater Cape Town Region, through the restoration and protection of water catchments. The fund pools investment across multiple public and private sources, to provide patient capital or subsidies for the implementation of green infrastructure (e.g., water catchment restoration, mangrove coastal protection). In particular, water funds constitute a collective action model through which downstream water users (businesses, water utilities, and city governments) invest in upstream conservation initiatives.	• Philanthropy, private donors and impact investors • Public Balance Sheet	~$25.5 million	Yes	No	Concessional Catalytic Capital	UMIC
28	Luxembourg Climate Finance Platform (LCFP	Both	The LCFP makes junior tranche equity investments in climate-focused equity funds to reduce the risk of investment in senior tranches for private sector players. The LCFP invests in funds focused on Africa, Asia, and Latin America.	• Bilateral, Multilateral & Development Finance Institutions • Private Equity	$330 million (mobilized $18.5 billion	Yes		Concessional Catalytic Capital	LICs and LMICs

Table 6.4-2 Non-Blended Finance Case Studies

#	Case Study	Mitigation or Adaptation	Description	Financial Actors	Project/ Investment Amount	Catalyses Private Investment	Catalyses Private Flows	Blended Finance Archetype	Income Level of Project Country
29	Netcare Sustainability-Linked Bond	Both	The issuer wants to lead the transformation to climate-smart healthcare, and the bond contributes to achieving their longer-term sustainability goals.	• Private Institutional Investors and Asset Managers • Private Debt Providers	Not disclosed	Yes	Yes	Sustainability-Linked Bond	UMIC
30	Poland Green Bond	Both	30-year green bond issued by the Republic of Poland to fund renewable energy generation and green infrastructure.	• Private Institutional Investors and Asset Managers • Private Debt Providers	EUR 2 billion	Yes	No	Green Bond	HIC
31	Arab Republic of Egypt Green Bond	Both	First Green Bond issued by a MENA sovereign, to finance or refinance renewable energy, clean transport, energy efficiency and climate change adaptation projects.	• Private Institutional Investors and Asset Managers • Private Debt Providers • Public Balance Sheet	$750 million	Yes	Yes	Green Bond	LMIC
32	European Bank of Reconstruction and Development Green Transition Bond	Mitigation	AAA rated green bond issuance to fund Energy Efficiency, Resource Efficiency, and sustainable infrastructure projects.	• Private Institutional Investors and Asset Managers • Private Debt Providers • Public Balance Sheet	EUR 500 million	Yes	No	Green Bond	Various
33	Acorn Holdings Corporate Green Bond	Mitigation	First corporate green bond in Kenya and East Africa	• Private Institutional Investors and Asset Managers • Philanthropy, private donors and impact investors	~$36 million	Yes	Yes	Green Bond	LMIC
34	Seychelles Debt Conversion for Climate Adaptation	Adaptation	Debt conversion for marine conservation and climate adaptation with the Seychelles government	• Philanthropy, private donors and impact investors • Public Balance Sheet	$21.6 million	Yes	Yes	Sovereign Bond/Debt Conversion Bond	HIC
35	Rio Tinto QMM Renewable Energy Project	Mitigation	Construction of a renewable energy plant to support the Rio Tinto mine. The renewable energy project will be able to meet up to 60% of the mine's annual electricity demand and will be able to fully power the mine during periods of peak renewable energy generation.	• Corporate Expenditure • Private Equity	Not disclosed	Yes	Yes	Equity funded on a commercial basis + Senior Debt added at the parent company level.	LIC
36	Low Carbon Cooling for Small Hold Farmers in India	Both	This Indian startup provides cooling services through the provision of cooling equipment to users through a variety of financing models such as upfront purchase, leasing or community funding models. Since founding Ecozen Solutions has raised a total of $14.07M in venture capital and debt through 8 funding rounds	• Venture Capital • Philanthropy, private donors and impact investors • Bilateral, Multilateral & Development Finance Institution	~$14 million	Yes	Yes	Venture Capital series A and B funding	LMIC

Table 6.4-2 Non-Blended Finance Case Studies

#	Case Study	Mitigation or Adaptation	Description	Financial Actors	Project/ Investment Amount	Catalyses Private Investment	Catalyses Private Flows	Blended Finance Archetype	Income Level of Project Country
37	The Yaeda - Eyasi Landscape project	Both	This project leverages carbon markets for the protection of Tanzanian forests for the benefit of Indigenous Peoples, wildlife and the climate	• Philanthropy, private donors and impact investors	Capital costs: $300,000 Annual budget: $575,000	Yes	No	Carbon Credits	LMIC
38	Adaptation SME Accelerator Program (ASAP)	Adaptation	Grant-funded accelerator supporting early-stage companies to improve investment readiness and connect with commercial investors. Aims to identify, integrate, and accelerate small businesses in developing countries that are producing climate adaptation and resilience technologies and solutions.	• Bilateral, Multilateral & Development Finance Institution • (Philanthropy, private donors and impact investors)	~$2.5 million	No	No	Grant-funded support to unlock equity and debt for SMEs	Various
39	African Integrated Climate Risk Management Programme	Adaptation	Programme will build, strengthen and scale up the resilience and adaptive capacities of smallholder farmers and rural communities in seven countries in the Sahel. It will provide capacity building and institutional development on integrated climate risk management by reducing obstacles to accessing agricultural insurance for governments and smallholder farmers, thereby enhancing resilience.	• Bilateral, Multilateral & Development Finance Institutions	$143 million	No	No	Grants	LICs
40	Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA)	Adaptation	AICCRA works to make climate information services and climate-smart agriculture more accessible to millions of smallholder farmers across Africa.	• Bilateral, Multilateral & Development Finance Institution	$60 million	No	No	Grants	LICs
41	Excellence in Agronomy for Sustainable Intensification and Climate Change Adaptation	Adaptation	This research initiative aims to deliver an increase in productivity and quality per unit of input (agronomic gain) for millions of smallholder farming households in prioritized farming systems by 2030, with an emphasis on women and young farmers, showing a measurable impact on food and nutrition security, income, resource use, soil health, climate resilience and climate change mitigation.	• Bilateral, Multilateral & Development Finance Institution • Philanthropy, private donors and impact investors	$75 million	No	No	Grants	LICs & MICs
42	Wind Farm Gulf of Suez	Mitigation	Concessional loan and technical assistance grants from MDBs to support design, construction, and commissioning of a large-size 252 MW onshore wind farm, including electrical 33/220 kV substation.	• Bilateral, Multilateral & Development Finance Institutions • Public Balance Sheet	~$300 million	No	No	Public balance sheet finance.	LMIC

Table 6.4-2 Non-Blended Finance Case Studies

#	Case Study	Mitigation or Adaptation	Description	Financial Actors	Project/ Investment Amount	Catalyses Private Investment	Catalyses Private Flows	Blended Finance Archetype	Income Level of Project Country
43	Drainage Eaux Pluviales Cotonou, Benin	Adaptation	Concessional loan to support construction of storm water drainage infrastructure in the city of Cotonou (construction of primary collectors, secondary gutters and ancillary works) and paving in several catchment areas.	Bilateral, Multilateral & Development Finance Institutions	$129 million	No	No	Loan and grant	LMIC
44	Off-grid Solar Uganda Acceleration	Mitigation	Concessional loan to Fenix International Uganda to support scaling up of off-grid solar operations on a pay-as-you-go model.	Bilateral, Multilateral & Development Finance Institutions	$12.6 million	No	No	Loan and guarantee	LIC
45	West Alexandria Wastewater Treatment Plant Extension And Upgrade	Both	Concessional loan, grant and guarantee to finance the capacity increase and treatment level upgrade of the existing Alexandria West Wastewater Treatment Plant (WWTP).	Bilateral, Multilateral & Development Finance Institutions	$186 million	No	No	Loans, grants and guarantee	LMIC
46	Mozambique Climate Resilient Framework Loan	Adaptation	Concessional loan to finance the reconstruction of infrastructure damaged by cyclones Idai and Kenneth in 2019. The main objectives of the Project are to restore water, wastewater and drainage infrastructure, reduce vulnerability and increase resilience to disaster risks.	Bilateral, Multilateral & Development Finance Institutions	EUR 120 million $121 million	No	No	Loan, grant and guarantee	LIC
47	Greater Cairo Metro Line no. 4 Phase I Project	Mitigation	Development of an 18km section of metro to connect existing sections and facilitate public transport, reduce congestion, and reduce CO2 emissions. JICA provided a long term (40 year) loan with soft terms, including a 10-year grace period.	Bilateral, Multilateral & Development Finance Institutions	~$ 1.2 billion	No	No	Loan with concessional terms	LMIC
48	CSAIP Mali	Adaptation	The 2019 Climate-Smart Agriculture Investment Plan (CSAIP) for Mali is the result of a consultation process led by Mali's Ministry of Agriculture and supported by a grant from the World Bank. The goal of the CSAIP is to identify a pipeline of investments conforming to Mali's NDC goals and to attract and channel financial resources towards those investments.	Bilateral, Multilateral & Development Finance Institution	Not disclosed	Yes	No	Grants	LIC

Sharm Elsheikh
Guidebook for
Just Financing

Actionable **Agenda**

Taxonomy of Financial System Actors

PUBLIC SOURCES OF CAPITAL

SOURCE OF CAPITAL	TYPE OF ENTITIES	RELATIVE RISK APPETITE	INSTRUMENT	RELATIVE RETURN EXPECTATION	INVESTMENT STAGE	TYPICAL TICKET SIZE
01 Government finance	Governments or public entities, State-owned Enterprises (majority government owned)	Medium to high	Concessional debt or grant	None to medium expected return	Depends on strategy; from early to late	$10Ks to $Bs
02 Public Institutional Investors and asset managers	Sovereign wealth funds, Public Pension Funds	Low	Invest through mutual funds, tradeable securities (stocks and bonds), smaller portion in PE funds	>8% IRR	Depends on strategy; Typically late	$10Ms to $100Ms++
03 National Development Banks	National Development Banks	Medium to high	Grants, and commercial or concessional debt; (occasionally equity)	Low-medium expected return	Depends on strategy; from early to late	$Ks to $10Ms
04 Bilateral, multilateral & Development Finance Institutions	Development finance institutions (DFIs), multilateral development banks (MDBs), bilateral development agencies, climate funds	Low to medium	Grants, and commercial or concessional debt; (occasionally equity)	Low-medium expected return	Typically mid-late	$10Ms to $100Ms
05 Export Credit Agencies (ECAs)	Government-backed entities, semi-governmental entities, private lenders	High	Debt, trade finance, guarantee or support agreement	Low expected return	Typically mid-late	$Ks to $10Ms

Taxonomy of Financial System Actors

PRIVATE SOURCES OF CAPITAL

SOURCE OF CAPITAL	TYPE OF ENTITIES	RELATIVE RISK APPETITE	INSTRUMENT	RELATIVE RETURN EXPECTATION	INVESTMENT STAGE	TYPICAL TICKET SIZE
06 Philanthropy, Private donors and impact investors	Philanthropy, foundations	Medium to high	Grants, and commercial or concessional debt	None to low expected return	Depends on strategy from early to late	$Ks to $10Ms
07 Private debt providers	Local Commercial Banks, Microfinance Institutions, International Financial Institutions, Private Credit Funds	Low to medium	Commercial debt	<15% IRR	Typically mid-late; can be greenfield	$Ks to $100Ms++
08 Private Institutional investors and asset managers	Endowments, Insurance Companies, Mutual Investment Funds, Equity Fund Manager, Debt Fund Manager, Hedge Funds, Insurance Brokers, Pension Companies and Funds	Low	Invest through mutual funds, tradeable securities (stocks and bonds), smaller portion in PE funds	>8% IRR	Depends on strategy; Typically, late	$10Ms to $100Ms
09 Private equity	Private Equity Funds	High	Mostly equity	>15% IRR	Early, mid and late stage	>$10Ms to $1B
10 Corporate Expenditure	Multinational and other corporations	Low to high	Equity (typically buy and hold)	Expected return greater than corporate's cost of capital	Early, mid and late stage. Depends on strategy and investment drivers (e.g., own expansion, investment in innovation)	$Ms to $100Ms
11 Venture capital	VC funds	High	Equity	>30% IRR	Early	$100Ks to $10Ms

Source: CrossBoundary (Chapter 3), Convergence and CitiGroup (Chapter 4), and Climate Finance Advisors.

Source of Capital

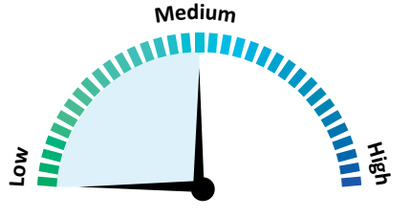
Government Finance

Type Of Entity	Governments or public entities, State-owned Enterprises (majority government owned)
Investment Stage	All stages, from early stage/R&D to late stage/fully mature investments (e.g. infrastructure)
Impact	Public goods, often with social, economic, and environmental impacts; Also interested in "crowding in" private capital where possible
Instrument	Debt, guarantees; sometimes equity/grants. Often "concessional"
Supplier Of Concessional Capital	**YES** NO

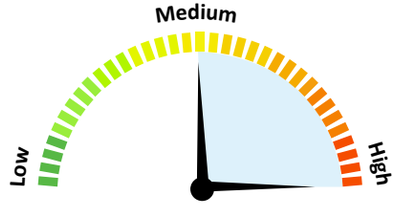
Description

Government and public entities are focused on achieving social and environmental impact, and they have a wide range of tools at their disposal.

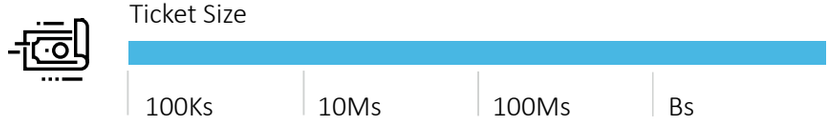
Public funding plays a central role in covering certain climate mitigation and adaptation activities that do not have immediate financial returns, but its capacity is limited, and can be constrained particularly in periods of economic contraction or where tax revenues are insufficient. Between 2019 and 2020, public funders spent approximately US$321 billion in climate action, of which US$38 billion was direct flows (domestic and international), primarily in grants. However, in some developing economies, public funders can inadvertently crowd out private investments in a variety of ways. For example, financial regulation limiting pension funds' investment options can result in overallocation to sovereign bonds, leaving little room for investment in other domestic projects.



Relative Return Requirement



Relative Risk Appetite



Recommended Actions By Key Source Of Capital

Because their funding is often concessional, patient and grant based, government funds are important catalysts for private investment, and yet are often inefficiently allocated. Fundamentally, those responsible for allocating the public balance sheets can and should be more strategic in their approach to allocate public capital, and in doing so can focus on Just Financing and climate outcomes. Some suggestions for what this actor can do more of to enhance Just Financing outcomes include:

- For all climate investments: integrate measures and tools that increase public and private climate finance flows to investments that support (and were needed, prioritize) the low-carbon and climate resilience transition of the most vulnerable communities and countries.
- For climate investments that are commercial: public capital should always avoid funding commercially viable projects under preferential terms which may result in distorting the market.
- For climate investments that have near-term potential to be commercial, but where investors have higher-than-normal perception of risk, small amounts of public capital (in the form of guarantees, or direct lending) should be used to mobilize private capital to address perceived risks and mobilize private climate finance.
- For climate investments that have long-term potential to be commercial, and where there is both high perception of risk, and high actual risk (e.g., technology risk), public capital should be used to address perceived and real risks of other investors as a mechanism to mobilize and "crowd-in" private capital into such investments.
- For climate investments with low/no potential for long term commercialization, and where there is a high climate impact (mitigation and/or adaptation), public capital should prioritize and fully fund projects that will have significant positive Just Financing climate outcomes for communities, cities and citizens. Such projects should receive a larger proportion of public funding than investments that have the potential to mobilize private capital.

Source of Capital

Public Institutional Investors and Asset Managers

Type Of Entity	Sovereign Wealth Funds, Pension Funds, Public Sector Pension Companies and Funds (in lieu of pension funds)
Investment Stage	Depends on strategy; Typically, late
Impact	Driven by clients' requirements, e.g., ESG and investment time horizon.
Instrument	Invest through mutual funds, tradable securities (stocks and bonds), smaller portion in PE funds
Supplier Of Concessional Capital	Yes **NO**

Description

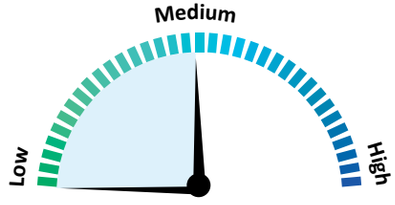
Public institutional investors and asset managers include public organization and funds that pool resources and invest on behalf of others in a variety of assets and instruments (e.g., mutual funds, securities, and PE funds).

These include sovereign wealth funds, pension funds, and public sector pension companies and funds. A sovereign wealth fund (SWF) is a government investment fund managing resources from the country's surplus reserves. Typically, these surplus reserves come from revenues from state-owned natural resources, trade surpluses, foreign currency operations, privatizations, budgetary savings, and governmental transfers. SWFs are relatively flexible sources of funds – depending on their country-specific purpose and policies – with the ability to provide long-term investment either directly into projects or through fund managers. When investing with climate considerations in mind, most prefer to do so through private equity, real assets, listed equities, and fixed income. SWF investments in climate change related sectors totaled US$3.3 billion in the first three quarters of 2021, up from the US$2.3 billion reported in all of 2020.[1]

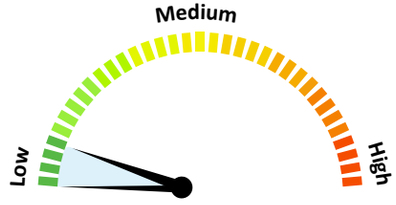
Public institutional investors typically look for lower-risk investments with a large ticket size in the tens to hundreds of millions of dollars.

In general, they are less likely to make direct investments into a project, preferring instead to invest into funds with a proven track record. They also rely heavily on existing relationships with trusted fund managers for any investments. Mobilizing institutional investment is an enormous opportunity, but it faces constraints around asset allocation requirements, size of deals, and liquidity. Institutional investors set specific target allocations across each type of asset, and the allocation for developing countries tends to be low (10-20% is common). Institutional investors typically must make very large investments, of which there is a limited pipeline in developing countries. To date institutional investors have played a limited role as sources of funding to projects in developing economies.

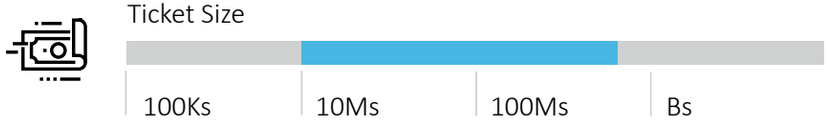
1 IFSWF and OPSWF, 2021. In Full Flow: Sovereign wealth funds mainstream climate change.
https://www.ifswf.org/sites/default/files/IFSWF_InFullFlow.pdf



Relative Return Requirement



Relative Risk Appetite



Recommended Actions By Key Source Of Capital

Some suggestions for what Public Institutional Investors can do more of to enhance Just Financing outcomes include:

- **Ensure that all investment** is aligned with the Country's NDC commitments and Just Financing Principles.
- **Ensure deployed integrate climate-related risks assessments,** and that investments reflect (in their financial structure) incentives for low-carbon, climate resilient investment that align with the Country's NDC commitments.
- **Increase their target allocation for low-carbon,** climate resilient infrastructure, which can then support allocation of a larger proportion of their investments to climate-transition, such as energy, transport or water.
- **Coordinate with the government** on country climate strategies to advance pipelines of investable projects and foster an investment environment that supports climate-related investment (e.g., including through legal and regulatory changes).

Source of Capital

National Development Banks

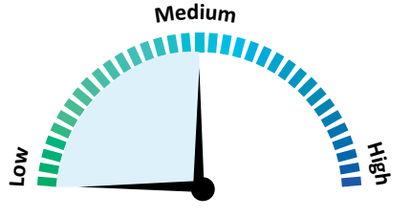
Type Of Entity	National Development Banks
Investment Stage	Depends on strategy and national objectives; from early to late stage
Impact	Prioritizes social, economic, and environmental impact. Fosters economic development.
Instrument	Debt, equity, guarantees and grants. Commercial and concessional
Supplier Of Concessional Capital	**YES** NO

Description

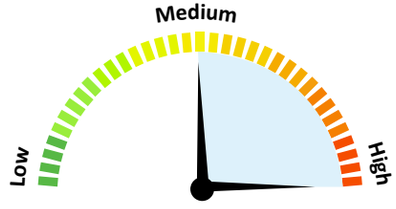
National Development Banks (NDBs) are important tools for governments to fund initiatives that foster economic development in the country.

National Development Banks are typically funded with taxpayer funds, and as stewards of public capital, NDBs often intentionally crowd in private investment, stimulating job creation and supporting SMEs and local businesses. NDBs play a critical role in catalyzing transformational climate investments by increasing financial inclusion, facilitating counter-cyclical finance, encouraging innovation by incubating markets, financing green infrastructure, fighting short-termism, and promoting environmental sustainability, and have proved to be pivotal in incentivizing clean investment at the local level, often with support from bilateral and multilateral development institutions.[1] Between 2019 and 2020, NDBs contributed to US$120 billion in climate investments globally.

1 For example, the Brazilian Development Bank (BNDES) has invested over US$33.5 billion in Brazil's renewable energy sector since 2004. In Mexico, the national development bank (NAFIN) played a key role in the country's wind sector, channeling US$70 million in resources from the Clean Technology Fund (CTF)

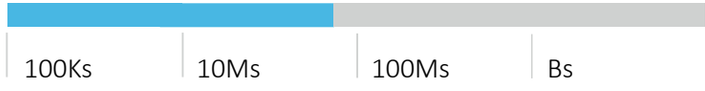


Relative Return Requirement



Relative Risk Appetite

Ticket Size



Recommended Actions By Key Source Of Capital

Some suggestions for what National Development Banks can do more of to enhance Just Financing outcomes include:

- Incorporate Just Financing Principles into all financing modalities and specifically develop approaches to generate robust pipelines of climate-investment (mitigation and adaptation) within the country.
- Ensure projects funded as part of a country's Nationally Determined Commitments (NDC) are consistent with and reflect Just Financing Principles.
- Ensure that all funding deployed integrate climate-related risks assessments, and that investments reflect (in their financial structure) incentives for low-carbon, climate resilient investment.
- Significantly ramp-up financing in instruments to sectors/market segments that support green transition, but where financial flows are limited (e.g. MSME/SME), such as equity financing, or low-cost debt financing.
- Originate and arrange financial transactions for climate aligned projects and mobilize investments in consistent structures, so that (where possible) these portfolios can then be packaged and securitized for national/international investors (including bilateral/multilateral) investors, and if required placing them into Blended Finance Vehicles.
- Create national level Blended Finance Vehicles/Funds, working where needed with bilateral/multilateral and donor investors, to create investment assets that meet the fiduciary obligations of private sector investors.
- Establishing KPIs that will significantly increase the volume of investment these organizations arrange and distribute to private investors, while fully deploying their capital consistent with prudential requirements.
- **Aggregate and share reliable transaction data among all financial stakeholders** to more effectively bring together different types of capital for low-carbon, climate-resilient, just financing opportunities.

Source of Capital

Bilateral and Multilateral Development Institutions

Type Of Entity	Development Finance Institutions (DFIs), Multilateral Development Banks (MDBs), Bilateral Development Agencies, Climate Funds
Investment Stage	Typically, mid-late stage investments. Concessional and commercial (esp. DFIs with private sector orientation)
Impact	Prioritize social, economic, and environmental impact and crowding in private capital
Instrument	Debt, equity, guarantees and grants. Commercial and concessional
Supplier Of Concessional Capital	**YES** NO

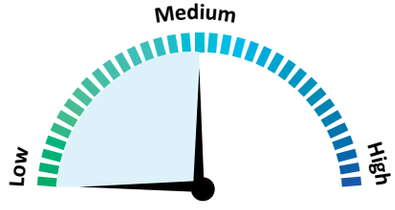
Description

Bilateral, multilateral and development financial institutions are main channels through which official development assistance (ODA) is distributed.

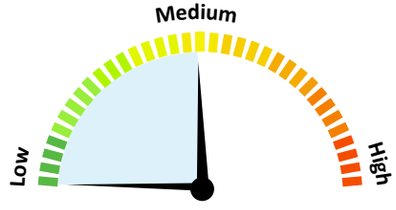
Bilateral partners distribute resources directly to the recipient country, while multilateral funders, such as the World Bank, receive funds from member countries and then distribute financial resources to recipient countries. Similarly, Development Finance Institutions (DFIs) are specialized development organizations, often majority-owned by governments, that invest in private sector initiatives in low- and middle-income countries for sustainable economic growth. Bilateral and multilateral funders provide direct climate funds to governments and projects, channel funding through dedicated climate funds such as the Green Climate Fund (GCF), act as trustees and implementing institutions of dedicated climate funds and can provide technical assistance and advisory services to recipients. They are one of the most flexible sources of capital.

DFIs are also crucial to attracting private capital, as they are a preferred co-investor for institutional investors that lack experience in a country or sector.

They can de-risk the project and can also provide trusted due diligence of the market, the commercial opportunity, and the reputation of the counterparty. A crucial challenge they face is balancing return requirements with development impact requirements. They often require closer to commercial returns – limiting their ability to crowd in private investors at the scale required.

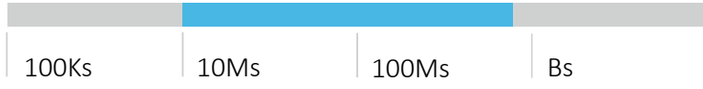


Relative Return Requirement



Relative Risk Appetite

Ticket Size



Recommended Actions By Key Source Of Capital

Some suggestions for what MDBs, DFIs and other bilateral funders can do more of to enhance Just Financing outcomes include:

- **Incorporate Just Financing Principles into all financing modalities.** Ensure projects funded as part of a country's Nationally Determined Commitments (NDC) are consistent with and reflect Just Financing Principles.
- **Ensure that all funding deployed integrate climate-related risks assessments,** and that investments reflect (in their financial structure) incentives for low-carbon, climate resilient investment.
- **Where a bilateral, multilateral or DFI supports (with grants) the development of a country's Nationally Determined Contribution,** ensure that such support emphasizes Just Financing principles and outcomes.
- **Significantly ramp-up financing with higher financial additionality** (e.g., local currency debt and equity), diversifying away from current financing practices (85%+ of annual financial commitments made as hard currency loans) that jeopardize developing economy debt sustainability.
- **Originate and arrange financial assets in high demand by investors,** distributing them to Blended Finance Vehicles, while holding assets in low demand by investors on their balance sheets.
- **Invest in mezzanine positions in Blended Finance Vehicles,** thereby creating more investment assets that meet the fiduciary obligations of private sector investors in climate-aligned projects.
- **Update the governance of MDBs and DFIs,** to further support climate action by developing KPIs that will significantly increase the volume of investment these organizations arrange and distribute to private investors, while fully deploying their capital consistent with prudential requirements.
- **Aggregate and share reliable transaction data among all financial stakeholders to more efficiently and effectively bring together different types of capital for low-carbon,** climate-resilient, just financing opportunities, to enhance national capacities in planning climate investments and strengthening institutional capacities.
- **Scrutinize the additionality of climate funding** closely in order to avoid unanticipated profits for the private sector as a result of publicly funded climate projects.
- **Consider ways to make accessing dedicated climate finance funds less bureaucratic** so that both private sector companies and governments see it as worth their time and effort to access them.
- **Make available and increase technical assistance and capacity building** to developing countries.

Source of Capital

Export Credit Agencies

Type Of Entity — Government-backed Entities, Semi-governmental entities, Private Lenders

Investment Stage — Early, mid and late stage.

Impact — Supports an ECA's own country's domestic manufacturing/enterprise base to export to other markets.

Instrument — Debt, trade finance, guarantee or support agreement; often with "concessional" terms.

Supplier Of Concessional Capital — YES / NO

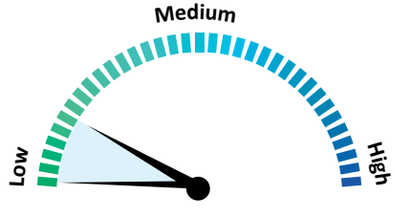
Description

Export credit agencies (ECAs) are either private companies operating on behalf of their country's government, or regionally or are governmental agencies themselves. In either case, ECAs provide support to promote domestic companies' international export of goods and services. [1]

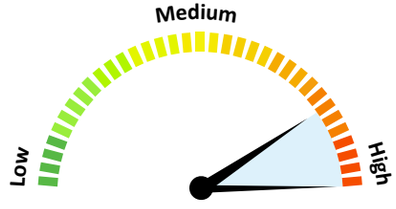
ECAs' approach to financing can be quite flexible, and they offer a wide range of support, including low-cost debt, export credits such as trade finance (short term loans, payment-in-advance, working capital loans, overdrafts, and factoring), insurance, and guarantees that allow domestic companies to mitigate the risk of establishing operations and/or selling their products internationally. Due to their flexibility, they have become crucial players in supporting exports into and from developing economies. In 2019/2020, ECAs accounted for $1.4 billion in climate related financing to developing economies.

ECAs in developed countries, such as the United States, Germany, and Canada, often finance large-scale projects in developing countries through these export credits. Notably, as they are commercially motivated and demand-driven, export credits do not count as Official Development Assistance, but they are an increasingly important source of low-cost, flexible finance, especially for investments in middle income countries. However, ECAs are not currently serving all developing economies, and significant impact could be achieved if they were to do so. They also have great potential to improve the financial risk profile of climate-related projects, for example through the provision of insurance.

1 Igor Shishlov, Anne-Kathrin Weber, Inna Stepchuk, Laila Darouich, Axel Michaelowa, Perspectives Climate Group, 2020, Study on external and internal climate change policies for export credit and insurance agencies 20-03-11_Perspectives_ECA_Study_Final_revised.pdf (unfccc.int)



Relative Return Requirement



Relative Risk Appetite

Ticket Size

100Ks | 10Ms | 100Ms | Bs

Recommended Actions By Key Source Of Capital

Some suggestions for what Export Credit Agencies can do more of to enhance Just Financing outcomes include:

- **Introduce internal policies to ensure that an ECA's own financing approaches** are in line with their government's climate change commitments and the Paris Agreement.
- **Ensure investments supported with export credits** are consistent and aligned with the NDC of the investment destination country.
- **Ensure projects funded are consistent** with and reflect Just Financing Principles and aligned w/the ECA's own objectives around job creation (both at home and abroad).
- **Ensure that all funding deployed integrate climate-related risks assessments**, and that investments reflect (in their financial structure) incentives for low-carbon, climate resilient investment.
- **Increase transparency of their ECAs,** notably making public their support provided to carbon-intensive activities and associated GHG emissions of their portfolios in line with the TCFD.
- **Encourage local investors to invest** in developing and emerging economies.

Source of Capital

Philanthropy, Private Donors, and Impact Investors

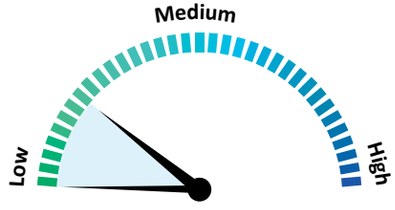
Type Of Entity	Impact Investors, Philanthropy, and Foundations
Investment Stage	Depends on strategy, from early to late
Impact	Prioritize social, economic, and environmental impact and crowding in private capital
Instrument	Grants and commercial or concessional debt
Supplier Of Concessional Capital	**YES** NO

Description

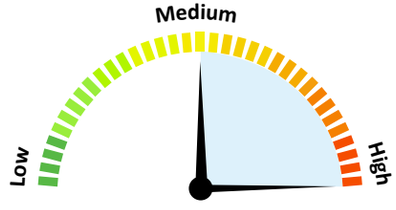
Private philanthropies, impact investors and private donors often provide capital in the form of grants or concessional funding, with an investment goal of achieving social, climate/ environmental, or other sustainability impacts in addition to economic returns.

Philanthropic, private donors and impact investors provide valuable risk bearing capital, but globally in smaller volumes than other investors. Even when making return-seeking investments, their funding is able to bear higher risks and require lower returns because of the impact-driven objectives of their investing. Funding provided by philanthropies and donors can be non-grant, for example equity or debt through programme or mission related investments. Between 2019 and 2020, private philanthropy for climate action grew from less than US$1 billion to more than US$1.6 billion.[1]

1 OECD, Private philanthropy for development SDG13: Climate Action..
https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/beyond-oda-foundations.htm



Relative Return Requirement



Relative Risk Appetite

Ticket Size

100Ks | 10Ms | 100Ms | Bs

Recommended Actions By Key Source Of Capital

Some suggestions for what Philanthropy, Private Donors and Impact Investors can do more of to enhance Just Financing outcomes include:

- **Ensure that all investments** are aligned with Just Financing Principles and integrate/mainstream into funding strategies objectives that ensure the most vulnerable countries and communities have access to funding.
- **Work with and catalyze other forms of capital**, and where needed invest in activities that other forms of capital may be less able to invest in, such as project preparation, capacity building, to ensure that low-carbon, climate resilient investments are realized.
- **Provide investment towards climate-related enterprises that can "fill gaps" in the ecosystem of finance,** such as seed and angel investment capital in order to help build a pipeline of investment for other private investors, such as VC, P/E and debt providers.
- **Be pragmatic about supporting technology** that decarbonises emissions intense industries and fossil fuels and willing to take technology risk.
- **Increase allocations to developing and emerging economies aimed at supporting adaptation,** resilience, as well as loss and damage.

Source of Capital

Private Debt Providers

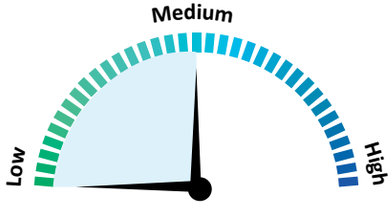
Type Of Entity	International and Domestic Commercial Banks/Financial Institutions, Private Credit Funds, Microfinance and SME lenders
Investment Stage	Typically, mid-late; for infrastructure can be greenfield/construction through operations; For enterprises, debt provided typically as corporate finance when revenue streams are established.
Impact	Finance working capital and capex for companies, as well as projects. Debt offers lower cost capital than equity, but typically has a collateral requirement which can restrict access to finance for borrowers.
Instrument	Commercial Debt
Supplier Of Concessional Capital	YES **NO**

Description

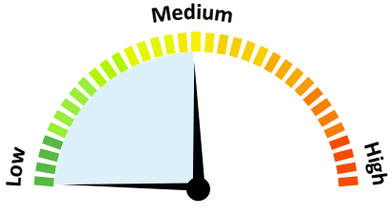
International and domestic commercial banks provide debt capital to projects and companies. Local banks play a key role in covering working capital and (in some cases) trade finance for growing businesses and financing capital expenditures.

The local banking system varies greatly from country to country and local banks typically seek revenue-generating companies with sufficient collateral to lend against and may require shorter repayment periods than is needed to support climate-related investments. In many developing economies collateral requirements can be prohibitive thereby restricting access to finance. Domestic private financial institutions provide a significant share of climate finance in developing and emerging economies in part because these institutions understand and can better manage the risks present in these markets. International banks are an important source of funding for large, bankable infrastructure projects and mature businesses but face numerous challenges to lending such as high perceived and actual risk, low sovereign credit ratings, difficulty obtaining collateral, weak legal enforcement and other barriers. Private credit funds may have a regional focus (e.g., Africa and the Middle East) and may require higher returns. Microfinance institutions necessarily operate at a smaller scale but play an important role in demonstrating the creditworthiness of underbanked borrowers and communities.

Commercial finance institutions account for nearly 40% of private climate finance; deploying $122 billion on average 2019/2020.

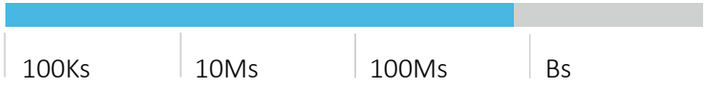


Relative Return Requirement



Relative Risk Appetite

Ticket Size



Recommended Actions By Key Source Of Capital

Some suggestions for what Private Debt Providers can do more of to enhance Just Financing outcomes include:

- Private debt providers can ensure that all funding deployed integrates climate-related risks assessments, and that investments reflect (in their financial structure) incentives for low-carbon, climate resilient investment.
- Domestic banks can promote 'Just Financing' principles in their lending practices by enlarging and targeting their lending programs toward climate investments consistent with the country's Nationally Determined Contribution.
- Domestic and international banks, and private credit funds can increase their lending envelopes to developing and emerging economies whose NDC commitments, where well-defined, reflect a long-term commitment to climate action and therefore more likely supporting policy and more favorable credit conditions.
- Domestic and international banks, and private credit funds can incorporate 'just Financing' principles in their borrower due diligence and lending policies.

Source of Capital

Private Institutional Investors and Asset Managers

Type Of Entity	Endowments, Insurance Companies, Mutual Funds, Pension Funds, Fund Managers (equity, debt, hedge funds)
Investment Stage	Depends on strategy; typically late-stage, mature investments
Impact	Driven by clients' requirements (e.g., ESG, and investment horizon)
Instrument	Invest through mutual funds, tradeable securities (stocks and bonds), other low risk mechanisms, with a typically smaller allocation to private equity funds
Supplier Of Concessional Capital	YES **NO**

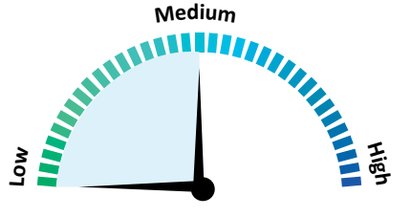
Description

Collectively, institutional investors are responsible for over US$100 trillion in assets under management – the largest of any investor group.

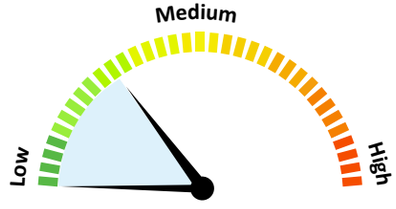
Typically, these entities pool assets from clients such as individual pension, insurance policy holders, asset management firms, pension funds, foundations, and endowments, to invest in public securities, real estate, funds, and other investment products. Institutional investors typically are looking for lower-risk investments with a large ticket size in the tens to hundreds of millions of dollars. Institutional investor's investment is governed by their strategic asset allocation which sets target allocations in asset classes, regions etc.; the allocation for developing economies tends to be low (c. 10-20%) due to lack of pipeline and risk perceptions. Institutional investment in developing economies is also constrained by deal size and liquidity. Private institutional investors tend to be a relatively heterogenous group, yet because they control such significant volumes of capital and tend to have relatively low risk appetites, they can help inform how policy makers shape and accelerate the pipeline of investable projects in developing economies.

Institutional investors' proportion of total private climate finance remains low, constituting only c.10%. of direct flows in 2019/2020; totaling $3.2 billion out of the $310 billion invested by private actors.

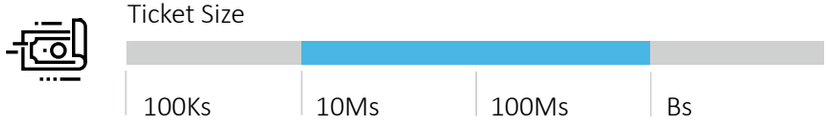
Noting that institutional investors are less likely to make direct investments into a project, preferring instead to invest into funds with a proven track record.



Relative Return Requirement



Relative Risk Appetite



Recommended Actions By Key Source Of Capital

Some suggestions for what Private Institutional Investors can do more of to enhance Just Financing outcomes include:

- **Ensure that all funding deployed integrates climate-related risks assessments,** and that investments reflect (in their financial structure) incentives for low-carbon, climate resilient investment.
- **Private institutional investors that are large enough** (e.g., funds over $50 billion) can form investment teams for direct investment that supports the just transition, such as renewable energy, storage, or grid projects.
- **Increase their target allocation for resilient infrastructure,** which can then support allocation of a larger proportion of their investments to climate-transition, such as energy or transport.
- **Encourage their investee companies to adopt climate risk assessment and disclosure practices,** as well as net-zero transition plans, which over time will result in a larger universe of climate-related investment opportunities.
- **Depending on their strategies,** private institutional investors can work more closely with governments in developing and emerging economies that may be of interest to advance pipelines of investable projects and foster an investment environment that supports climate-related investment (e.g., including through legal and regulatory changes).

Source of Capital

Private Equity

Type Of Entity	Private Equity (PE) Funds
Investment Stage	P/E funds are diverse. Some invest in early-stage (pre-revenue or low revenue), some in "growth stage", some int "buy-out" stage, some in "late stage" (e.g., mature companies). Often PE funds focus on an investment "theme" (real estate, infrastructure only, climate-tech).
Impact	Inject growth equity, increase value by improving business operations, equity capital for large real estate or infrastructure investments.
Instrument	Equity, mezzanine, quasi-equity, sometimes specialized "tax" based investing (some tax driven incentives exist for real estate or tax-preferred investing)
Supplier Of Concessional Capital	YES **NO**

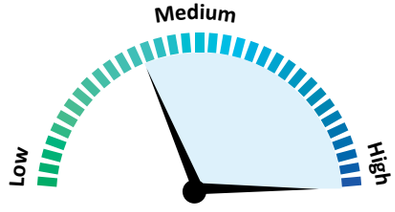
Description

A private equity fund is a private closed end fund or collective investment scheme, which invests in unlisted companies.

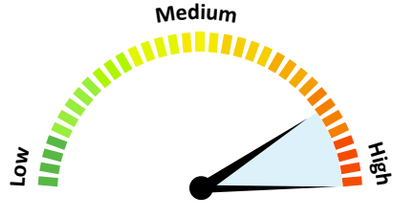
Private equity (P/E) funds are typically structured as limited partnerships and their investors (often called "limited partners", who by definition have limited liability) are typically very large institutional investors, i.e. pension funds or insurance companies, some sovereign wealth funds. As such P/E funds' risk appetites are driven by the capital of LPs/investors. P/E funds are managed by general partners who earn management fees (e.g., a 2% fee on the assets and a 20% fee or profit on the upside, often called a "carry"). Private Equity is considered an "alternative investment class" (akin to real estate, commodities and the like) and is generally less regulated compared to listed equities and banking.

Private equity funds buy entire or majority stakes in companies, and as such often have an important governance role in their investees, whether through Board seats or helping to actively manage growth.

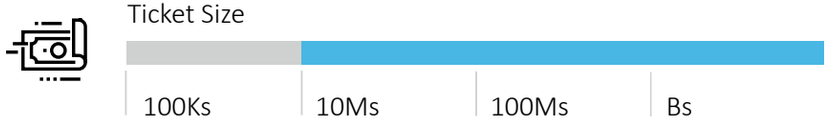
P/E funds invest according to a number of strategies, such as "growth equity" or "leveraged buyout" and have a focus on growing value for their exit. The P/E fund will typically have a fixed life (e.g. 4-7 years to invest capital) with a further period to hold investments prior to exit. The goal of the P/E fund is to profitably exit an investment during the P/E fund's life, often through an IPO or a strategic sale to a larger company. P/E funds are typically structured with a ten-year duration and possible two-year extension. This can prove particularly challenging in developing economies, where returns take longer to realize, and "exits" may be challenged by legal and regulatory constraints.



Relative Return Requirement



Relative Risk Appetite



Recommended Actions By Key Source Of Capital

Some suggestions for what Private Equity Funds can do more of to enhance Just Financing outcomes include:

- For developing economies, work closely with MDBs, DFIs and others to establish P/E funds that can support equity investments in LICs and MICs, and utilize MDB/DFI support to help address legal, regulatory and other market constraints which may hinder P/E investments (e.g. equity stakes, including Board seats, controlling interests, etc.) and exits (e.g. equity sales, including IPOs and acquisitions).
- Ensure equity investments into new companies (whether climate focused investments or not) integrate climate-related financial management requirements so that investee companies' "mainstream" climate considerations into operations to align the company with just financing and climate resilient outcomes.
- Prioritize equity investments in low-carbon, climate resilient companies and technologies.
- Ensure equity investments in companies are consistent with Just Financing Principles, including by prioritizing investments in contexts that experience the most vulnerability and need, such as LICs and LMICs..
- Engage with Limited Partners to prioritize investment in the "just transition" and climate-related resilience; and to increase allocations to developing economies, including LICs and MICs.
- Regardless of investment "theme" of the P/E Fund, engage with Limited Partners (e.g. institutional investors, pension funds, etc.) to ensure KPIs or other metrics of P/E Fund success includes climate and Just Financing outcomes. Reflecting Just Financing outcomes in KPIs creates an incentive to seek out investments in vulnerable and high-need contexts.
- Funds based in or focused on developing economies should consider making development impact and achievement of just financing outcomes a part of their value proposition to help attract LP interest.

Source of Capital

Corporate Expenditure

Type Of Entity — Multinational corporations; state-owned enterprises in which the government holds a minority stake

Investment Stage — Depends on strategy; typically late but can be early for corporate VC

Impact — Enable new technologies and business models or form strategic relationships through investments and acquisitions

Instrument — Equity; typically buy and hold

Supplier Of Concessional Capital — YES **NO**

Description

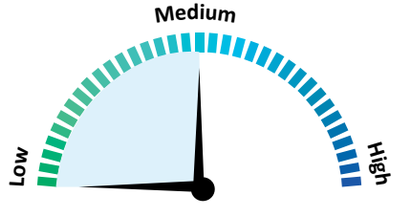
Corporate expenditure refers to capital expenditure (Capex) or investment expenditure through which a company invests in their own infrastructure, property, plant, and equipment, and/or supply chains; or where a company acquires another company (either outright or takes a controlling stake).

Private equity (P/E) funds are typically structured as limited partnerships and their investors (often called "Corporates from all sectors in all countries can undertake investments that are climate-aligned (both mitigation and adaptation/ resilience), and many corporates have announced net-zero and other sustainability commitments. Multinational corporations invest in developing economies for a range of reasons, including for example to expand their businesses to other geographies and to secure inputs along their supply chains, or though creating joint ventures with companies in the target country. Corporate investment tends to be long term investment, and when cross border is also known as Foreign Direct Investment. Such investments can be held on the corporate balance sheet or through special purpose vehicles. Larger corporates also may have venture capital arms which invest directly in innovative, early-stage companies either in the same or adjacent industries.

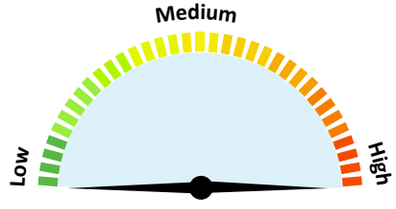
Over 20% of all climate finance globally comes from corporations' capital investments; [c.50%] of this is invested in non-developed economies.

Corporate expenditure represents 40% of all private climate flows, and in 2019/20 accounted for more than $124 billion globally and $66.2 billion in climate finance to developing economies. [1]

1 Biennial average between 2019/2020 for the following regions: Middle East and North Africa, Sub-Saharan Africa, South Asia, East Asia and Pacific, Central Asia and Eastern Europe, Latin America and the Caribbean. Source: Buchner, Barbara, Baysa Naran, Pedro Fernandes, Rajashree Padmanabhi, Paul Rosane, Matthew Solomon, Sean Stout, et al. 2021. "CPI Global Landscape of Climate Finance 2021." *https://www.climatepolicyinitiative.org/wp-content/uploads/10/2021/Full-report-Global-Landscape-of-Climate-Finance2021-.pdf*



Relative Return Requirement



Relative Risk Appetite

Ticket Size

100Ks | 10Ms | 100Ms | Bs

Recommended Actions By Key Source Of Capital

Some suggestions for what Corporates can do more of to enhance Just Financing outcomes include:

- **Incorporate Just Financing Principles into all capital expenditures,** particularly those in developing economies.
- **Ensure that all capital investments integrate climate-related risks assessments,** and maximize low-carbon, climate resilient outcomes.

Source of Capital

Venture Capital

Type Of Entity	Venture Capital (VC) Funds
Investment Stage	Early stage, typically comes after "seed" or "angel investing" stage (when an entity is "pre-revenue"); VC funds typically invest when an enterprise is already generating some revenue.
Impact	Catalyze enterprise growth, often for new technologies or new business models
Instrument	Equity, convertible debt, some mezzanine instruments such as subordinated debt some
Supplier Of Concessional Capital	YES **NO**

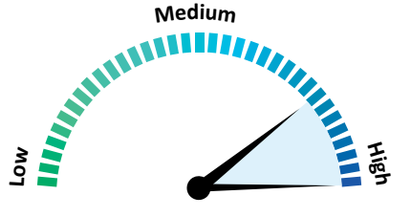
Description

Venture capital is a subset of private equity that provides early-stage capital to new or emerging companies.

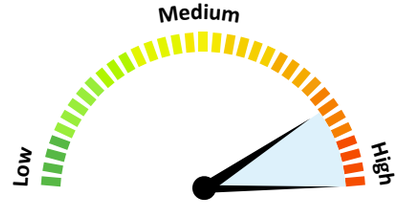
Like PE funds, VC funds are typically structured as partnerships where investors are protected (called "limited partners" with limited liability) and a general partner managing the fund and selecting investments. Limited partners are often institutional investors, larger asset managers, family offices, some corporate venture arms or high net-worth individuals (HNWI) providing capital for the fund. VC funds acquire relatively large equity stakes in early stage, "start-up" enterprises and influence over operational, investment and strategic decisions.

Start-ups face high uncertainty and VC investments have high rates of failure.

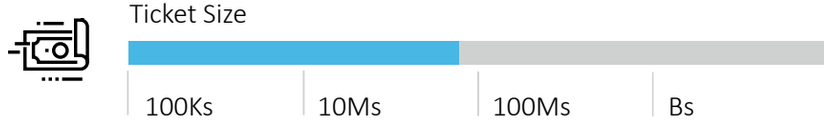
VC funds take on high risk because start-up enterprises have limited operating history, are too small to raise capital in the public markets or from other institutional equity investors; and often have not reached sufficient revenues to be fully financially sustainable, and thus unable to secure debt financing. Enterprises in which VC funds invest are often building businesses around innovative technology or business models. Much like PE funds, VC financing takes high risk with the aim of generating a high return through an exit, such as an IPO, or private or strategic sale to a larger player in the industry or a new entrant to the industry. The venture capital model is not as widely deployed in developing economies as it is hampered by limited pipelines, smaller ticket sizes, and the prevailing perception that fewer exit opportunities exist, in some cases due to a limited private sector. One critical element required to enhance VC activity and early-stage investing is the presence of an eco-system of local/regional investors. VC investing is frequently a "club-investing" style, where several VCs come together to take risk jointly in a start-up enterprise. If there are insufficient co-investors in a market, it significantly limits the ability for VC funds to fuel the segment of the market occupied by start-ups and early-stage enterprises. However, investments and ecosystem-building support by development partners, philanthropies, DFIs and local investors have helped accelerate start-up activity in developing economies.



Relative Return Requirement



Relative Risk Appetite



Recommended Actions By Key Source Of Capital

Some suggestions for what Venture Capital Funds can do more of to enhance Just Financing outcomes include:

- **Prioritize equity investments in emerging technologies that support low-carbon,** climate resilient outcomes, particularly for application in developing economies.
- **Ensure equity investments in start-up enterprises are consistent with and reflect Just Financing Principles,** and use influence with start-ups to enable them to integrate Just Financing Principles
- **Engage with philanthropic and donor capital** providers to build out the availability of "seed/angle investing" capital to generate a pipeline of climate-related investments for the VC segment, particularly for developing economies.
- **Engage with Limited Partners (e.g., philanthropy, DFIs, institutional investors, etc.)** to ensure KPIs or other metrics of P/E Fund success includes climate and Just Financing outcomes.

Annex

Annex

Table A1.1: Selected List of International Climate Finance Providers and Their Access Requirements

Name	Regional Focus	Sectoral Focus	Access criteria	Size range	Instruments
Least Developed Country Funds (LDCF) – Administered by GEF	Least Developed Countries	Focused on adaptation activities. The fund backs the preparation and implementation of National Adaptation Programmes of Action (NAPAs) to identify priority adaptation actions. It is active in areas such as agriculture and food security; natural resource management; water resources; disaster risk management and prevention; coastal zone management; climate information services; infrastructure; climate change induced health risks; and nature-based adaptation solutions.	To submit project proposals, LDCs need to work with a GEF Partner Agency. Project criteria are informed by guidance from the UNFCCC COP and include country ownership; programme and policy conformity; financing; institutional coordination and support; and monitoring and evaluation Eligibility is not restricted to ODA eligible countries. All LDCs that are part of the UNFCCC are eligible.	$1Ms- $10Ms	Grants (as incremental cost finance to address climate change adaptation relative to a development baseline)
Climate Investment Funds (CIF)	Developing and middle-income countries	Accelerate climate action by empowering transformations in clean technology, energy access, climate resilience, and sustainable forests. The CIF manages 9 programs: Clean Technology Fund, Pilot Program for Climate Resilience, Scaling Up Renewable Energy Program, Forest Investment Program, CIF Accelerating Coal Transition Investment, CIF Industry Decarbonization, CIF Nature Solutions, CIF Renewable Energy Integration, and CIF Smart Cities.	CIF funds projects through engaging governments, the private sector, civil society organisations, and implements projects exclusively with six MDBs (AfDB, ADB, EBRD, IDB, and IFC) that serve as “implementing agencies”. For countries to receive CIF funding, they must meet ODA eligibility criteria, and have an active MDB country program. CIF resources are disbursed through the MDBs as technical assistance and advisory services for and as investments for the public and private sector.	$10Ms- $100Ms (estimate)	Technical assistance and advisory services: non-reimbursable grants. Investments: senior concessional loans, subordinated loans/ mezzanine instruments, equity, convertible grants and contingent recovery grants, investment grants, and guarantees
Africa Climate Change Fund (ACCF)	The African countries that are eligible are the regional member countries (RMCs) of the African development Bank	The ACCF was established by the ADB for the purpose of building resilience and facilitating sustainable low-carbon growth in Africa. The ACCF’s focus areas are as follows: climate finance readiness for African RMCs; support RMCs for the development of NDCs; small-scale climate adaptation initiatives; gender transformative, climate-resilient and low-carbon projects and programs; support for ADBs climate change and green growth priorities; capacity building and institutional strengthening; and preparation of climate resilient and low-carbon strategies and policies.	The fund provides grants to African governments (at the national, sub-national, and regional levels), NGOs, and regional institutions. A proposal must be submitted to the ACCF Secretariat during a call for proposals. The proposals are reviewed by the Secretariat and technical experts for approval. Eligible entities must be based in Africa, and provide evidence of legal registration under the laws of the RMCs in which they operate, as a certificate to carry out development work in the RMCs in which they intend to carry out the proposed activity.	$250Ks- $1Ms	Grants
Adaptation for Smallholder Agriculture Programme (ASAP)	Country eligibility goes beyond ODA eligible countries, but recipient countries are restricted to IFAD developing Member States	ASAP is focused on providing finance to smallholder farmers, scaling up climate change adaptation in rural development programmes and mainstreaming climate adaptation into IFAD’s work	ASAP is incorporated into IFAD’s regular investment processes. The Programme Management Department is the administrative unit responsible for coordinating and overseeing ASAP programmes.	$100Ks- $1Ms	Grants
Adaptation Fund (AF)	Developing countries that are Parties to the Kyoto Protocol. Recipient countries must be vulnerable to the adverse effects of climate change	AF is focused on projects involving focus areas such as food security, agriculture, water management, and disaster risk reduction.	The Adaptation Fund allows international access through multilateral implementing entities (MIE) and pioneered fully operational direct access to climate financing through national implementing entities (NIE) and regional implementing entities (RIE). Once accredited, NIE and RIE are allowed direct access financing and manage all aspects of climate adaptation and resilience projects.	$250Ks- $10Ms	Grants

Name	Regional Focus	Sectoral Focus	Access criteria	Size range	Instruments
Forest Carbon Partnership Facility (FCPF)	Only developing countries that are members of the World Bank can participate in the FCPF	The FCPF operates through two funds: The Readiness Fund that prepares developing countries for participation in a future, large-scale, system of positive incentives for REDD+. The Carbon fund provides payments for verified emissions reductions from REDD+, for countries that have made progress for REDD+ readiness.	There is no formal accreditation process for implementing partners. An eligible country can directly authorize an entity to act on its behalf in submitting a proposal for funding support. Criteria includes the extent of programme ownership by the government and relevant stakeholders, coherence with national or sectoral strategies, and feasibility to reduce deforestation and forest degradation. Each fund has an individual set of criteria and related indicators that are utilized to evaluate projects for funding.	$1Ms- $100Ms	The Readiness Fund is grant-based. For the Carbon Fund, funds are delivered in exchange for emission reductions (results-based finance)
Global Energy Efficiency and Renewable Energy Fund (GEEREF)	Developing countries and economies in transition	Specializes in financing small and medium-sized project developers and enterprises implementing energy efficiency and renewable energy projects. It focuses on proven technologies, like small hydro, biomass, on-shore wind, and co-firing solutions (e.g., co-firing coal and bagasse); manufacturing, energy service, trading and micro finance ventures; and photovoltaic.	GEEREF invests in private equity funds that focus on renewable energy and energy efficiency projects in emerging markets. There is no formal accreditation process for the GEEREF, potential private equity partners are engaged by the GEEREF directly. GEEREF is advised by the European Investment Bank Group.	Prioritizes projects in the EUR 10- EUR 50 million range	Private equity and grants including for technical assistance
Children's Investment Fund Foundation	Sub-Saharan Africa, China, India, Europe	Focus on improving children's lives through maternal and child health, nutrition, education, tackling exploitation, opportunities for girls and young women, and mitigating climate change.	Grants awarded through identified organisations via their completion of a concept note and investment memo. Key attributes include transformational impact, evidence-based approach, cost effectiveness, scale and sustainability, and measurement and evaluation.	$100Ks- $10Ms (estimate)	Grants
Bill and Melinda Gates Foundation	Global, especially developing nations	Focus on healthcare, education, and fighting poverty. Within program strategies, most relevant to climate finance (mitigation and adaptation) include Agricultural Development (under Global Growth and Opportunity) and Emergency Response (under Global Development Division).	Grants awarded through direct solicitation or RFP to organisations fighting against poverty, disease, and inequity. Strategic investments (SIF) to entrepreneurs, companies, and organisations with similar goals. Proposed projects must be aligned to the foundation's funding priorities.	$100Ks – 1.5Bs	Grants (majority) and strategic investments (for specific foundation programmatic strategies)
IKEA Foundation	Global	Focus on improving lives of children and their families that are vulnerable or in poverty through climate change and livelihood developments. Five themes: Climate action, Renewable energy, Agricultural livelihoods, Employment and entrepreneurship, Special initiatives and emergency response, and Refugee livelihoods	Support long-term programmes and pilot projects. Core support for non-profit partners working in emergency relief.	$100Ks-20Ms	Grants
Howard G. Buffett Foundation	Global, priority on North America and Latin America	Focus on food security (agricultural resource development and management for smallholder farmers in developing world, e.g., research, conservation-based production practices, water resource management), conflict mitigation (helping bring end to active conflict and supporting communities affected by conflict), and public safety.	Does not accept unsolicited proposals or provide general operating support.	$100Ks- 1Ms (estimate)	Grants
Grameen Crédit Agricole Foundation	Sub-Saharan Africa, North Africa, Middle East, South and Southeast Asia, Central Asia and the Caucasus Region, Eastern and Central Europe	Focus on microfinance institutions, developing rural economies, and promoting inclusive finance especially women.	Criteria for project submission include: Social mission criteria, geography, presence of a sustainable economic model (two years of existence, audited financial statements, portfolio of +650K EUR, effective governance), financial ratios (PAR30 + R: <5 percent; viability: OSS> 100 percent or ROA> 0 percent; debt: D/E <5 or CAR according to regulations).	$100Ks- 1Ms	Senior loans, guarantees, technical assistance, and investment fund advice
Bezos Earth Fund	Global	Focus on nature solutions; environmental justice; decarbonization of the economy; economics, finance, and markets; and monitoring and accountability.	Initiatives selected include technical research, supporting on-the-ground action, de-risking investment, designing policy change, or in coalition building, advocacy, or political action in highest-leverages places and partnership with players.	$100Ks-10Ms	Grants
Rockefeller Foundation	US, Africa, Asia	Focused on improving access to electricity, food, healthcare, economic opportunity, and early-stage innovation.	Grants awarded through RFPs, partnerships and innovative investments to extract more value from data and private capital.	$100Ks-10Ms	Grants

A3.1 Sources of Capital

The following section provides a brief description of the sources of capital identified in the main body of Chapter 3.

A3.1.1 Private Equity

Private equity (PE) investors take shares in companies, and as such often have an important governance role in their investees, whether through Board seats or helping to actively manage growth. Private Equity funds are private closed end fund or collective investment scheme, which invests in unlisted companies. Private equity (PE) funds are typically structured as limited partnerships and their investors (often called "limited partners", who by definition have limited liability) are typically very large institutional investors or asset owners, i.e., pension funds or insurance companies, some sovereign wealth funds. As such PE funds' risk appetites are driven by the capital of LPs/investors. PE funds are managed by general partners who earn management fees (e.g., a 2% fee on the assets and a 20% fee or profit on the upside, often called a carry). Private Equity is considered an "alternative investment class" (akin to real estate, commodities and the like) and is generally less regulated compared to listed equities and banking.

Box A3.1.1 Private Equity in Developing and Emerging Economies – Climate Investment.

As of year-end 2021, global private markets "funds" (which may include equity and venture funds, private debt funds) had $3.4 trillion in investable capital. While this represents a large pool that could conceivably be mobilized toward climate objectives, in practice, developing economies represent less than 20% of total Asset Under Management in private market funds. Governments, bilateral and multilateral funders, and other stakeholders can play an important role in devising mechanisms that enhance the risk-return profile of investments in these geographies.

PE funds invest according to a number of strategies, such as "growth equity" or "leveraged buyout" and have a focus on growing value for their exit. The PE fund will typically have a fixed life (e.g. 4-7 years to invest capital) with a further period to hold investments prior to exit. The goal of the PE fund is to profitably exit an investment during the PE fund's life, often through an IPO or a strategic sale to a larger company. PE funds are typically structured with a ten-year duration and possible two-year extension. This can prove particularly challenging in developing economies, where returns take longer to realise, and "exits" may be challenged by legal and regulatory constraints.

While Private Equity prefers established, proven businesses, many opportunities in developing economies entail the construction of entirely new funds, hence carrying relatively high risk for capital invested into the fund, in addition to a potentially longer time horizon to achieve the required level of return. Overcoming this challenge is especially relevant for climate investments when traditionally attractive investments are greenfield, such as renewable energy facilities, water treatment plants, or

reforestation projects, are located in developing economies. In the case of greenfield projects, when technologies are relatively conventional, and when a creditworthy offtaker can be secured in a developing economy, PE interest is heightened, as has been the case with wind and solar PV projects.

A3.1.2 Venture Capital

Venture capital (VC) is often considered a subset of private equity but invests in much earlier-stage companies. Like PE, venture capital can often be organized as a "fund" to build a corpus of capital for these early-stage investments. When investing in startups, venture capitalists typically prioritize three factors:

- Quality of the founding team, including its ability to execute on a business plane;
- Size of the total addressable market (TAM) for the product, service or business the enterprise is addressing;
- The presence of an eco-system of local/regional investors which can enhance VC activity.

VC funds are typically structured as partnerships where investors are protected (called "limited partners" with limited liability) and a general partner managing the fund and selecting investments. Limited partners can be institutional investors, larger asset managers, family offices, some corporate venture arms or high net-worth individuals (HNWI) providing capital for the fund. VC funds can sometimes acquire relatively large equity stakes in early stage, "start-up" enterprises and influence over operational, investment and strategic decisions.

Enterprises in which VC funds invest are often building businesses around innovative technology or business models yet face high uncertainty. As a result, VC investors take on high risk because start-up enterprises have limited operating history, are often too small to raise capital in the public markets or from other institutional equity investors, and often have not reached sufficient revenues to be fully financially sustainable, and thus unable to secure debt financing.

Much like PE funds, VC financing takes high risk in early-stage companies with the aim of generating a high return through an exit, such as an IPO, or private or strategic sale to a larger player in the industry or a new entrant to the industry.

The venture capital model is not as widely deployed in developing economies as it is hampered by limited pipelines, smaller ticket sizes, the prevailing perception that fewer exit opportunities exist, and often a limited enabling environment.

A3.1.3 Corporate Expenditure

Multinational corporations invest in developing economies for a range of reasons, including to expand their businesses to other geographies and to secure inputs along their supply chains. They can do this through investing in their own infrastructure, plants, and equipment, acquiring controlling stakes, or creating joint ventures with companies in the target country. When acquiring controlling stakes in local entities, they typically seek mature companies, often market leaders whose culture and values align with theirs, and with whom they have synergies. Unlike private equity investments that have limited investment horizons, corporates' investment strategy is usually a longer term "buy and hold" strategy based around strategic interests. Corporates also may have venture capital arms which invest directly in innovative, early-stage companies either in the same or adjacent industries. Corporate venture capital (CVC) investments are often part of a broader innovation strategy and are particularly important in the context of the energy transition, where incumbents are seeking new, climate-aligned business opportunities.

Unlike other investors, many corporates invest for the long run, and often with the goal of increasing corporate and shareholder value.

Box A3.1.2 Trends Relevant for Corporate Expenditure on Climate Change

Large companies, especially those that are publicly listed, are becoming more intentional about embodying ESG and climate principles in their strategies, such as through net-zero commitments. This is already resulting in an increase in corporate expenditure and investment for mitigation and climate resilience. The drivers for large corporates to integrate climate considerations into their operations come from a confluence of (i) a desire to capture the financial investment opportunities to address climate change, including becoming net-zero and climate resilient, (ii) shareholder and employee pressures, and (iii) in some markets regulatory requirements.

Also, corporates are increasingly endorsing frameworks that can enable them to integrate climate considerations into their strategic planning and inform capital investment. Notable global initiatives include (not exhaustive):

The Science Based Targets initiative (SBTi) which supports companies to set science-based targets and action plans for emissions reductions, and

Task Force on Climate-related Financial Disclosures (TCFD) and

Taskforce on Nature-related Financial Disclosures (TNFD)

Each of which provide frameworks that will help companies and investors better evaluate climate and nature risks within a business and allocate – or invest – their corporate capital accordingly. In 2020, about 20% of all climate finance globally comes from corporations' capital investments ($124 billion), and this is expected to grow in the coming years.

Sources: Global Landscape of Climate Finance 2021. (CPI, 202), The Climate Pledge and BloombergNEF 2019

A3.1.4 Private Institutional Investors and Asset Managers

Institutional investors are one of the key participants in financial markets. They are legal entities pooling, managing and investing other people's money, usually acting as intermediary investors (Çelik and Isaksson, 2014). Collectively, institutional investors are responsible for over $100 trillion in assets under management – the largest of any investor group. Typically, these entities pool assets from clients such as individual pension, insurance policy holders, asset management firms, pension funds, foundations, and endowments, to invest in public securities, bonds, real estate, or other pooled investment funds (rarely do they make direct project investment). The preponderance of institutional investor funding originates in developed economies. The largest amounts of pension fund assets (in USD) are recorded in countries with a relatively long history of saving for retirement (e.g. Canada, the United States) or where participation in a pension fund has been mandatory or quasi-mandatory (i.e. according to collective labour agreements) for years (e.g. Australia, the Netherlands and Switzerland). The insurance industry is also especially large and developed in some of the largest economies (i.e. France, Germany, Japan, the United Kingdom and the United States). By contrast, assets of institutional investors are relatively low (in USD) in a number of countries with small or recently developed financial markets. The investments of institutional investors are usually regulated through quantitative investment limits – relatively common for pension funds – or a more principle-based approach, such as for insurance companies in many countries. Thus, these investors mainly allocate assets in stable and low-risk contexts (OECD, 2021).

For most privately funded institutional investors, the allocation for investing developing economies tends to be low. The reasons for this include (i) overall risk perceptions of developing economies, (ii) ability (or lack thereof) to exit investments, (iii) relatively small(er) deal/investment sizes in developing economies, and (iv) overall enabling environment. Private institutional investors tend to be a relatively heterogenous group, yet because they control such significant volumes of capital and tend to have relatively low risk appetites, they can help inform how policy makers shape and accelerate the pipeline of investable projects in developing economies.

Box A3.1.3 Trends Relevant for Private Institutional Investors Climate Finance Flows to Developing Economies

Only a small share of the global assets of institutional investors is allocated to developing countries, mostly to middle-income economies with well-developed investment climate and in the form of asset classes with a relatively low-risk profile and predictable returns. Institutional investors' proportion of total private climate finance also remains low, constituting only c.10%. of direct flows in 2019/2020, a total of $3.2 billion out of the $310 billion invested by private actors.

Source: Global Landscape of Climate Finance 2021 (CPI, 2022)

A3.1.5 Private Debt Providers

Local and international banks are major providers of private credit, often using asset-based lending to provide debt to businesses in developing economies. Banks play a key role in providing working capital and trade finance for growing businesses and financing capital expenditures. The local banking ecosystem varies greatly from country to country, but typically, local banks seek revenue-generating companies with sufficient collateral to lend against.

In many developing economies, local sources of debt tend to be highly constrained due to a variety of reasons, including prohibitive collateral requirements for most businesses, or because costs to recover defaulted loans is substantial where legal systems are difficult and expensive to navigate, centralised collateral registries are sometimes missing, land is not privately owned, or there is a strong social stigma against seizing personal assets such as a house. Or, in some circumstances, a Central Bank or other country-specific regulator may cap the interest rate at which local banks are permitted to lend, requiring banks to further limit risk exposure through asset requirements or other stringent means.

Box A3.1.4 Climate Finance from Private Debt Providers

Commercial finance institutions are becoming an important source of national and international climate finance flows to developing economies. Climate finance from these sources almost doubled between 2017/18 and 2019/20, from 18% to 39% in 2019/2020. Climate finance from these sources topped $122 billion in 2019/20.

Source: Global Landscape of Climate Finance 2021 (CPI, 2022)

International banks are an important source of funding for large, bankable infrastructure projects and mature businesses in developing economies. These capital sources, often require credit enhancements such as the provision of offshore collateral, guarantees, and/or political risk insurance to lend into developing economies, all of which can be challenging to provide or time consuming to arrange. US dollar denominated loans are typically priced according to the credit score of the offtaker, which cannot be higher than the credit rating of the sovereign even if the company is arguably more creditworthy. This is problematic because sovereign credit ratings in developing economies, and particularly in Africa, are typically well below investment grade[1], increasing the price of debt for the borrower. In the context of rising interest rates higher public debt increases the sovereign risk premium, affecting banks' funding costs and lending rates (IMF, 2021). In this context, local and international commercial banks can serve as financial arrangers for domestic and cross-border capital flows to climate investments respectively.

[1] *BBB for S&P and Fitch or Baa3 for Moody's*

A3.1.6 Private Philanthropies and Impact Investors

Private philanthropies, foundations, and impact strategies within family offices often provide capital in the form of grants or concessional funding focused on earning economic and social returns. When providing return-seeking investments, their return expectations are typically lower as they balance financial returns against legacy, societal and environmental impact, and values alignment. For example, while typically grant-making, foundations operating under US tax law can make Program Related Investments (PRIs) which further the foundation's charitable mission while allowing the investment to earn a return[2] which are typically below-market.

Although funding provided by family offices is often commercial in nature, some family offices allocate a portion of their investment for impact-driven strategies. Family offices can provide impact-driven funds either indirectly through their asset and fund managers, or directly into impactful projects.

Box A3.1.5 Climate Finance from Philanthropies and Impact Investors

Between 2019 and 2020, philanthropic funding for climate action grew from less than $1 billion to more than $1.6 billion, with Bezos Earth Fund playing a significant role in this increase at $329 million in commitments in 2020 alone. Other major philanthropies contributing climate funding include the Bill and Melinda Gates Foundation ($162 million annual average 2018-2020) and The Children's Investment Fund Foundation (CIFF, $150 million annual average 2018-2020). Private family offices account for around 4% of direct (not through funds or foundation) private impact investments globally.

Source: Private philanthropy for development SDG13: Climate Action (OECD, 2021)

A3.1.7 Government Finance

Government and public entities are focused on achieving social and environmental impact, and they have a wide range of tools at their disposal. Public funding plays a central role in covering certain climate mitigation and adaptation activities that do not have immediate financial returns, but its capacity is limited. Between 2019 and 2020, public funders spent approximately $321 billion on climate action, of which $38 billion was direct flows (domestic and international), primarily in grants (CPI,2021). However, in some developing economies, public funders can inadvertently crowd out private investments in a variety of ways. For example, financial regulation limiting pension funds' investment options can result in overallocation to sovereign bonds, leaving little room for investment in other domestic projects. Public capital should be wary of funding commercially viable projects under preferential terms that can distort the market. Instead, they should focus on mobilizing private capital into these commercially viable projects, as well as deploying other tools to help make projects more attractive for private investment. Often what is needed to scale climate investment is not necessarily more catalytic capital, but more strategic use of the capital and other tools that are available.

[2] *PRIs usually target below-market returns.*

A3.1.8 National Development Banks

Governments can also create National Development Banks (NDBs) to fund initiatives that foster economic development in the country. Between 2019 and 2020, NDBs contributed to flows totalling $120 billion in climate action (CPI, 2021). NDBs play a critical role in catalysing transformational climate investments by increasing financial inclusion, facilitating counter-cyclical finance, encouraging innovation by incubating markets, financing green infrastructure, acting as (financial arrangers for climate deals), countering short-termism, and promoting environmental sustainability (Netto de AC Schneider, et al., 2021). They have had a remarkable role incentivizing clean investment in multiple markets. For example, the Brazilian Development Bank (BNDES) has invested over $33.5 billion in Brazil's renewable energy sector since 2004 (BloombergNEF, 2019). In Mexico, the national development bank (NAFIN) played a key role in the country's wind sector, channelling $70 million in resources from the Clean Technology Fund (CTF) (BloombergNEF, 2019).

These institutions are a promising tool for developing economy governments to advance their climate and SDG agendas and mobilize greater investment by other actors. It is important that NDBs, as stewards of public capital, intentionally crowd in private investment and avoid actions such as offering preferential terms on deals that can be fully commercially financed. They should take only those risks that the private sector is not willing to bear, to catalyse projects with high economic returns. It is also crucial that they are impeccably managed to ensure efficient use of taxpayer dollars.

A3.1.9 Public Institutional Investors

Public institutional investors are public organisations and funds that pool resources and invest on behalf of others in a variety of assets and instruments (e.g., mutual funds, securities, and PE funds). These include sovereign wealth funds, and public sector pension companies and other funds. Sovereign wealth funds and public pension reserve funds are sometimes considered as institutional investors too although they could be seen as the ultimate owner of the assets they invest[3].

Sovereign wealth funds (SWF) are government investment funds that manage resources from the country's surplus reserves, which come from revenues from state-owned natural resources, trade surpluses, foreign currency operations, privatizations, budgetary savings, and governmental transfers. Given their autonomy, they are often large and influential. Some of the largest SWFs are Norway's Government Pension Fund ($ 1.1 trillion), China Investment Cooperation ($ 1 trillion), Abu Dhabi Investment Authority ($ 579 billion), and Hong Kong Monetary Authority ($ 576 billion) (Buchholz 2021).

In general, public institutional investors typically look for lower-risk investments with a large ticket size, and can invest in more conservative ways than private institutional investors. Between public pension funds and SWFs, SWFs are relatively more flexible sources of funds – depending on their country-specific purpose and policies – with

[3] *Sovereign wealth funds serve as financial stabilisation funds and are de facto state ownership agencies. Public pension reserve funds manage assets of the government or social security schemes to support the financing of public pensions (Çelik and Isaksson, 2013).*

the ability to provide long-term investment either directly into projects or through fund managers. When investing with climate considerations in mind, most prefer to do so through private equity, real assets, listed equities, bonds and fixed income (International Forum of Sovereign Wealth Funds (IFSWF, 2021),. SWF investments in climate change related sectors totalled $3.3 billion in the first three quarters of 2021, up from the $2.3 billion reported in all of 2020 (International Forum of Sovereign Wealth Funds (IFSWF, 2021).

A3.1.10 Bilateral and Multilateral Funders

Bilateral and multilateral funders are the two main channels through which international aid – also known official development assistance (ODA) – is distributed. Bilateral funders distribute resources directly from the donor to the recipient country, while multilateral funders are organisations such as the World Bank, a Multilateral Development Bank (MDB), which receive funds from member countries and then distributes the resources to recipient countries. Similarly, Development Finance Institutions (DFIs) are specialized development organisations, often majority-owned by governments, that invest in private sector initiatives in low- and middle-income countries for sustainable economic growth. Together they deployed an average $100 billion in climate finance in 2019/2020 (CPI, 2021). Box 6 outlines the role of Islamic Finance, most often deployed by public development agencies (both domestic and international) from host countries that support Islamic Financing approaches.

Bilateral and multilateral funders play a vital role in channelling funds towards developing economies, and crucially towards climate projects. Not only do they provide direct climate funds to governments and projects, but they also channel funding through dedicated climate funds such as the Green Climate Fund (GCF) and the Global Environment Facility (GEF). MDBs also often act as trustees and implementing institutions of these dedicated climate funds (See Chapter 1). In addition to providing funding, they provide technical assistance and advisory services. They have limitations, notably in addressing medium and small-scale financing, but they are one of the most flexible sources of capital with an ability to back projects through a variety of instruments and to deploy capital and other tools to enable blended finance approaches.

DFIs are also crucial to attracting private capital into developing economies, as they are a preferred co-investor for institutional investors that lack experience in a given country or sector and (also act as financial arrangers for large deals). They can directly de-risk the project through guarantees or taking a mezzanine position, and they can also provide trusted due diligence of the market, the commercial opportunity, and the reputation of the counterparty. A crucial challenge they face is balancing return and development impact requirements, and in practice, they often require closer to commercial returns and prefer to take a senior position – limiting their ability to crowd in private investors at the scale required.

Box A3.1.6 Islamic Financing

'Islamic finance,' or 'Shari'ah-compliant' finance, is a type of finance that complies with Islamic or Shari'ah law. It reflects the view that excessive interest rates, speculation, and financing harmful activities such as businesses related to gambling, tobacco, alcohol, should be avoided. Thus, all transactions should have a real economic purpose and not involve any exploitation of either party (International Monetary Fund (IMF, 2017).

Islamic finance encompasses different sub-sectors such as Islamic banking, Islamic insurance ('Takaful'), leasing, debt securities ('Sukuk') and equity markets, Islamic investment funds, and microfinance. Islamic finance assets have been growing substantially, with the Islamic banking sector alone reaching $1.5 trillion in 2020 (S&P Global, 2022).

Given Islamic finance's core principles of bringing about real value and economic growth, avoiding harm, and promoting financial inclusion and poverty alleviation, it aligns strongly with green and sustainable finance. Islamic finance is becoming a more important source for projects that address climate change, and it is critical for ensuring equitable access to capital for countries and projects which require Shari'ah compliance (Securities Commission Malaysia; World Bank, 2019).

Source: IMF, Islamic Finance Factsheet, 2017; S&P Islamic Finance Outlook, 2022; Securities Commission Malaysia; World Bank, Islamic Green Finance, 2019.

A3.1.11 Export Credit Agencies

Export credit agencies (ECAs) are either private companies operating on behalf of their country's government or are governmental agencies themselves. In either case, ECAs provide support to promote domestic companies› international export of goods and services (Shishlov, et al., 2020), fostering growth and employment. ECAs' approach to financing can be quite flexible, and they offer a wide range of financing solutions, such as trade finance (short term loans, payment-in-advance, working capital loans, overdrafts, and factoring), insurance, and guarantees to allow domestic companies to mitigate the risk of selling their products internationally. Due to their flexibility, they have become crucial players in supporting exports in developing economies.

Additionally, developed country export credit agencies provide financial support to foreign buyers to assist in financing the purchase of goods from national exporters. ECAs in developed countries, such as the United States, Germany, and Canada, often finance large-scale projects in developing countries through these export credits[4].

[3] *For example, if a company is located in Asia, Africa, or Latin America and wants to import heavy machinery from the United States, the Export-Import Bank of the United States (EXIM) would provide a source of financing, provided the country and term required for the loan are supported in their country limitation schedule. EXIM Country Limitation Schedule (CLS) https://www.exim.gov/resources/country-limitation-schedule*

Notably, as they are commercially motivated and demand-driven, export credits do not count as Official Development Assistance (ODA), but they are an increasingly important source of finance, especially for middle income countries (Organisation for Economic Co-operation and Development (OECD, n.d.). However, ECAs do not currently serve all developing economies, and significant impact could be achieved if they were to do so. They also have great potential to improve the financial risk profile of climate-related projects, for example through the provision of insurance.

A3.2 CHALLENGES TO THE INVESTABILITY OF CLIMATE PROJECTS

Figure A3.2.1 Life Cycle Project and Enterprises

	Explore/EarlyStage		Build	Grow	Mature
Public Sector Fundine Role (examples)	**Preparing** Funds upfront costs and activities reducing uncertainty, creating transparency, and building a pipeline of bankable projects	**Pioneering** Little to no return expectations and absorbs costs, reduces business model risk and provides advisory services; can defer rights or enhance private returns	**Facilitating** Takes a subordinate position with higher risk or provides low cost leverage to enable private capital to meet their risk- return thresholds	**Anchoring** Signaling effect and 'stamp of approval' by achieving first close or demonstrating viability to "crowd-in' private funds	**Transitioning** Exit mature and sizable investments that provide a pipeline for commercial actors
Risks of Enterprises at these "Stage!"	High upfront costs; binary risk that a project will not happen	Early-stage projects with high business model risk; high transaction costs	Sectorial or project risks; returns below commercial rates	Macro or sectorial risks; liquidity, refinancing and exit risks	Lack of local markets knowledge and deal pipeline; inefficient markets
Enterprise Funding Needs	Grants, Repayable Grants, Highly Flexible, Patient Debt	Grants, Repayable Grants, Junior Equity, Flexible Debt	Equity, Flexible Debt	Market Rate Debt, Equity; Concessional funding to "crowd-in" only	Market Rate Debt, Equity

Source: Adapted from Funding to Financing: Transforming SDG Financing for Country Success. 2018. Climate Finance Advisors and World Economic Forum. See: WEF_From_Funding_to_Financing.pdf (climatefinanceadvisors.com)

3.3 Scalable, Investable Models for Climate Mitigation and Adaptation Projects

A3.3.1 AssetCo & DevCo Structure to Aggregate Assets

Investment platforms that aggregate multiple assets through an AssetCo after they have been de-risked through the development phase can help unlock private capital at scale by meeting the size and diversification requirements of investors' mandates. A holding company structure that is composed of a series of asset companies, each with its own aggregated portfolio of assets, can create larger transaction sizes while also diversifying risk. The structure has several notable features that help to better manage risk as well and increase scale: 1) the isolation of project assets protects against the chance of a company's operator leaving or going bankrupt; 2) the aggregation of projects across geographies builds a larger asset pool, enabling both scale and larger ticket sizes; 3) costs and risks incurred before and after commission and sale are through a Purchase and Sale Agreement (PSA) and an Operating Services Agreement (OSA), respectively (CrossBoundary, 2020).

The structure has been proven across multiple geographies in Africa. For example, CrossBoundary Energy Access established Africa's first project financing facility for minigrids with asset companies located in Tanzania, Nigeria, and Zambia. Each has a portfolio of aggregated minigrids, which it acquired from minigrid developers, allowing those developers to recycle capital into developing new assets. The first transaction that this facility realized was a $5.5M to purchase 60 mini-grids from PowerGen in Tanzania in 2019, and it will deploy a total of $50 million in capital to its near-term pipeline (CrossBoundary, 2020).

Critically, the development of this model required a blended finance approach. As minigrids are difficult to finance given their small scale and the fact that they are often serving the poorest population, the model used blended finance to unlock capital to the sector, ultimately aiming to connect more than 200,000 homes and businesses once the full $150 million target is deployed. This structure was set up in 2019 with funding from Rockefeller Foundation, Ceniarth, DOEN Foundation, Shell Foundation, and UK Aid. Earlier this year it closed an additional $25 million from ARCH Emerging Markets Partners, Bank of America, and Microsoft Climate Innovation Fund, demonstrating the scalability of the model and ability to mobilize private investment into a challenging sector.

A3.3.2 Results-Based Financing to Expand Market Size for Climate Products and Services

Through a results-based financing (RBF) scheme, the funder pays a company, public entity, or project for the delivery of specific impact outcomes. Funding is disbursed as milestones are achieved, and if the milestones are not reached, funding is not disbursed. This mechanism aims to align the incentives of all parties to bring about efficiency gains. RBF schemes are highly flexible. In most cases, RBF schemes are supported by a concessional component which lowers the costs for the customer. However, as they require additional monitoring and evaluation processes, as well as the use of independent verifiers, these structures run the risk of becoming administratively burdensome and potentially costly.

RBF schemes have proven particularly effective in mobilizing the private sector to help households gain access to renewable energy in Africa, where 600 million people do not have access to sustainable, affordable, and reliable energy. For populations living far from the electricity grid, solar home systems can offer clean electricity at affordable prices. However even as they are becoming more affordable, the upfront costs remain too high for most families (International Energy Agency (IEA, 2017). As a result, solar home system companies either face a small total addressable market size or must offer financing schemes to customers, taking on the role of a financial institution. RBF schemes can partly subsidise and help lower the costs of acquiring solar home systems, thus allowing products to reach mass-market while still supporting a market-driven approach. In contrast to funding approaches which fully subsidise products or services – at times distorting the market and discouraging or displacing private sector actors –RBF provides funding for private providers to achieve specific outcomes. These models can be catalytic for new entrants and growth of businesses that can, in turn, attract private investment on commercial terms. However, the model must be appropriately designed to avoid over-subsidizing the market or subsidizing the wrong outcomes. For example, providing a payment for each new solar home system results in an uptick in sales but does not necessarily ensure proper servicing of these products over time.

RBF schemes can also help to unlock commercial lending by serving as guaranteed output-based revenue. Paired with a revenue pledge, guarantee, or other credit enhancement tools, RBF can help reduce the collateral required for off-grid energy companies to obtain a loan. These schemes have also been successfully deployed for climate adaptation in the waste sector. This was the case in the Hebron and Bethlehem governorates of West Bank and Gaza where instability led to inadequate infrastructure and poor public service provision. Between 2012 and 2018, the World Bank and other donors provided support, through an Output-Based Aid (OBA) subsidy for the construction of a new sanitary landfill. This scheme not only achieved its primary objective of improving waste management service provision and fee collection, but it also encouraged a private sector company to enter the market in the West Bank, as the scheme provided a payment guarantee (World Bank, 2014).

A3.3.3 Sustainability-Linked Bonds to Reward Achievement of Impact Targets

With the increased interest in green, sustainable, social, and blue ("labelled") bonds, concerns over greenwashing have also increased. Labelled bonds are typical "plain vanilla" issues in the capital markets whose use of proceeds are addressed at funding environmental and social projects. However, a common criticism of labelled bonds is that they do not require the issuer to make enforceable achievements beyond the outcome expectations expressed in the use-of-proceeds framework.

Sustainability-Linked Bonds (SLBs) offer an improved model, as they shift the focus from reporting on the use-of-proceeds to achieving pre-specified results from which tangible consequences follow. In short, an SLB is a bond whose structural characteristics change if the issuer fails to achieve a pre-specified environmental or social target. Although the instrument does not completely eliminate the risk of greenwashing, it can be considered a step in the right direction, as it focuses the attention on achieving measurable outcomes. As this market evolves and investors become more aware of environmental and social impact measures, they increase their demands on these objectives and penalize more strongly if they are not met. Regulators can also continue to work on the enforcement of penalties for faulty disclosure practices.

Table A3.3.1 Examples of Sustainability-Linked Bonds issued

Issuer	Description	Mitigation Target
Enel, September 2019	First SLB ever issued	Increase installed capacity in renewable energy sources to at least 55% by December 2021, from 46% in 2019
	Multinational energy company	If not met, the bond would undergo a 25bps step-up (it would become more expensive for the issuer) (Credit Agricole n.d.)
Netcare, March 2021	Africa's first SLB	Reduce energy consumption (reduction of 22% on energy intensity per bed by 2023) and increase water efficiency
	Leading South African private healthcare provider	If met, the bond will benefit from a step down in the coupon rate (it will become less expensive for the issuer) (Smith 2021)
Chile, February 2022	First SLB issued by a sovereign	The country will emit no more than 95 million metric tons of CO2 by 2030, and 60% of its electricity production will be generated from renewable energy by 2032 (Green Finance for Latin America and the Caribbean (GFL) 2022) (Societe Generale 2022)

Notably, the SLB model is applicable to lending more generally through attaching financial terms to the achievement of sustainable targets, and it has also been applied

with adaptation and social outcomes as targets. For example, the IFC provided its first sustainability-linked loan to the water utility in Izmir, Turkey in 2021. The loan was denominated in Turkish Lira for an amount equivalent to $30 million and will be used to fund water, wastewater, and stormwater infrastructure improvements in the city. The sustainability target is linked to gender equality; the offtaker will aim to hire at least 300 female contracted employees by December 2025 into jobs where women are currently under-represented. If met, the utility company will receive a decrease in its interest rate (International Finance Corporation (IFC), 2021).

This model provides an opportunity to invest in mitigation-related mechanisms, as investors become increasingly aware of the importance of working with companies to reduce emissions, as opposed to exclusion or divestment. The model creates incentives for issuers to improve climate outcomes by setting a tangible consequence linked to the achievement of measurable environmental and social outcomes. The consequences and enforcement for failing to achieve the targets should continue to evolve and improve with time.

A3.3.4 Corporate Offtake Agreements to Unlock Project Finance for Creditworthy Customers

A project finance model utilizing long-term offtake agreements can help scale green technologies as well as expand access to adaptation solutions. Creditworthy corporations which can provide a bankable, long-term offtake agreement represent a strong potential customer segment for project developers across sectors. While decarbonizing operations, sourcing cleaner energy, constructing a water treatment plant, or implementing nature-based solutions can make economic sense, in most cases the company faces high upfront costs and wishes to simply pay for the product or service rather than take on the responsibility of ownership, operations, and maintenance. A long-term offtake agreement unlocks project finance models through which a third party develops and operates the asset and charges the company for its use. On the flip side, although long term agreements provide price certainty, they may not offer the most flexible way to take advantage of potential price efficiencies in the market.

For example, Rio Tinto entered into a long-term power purchase agreement (PPA) that would allow them to use a combination of solar and wind energy to power their QIT mine in Madagascar. Power will be generated by over 18,000 solar PV panels and up to nine wind turbines located at a nearby port. An independent power producer will oversee the design, financing, and maintenance of the renewable energy plant. In addition to reducing emissions at the mine, the plant will also provide power to a nearby town of 80,000 people. This model is investable and can be replicated across geographies and industries. Critical to its investability is identifying a creditworthy

offtaker – whether a mine, multinational company, or other entity. In the case that the offtaker does not have the necessary credibility, the agreement can be guaranteed by a third party entity that meets the investor's criteria.

Box A3.3.1 Scaling Solar – A World Bank Initiative Promoting Adoption Of Solar Energy In Africa

Scaling Solar has successfully helped countries to overcome a series of market-wide challenges facing utility-scale solar power plants: limited institutional capacity, lack of scale, lack of competition, high transaction costs, and high perceived risks. The approach could be replicated in other emerging sectors facing similar challenges such as nature-based solutions.

In 2015 the IFC, a member of the World Bank Group (WBG), launched Scaling Solar to promote further development of solar photovoltaic (PV) systems. The program combines multiple WBG services (advice, simple and rapid tendering, fully developed templates, competitive financing, and insurance and risk management and credit enhancement) into a single platform to create viable markets for solar energy in each client country. It facilitates collaboration between project developers and governments committed to support the construction of solar PV systems.

The program has allowed for fast execution (templates that enable rapid preparation), cost optimization (tenders designed to attract competition) and greater security (having IFC as central manager and coordinator, and through bankable documents offered to bidders on a non-negotiable basis with pre-approved financing available). Notably, the project has been vital to addressing energy security in the context of droughts affecting hydropower generation (Zambia), or floods that affect transmission and distribution systems (Mozambique). Additional projects are found in Senegal, Uzbekistan, Cote d'Ivoire, Afghanistan, Togo and Madagascar.

Source: World Bank Group, Scaling Solar, n.d.

A3.3.5 Green Infrastructure Fund to Coordinate Diffuse Beneficiaries

Green infrastructure funds can pool investment across multiple public and private sources, to provide patient capital or subsidies for the implementation of green infrastructure (e.g., water catchment restoration, mangrove coastal protection). A clear example of these are water funds, which enable water users to finance conservation and improvements to land management, with the aim of protecting water quality and quantity (The Nature Conservancy, n.d.). Typically, these involve a public-private partnership and long-term financing mechanism in the form of an endowment fund (spending only interest and earnings), a sinking fund (designed to disburse entire capital over a period of time), or a revolving fund (replenished periodically through fees and donor contributions).

This model is being applied in diverse contexts around the world, including Rio de Janeiro, Brazil, Upper Tana in Nairobi, Kenya, and Cape Town, South Africa. The Greater Cape Town Water Fund (GCTWF), was established after the 2017/18 drought and promotes nature restoration as a long-term solution, focused on removing water-guzzling invasive pine, gum, and wattle tree species from about 50,000 hectares. After a return on investment analysis, catchment restoration was shown to be substantially more cost-effective than alternative water augmentation solutions (The Nature Conservancy, 2019). Importantly, actions enabled by the fund have significant co-benefits in terms of enhancing biodiversity, fostering employment, and other socio-economic indicators. Understanding and valuing such co-benefits is a typical challenge these structures face.

To make water funds more investable and scalable, The Nature Conservancy (TNC) and partners have standardised the water fund development process around a five-phased cycle: feasibility, design, creation, operation, and maturity. While each water fund varies based on local conditions and context, all share five common pillars: governance, science, finance, implementation, and communications (The Nature Conservancy n.d.). Looking forward, evolving ways of assigning monetary values to ecosystem services allow alternative revenue streams to flow to these models, which in turn allow decision-makers to assess the relative benefits of green infrastructure alongside, or instead of, gray infrastructure in the water sector and beyond.

A3.3.6 Pay As You Save to Eliminate Up-Front Cost to Consumer

Pay-as-you-save (PAYS) is a model in which a utility or other service provider covers up-front financing of cost-saving activity and passes this on to the customer over time through a voluntary tariff. The customer's total tariff remains equal or lower as a result of the cost-savings activity. A key challenge of the model is related to the measurement of savings and the calculation of applied tariffs. Also, this model only applies to services for which customers pay based on their consumption and for which there is real opportunity for cost savings.

PAYS originally emerged as a model in which a utility's customer chooses improvements to be made to gain service utilization efficiency (for example, the acquisition of a smart meter), and the utility pays a contractor to make the improvements. The customer accepts a voluntary tariff from the utility through which the contractor›s cost is repaid, and this voluntary tariff is in turn offset by the customer's savings. The utility has certainty in recovery and reduces its load, and the client benefits from cost savings without having to pay up-front for the improvement (Walton, 2016). The model has been adapted to enable greater investment in clean transportation by reducing the upfront cost of electric buses. A utility invests in the battery and charging station for bus owners, and subsequently recovers its costs with an additional fee on bus tickets (Global Innovation Lab for Climate Finance, n.d.). This model has been applied in Santiago, Chile, and it is being piloted in other cities. An electric bus purchased through this model results in lower operations and maintenance costs over time than a diesel bus, while also reducing greenhouse gas emissions and urban pollutants (Global Innovation Lab for Climate Finance, n.d.).

PAYS is a highly scalable model, as it can be replicated for a variety of services provided by both the public and private sectors, bringing about efficiency gains and reducing barriers to customer adoption.

A3.3.7 Parametric Insurance to Address Disaster Risk

Climate change is increasing developing countries' exposure to extreme weather events. Losses from weather-related catastrophes are often significant and can be difficult to measure with traditional methods. Objective parameters can serve as indicators of the magnitude of natural disasters and hence, as criteria for the coverage that clients may need for post-disaster recovery.

Instead of paying for the actual financial loss incurred, parametric or index insurance schemes cover the probability of a predefined event occurring (for example, drought, hurricane, or earthquake) after which pre-arranged payments are automatically triggered. The model allows for flexibility in design and is becoming more popular with private companies, governments, and public-private partnerships.

The African Development Bank (AfDB)›s Africa Disaster Risk Financing (ADRiFi) program is an example of such a model implemented by private, public, and donor institutions. Africa Risk Capacity (ARC) and the AfDB signed a memorandum of understanding in March 2017 to help African states manage disaster risk and improve their response to climate-related hazards (Evans, 2022). Through ADRiFi, a group of countries, including The Gambia, Zimbabwe, Mauritania, Niger, Sudan, Madagascar, Zambia, and Malawi, are initially granted a portion of the insurance premium for the transfer of sovereign drought risk and receive assistance to improve their disaster response mechanisms. Madagascar and Zambia have already received disbursements that have helped their populations cope with the effects of severe drought. The program effectively makes premium subsidies sustainable through concessional funding and helps countries move toward proactive risk management. Since its inception, it has expanded to

additional countries and welcomed new donors. It is now being extended to cover cyclone risk in some countries (African Development Bank (AfDB), 2021).

A growing interest in parametric insurance is coming from sectors that are most exposed to weather risk, including agriculture, real estate operations, construction, tourism, and transportation. Weather index insurance is an investable and scalable tool to advance the penetration of agricultural insurance in emerging and frontier markets. However, there is an important caveat: weather index insurance is less expensive than area yield insurance, partly because of its higher basis risk (i.e., insurance payouts correlate poorly with actual crop losses), which makes it less attractive to farmers. This suggests that combining weather index insurance and area yield insurance can lower the basis risk and the cost of premiums. Aggregators, such as input and utility companies and governments, can play a critical role in targeting potential customers and marketing the service.

A3.3.8 Technology Business Accelerator to Address Barriers to Investment into Novel Technologies

Adaptation solutions require technologies being deployed at scale in developing economies, particularly those with high vulnerability to climate change. However, "adaptation" is not well defined, and companies do not often see themselves as climate adaptation companies even if they are creating significant impact in this area. Additionally, transaction costs of investors searching for adaptation investments and companies seeking investment are high. Lack of a strong pipeline of investable opportunities in adaptation is also clear challenge. Moreover, constraints around ticket sizes, market failures around environmental impact measurement, and risk perception have hindered the development of small and medium-sized enterprises in emerging markets that offer technologies, products, and services that seek to build resilience to climate change impacts.

Incubators and accelerator facilities can help build the ecosystem for early-stage companies in developing economies that have technologies, products, and services for building climate resilience – including supporting technology transfer from developed to developing economies. They can prepare and aggregate investment opportunities to facilitate match-making and ease the search process for both capital seekers and capital providers. They can also offer technical assistance to support companies to become more investable.

An example is the Adaptation SME Accelerator Program (ASAP) which aims to enhance the availability and uptake of climate adaptation solutions by identifying, engaging and empowering SMEs providing such solutions in developing countries. ASAP is an initiative led by the Lightsmith Group, in partnership with the Inter-American Development Bank, the Global Environment Facility, and Conservation International. ASAP supports Adaptation SMEs by partnering with incubators and accelerators while

integrating adaptation curricula into existing programs. ASAP also targets the broader barriers to the supply and uptake of climate adaptation solutions by developing a taxonomy of adaptation companies and solutions, mapping regional market sizes, segments, and drivers, and identifying hundreds of adaptation SMEs in a directory. By creating a guideline on what type of technologies, services, and products qualifies as an adaptation solution, the taxonomy creates a shared framework to identify and engage with adaptation SMEs. The Adaptation SME Directory further enables a network and a central database for both adaptation companies and related stakeholders to convene.

Similarly, CIF Business Development for Resilience Program (BDRP) aims to develop a pipeline of innovative demonstration projects supporting enhanced climate resilience for businesses in various emerging markets. For instance, in partnership with Asian Development Bank a project (Climate Investment Funds (CIF), 2021)in the agri-business sector will include support for market screening, relationship building with potential client companies, preparatory discussions on financing for working capital and capital expenditure purposes, and project design to maximize the climate adaptation benefits.

These solutions decrease the barrier to funding and incentivise greater investment into technologies across sectors, such as water-efficient irrigation, tech-enabled flood insurance, and energy management. This blended finance model enhancing coordination and reducing transaction costs is scalable to other climate sub-sectors such as green infrastructure and mitigation technologies, or to specific geographies.

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Glossary

Blended Finance	Blended finance is the strategic use of development finance for the mobilisation of additional finance towards sustainable development in developing countries.
CapEx	Capital expenditures, or investments to acquire or upgrade physical assets such as property, plant, or equipment.
Catalytic capital	Capital that seeks to bring additional sources by providing patient, risk tolerant, concessionary, and flexible conditions to achieve breadth and depth of impact.
Catalytic Funding	Financial resources deployed with three characteristics: 1. Deployed with the intent to make a positive economic development, social and/or climate impact in LICs & MICs (e.g., aligned to the SDGs and/or Paris Agreement) 2. Deployed with the intent to mobilize private investment with financial additionality- mobilize private investors to make a fiduciary investment they would not otherwise make (e.g., credit enhance a loan from "CCC" risk to "BB" risk to meet the investor's fiduciary requirements) 3. Deployed at non-commercial financial terms, i.e., on financial terms a private investor, MDB and DFI is not able/willing to give their specific mandates.
Climate-aligned Finance	Finance flows that are consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.
Climate Finance (Chapter 1)	Refers to local, national, and international financing from a range of public, private and blended financing seeking to address mitigation and adaptation to climate change through the established mechanisms of the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol and Paris Agreement.
Climate finance (Chapter 3)	Funding for projects that support in reducing emissions and enhancing sinks of greenhouse gases and aims at reducing vulnerability of, and maintaining and increasing the resilience of, human and ecological systems to negative climate change impact.
Climate Technologies	Technologies that are used to address climate change via the reduction of GHG emissions (e.g., renewable energies such as solar, wind power and hydropower, and support communities to anticipate) and respond to the effects of climate change (e.g., droughts-resistant crops, early warning systems, seawalls, satellite monitoring systems for climate risk).
Climate-smart agriculture	Approach to help adapt agricultural methods, livestock, and crops to the effects of climate change and, where possible, counteract it by reducing greenhouse gas emissions from agriculture.
Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC)	Common but Differentiated Responsibilities and Respective Capabilities (CBDR–RC) is a key principle in the United Nations Framework Convention on Climate Change (UNFCCC) that recognises the different capabilities and differing responsibilities of individual countries in tacking climate change. The principle of CBDR–RC is embedded in the 1992 UNFCCC treaty. The convention states: "… the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions." Since then the CBDR-RC principle has guided the UN climate negotiations.
Credit enhancement	Credit enhancement is the improvement of the credit profile of a structured financial transaction, or the methods used to improve the credit profiles of such products or transactions.
Creditworthiness	Confidence to an investor in the future revenues of an entity.
Creditworthy	Deemed suitable to receive credit.
Debt	An obligation that requires the debtor to pay back money or other agreed-upon value to the creditor.
Demand-side	Projects, technologies, or solutions directly reducing the consumption of fossil fuels and greenhouse gas emissions.
Development Finance	A combination of public and private finance made available to advance specific development objectives, including on education, health, and the Sustainable Development Goals.
Development Risk	The risk that investors and operators bear during the development stages of a project before commercial operations begin.
Due diligence	Comprehensive appraisal of a business undertaken by a prospective buyer, especially to establish its assets and liabilities and evaluate its commercial potential.
Economic return	The potential socio-economic and environmental costs and benefits that a given project can produce.
Emerging market	The economy of a developing nation that is becoming more engaged with global markets as it grows.

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