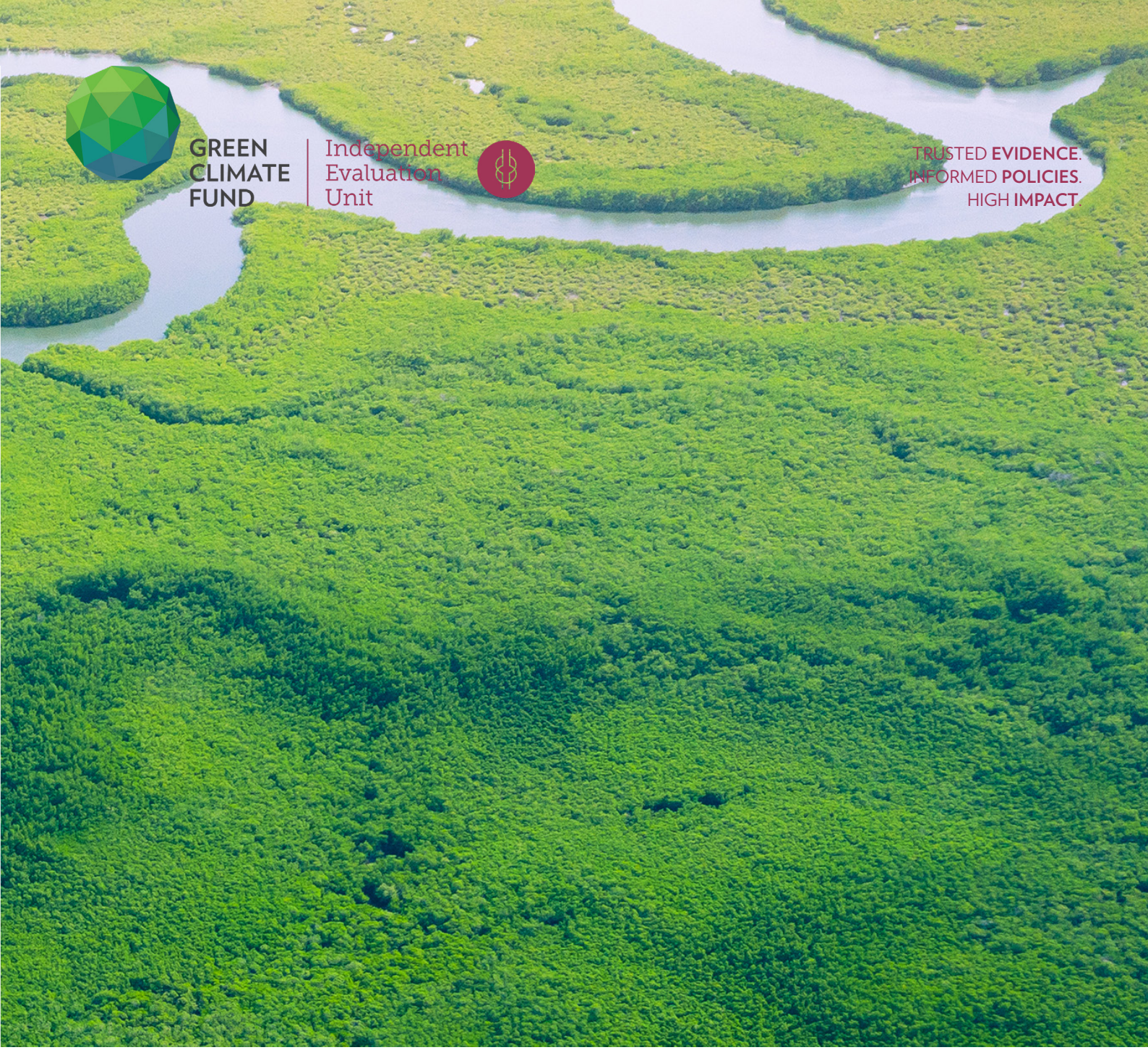

INDEPENDENT EVALUATION OF THE ADAPTATION PORTFOLIO AND APPROACH OF THE GREEN CLIMATE FUND

Final Report

February 2021

GREEN CLIMATE FUND
INDEPENDENT EVALUATION UNIT

Independent evaluation of the adaptation portfolio and approach of the Green Climate Fund

FINAL REPORT

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FOREWORD

The global landscape has changed dramatically since the Rio Summit in 1992 and the creation of the UNFCCC. We have witnessed fundamental changes in how countries are governed, how they trade, how citizens and communities communicate, and how people travel. All this time emissions of greenhouse gases have been increasing. Climate change and the COVID-19 pandemic are two of the challenges that will likely define not only 2021 and the run-up to the twenty-sixth session of the Conference of the Parties, but also the shape of multilateral cooperation in the coming decade.

Climate mitigation, in a similar fashion to international regulations for trade or the protection of biodiversity, is a global public good from which benefits accrue for the governments and people of all states through time; and, in the case of climate change, especially for those who expect the most severe and immediate impacts. A further example of such a public good is the development of vaccines for common diseases, including COVID-19. Once vaccines are developed, the knowledge of how to tackle diseases can benefit all states and all people. However, in all of these areas, we have seen progress in multilateral cooperation to provide global public goods stall in recent years, including in trade, biodiversity, vaccines and mitigation. And while discussion on these matters is taking place, emissions of greenhouse gases are increasing.

This brings us to the pivotal role of adaptation. Since the early 2000s, adaptation that tackles the effects of climate change, has steadily grown in prominence alongside mitigation in combating global warming. Adaptation interventions are different from mitigation interventions. They do not typically provide global public goods. Instead, they provide public goods within a nation, or a range of private goods or toll goods. They can also support common pool resources which all actors in the vicinity can use, but their use depletes the amount available for others. Adaptation interventions cover a broad spectrum of activities, across sectors and often across scales. And while all mitigation interventions can be measured against a common metric, the reduction of CO_2^e, we are not yet able to measure adaptation interventions against such a metric, making the tracking of results and impacts challenging.

This Independent Evaluation of the Adaptation Portfolio and Approach of the Green Climate Fund, completed by the Independent Evaluation Unit, assesses what it takes for the GCF, a young, large and ambitious climate fund, to contribute to adaptation interventions with greater scale, depth and duration in developing countries.

It highlights how the GCF can facilitate scaling and growth by utilizing its unique position and high risk appetite to finance projects at scale. It shows how the GCF can use its convening power to increase coherence and complementarity with other climate funds and adaptation actors. It also demonstrates how the GCF Readiness programme for adaptation planning can offer additional support and guidance to meet country needs. The evaluation outlines how the GCF can use a wider range of financial instruments, such as equity and guarantees, where co-finance ratios are higher to help close the adaptation finance gap. It also highlights how the GCF needs a strategy for the private sector's role in adaptation, and shows why the GCF needs to consider the delivery of successful structures, institutions or systems as actual project impacts. These recommendations will support the GCF mandate to facilitate a paradigm shift in adaptation.

The COVID-19 pandemic offers a window on what a global crisis looks like. This evaluation defines a route for the GCF to enhance delivery of adaptation at scale, with depth and duration to prevent a climate crisis in developing countries. It is a call to action.

Youssef Nassef, Ph.D., Director, Adaptation Division, United Nations Climate Change Secretariat

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This evaluation was launched by Dr. Jyotsna Puri, Head of the IEU (2017–2020), Dr. Solomon Asfaw, Principal Evaluation Officer (2018–2020), and Dr. Martin Prowse, Evaluation Specialist, with an evaluation team of Ms. Galyna Uvarova, Mr. Daisuke Horikoshi, Mr. Peter Mwandri and Mr. Byungsuk Lee, from the IEU. It was completed by Dr. Martin Prowse, under the guidance of Mr. Andreas Reumann, Head ad interim of the IEU, with the integral support of Dr. Archi Rastogi.

The evaluation has been jointly written and co-owned by a team of experts comprising Mr. Matthijs de Bruijn, Dr. René Kim, Mr. Max Markrich and Ms. Silvia Binet and Ms. Kulthoum Omari as a core team. We also acknowledge Dr. Claudio Volonte and Professor Saleemul Huq for their significant contributions in the review process.

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GUIDE FOR BUSY READERS

The IEU recognizes its evaluation reports are distributed to a wide range of stakeholders with different objectives and time frames for reading them.

The IEU makes the following suggestions on how you might approach reading its Independent Evaluation of the Adaptation Portfolio and Approach of the Green Climate Fund:

- If you have **15** minutes: the Executive Summary.
- If you have **30** minutes: the Executive Summary and the first page of chapters III-V, VIII and IX.
- If you have **45** minutes: the Executive Summary and the first page of chapters II-IX.
- If you have **70** minutes and want a high-level focus: the Executive Summary, chapters II, III and VI.
- If you have **90** minutes and want more detail on GCF programming: the Executive Summary, chapters IV, V, VII, VIII and IX.
- If you have **two hours**, the full report.

ABBREVIATIONS

ACTS	African Centre for Technology Studies
ADB	Asian Development Bank
AEs	Accredited entities
AF	Adaptation Fund
AFAWA	Affirmative Finance Action for Women in Africa
AfDB	African Development Bank
APR	Annual performance report
ARAF	Acumen Resilient Agriculture Fund
ASAP	Adaptation for Smallholder Agriculture Programme
CABEI	Central American Bank for Economic Integration
CAF	Cancun Adaptation Framework
CAREC	Regional Environmental Centre for Central Asia
CCT	Conditional cash transfer
CEF	Construction Equity Fund
CEP	Committee for Environmental Protection
CIO	Climate Investor One
CN	Concept note
COP	Conference of the Parties
CP	Country programme
CPI	Climate Policy Initiative
CSO	Civil society organization
DAE	Direct access entities
DBSA	Development Bank of Southern Africa
DMA	Division of Mitigation and Adaptation
EbA	Ecosystem-based adaptation
EBRD	European Bank for Reconstruction and Development
ECA	Export Credit Agency
EE	Executing entity
ESIA	Environmental and social impact assessment
ESS	Environmental and social safeguards
FAA	Funded activity agreement
FMCA	Financial management capacity assessment
FMO	Netherlands Development Finance Company
FP	Funding proposal

FPR	Forward-looking Performance Review
GCF	Green Climate Fund
GDP	Gross domestic product
GEF	Global Environment Facility
GHG	Greenhouse gas
GI	Governing Instrument
GIZ	*Deutsche Gesellschaft für Internationale Zusammenarbeit*
IAE	International accredited entity
IDB	Inter-American Development Bank
IEU	Independent Evaluation Unit
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IIED	International Institute for Environment and Development
IIF	Initial investment framework
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IPMS	Integrated portfolio management system
IRM	Initial Resource Mobilization
IRMF	Integrated results management framework
IsDB	Islamic Development Bank
ISP	Initial Strategic Plan
LDC	Least developed country
LDCF	Least Developed Country Fund
LORTA	Learning-oriented Real-Time Impact Assessment
M&E	Monitoring and evaluation
MDB	Multilateral development bank
MFS	Mobilizing funds at scale
MSME	Micro, small- and medium-sized enterprise
NAP	National adaptation plan
NCU	National coordination unit
NDA	National designated authority
NDC	Nationally determined contributions
NGO	Non-governmental organization
ODA	Overseas development assistance
ODI	Overseas Development Institute

PCL	Pre-emptive adaptation, contingent arrangement and loss acceptance framework
PES	Payments for environmental services
PMDS	Performance Management and Development System
PMF	Performance measurement framework
PPCR	Pilot Program for Climate Resilience
PPF	Project Preparation Facility
PSAG	Private Sector Advisory Group
PSF	Private Sector Facility
PSO	Private sector organization
PV	Photovoltaic
RBP	Results-based payments
RCU	Regional coordination unit
RFP	Request for proposals
RMF	Results management framework
RPSP	Readiness and Preparatory Support Programme
SAP	Simplified Approval Process
SCCF	Special Climate Change Fund
SEI	Stockholm Environment Institute
SIDS	Small island developing States
SPA	Strategic priority for adaptation
TNA	Technology needs assessment
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNISDR	United Nations International Strategy for Disaster Reduction
USP	Updated Strategic Plan
WB	World Bank
WRI	World Resources Institute
WTP	Willingness-to-pay

EXECUTIVE SUMMARY

A. MANDATE AND OBJECTIVE

At the twenty-fourth meeting of the Board (B.24) of the Green Climate Fund (GCF), the Board approved this independent evaluation of the GCF adaptation approach and portfolio as a vital part of the Independent Evaluation Unit (IEU) 2020 work plan. The need for this evaluation stemmed from a key finding of the 2019 Forward-looking Performance Review (FPR), that the GCF should re-emphasize its role in adaptation investments. Against this background, the IEU was tasked to undertake this evaluation for delivery at the twenty-eighth meeting of the Board (B.28).

B. ADAPTATION CONTEXT

Since the early 2000s, climate adaptation has joined mitigation at the forefront of tackling climate change. The GCF has a mandate to play a significant and growing role in adaptation in developing countries, through its commitment to country ownership and balanced funding for adaptation and mitigation. Adaptation interventions differ substantially from mitigation projects: they cover a wider range of activities, often beyond sector and scale classifications, which makes it challenging to employ a static set of metrics for the monitoring and steering of results and impacts. Moreover, context is vital. As an operating entity of the financial mechanism of the United Nations Framework Convention on Climate Change (UNFCCC), the GCF follows guidance from the Conference of Parties (COP) where member countries – developed and developing – meet to discuss and forge a path towards tackling climate change and its effects. Much of the discussion about adaptation at the UNFCCC is centred around finance. The Adaptation Gap Report 2020 estimates adaptation costs will rise to USD 140 billion to USD 300 billion per annum by 2030 in developing countries alone, and will continue to increase from that point on. At present, it is challenging to precisely quantify finance for adaptation, but existing estimates suggest adaptation finance is only a fraction of what is needed. There is also insufficient evidence that greater finance over time is closing the adaptation finance gap. As such, there is an urgent need for more to be done on adaptation in developing countries. Under the current paradigm, rising costs, insufficient finance and insufficient action all contribute to an alarming outlook. How can the Green Climate Fund – a young, large and ambitious multilateral climate fund – contribute to a paradigm shift in adaptation? This is the question this evaluation responds to.

C. SCOPE AND METHODOLOGY

The evaluation team has adopted a mixed-methods approach involving both quantitative and qualitative data collection and analysis, to inform the report's evidence-based findings. This approach has been adapted to the conditions generated by the COVID-19 pandemic. The team sought to triangulate information and evidence from different sources and has considered different perspectives. These methods include an extensive document and literature review, a portfolio analysis of data collected by the IEU DataLab, key informant interviews, online surveys, virtual country missions and project deep dives. Analysis of external and internal GCF data and an extensive range of stakeholder views has been a key element for the evaluation. Through key informant interviews, this evaluation has engaged a wide range of stakeholders. Two targeted short online surveys have been used to reach out to specific constituencies of the Fund, in particular national designated authorities (NDAs) and accredited entities (AEs). The report is complemented by country case studies and project deep dives, based on country engagements in the Republic of The Gambia, the Republic of Uganda, Republic of Tajikistan, Republic of Guatemala, the Kingdom

of Morocco and the Republic of Namibia. Country reports have been completed for the first four countries. Country deep dives have been completed for specific projects in the Republic of Kenya, Morocco, and Uganda.

D. REPORT STRUCTURE

The evaluation follows a funnel structure, where a focus on the global adaptation landscape and the GCF role within it precedes detailed analysis of seven key questions. This process was guided by a range of evaluation questions set out in the evaluation matrix. A full list of the evaluation questions is available in the approach paper for this evaluation.[1]

The structure of the report is as follows:

Chapter II – Landscape: What is climate change adaptation and how does it relate to development?

Chapter III – Role: What is the role of the GCF in the adaptation finance space?

Chapter IV – Adaptation planning: Has the GCF adequately supported countries' capacities in adaptation planning?

Chapter V – Adaptation portfolio: Is the GCF meeting its mandate in supporting adaptation programming through projects and programmes?

Chapter VI – Private sector engagement: Is the GCF engaging the private sector in adaptation?

Chapter VII – Business model: Is the GCF business model fit for purpose for adaptation?

Chapter VIII – Results and impact: Is the GCF achieving the intended results in adaptation?

Chapter IX – Innovation and risk: Is the GCF sufficiently innovative and risk-taking in adaptation?

Throughout the report, graphs, illustrations and information boxes are used to provide additional detail and to highlight evidence for the reader. References are available in the footnotes as well as just before the annexes. This Executive Summary presents six key findings and recommendations for the consideration of the GCF Board and GCF Secretariat, to address gaps and improve the operations of the Fund in adaptation finance. These six key findings areas combine the evidence from chapters 2 and 3 in Finding 1 and Recommendation 1, and the evidence from chapters 5 and 7 in Finding 4 and in Recommendation 4.

E. KEY FINDINGS

The evaluation team has identified several key findings that are critical for the adaptation approach and portfolio of the GCF. The factors are the positioning of GCF vis-à-vis other climate funds and multilateral organizations; the capacity for adaptation planning; the opportunity for scaling up with the private sector; the importance and urgency of adaptation action and finance; the measurability of results; and lastly the need for innovation.

[1] Asfaw, S., M. De Bruijn, R. Kim, B. Lee, M. Markrich, P. Mwandri, M. Prowse, J. Puri and G. Uvarova (2020). Approach Paper for the Independent Evaluation of the Adaptation Portfolio of the Green Climate Fund. Independent Evaluation Unit, Green Climate Fund, Songdo, South Korea. Available at *https://ieu.greenclimate.fund/sites/default/files/evaluation/adaptation-approach-paper.pdf*

KEY FINDINGS 1: POSITIONING IN ADAPTATION FINANCE

Finding 1(a): Unlike other climate funds, the GCF avoids defining adaptation, allowing flexibility for developing countries to define what adaptation means in their unique context. However, this reduces the precision of policies and strategies for stakeholders. Conceptually, adaptation is inextricably linked to, and is at the centre of sustainable development. It is a subset of development in areas with high climate risks. The same also applies to adaptation finance.

Finding 1(b): The GCF is a minor actor in the overall climate finance space but has an opportunity to be more relevant in adaptation. Considering its mandate and resources, the GCF is uniquely positioned to finance projects at scale with a high risk appetite**,** if appropriate and consistent with country needs. However, the GCF has not clearly defined a specific approach for adaptation programming.

Finding 1(c): Project-level interactions between GCF proposals and the projects of other climate funds, multilateral partners and the private sector, are not yet systematically identified nor actively pursued. There have been some attempts in the past few years to foster greater coordination at multiple levels.

Finding 1(d): The GCF also has the opportunity to clarify its role beyond adaptation finance. It can do this through its: (i) resources dedicated to adaptation planning; (ii) convening power at regional, national and subnational levels; and (iii) knowledge management and sharing potential, to ensure coherence and complementarity in the delivery of adaptation planning and implementation.

KEY FINDINGS 2: CAPACITY FOR ADAPTATION PLANNING

Finding 2(a): The Board responded to COP guidance to support adaptation planning with the establishment of the Readiness and Preparatory Support Programme (RPSP). The GCF has provided USD 139 million of RPSP funding for adaptation planning to a total of 57 countries with 58 grants. However, it covers only 37 per cent of eligible countries, 33 per cent of vulnerable countries and 18 per cent of the small island developing States (SIDS).

Finding 2(b): In total, 55 per cent of GCF-eligible countries have so far engaged with the GCF for adaptation planning. The requirements for proposals, capacity concerns and matchmaking with adequate delivery partners are perceived as hurdles in accessing RPSP funding for adaptation planning.

Finding 2(c): The approval process for RPSP adaptation planning varies, with times ranging from 14 days to more than 3 years. There are attempts to reduce delays, such as through the use of national and remote consultants.

Finding 2(d): Due to the young nature of adaptation-planning support, fully attributing the RPSP to concrete outcomes is challenging, as is assessing quality as no outcome or impact measurement framework is operational yet.

KEY FINDINGS 3: SCALE AND THE PRIVATE SECTOR IN ADAPTATION

Finding 3(a): Among the climate funds, the GCF has the strongest private sector focus and the best ability to scale projects through its large fund size, risk appetite and flexible suite of financial instruments. The portfolio suggests the GCF has not fully utilized this opportunity to date. At the moment, only one in five AEs has a private sector focus, with most of these having been accredited recently. Most Private Sector Facility (PSF) projects are managed by public entities with a private sector focus, such as multilateral development banks (MDBs).

Finding 3(b): The ability of the GCF to source and support PSF projects has stalled: since the twenty-first meeting of the Board (B.21), only USD 10.8 million (0.4 per cent of total adaptation finance) has been committed. There are only two PSF pure adaptation projects in the portfolio, representing only 1.6 per cent of total adaptation finance and 0.6 per cent of all GCF finance. When including the estimated adaptation part of cross-cutting projects, adaptation finance through the private sector amounts to USD 230 million, representing 8.7 per cent of adaptation finance or 3.2 per cent of total GCF finance.

Finding 3(c): Despite the GCF's unique high-risk appetite and flexible suite of instruments, on average only an estimated 18 cents per 1 GCF-invested dollar is generated as co-finance from the private sector. Most stakeholders refer to external and internal factors as reasons for low engagement. External market-related factors, including fewer investable opportunities and predictable return flows, constrain private sector engagement. In addition, internal factors include the reactive business model, lack of predictability and the upfront costs.

Finding 3(d): Cooperation between the Division of Mitigation and Adaptation (DMA) and PSF in jointly assessing projects and identifying opportunities is mainly informal and ad hoc. Opportunities exist to create an incentive structure for greater cooperation, particularly with regard to blended finance.

KEY FINDINGS 4: ACCESS AND BUSINESS MODEL

Finding 4(a): The adaptation portfolio has a large number of small-size projects. Only 4 out of 67 funded GCF adaptation proposals are programmes. There is only one large-scale adaptation project.

Finding 4(b): Adaptation projects on average take over two years from proposal submission to concluding the legal agreement. It takes adaptation projects longer than mitigation projects to move to the next stage, for both approved projects and for projects in the pipeline. It is particularly challenging for direct access entities (DAEs). It takes, on average, 475 days for national DAEs to conclude legal negotiations for adaptation projects, compared to 208 days for mitigation.

Finding 4(c): The availability of data, lack of guidance on the concept of climate rationale at AE and Secretariat level, and the complexity of adaptation projects are key reasons for delays. Adaptation projects require more specific and local high-resolution data to analyze climate risks, have less standardized business models and have complex execution structures. Some 40 per cent of all registered concept notes (CNs) for adaptation projects are withdrawn during the review process. Survey respondents identified climate rationale as the single most difficult hurdle for project development in both adaptation and cross-cutting projects.

Finding 4(d): The GCF has established targets to support vulnerable countries in adaptation, but many vulnerable countries are yet to be reached and finance per capita figures remain low. Some 67 per cent of adaptation finance is currently directed to those most vulnerable to climate risks and least ready to adapt. But the GCF still has challenges in reaching the most vulnerable and least-ready countries, with 59 countries receiving no GCF adaptation finance.

Finding 4(e): International accredited entities (IAEs) are overrepresented in the adaptation portfolio: 87 per cent of adaptation finance is committed through IAEs, with more than half of adaptation finance going through six IAEs. Regional DAEs are the most underrepresented in the GCF adaptation portfolio, due partly to capacity, experience and network limitations in originating and implementing adaptation projects.

Finding 4(f): Some 96 per cent of committed adaptation financing on pure adaptation projects comes through grants. Regional DAEs use a more diverse set of instruments than national DAEs or

IAEs. There is an opportunity to channel more adaptation financing through regional DAEs and to use other instruments such as equity and (first-loss) guarantees. High upfront costs of doing business with the GCF are a concern. Programmatic approaches, especially for longer-term and larger-scale interventions, can limit such burdens.

Finding 4(g): National designated authorities are key in successful adaptation project development. Countries with strong NDAs that can engage many stakeholders and bring projects through the long design and proposal stage, have more adaptation projects approved by the GCF. Understanding the characteristics of successful NDAs is critical. Because adaptation requires multi-stakeholder engagement, the inclusion of civil society organizations (CSOs) via NDAs can benefit the adaptation portfolio. The GCF can encourage NDAs to make the project process more inclusive.

KEY FINDINGS 5: RESULTS AND IMPACT MEASUREMENT

Finding 5(a): In adaptation programming, there are numerous widely recognized challenges to measuring the impact of adaptation interventions. A key practical challenge in steering impact and measurement focuses on the Fund-level indicator of numbers of beneficiaries, which is the only core adaptation indicator currently operationalized. The double counting of beneficiaries is unavoidable and presents a primary challenge for results management at the GCF. At times, GCF reporting exceeds the total population of countries.

Finding 5(b): The GCF does not have a specific approach regarding adaptation or achieving impact in its adaptation portfolio. It uses several frameworks to guide the review and approval process within the GCF Secretariat, and builds its portfolio through a country-driven approach. The four adaptation result areas, defined by the results management framework (RMF), are the only measures available for identifying the GCF's adaptation components and projects. With 91 per cent coverage, the "Most Vulnerable People and Communities" results area acts as a chapeau and is too broad to aid learning. No GCF project focuses solely on the impact of climate change on health.

Finding 5(c): The depth of impact made by adaptation interventions cannot be monitored with the current set of indicators. The GCF currently has no systematic approach for assessing the depth of adaptation impacts. The draft integrated results management framework (IRMF) proposes introducing four new qualitative indicators to assess and track project and programme contributions to systemic change to achieve a paradigm shift. There is an opportunity for the GCF to utilize results-based finance more in this area.

Finding 5(d): Learning-oriented Real-Time Impact Assessment (LORTA) baseline household data show how GCF projects target households which are, on average, poor and vulnerable.

KEY FINDINGS 6: INNOVATION AND RISK

Finding 6(a): The Secretariat's Updated Strategic Plan (USP) outlines a clear strategic vision for 2020 to 2023, linking innovation to promoting a paradigm shift towards climate-resilient development pathways in the context of sustainable development. However, innovation is no longer included as an activity-specific sub-criterion for paradigm shift potential. The level or types of innovation have not been systematically defined in the GCF project and programme review process.

Finding 6(b): Based on country needs, adaptation innovation in "software" (i.e. organizational, behavioural and procedural) is needed the most. Forms of social and institutional innovation, including traditional knowledge, which create new delivery models are often more important than technological innovation. A review of funding proposals shows the tendency for adaptation projects to have greater potential for transformation.

Finding 6(c): Innovation comes with the risk of failure and is loosely addressed in the risk assessment approach of the GCF, as defined in the risk management framework. The GCF's stated risk appetite is conducive to innovation in adaptation projects, but its revealed risk appetite is considerably less than what is stated.

Finding 6(d): Replication of innovation is not pursed at the GCF level. Programmatic approaches present a great opportunity to leverage lessons from one project to another.

F. KEY RECOMMENDATIONS

The evaluation makes six major evidence-based recommendations to the GCF Board and Secretariat.

KEY RECOMMENDATION 1: POSITIONING IN ADAPTATION FINANCE

The GCF should clarify its role in and vision for climate adaptation, implement methods to enhance complementarity with other climate funds and funding agencies, and promote coherence in programming.

Recommendation 1(a): The GCF should consolidate its unique position in adaptation finance, including the mandate to finance projects at scale with a high risk appetite.

Recommendation 1(b): The GCF should promote efficiency by pursuing greater coordination of adaptation efforts with NDAs, AEs and local stakeholders at the national and regional levels.

Recommendation 1(c): The GCF should use its convening and catalytic power to develop a set of best practices from stakeholders (including climate funds, NDAs and AEs) to share across the GCF ecosystem.

KEY RECOMMENDATION 2: CAPACITY AND ADAPTATION PLANNING

The GCF should clarify the RPSP for adaptation planning, address technical challenges, support matchmaking efforts and build monitoring of the results of RPSP support.

Recommendation 2(a): The GCF should raise awareness about RPSP grants, and improve the grants' reach and use for adaptation planning in vulnerable countries.

Recommendation 2(b): The GCF should address technical capacity challenges in NDAs, including through training clusters of government officials to build sustained knowledge.

Recommendation 2(c): The GCF should facilitate matchmaking between countries and locally and regionally embedded RPSP delivery partners. This will relieve a constraint for some countries when accessing RPSP support.

Recommendation 2(d): The GCF should monitor the quality of RPSP adaptation planning through building and fast-tracking an outcome/impact measurement framework.

KEY RECOMMENDATION 3: SCALE AND THE PRIVATE SECTOR IN ADAPTATION

The GCF should define its approach to engaging with and catalyzing finance from the private sector in GCF support and programming windows.

Recommendation 3(a): The GCF urgently needs a strategy for the private sector, in particular in adaptation finance. The strategy should include guidance on: (i) which private sector actors the GCF wants to engage with and how; (ii) what is considered minimizing market distortions and moral

hazard; (iii) which sectors hold opportunities for adaptation; and (iv) how the instruments at its disposal should be used.

Recommendation 3(b): The GCF should consider a private sector approach that addresses capacity support to small and medium-sized firms. The GCF should clarify what the RPSP can do for small and medium-sized private sector companies.

Recommendation 3(c): In piloting the project-specific assessment approach, the GCF Board should consider the needs of the adaptation portfolio, including engagement of the private sector.

Recommendation 3(d): The GCF should strengthen incentives to support cooperation between the DMA and PSF in jointly assessing projects and identifying opportunities, particularly for blended finance.

KEY RECOMMENDATION 4: ACCESS AND BUSINESS MODEL

The GCF should respond to the urgency in adaptation by addressing policy gaps and the use of financial instruments and modalities.

Recommendation 4(a): The GCF should explore options to address the adaptation needs of the most vulnerable within its targeted geography.

Recommendation 4(b): The GCF should find ways to remove barriers related to the availability of and requirements for data needed to verify climate vulnerability, and should consider alternative systems of (traditional) knowledge. The GCF should urgently clarify the role and use of climate rationale in the funding proposal review and appraisal process, to reduce the burden of project preparation and development for AEs.

Recommendation 4(c): The GCF Board should finalize the policy on programmatic approaches, with due consideration of the perspectives of AEs. In particular, such approaches should include single- and multi-country programmes and provisions to streamline the processes for sub-project approval and changes, while ensuring appropriate due diligence. The GCF should recognize the regional aspects of adaptation challenges and solutions, and re-emphasize the potential of regional DAEs while providing adequate staffing capacity at the Secretariat.

Recommendation 4(d): The GCF should diversify the financial instruments it uses in adaptation projects, particularly those that increase scale through higher co-finance ratios. In particular, the GCF can increase the use of equity investments, guarantees, and devolved and blended finance. The use of such instruments is not a substitute for grant instruments, but rather a complement to them.

Recommendation 4(e): The GCF should consider developing a stakeholder engagement policy. Inclusive stakeholder engagement that delivers meaningful and active participation in project design and implementation should be strengthened, and it should not only include NDAs and focal points, but also CSOs, indigenous communities and the private sector. This can reduce material risks from project implementation, including maladaptation.

KEY RECOMMENDATION 5: RESULTS AND IMPACT MEASUREMENT

The GCF should address adaptation-related measurement challenges to enhance active monitoring, project and Fund-level aggregation, and to facilitate learning and steering.

Recommendation 5(a): The GCF Secretariat should further engage with other climate funds and communities of practice to refine indicators, measurement and the clarity of aggregation, and also improve the Fund-level indicator of direct and indirect beneficiaries.

Recommendation 5(b): Recognizing the limitations of the current set of indicators, the GCF should address the challenges in adaptation-related measurement of project and Fund-level indicators.

Recommendation 5(c): As adaptation result areas are broad, the GCF should also trace results at the sectoral level for portfolio management. This will allow aggregation at the portfolio level to facilitate greater knowledge of results and comparability with other climate funds.

Recommendation 5(d): The GCF should consider whether an adaptation investment is meeting a national priority by linking results areas to an indicator for a country's adaptation needs.

Recommendation 5(e): The GCF should utilize results-based financing to a greater extent within its adaptation portfolio. This would create an incentive structure for implementing agents to deliver on-time and to the appropriate budget, and for results to be verified by independent third parties.

KEY RECOMMENDATION 6: INNOVATION AND RISK

The GCF should address the ongoing lack of clarity and guidance in its approach on innovation.

Recommendation 6(a): As innovation is part of the strategic priorities for 2020 to 2023, the GCF should clearly identify and incentivize innovation.

Recommendation 6(b): The GCF should define the delivery of successful structures, systems and organizations as actual project impacts. One such example would be defining support for innovative structures, such as blended finance vehicles for adaptation, which are successfully used in mitigation (e.g. in FP099: Climate Investor One) but not yet in adaptation.

Recommendation 6(c): The GCF should strengthen programmatic approaches in adaptation finance, as they are important for leveraging lessons from one project to another and for fostering innovative replication. The focus here is on transferring knowledge between projects in the same sector or results area. This should involve different AEs that execute different projects, but closely interact to exchange knowledge, capabilities and approaches.

MAIN REPORT

Chapter I. INTRODUCTION AND OBJECTIVES

A. RATIONALE

1. At B.24 in November 2019, the Board approved the 2020 Workplan and Budget of the IEU, which included, among other things, undertaking an independent evaluation of the adaptation portfolio and approach of the GCF, to be delivered at the first Board meeting of 2021.
2. The Governing Instrument (GI) of the GCF states, "The Fund will strive to maximize the impact of its funding for adaptation and mitigation, and seek a balance between the two, while promoting environmental, social, economic and development co-benefits and taking a gender-sensitive approach." It also states the "Board will take into account the urgent and immediate needs of developing countries that are particularly vulnerable to the adverse effects of climate change, including LDCs [least developed countries], SIDS and African States, using minimum allocation floors for these countries as appropriate". The Strategic Plan integrates some of the key recommendations the IEU presented to the Board following the FPR, including how the GCF can significantly contribute to adaptation efforts and how a potential niche for such a contribution could be to leverage private sector finance. Three elements of the USP for 2020–2023 are worth noting in the context of adaptation.
3. First, the GCF "has a critical and distinctive contribution to make in scaling up financing for adaptation, and resilience, with a focus on those particularly vulnerable to climate change". Second, it aims to "strengthen support to developing countries to develop national adaptation planning and use climate information to better understand long-term climate risks and adaptation needs". Further, the USP notes "the GCF will also continue providing and facilitating efficient access to resources for activities relevant to averting, minimizing and addressing loss and damage in developing countries, consistent with its existing frameworks and funding windows." Third, the GCF will strive towards delivering "Increased focus on new and innovative financing for adaptation, as well as promoting direct access programming by (i) scaling up the share of funding invested in adaptation relative to the initial resource mobilization (IRM); and (ii) doubling/significantly increasing funding channeled through direct access entities (DAEs) relative to the IRM."
4. The overarching question for this evaluation is: **What does it take for the GCF to contribute to a paradigm shift in adaptation?**

B. SCOPE, METHODS AND LIMITATIONS

5. This evaluation serves both the learning and accountability functions of the GCF. The evaluation contributes to accountability and learning by reviewing emerging evidence on the performance, impact and likelihood of impact of GCF adaptation investments. It highlights the GCF's lessons and experiences on what is working, how and for whom, while identifying key bottlenecks in ensuring access and commitment to adaptation support.
6. In addressing the overarching question for this evaluation, the evaluation team addressed the following four sub-questions regarding the GCF adaptation portfolio and approach.
7. ***In what (sub)spaces can the GCF be additional and/or a leader?*** The evaluation has assessed the status of climate negotiations around adaptation, examined key adaptation concepts, including the relationship with development and humanitarian interventions, and has analyzed the landscape of global financing for adaptation. It has highlighted the role and contribution of the GCF within

adaptation and the unique role it can play, as well as the potential for greater complementarity and coherence with other actors.

8. ***Is the GCF responding to global and national adaptation needs?*** The evaluation has examined the extent to which the GCF has been responsive to the adaptation needs of developing countries, especially those most vulnerable to the impacts of climate change. The evaluation has examined whether responsiveness to national needs has been adequately planned for and implemented, keeping in mind the principles of complementarity and coherence, as required by the GI and highlighted by guidance from the UNFCCC.
9. ***Is the GCF effective and efficient (and what are the trade-offs between the two) in meeting its objectives regarding adaptation finance and support?*** The evaluation has explored whether the GCF is doing the right things and doing these things right, in respect to its adaptation portfolio and approach. It has examined the extent to which and how the GCF is supporting readiness and preparatory support for adaptation, how it supports the characteristics of the adaptation portfolio, the scale of these responses and how these have evolved through time. The evaluation has also assessed the extent to which the GCF is attracting private sector investment in adaptation, and whether the GCF has created a successful business model for adaptation.
10. ***Is the GCF pursuing relevant and innovative strategies and policies in terms of the types of adaptation approach it takes?*** The evaluation has examined the extent to which the GCF is taking the appropriate kinds of risks to be relevant and how it has been pursuing innovative approaches, both in terms of the types of adaptation projects approved and the financial instruments deployed, so it can best serve the interests of developing countries. This evaluation assesses the degree to which the GCF is contributing to a paradigm shift towards low-carbon, climate-resilient development pathways in a way that is country-driven and complementary to other climate funds and actors.
11. In answering these questions, the evaluation team employed the set of evaluation criteria laid out in the terms of reference of the IEU: relevance, effectiveness, efficiency, impact and sustainability; coherence; gender equity; country ownership; innovativeness in result areas; replication and scalability; and unexpected results, both positive and negative.[2]
12. To carry out the evaluation, the GCF IEU staff and a global consultancy, Steward Redqueen, partnered to form an evaluation team. The Approach and methods section outlines how the evaluation team has adopted a **mixed methods approach involving both quantitative and qualitative data collection and analysis**. The collection of data has been guided by, but not limited to, the evaluation matrix, which contains almost 100 sub-questions that have been answered. Data have been triangulated, verified and validated; the team has identified whether the data are confirmed by one or more sources so they can be used appropriately in the analysis (either as a broad statement or as a statement about a particular case for a programme, country or stakeholder). This approach has been adapted to the current conditions generated by the COVID-19 pandemic and the effects it has had on the GCF Secretariat, operating entities and the GCF ecosystem in developing countries.
13. Specific data sources and methods included the following:
    - **Interviews and surveys:** The evaluation has been conducted according to a highly participatory process and extensive consultation programme. The team has navigated the current COVID-19 pandemic situation by collecting information from individuals through phone interviews and online meetings. Stakeholders were approached through tailored

[2] GCF/B.06/18 annex III. Terms of Reference of the Independent Evaluation Unit. See also the evaluation matrix in Annex 8.

approaches, given their availability and accessibility. The evaluation team has reached 137 stakeholders, including NDAs, AEs, executing entities (EEs), implementing entities, CSOs and private sector organizations (PSOs), the GCF Secretariat, the independent Technical Advisory Panel (iTAP) and the Accreditation Panel. In addition, two targeted short online surveys have been used to reach out to specific constituencies of the GCF (e.g. AEs and NDAs) and to shed further light on a series of questions that emerged through the evaluation process.

Further, we have maintained a consultation process with key members of the GCF Secretariat to consult on and to validate key findings and, towards the end of the process, to discuss and validate some emerging recommendation areas. This process of consultation has not interfered with the independent nature of the evaluation but has facilitated the processes of feedback and reflection while socializing the emerging findings, to enhance ownership of the report.

- **Data analysis:** This has been a key element for the evaluation as findings and recommendations are backed by data, whether quantitative or qualitative. Part of the evaluation team has focused specifically on data analysis. Key data sources for analysis have included the IEU DataLab, complemented and verified by the data monitored by the Secretariat, and trustworthy external data sources. The data team has conducted a series of analyses around the six following areas: climate adaptation finance, country readiness, performance of the GCF, pipeline, results, and impact.
- **Country case studies and deep-dive:** For this evaluation, we completed country engagements in **The Gambia**, **Uganda**, **Tajikistan**, **Guatemala**, **Morocco** and **Namibia,** from which complete country studies have been written for the first four countries.

  As the adaptation portfolio is young and limited, a modest number of in-depth impact assessments have been made on the current adaptation projects. The team executed deep-dive impact studies into three selected GCF-financed adaptation projects or archetypes of projects that can serve to inform a broader sample of project clusters. The deep-dive studies aim to show in concrete terms to what extent and to what degree select GCF-financed projects contribute to meeting a country's adaptation needs. **We have completed country deep dives on projects in Kenya, Morocco and Uganda**.

  Overall, the country engagements have provided invaluable, tangible insights and practical project case examples for the evaluation. They have enabled the team to gather information and validate the evidence with stakeholders and, in one case, some of the beneficiaries. The sample of countries was based on a wide range of criteria and included a focus on countries that had not been selected in recent IEU evaluations. For example, SIDS, even though extremely relevant in the context of adaptation, are therefore not represented in the sample. Most of the case study countries are in receipt of a readiness grant. The choice of Morocco for a country deep-dive was based on challenges that were faced when engaging key stakeholders in a broader array of countries.

14. **The most significant limitations faced by this evaluation were related to the global COVID-19 pandemic.** The evaluation was launched at the start of March 2020, when the pandemic was reaching its peak in the Republic of Korea and starting to take hold in many other countries around the world, forcing the GCF Secretariat and independent units to work remotely. To protect their populations, many developing countries closed their borders to foreigners, while other countries instituted travel restrictions, making in-person country case studies impossible. As a result, the country case studies and nearly all interviews for this evaluation were undertaken remotely. The evaluation team completed all of their country case studies remotely through online platforms and telephone calls. One of the limitations of this approach was an increase in the time required to

establish a rapport with key stakeholders, such as those in NDAs or AEs. The evaluation team did encounter delayed responses from actors in a number of countries, but adapted to the new circumstances by using a variety of communication channels to elicit responses or to approach alternative stakeholders when appropriate. A further limitation has been changes in the composition of the evaluation team throughout 2020 due to staff changes in the IEU. The IEU team has ensured this has not affected the quality and timeliness of the evaluation, and is pleased to be able to submit this to the Board for its consideration at B.28.

Chapter II. OVERVIEW OF CLIMATE CHANGE ADAPTATION

KEY FINDINGS

- Conceptually, adaptation is inextricably linked to, and at the centre of sustainable development. It is a subset of development in areas with high climate risks. This also applies to adaptation finance, which is similar to but distinct from development finance and humanitarian finance.
- The GCF, unlike other climate funds, avoids defining adaptation in its GI. This allows developing countries the flexibility to define what adaptation means in their unique context but also reduces the precision of policies and strategies for stakeholders.
- Adaptation planning programmes, such as the national adaptation plans of action (NAPAs), nationally determined contributions (NDCs), and national adaptation plans (NAPs) established by the UNFCCC, have played a central role in ensuring there are resources available for countries to articulate adaptation needs and begin implementation.
- Countries which are most vulnerable to climate change and which have a limited degree of preparedness have been the most proactive in identifying their adaptation financing needs.
- The COVID-19 pandemic illustrates what a global crisis looks like. Governments have the ability to fully integrate adaptation interventions when designing recovery schemes and building countries back in a better manner.

A. Overview

1. This chapter summarizes how adaptation is conceptualized and operationalized in both the academic and policy literature, before describing how the GCF defines adaptation. It then sets the scene for the evaluation report by outlining the role of capacity and adaptation planning, the urgency of adaptation and how this requires scale and finance, the complexity of adaptation interventions including the challenges of measuring for results, and how adaptation requires innovation. The chapter concludes by describing country adaptation needs in the post-COVID context.

B. Conceptualizing and operationalizing adaptation

1. Defining adaptation

2. **The Intergovernmental Panel on Climate Change (IPCC) in 2014 defined adaptation as** "the process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects." This definition can be usefully broken down into constituent components. The IPCC (2007) used three components to define adaptation: (a) exposure to shocks and stressors; (b) adaptive capacity; and (c) sensitivity, which is related to the enabling environment (see Box II-1 below for a discussion of adaptive capacity).
3. **Adaptation can also be understood by focusing on risk**, as the IPCC (2014) report did when it defined risk "as the probability of occurrence of hazardous events or trends multiplied by the impacts if these events or trends occur. Risk results from the interaction of vulnerability, exposure and hazard".[3] The outcomes that occur from these interactions can be classified under the following headings:
   - Responses to shocks and stressors: These outcomes relate to the ability of targeted groups to address shocks and stressors which affect their location and their portfolio of activities, while minimizing permanent, negative effects on their longer-term livelihood security.
   - Increased adaptive capacity: These outcomes relate to the ability of targeted groups to make proactive and informed decisions about alternative livelihood strategies based on an understanding of changing conditions.[4]
   - Enhanced enabling environment: These outcomes include system-level changes in the environment, the socioeconomic system and the institutional environment that enable more and lasting resilience.[5]

[3] The literature on hazards, vulnerability and risk is beyond voluminous and also beyond the scope of this evaluation and chapter. One insightful yet underappreciated contribution is Sinha and Lipton (1999) on damaging fluctuations. Sinha, S. and Lipton, M. (1999) *Damaging Fluctuations, Risk and Poverty: A Review*. Background Paper for the World Development Report 2000/2001, Poverty Research Unit, University of Sussex.
[4] See Box II-1 for a discussion on adaptive capacity. See also Clarvis, M. H., & Engle, N. L. (2015). Adaptive capacity of water governance arrangements: A comparative study of barriers and opportunities in Swiss and US states. *Regional Environmental Change*, 15, 517–527. Available at https://doi.org/10.1007/s10113-013-0547-y. Mortreux, C., & Barnett, J. (2017). Adaptive capacity: Exploring the research frontier. *Wiley Interdisciplinary Reviews: Climate Change*, 8(4), e467.
[5] A recent evidence gap map on adaptation, based on 1,042 pieces of evidence from 464 papers since 2007, found that the quantity of high-quality evidence focused on specific adaptation outcomes from intentional adaptation interventions is patchy. See Doswald, N., L. Sánchez Torrente, A. Reumann, G. Leppert, K. Moull, J.J. Rocío Pérez, A. Köngeter, G. Fernández de Velasco, S. Harten and J. Puri. (2020). *Evidence Gap and Intervention Heat Maps of Climate Change*

4. In the context of intentional programmes and projects, adaptation interventions need to be adopted before such outcomes can occur. Thus, the uptake of adaptation interventions is important to consider, including last-mile challenges to the adoption of adaptation interventions.[6]
5. **The IPCC (2014) describes three categories of adaptation options based on an extensive, but not exhaustive, list of adaptation needs**:
   - Structural/physical, comprising: (i) engineered/built environment; (ii) technological; (iii) ecosystem-based; and (iv) services
   - Social, comprising: (i) educational; (ii) informational; and (iii) behavioural
   - Institutional, comprising: (i) economic; (ii) laws and regulations; and (iii) government policies and programmes
6. Whereas the first category is a mixture of "hardware" factors (notably tangible products, technology, equipment etc.) and "software" (organizational, behavioural and procedural), software factors dominate the other two categories. We return to this distinction between "hard" and "soft" interventions in our discussion of innovation and risk in Chapter IX. Overall, adaptation interventions cover a very wide range of intervention types and sectors and seek to create positive outcomes and impacts across an extremely wide range of areas (see Chapter VIII). This is in strict contrast to mitigation interventions which seek to provide a global public good by reducing greenhouse gas (GHG) emissions.[7]
7. **In this respect, climate adaptation can be characterized as a wicked problem because it cannot be precisely defined, let alone be solved, and it comprises many interconnected and changing factors and networks.** Whereas many mitigation problems essentially share an objective – the reduction of GHG emissions – but lack consensus on the best approach, in most adaptation problems there is neither consensus on objective nor on approach. This lack of consensus and the presence of many dispersed stakeholders with different interests favours collaborative coping strategies.[8,9] In addition, and because of their wicked nature, climate adaptation problems tend to be resolved using a one-off project design, which offers little room for trial and error within each individual project. This suggests that trial-and-error continual innovation happens more between projects than within a single project in adaptation.

2. GCF APPROACH TO ADAPTATION

8. **Over the years, adaptation has become a central component of UNFCCC key decisions.** Growing recognition of the need for climate finance to fund adaptation, and acceptance that changes created by existing emissions would have to be addressed immediately – as described in the IPCC Fourth Assessment Report from 2007, which explicitly considered responses to climate change

Adaptation in Low- and Middle-Income Countries, DEval Discussion Paper 2/2020, German Institute for Development Evaluation (DEval) and Green Climate Fund Independent Evaluation Unit, Bonn, Germany and Songdo, South Korea. To increase the causal evidence base on adaptation, the IEU LORTA programme is conducting over a dozen impact evaluations for range of GCF adaptation investments.

[6] Krüger, Cornelius, Jyotsna Puri (2020). Going the last mile: Behavioural science and investments in climate change mitigation and adaptation. IEU learning paper, November 2020. Independent Evaluation Unit, Green Climate Fund. Songdo, South Korea.

[7] This is partly based on Segasti and Bezanson (2001). *Financing and Providing Global Public Goods Expectations and Prospects*. It relies on Samuelson, P. A. (1954). The pure theory of public expenditure. *The Review of Economics and Statistics*, 36 (4), 387-389. It has also benefited from Altamirano, M. A. (2020). *Leveraging Private Sector Investments in Adaptation: Report on the Global Climate Finance Architecture*. Deltares, The Netherlands.

[8] N. Roberts, *Wicked problems and network approaches to resolution.* Intl. Publ. Mgt. Rev, 2001.

[9] Exceptions are concentrated power structures which ask for a more authoritative approach (e.g. for building a seawall) whereas competitive strategies are better in situations where dispersed stakeholders contest power (e.g. in building the lowest cost solar technology or power plant).

through adaptation – provided the necessary impetus for COP16. Here, the Cancun Adaptation Framework (CAF) was introduced, which enshrined in the Convention the objective of enhancing action on adaptation to the same level of importance as mitigation, which reflects the weight now given to adaptation in the Paris Agreement, as well as the GCF GI. It was also during COP16 that the GCF was established in response to the needs of developing countries for long-term, scaled-up finance that beneficiaries could rely on.

The GI of the GCF, unlike other climate fund, does not define adaptation. Many climate funds base their definition of adaptation on the IPCC definition. These institututions include the Least Developed Country Fund (LDCF), the Special Climate Change Fund (SCCF) and the Adaptation Fund (AF). Their definitions are similar but vary slightly depending on the programme. Multilateral agencies, such as the International Fund for Agricultural Development (IFAD), also use the IPCC definition as a starting point.[10] Other multilaterals often use their own definitions but harmonize them for reporting purposes. The Joint Report on Multilateral Development Banks' Climate Finance, which is undertaken by African Development Bank (AfDB), the Asian Development Bank (ADB), the Asian Infrastructure Investment Bank (AIIB), the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Inter-American Development Bank (IDB), the Islamic Development Bank (IsDB) and the World Bank (WB), applies a common definition to tag its financing flows. Multilateral development banks, as development-focused institutions, collectively report that adaptation is confined to the sub-project or project elements that are intended to reduce a specific vulnerability to climate change. In the words of the Joint Report on Multilateral Development Banks' Climate Finance "…adaptation finance is [the] total project finance for specific project activities that contribute to overall project outcomes in the process of adapting to climate change".

9. **Rather than define adaptation, the GI provides an implicit definition of the concept as a climate-resilience development pathway.** The GI first states the dual objectives to support adaptation and mitigation: "The fund seeks to contribute to a shift towards low-emission (mitigation) and climate resilient (adaptation) development pathways." It goes on to describe how it will accomplish these goals "by providing support to developing countries to reduce greenhouse gas emissions (mitigation) and adapt to the impacts of climate change (adaptation)".
10. **By not offering a specific definition, the resultant gap allows developing country parties to define what adaptation means in their unique context (within the bounds of adaptation results areas).** This can be a good practice that enables the GCF to promote country ownership and ensure its investments align with country adaptation and development priorities. It provides AEs and NDAs the flexibility to leverage GCF financing for adaptation in different contexts. This is especially the case where the climate rationale (as it pertains to adaptation) could be relatively weak by not providing a strict definition that a project must fulfil. In this respect, the GCF allows adaptation support in a wide range of contexts, provided internal processes are followed. On the other hand, this approach reduces the precision of GCF policies and strategies for its many stakeholders, including AEs, NDAs, PSOs and CSOs. It appears to contribute to a lack of clarity on how adaptation results and impacts should be measured (see discussion of this in Chapter VIII). Finally, it may also risk having an adaptation portfolio with projects that do not address specific climate risks.

[10] For instance, the IFAD Adaptation for Smallholder Agriculture Programme defines adaptation as: "the process of adjusting to climate risks (the current and expected effects of climate change) in order to moderate harmful impacts or exploit beneficial opportunities. Climate risk and adaptation occur locally and are context specific. To be successful, adaptation measures should strengthen the resilience of human systems and ecosystems in a given locality."

11. **The GCF has a suite of general policies and objectives that apply to adaptation in various ways.** The GCF adopted its USP for 2020–2023 at the twenty-seventh meeting of the Board (B.27) in November 2020. The USP confirms the strategic vision, strategic objectives and strategic priorities as well as key areas of necessary action. These include strengthening the country ownership of programming, fostering a paradigm-shifting portfolio, catalyzing private sector finance at scale, and improving access to the Fund's resources.[11] How the GCF positions itself on adaptation is a key area explored in this evaluation.

3. CAPACITY AND ADAPTATION PLANNING

12. Capacity and planning for adaptation have also been a focus of international decision-making. **The UNFCCC introduced the NAP[12] process at COP16 (2010), as part of the CAF.** The objectives of the NAP process[13] are: (i) to reduce vulnerability to the impacts of climate change, by building adaptive capacity and resilience; and (ii) to facilitate the integration of climate change adaptation, in a coherent manner, into relevant new and existing policies, programmes and activities – particularly development-planning processes and strategies, within all relevant sectors and at different levels, as appropriate (decision 5/CP.17, paragraph 1). The NAP process enables parties to identify medium- and long-term adaptation needs and develop and implement strategies and programmes to address those needs. Developing an NAP is a continuous, progressive and iterative process that follows a country-driven, gender-sensitive, participatory and fully transparent approach.
13. **The NAP process is, in part, driven by the explicit emphasis on adaptation planning in the Paris Agreement.[14]** Article 7 of the agreement states that "each Party shall, as appropriate, engage in adaptation planning processes and the implementation of actions, including the development or enhancement of relevant plans, policies and/or contributions, which may include: (a) the implementation of adaptation actions, undertakings and/or efforts; (b) the process to formulate and implement NAPs; (c) the assessment of climate change impacts and vulnerability, with a view to formulating nationally determined prioritized actions, taking into account vulnerable people, places and ecosystems; (d) monitoring and evaluating and learning from adaptation plans, policies, programmes and actions; and (e) building the resilience of socioeconomic and ecological systems, including through economic diversification and sustainable management of natural resources."
14. **More recent COP sessions have further emphasized the necessity of climate adaptation, particularly regarding planning and reporting.** In 2018, COP24 adopted a standard set of rules for implementing the Paris Agreement. Notably, the COP agreed to publish biennial reviews and technical reports on the mandated, 5-yearly global stock take on progress towards achieving global temperature goals. As part of this effort, the GCF was instructed to continue to support developing countries. At COP25, in 2019, the parties reiterated this guidance on adaptation to the GCF. It encouraged the GCF to finalize the approach and scope of the RPSP, and to continue supporting the implementation of NAPs.
15. **The IEU evaluation of the RPSP in 2018 has shown that, while the RPSP aligns well with the objectives of the UNFCCC,** RPSP activities can offer more and better support to the development of domestic policies and institutions. In recent years, the GCF Secretariat has revised the RPSP programme further. Chapter IV examines the RPSP in more detail.

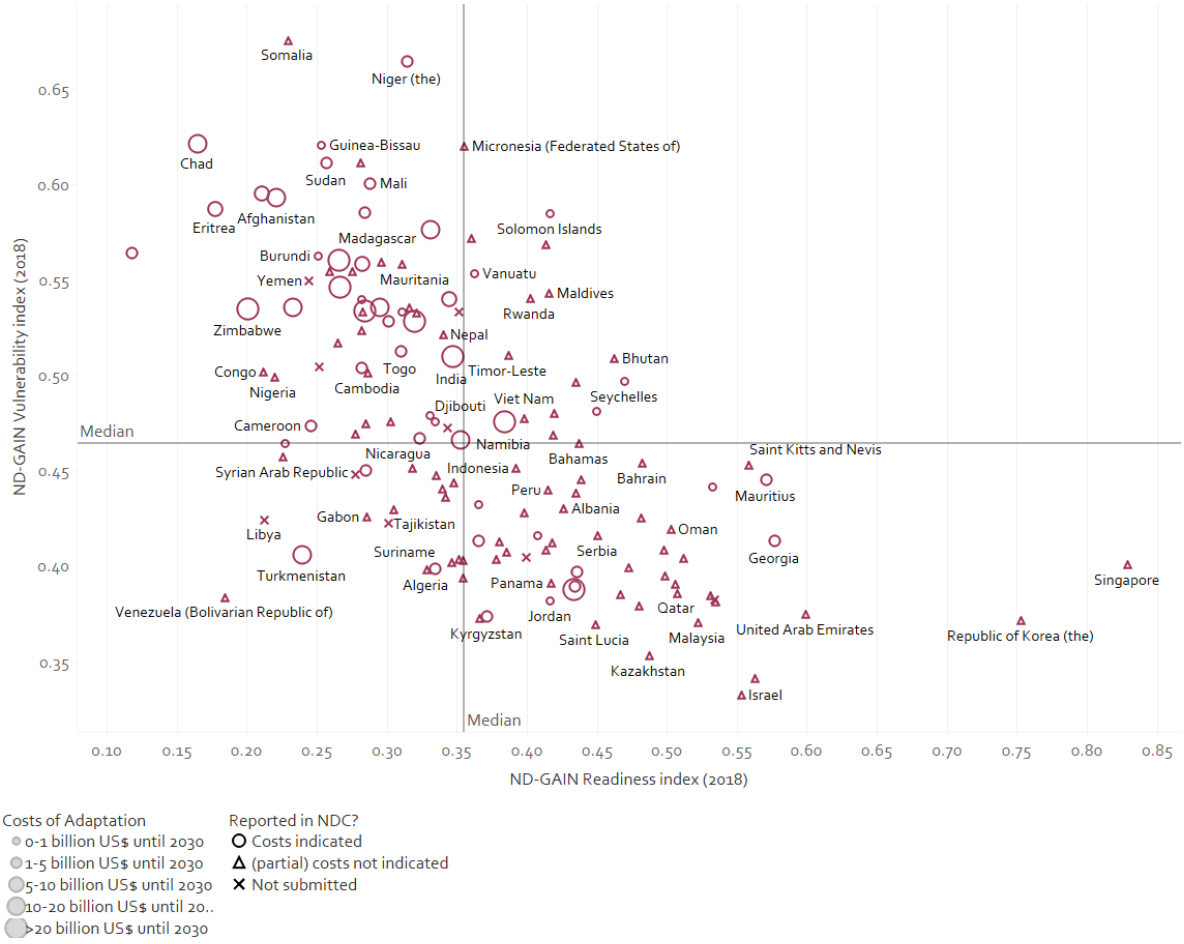
[11] Annex 2 offers a summary of how adaptation has featured in Board decisions. Annex 3 describes key policies within the overall policy house that have a particular bearing on adaptation.
[12] Available at *https://unfccc.int/topics/adaptation-and-resilience/workstreams/national-adaptation-plans*.
[13] Available at *https://unfccc.int/topics/resilience/workstreams/national-adaptation-plans/overview.*
[14] Available at *https://sustainabledevelopment.un.org/content/documents/17853paris_agreement.pdf*.

4. ADAPTATION IS URGENT

16. **Vulnerable countries such as LDCs, African States and SIDS are particularly affected but have the least ability to adapt. This situation has been exacerbated by COVID-19.** Natural and human systems face serious climate risks without adaptation. The flagship report from the Global Commission on Adaptation highlights how immediate action is needed to anticipate the economic, environmental and humanitarian costs of potential disruptions.[15] The report identifies the most fragile areas in need of timely interventions as being food production, water management, cities and infrastructure and the natural environment.

17. **In order to meet the financing needs of adaptation in developing countries, it is critical to grasp and articulate the extent of such needs.** The NDCs submitted by countries to the UNFCCC provide some information on the costs of adaptation. Surprisingly, many GCF-eligible countries do not clearly indicate the costs of adaptation in their NDCs (see Figure II-1). However, among those that do, many are highly vulnerable countries with a limited degree of preparedness (based on the ND-GAIN index, which assesses the vulnerability and readiness of countries) as shown in the upper left quadrant of Figure II-1.

Figure II-1. Country vulnerability against readiness (according to the ND-GAIN indices), also showing the adaptation costs or financing needs (according to the NDCs)

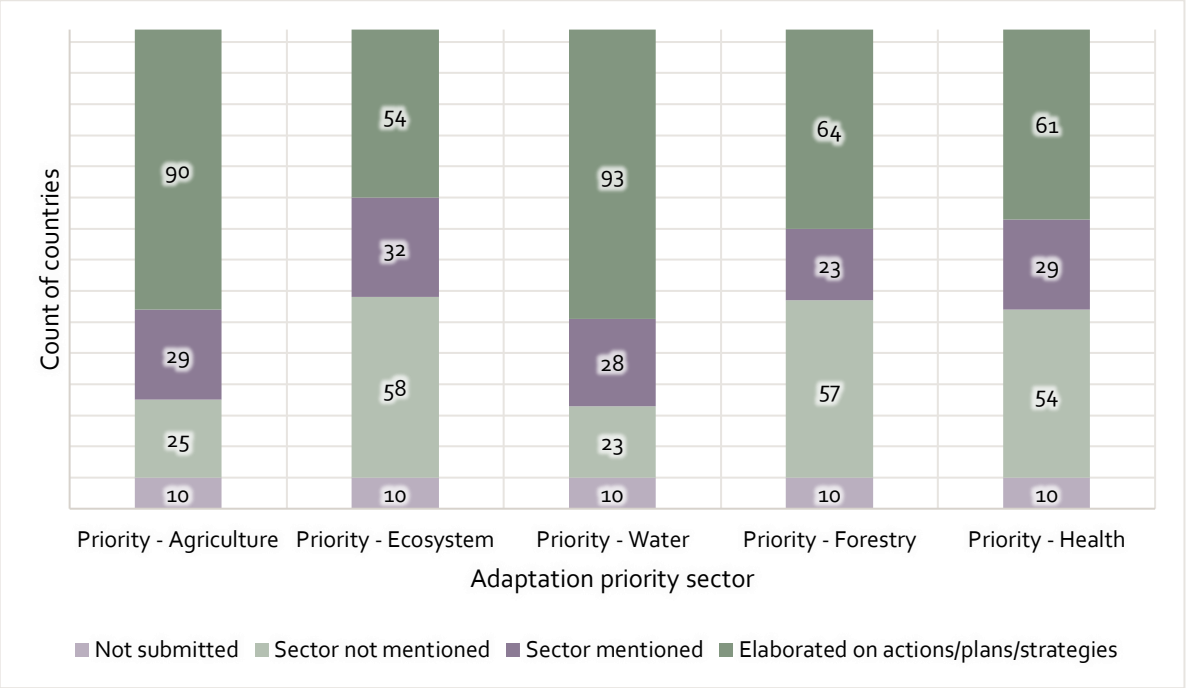


Source: NDC Explorer 2018; ND-GAIN 2018.

[15] Global Commission on Adaptation (2019). *Adapt Now: A Global Call for Leadership on Climate Resilience*. Available at https://cdn.gca.org/assets/2019-09/GlobalCommission_Report_FINAL.pdf.

18. **In terms of five key adaptation sectors, the majority of GCF-eligible countries reported that the agricultural and water sectors are of particular priority**.[16] More or less similar numbers of countries report that the ecosystem, forestry, and health sectors are also a priority (see Figure II-2). When we look in more detail at the countries' priorities, those that place a high priority on the agricultural or water sector also tend to the prioritize forestry and health sectors. In contrast, many countries which prioritize ecosystems do not prioritize other sectors.

Figure II-2. Number of countries for each adaptation sector per priority level of reporting



Source: NDC Explorer 2018.

19. **As highlighted in the following chapter, the GCF has the mandate and position to meet the urgency of the adaptation challenge.** It can scale up the funding it provides to vulnerable countries, enable the replication of successful interventions and offer finance at larger scales. Moreover, it has a wide range of financial instruments at its disposal and the opportunity to create flexible windows for project finance.

5. ADAPTATION IS COMPLEX

20. **In practice, addressing adaptation requires interventions that help human systems adjust to specific climate risks.** Anthropogenic and natural systems across the globe are already experiencing the impacts of climate change, and such effects are expected to increase in the coming years as they interact with chronic, slow-onset events or are disrupted by acute, sudden-onset events.[17] Different

[16] This is based on the five sectors identified in NDC Explorer – see Pauw, et al. (2016).
[17] "Acute (sudden-onset) hazards are those that will happen anyway, but their frequency, severity and / or location may be changed by climate change. These hazards tend to be of a short time frame and high severity. Slow onset event is caused by man-made climate change and are termed chronic because their impact is gradual" – German Watch (2012). *Loss & Damage: the theme of slow onset events.*

types of interventions can be used to support adaptation in the above-mentioned systems and are outlined in Annex 11.[18]

21. **Adaptation interventions are very different from mitigation interventions.** Reducing carbon dioxide, nitrous oxide and hydrofluorocarbons, among other GHGs, is a global public good. The benefits from this public good can accrue to the governments and people of all states through time, especially those who expect the most severe and immediate impacts from climate change. Moreover, all mitigation interventions can be measured against a common metric, the reduction of CO_2^e.
22. **Such global public goods are available to all states, and consumption of the good by one state or its people in no way reduces its availability to others.** Wider examples include financial stability, developing vaccines for common diseases, international regulations for trade, civil aviation, and telecommunications.[19]
23. **Adaptation interventions are different.** They do not provide global public goods but can provide private goods (which only benefit those who receive the intervention, which is finite and rivalrous) and toll goods (which only benefit those who pay for the intervention, excluding all others, but only for interventions which are not finite and rivalrous), and can support common pool resources (which all citizens in the nearby proximity can use, but when used deplete the amount available for others). Examples of these types of interventions are, respectively, improved climate-resilient agricultural practices, water user groups which manage and fund irrigation schemes only for members, and ecosystem-based adaptation initiatives that often require nested governance structures to ensure a sustainable use of the common pool resource. Indeed, such nested governance structures can also be needed at higher levels for adaptation interventions which are private goods to ensure, for example, watershed sustainability. As is clear, adaptation interventions cover a wide spectrum of activities, across sectors and often across scales. Moreover, we are not yet able to measure these interventions against a common metric, making the tracking of results, outcomes and impacts challenging. Chapter IX discusses this issue in depth by looking at result areas, expected impacts, actual results achieved to date, as well as data from interviews and surveys.
24. **Overall, adaptation interventions can be of an anticipatory, contingent or reactive nature**.[20] Anticipatory measures (also referred to as pre-emptive investments) are aimed either at reducing exposure to a climate hazards (e.g. by using irrigation) or at preventing or reducing the adverse

[18] Green Climate Fund – Independent Evaluation Unit and German Institute for Development Evaluation. *Evidence Gap of Climate Change Adaptation in Low to Middle Income Countries.* Available at https://egmopenaccess.3ieimpact.org/node/17659/about

[19] Public goods are the common and collective benefits provided by governments (e.g. military services, law, order and justice, traffic control systems). In a country, these are goods that benefit all citizens and other actors, none of whom could manage to supply them on their own initiative. In other words, they are provided by the state to address market failures. These goods are non-excludable and non-rivalrous (Samuelson, 1954). This means that all citizens can benefit from the public good (non-excludability) and if one citizen does benefit, there is not a diminished amount available for other citizens (for example, when you benefit from a traffic control system, this public good is still available for other citizens). In contrast with a public good, which has two characteristics, a global public good has three qualities: it is non-rivalrous, it is non-excludable, and it is global. The term global includes space (covering more than one group of countries), people (accruing to all population groups), and generations (extending to both current and future generations, or at least meeting the needs of current generations without foreclosing development options for future generations, as Brundtland highlighted at Rio).

[20] Nassef, Y. (2019). *The PCL Framework: A strategic approach to comprehensive risk management in response to climate change impacts.*

effects of climate change hazards. Some of these measures are also associated with the concept of disaster risk reduction,[21] because they aim to reduce exposure to climate risk.[22]

25. **Contingent measures are invoked just before or when the impact materializes**, and can include evacuation planning, emergency services, migration or a range of financial instruments such as forms of parametric or non-parametric insurance, catastrophe bonds, contingent credit arrangements or forecast-based financing.[23]
26. **Reactive measures for adaptation include financial mechanisms based on recovery and rehabilitation mechanisms**, but also technological developments to support coping with the new climatic conditions, or structural interventions to rebuild damaged assets. Like adaptation, development (but also humanitarian aid) can be framed within the anticipatory, contingent or reactive framework.
27. **In this framework, development finance has traditionally focused on broader, anticipatory actions to reduce risks and alleviate socioeconomic vulnerabilities.** These anticipatory actions may address critical areas for sustainable development – quality education, access to health care, private sector development – but there is not necessarily an underlying climate rationale. Without a climate rationale, development finance reduces risks posed by climate change but not because of climate change per se. The World Resources Institute (WRI) frames this dynamic within an adaptation continuum of projects, ranking them from addressing drivers of climate vulnerability at one end (development) to confronting climate change directly at the other (adaptation).[24]
28. **Humanitarian aid is typically characterized by costly, reactive measures – such as rebuilding damaged assets after a storm, or supporting migrants escaping crises, climate or other events.** These interventions are often left to humanitarian aid due to the high costs of reconstruction and recovery. This touches upon the yet undetermined issue of loss and damage, which are impacts – either social or financial in nature – that are not adapted to. Loss and damage can be due either to the fact that such impacts are unavoidable or to the fact that acceptable losses are preferred over the economic cost of avoidance.[25,26] Perspectives differ on whether loss and damage should be limited to the residual impacts that fail to be prevented because of physical thresholds (hard limits), or whether loss and damage should also be accepted as the result of socioeconomic unpreparedness (soft limits). Some argue that residual impacts are nothing more than the combined result of insufficient mitigation and inadequate adaptation.[27] But, the discussion on what falls into the category of loss and damage is not yet resolved. The concept feeds into the process of decision-making for addressing specific risks by taking pre-emptive or reactive actions. Some approaches to adaptation interventions make use of cost-benefit analysis to assess the best option, and tend to prioritize pre-

[21] The concept and practice of reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events. United Nations International Strategy for Disaster Reduction (UNISDR) (2009).
[22] Mercer, J. (2010). Disaster risk reduction or climate change adaptation: Are we reinventing the wheel? *Journal of International Development*, Vol. 22, Number. 2, pp. 247-264. Although anticipatory measures aim to reduce risks, it is important to point out how the scope of disaster risk reduction is broader than the risk arising from climate change events.
[23] Nassef, Y. (2019). *The PCL Framework: A strategic approach to comprehensive risk management in response to climate change impacts*.
[24] McGray, H., Hammill, A., Bradley, R., Schipper, L., & Parry, J. E. (2007). *Weathering the storm: options for framing adaptation and development* (p. 57). Washington, DC: World Resources Institute.
[25] Stockholm Environment Institute (2016). *Defining loss and damage: the science and politics around one of the most contested issues within the UNFCCC*. Discussion Brief. Available at https://mediamanager.sei.org/documents/Publications/Climate/SEI-DB-2016-Loss-and-damage-4-traits.pdf.
[26] Mechler et al. (2020). Loss and damage and limits to adaptation. *Sustainability Science.*
[27] Harmeling, S., Chamling Rai, S., Singh, H. and Anderson, T. (2015). *Loss and Damage: Climate Reality in the 21st Century*.

emptive actions wherever economically possible.[28] However, cost-benefit analysis does not consider a societal evaluation of what a tolerable loss is.[29,30] In December 2019, COP25 invited the GCF to continue to provide finance for loss and damage, which is of keen interest to most vulnerable countries, including the LDCs, SIDS and African States. Access to finance for activities relevant to loss and damage and GCF investments have significant implications for long-term climate change adaptation.

29. **Recent contributions to the literature highlight that what distinguishes adaptation finance from development finance or humanitarian aid is its focus on regions with high climate risks, not the climate rationale justifying financing adaptation to these risks themselves.** These are countries highly exposed to stressors and shocks on their human and natural systems from climate change. Their sectors and populations are sensitive to extreme weather events and hazards because they depend heavily on the local climate and topography. These countries are unable to easily adjust to a changing climate given country income, capacity, debt burdens or otherwise. Recent contributions to literature highlight how adaptation finance is thus a subset of development finance insomuch as it supports anticipatory, contingent, and in some cases reactive interventions, in regions with high climate risks (see Figure II-3). In comparison, development finance deals mostly with anticipatory actions to address socioeconomic vulnerabilities – there is limited explicit climate risk. Finally, humanitarian aid is characterized differently as it deals mostly with reactive actions, and is increasingly focused on contingent interventions as well.

30. **Differentiating adaptation investments from development and humanitarian interventions foreground important characteristics with implications for the GCF,** in particular, that the GCF can influence climate-smarter responses to climate risks. Adaptation to climate change is still considered a long-term issue. Benefits from many (but not all) adaptation investments increase through time (as climate risks worsen), typically leading to benefits over long time frames. There is a disconnect here with countries' normal short-term planning, typically with a 5-year horizon for budget and political cycles.[31] As a result, adaptation investments are perceived as poor and the political return negligible. This is in contrast to perceptions regarding humanitarian interventions, where post-disaster relief and rehabilitation are much more visible and where such investments can yield short-term political pay-offs.[32] The GCF could consider greater engagement in post-disaster settings, especially through leveraging the role of forecasting and warning systems and associated investments at the local level.[33]

31. **Overall, the IEU recognizes that ultimately, completely removing any ambiguity between adaptation, development and humanitarian interventions definitions, remains elusive.** In this respect, it may be the case that spending resources, time and attention on trying to draw a line between development and adaptation is potentially counterproductive. It may create a false

[28] UNFCCC (2008). Mechanisms to manage financial risks from direct impacts of climate change in developing countries. Available at *https://pdfs.semanticscholar.org/036c/5cb74e15479c75793bfa5d6609c47291a68b.pdf?_ga=2.262269839.2025447407.1590752275-777109568.1590752275.*

[29] Nassef, Y. (2019). *The PCL Framework: A strategic approach to comprehensive risk management in response to climate change impacts*.

[30] Note that the GCF has a mandate to address loss and damage support, if it wishes to do so. Paragraph 21 of decision 12/CP25.

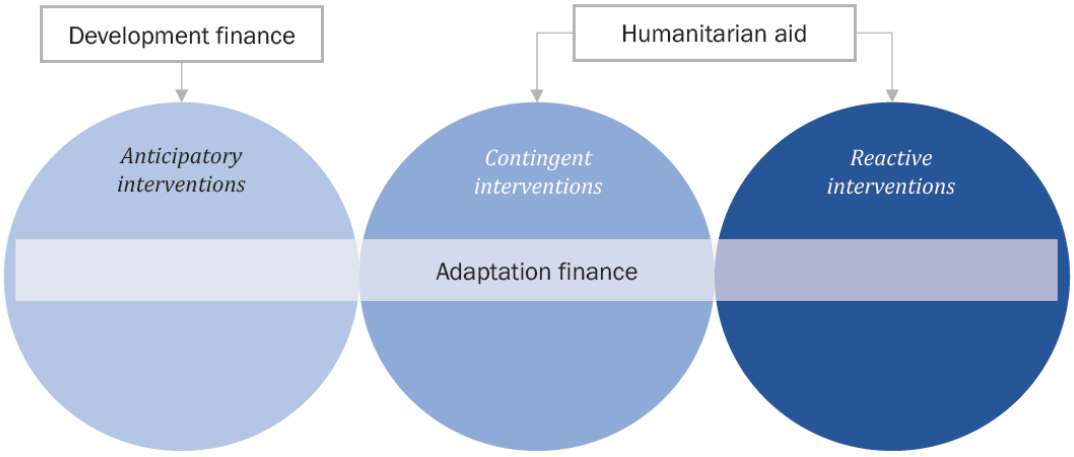
[31] Unsworth, S. Dicker, S. and Byrnes, R (forthcoming). Recognizing the benefits of investment in climate change adaptation. Grantham Research Institute on Climate Change and the Environment, London School of Economics, London, UK.

[32] Ibid.

[33] United Nations Environment Programme (2021). Adaptation Gap Report 2020. Nairobi.

dichotomy between the two interrelated concepts and distract from the ultimate focus of helping countries increase resilience to climate risks.[34]

Figure II-3. Development finance, adaptation finance and humanitarian aid



Source: Adapted from Nassef, Y. (2019). *The PCL Framework: A strategic approach to comprehensive risk management in response to climate change impacts*.

C. COUNTRY ADAPTATION NEEDS POST-COVID

32. **Just as adaptation planning involves building resilience for an uncertain future, COVID-19 has introduced another layer of complexity about the future and is placing a strain on countries' financial and human resources.** In addition, the contraction of most economies has led to rising unemployment, bringing about considerable changes in migration patterns and rising food insecurity.[35] Overall, International Monetary Fund (IMF) projections suggest a global contraction of 4.9 per cent in 2020.[36] Whether countries continue to dedicate resources to adaptation planning is unclear given the immediate needs created by COVID-19. In some cases, the response to the pandemic has led to the use of funds which were earmarked for other purposes, including adaptation and associated development interventions.[37]

33. **Governments will emerge from the COVID-19 pandemic poorer**. **Increased financing for adaptation in 2018 came mainly from greater flows from MDBs. The extent to which this will be maintained in a post-COVID-19 environment is unclear.** Overall, there will be less funding for developing countries from overseas development assistance (ODA) going forward, including for adaptation. For example, projections from the Overseas Development Institute, London, suggest ODA flows will decrease in 2020 and 2021 by around 7 per cent and 11 per cent in real terms.[38] The reduction in total external flows to developing countries is expected to be considerably larger than during the financial crisis of 2008/2009.[39] This suggests more emphasis on measuring the effectiveness and efficiency of existing and future adaptation investments. More attention will also

[34] World Resource Institute (2018). *Deploying adaptation finance for maximum impact.*
[35] World Food Programme (WFP) (2020). *Populations at risk: Implications of COVID-19 for hunger, migration and displacement*. WFP, Rome. November 2020.
[36] Sayeh, A. and Chami, E. (2020). Lifelines in danger. *Finance and Development*, June 2020, Vol. 57, No. 2. International Monetary Fund, Washington DC.
[37] ODI (2020). *The impact of Covid-19 on climate change and disaster resilience funding*. ODI, London, October 2020.
[38] Carson, L., Hebogård Schafer, M. and Prizzon, A. (forthcoming) Aid in times of crises: prospects for aid post-Covid-19. ODI Working Paper. London: ODI.
[39] Carson, L., Hebogård Schafer, M. and Prizzon, A. (forthcoming) Aid in times of crises: prospects for aid post-Covid-19. ODI Working Paper. London: ODI.

be placed on foresight planning and forecasting approaches, with implications and possible opportunities for adaptation planning.[40]

34. **In decision B.26/05, the GCF response included a GCF Readiness Support to Climate Resilient Recovery programme,**[41] under which readiness resources are made available to support countries to develop climate-resilience recovery strategies. Countries are given three options, which include a rapid readiness grant, adaptive management of existing readiness grants, or technical support. The response is under implementation and its effectiveness is not assessed by the evaluation.

35. **A challenge for the GCF is to ensure that COVID-19 stimulus measures and attempts to build back better, engage fully with adaptation interventions**. **This is especially the case for adaptation interventions with employment co-benefits.** In this respect, GCF engagement with the Coalition for Climate Resilient Investments and Finance to Accelerate the Sustainable Transition – Infrastructure is important. The COVID-19 pandemic represents an opportunity for countries to commit to more ambitious climate adaptation plans within the context of green stimulus measures.

36. **This evaluation report now takes the reader through the landscape of the GCF adaptation portfolio and approach**. The next chapter considers the role of the GCF within global adaptation finance and highlights how coherence and complementarity in adaptation finance is essential. Chapter IV describes the role of the RPSP in adaptation planning, and highlights the centrality of capacity building. The fifth chapter describes the adaptation portfolio of the GCF and how it is responding to the urgent needs of developing and vulnerable countries. Chapter VI considers the role of the private sector in adaptation and shows the need for scale. The seventh chapter describes the business model of the GCF as it relates to adaptation and access to finance. Chapter VIII covers the complexity of measuring results and highlights the need to steer for impact. The ninth chapter considers the role of innovation and risk in GCF support, in particular social and institutional forms of innovation.[42]

[40] A further and important finance flow for autonomous adaptation are international remittances which, in aggregate terms, are greater than foreign direct investment net inflows and aid flows combined. Remittance flows declined sharply in the middle of 2020 as the pandemic expanded around the world (IMF, 2020). However, the picture is far from consistent, as in some countries remittances increased where, presumably, remote relatives increased the amount of finance they sent home to relatives. Overall, remittances can act as a form of automatic stabilizer in countries which are particularly reliant on them (such as Republic of Tajikistan, the Kingdom of Tonga, the Federal Democratic Republic of Nepal, and the Kingdom of Lesotho). Sayeh, A. and Chami, E. (2020). Lifelines in danger. *Finance and Development*, June 2020, Vol. 57, No. 2. International Monetary Fund, Washington DC.

[41] Available at *https://www.greenclimate.fund/sites/default/files/document/gcf-guidance-note-climate-resilient-recovery.pdf*.

[42] References for Box II-1 are as follows: Siders A.R. (2019). Adaptive capacity to climate change: A synthesis of concepts, methods, and findings in a fragmented field. *Wiley Interdisciplinary Reviews: Climate Change*. 10(3); Adger, W. N., Agrawala, S., Mirza, M. M. Q., Conde, C., O'Brien, K., Pulhin, J. M., … Wandel, J. (2007). *Assessment of adaptation practices, options, constraints, and capacity*. In M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. van der Linden, & C. E. Hanson (Eds.), Climate change 2007: Impacts, adaptation and vulnerability. Contribution of Working Group II to the fourth assessment report of the intergovernmental panel on climate change (pp. 717–744). Cambridge, England: Cambridge University Press; Mortreux, C. and Barnett, J. (2017). Adaptive capacity: exploring the research frontier: Adaptive capacity. *Wiley Interdisciplinary Reviews: Climate Change*. 8(4)l; Clarvis, M.H. and Engle, N.L. (2015). Adaptive capacity of water governance arrangements: a comparative study of barriers and opportunities in Swiss and US states. *Regional Environmental Change*, 15(3), pp.517-527.

Box II-1. A behavioural lens on adaptive capacity

Adaptive capacity is a concept that is studied widely, in different contexts, geographies and from several academic disciplines. This array of studies has led to strong fragmentation of research rather than systematic knowledge build-up (Siders, 2019). Among the 276 studies reviewed by Siders (2019), 38 per cent did not use any definition of adaptive capacity. The two most commonly used definitions are each cited by around 20 per cent of the sample of studies:

"Adaptive capacity is the ability or potential of a system to respond successfully to climate variability and change, and includes adjustments in both behaviour and in resources and technologies." (IPCC WG2, 2007).

"Adaptive capacity ... can be characterized by preconditions necessary to enable adaptation, including social and physical elements, and the ability to mobilize these elements." (Clarvis and Engle, 2015; citing Nelson et al., 2007).

Both definitions link adaptive capacity to human systems. The first one specifically mentions the adjustment of behaviour as an adaptation pathway. The second considers social preconditions that are necessary for adaptation. Note that "adaptive capacity" captures only the ability to achieve adaptation outcomes but is not in itself sufficient for achieving them.

Mortreux and Barnett (2017) argue that it requires conscious action to translate capacity into better adaptation outcomes. They found several studies in which households with more financial, social and human resources did not adapt as well as households with lower capacity. On the institutional level, lack of political will was an impediment to successful adaptation. The authors review five factors that mediate the relationship between adaptive capacity and adaptation outcomes:

- Risk attitudes: Including risk appraisal, self-efficacy, adaptation appraisal, and avoidant maladaptation.
- Personal experience: Personal experience creates emotions in relation to a threatening climate event such as droughts or wildfires. As a result, people who have witnessed flooding may take protective measures to make their houses less vulnerable. Yet personal experience supports adaptation action only as long as people feel the agency to respond to the challenge. Otherwise, helplessness may make people fatalistic and shift their priorities away from adaptation.
- Trust and expectations in authorities: Trust in authorities is an important determinant of whether individuals take advice or react to warnings. On the other hand, people may stay inactive in the face of a disaster because they expect guidance from authorities.
- Place attachment: People become financially and/or emotionally invested in the place they live in for various reasons. From an adaptation perspective, a higher place attachment could motivate residents to invest in adaptation action. Yet the literature on disaster risk reduction cautions that emotional ties to a place can make people overlook environmental risks, such as vulnerability to flooding or wildfires.
- Competing concerns: Climate adaptation has a long-term focus. While climate change is already affecting millions of people, its full force is expected to materialize only within decades. Therefore, short-term concerns may rule out more long-term adaptation concerns.

Chapter III. GCF ROLE IN CLIMATE ADAPTATION

KEY RECOMMENDATIONS

- The GCF should clarify its role in and vision for climate adaptation and implement methods to enhance complementarity with other climate funds and funding agencies, and promote coherence in programming.
- The GCF should consolidate its unique position in adaptation finance, including the mandate to finance projects at scale with a high risk appetite.
- The GCF should promote efficiency by pursuing greater coordination of adaptation efforts with NDAs, AEs and local stakeholders at the national and regional levels.
- The GCF should use its convening and catalytic power to develop a set of best practices learned from stakeholders (including climate funds, NDAs and AEs), to share across the GCF ecosystem.

KEY FINDINGS

- The GCF is a minor actor in the overall climate finance space but has an opportunity to be more relevant in adaptation than in mitigation, by filling financing gaps, reducing risks in adaptation investments, and supporting the development of new markets.
- Considering its mandates and resources, the GCF is uniquely positioned to finance projects at scale with a high risk appetite, if appropriate and consistent with country needs. However, the GCF has not clearly defined a specific approach for adaptation programming.
- Given the GCF mandate, modalities and instruments, the GCF has a range of options available to better support adaptation finance: scaling up, synergies, regional modalities and diversifying financial instruments, including de-risking larger projects.
- Project-level interactions between GCF proposals and the projects of other climate funds, multilateral partners and the private sector, are not yet systematically identified nor actively pursued. There have been some attempts in the past few years to foster greater coordination at multiple levels.
- The GCF also has the opportunity to clarify its role beyond adaptation finance. It can do this through its: (i) resources dedicated to adaptation planning; (ii) convening power at regional, national and subnational level; and (iii) knowledge management and sharing potential, to ensure coherence and complementarity in the delivery of adaptation planning and implementation.

A. Overview

1. This chapter discusses the GCF in the broad climate finance space and, more specifically, in adaptation finance. It addresses the evaluation question of how the GCF can be additional and/or a leader in adaptation financing. In answering this question, the chapter discusses the climate finance flows to non-OECD (Organisation for Economic Co-operation and Development) countries and their respective key players, particularly in adaptation finance. The chapter also provides an overview of the GCF contribution to adaptation as per its mandate. The main body of the chapter assesses the GCF role within its mandate to build coherence and complementarity with other climate funds in the context of adaptation. This is discussed in two main clusters: the GCF characteristics that strictly relate to supplying finance to projects, and those related to the role of the GCF beyond project finance.

B. Climate finance needs and flows

1. The cost of climate adaptation

2. **There are considerable challenges in estimating the present and future costs of adapting to climate change impacts.** These challenges include, inter alia, the levels of direct and indirect effects from climate change, the development levels of the countries, how many sectors are included in the vulnerability assessments, the extent of autonomous adaptation, and estimates of the benefits and co-benefits from adaptation.[43] A further challenge is estimating the effectiveness of mitigation interventions in different scenarios: early and large-scale mitigation investments globally could limit global adaptation costs by up to 75 per cent (UNEP), 2021). Nevertheless, it has been estimated that adapting to climate change impacts could range from USD 140 billion to USD 300 billion per year by 2030, and up to USD 280 billion to USD 500 billion per year by 2050 as the impacts become more severe.[44] In this report we use a midpoint of USD 220 billion per year by 2030 as a reference point.

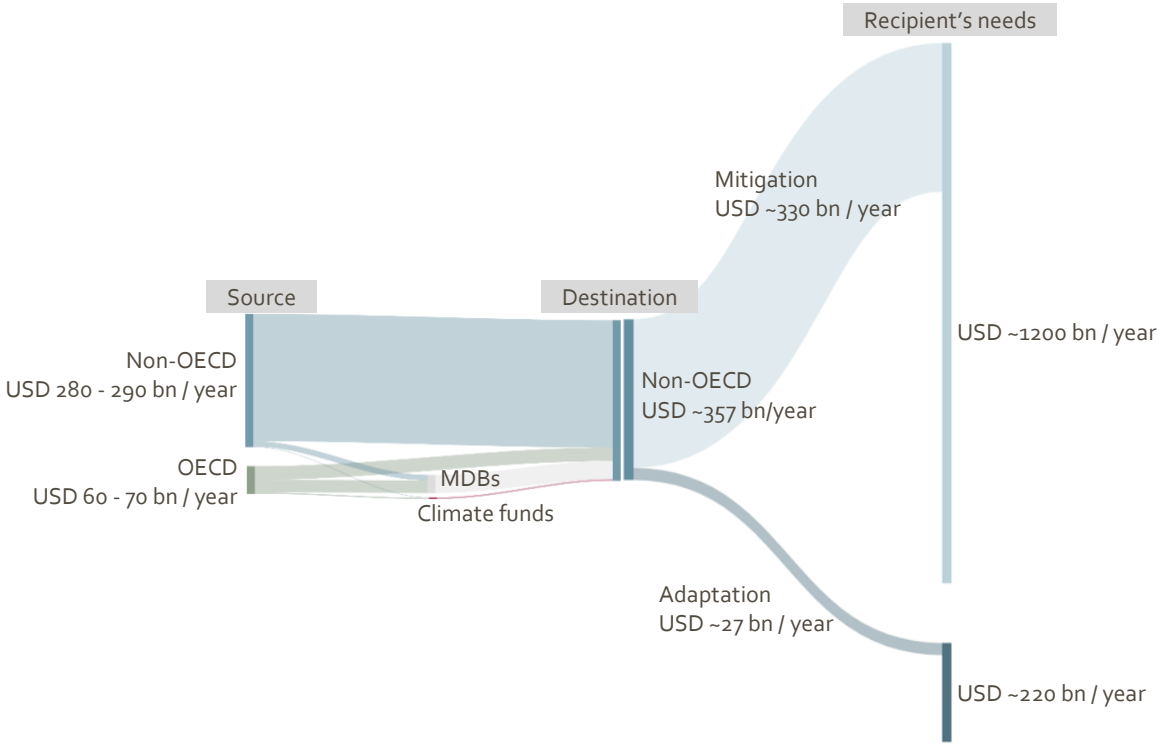
2. Overview of climate finance flows

3. **There are also substantial challenges when estimating climate finance flows leading to difficulties when comparing across institutions.** These challenges include inter alia:
   - Definitions of adaptation
   - Granularity of accounting practices
   - Reported units (nominal or grant equivalent)
   - Concessional and/or non-concessional flows
   - The degree to which finance is “new and additional”
   - Lack of transparency with international and domestic public resources and private finance flows for adaptation
   - Possible double counting
   - Currency and accounting conversions[45]

[43] UNEP (2021). Adaptation Gap Report 2020. Nairobi.
[44] Ibid.
[45] Ibid.

4. **Overall, it is the lack of internationally agreed modalities for reporting on climate finance which could be improved**. Nevertheless, there have been attempts to estimate the total climate finance flows towards non-OECD countries. These estimates suggest a figure of USD 357 billion per year for 2017 to 2018 (see Figure III-1).[46]

Figure III-1. Climate finance directed to non-OECD countries (average 2017–2018)



Source: OECD, Climate Policy Initiative. Analysis by IEU Datalab.
Note: This figure includes: (i) bilateral public finance, either through development finance institutions (DFIs) or directly from governments' budgets; (ii) finance through multilateral banks and funds that can be attributed to developed countries; and (iii) climate-related officially supported export credits. Additionally, a further USD 14.5 billion of the private climate finance mobilized is attributed to developed countries. Multilateral banks and climate funds channel finance from both OECD and non-OECD countries. In this context, climate funds are small players, managing slightly more than 1 per cent of the global annual contribution.

5. **The largest share of climate finance flows domestically within non-OECD countries**.[47] More than 40 per cent of this amount is directed to the East Asia and Pacific region, with China being the largest country in originating and receiving investments in the transport and renewable energy sectors. Only 5 per cent of the total is directed to Sub-Saharan Africa. Additionally, domestic public expenditure plays an important role in climate finance, particularly for adaptation finance.
6. **Out of the total of USD 357 billion per year that flow to non-OECD countries, only 7 per cent annually is directed to adaptation. With that, only 12 per cent of the estimated global needs for adaptation are addressed.** Estimates for the amount of adaptation finance for non-OECD countries amounted to USD 27 billion per year on average in 2017 and 2018.[48] Of this, USD 15 billion can be

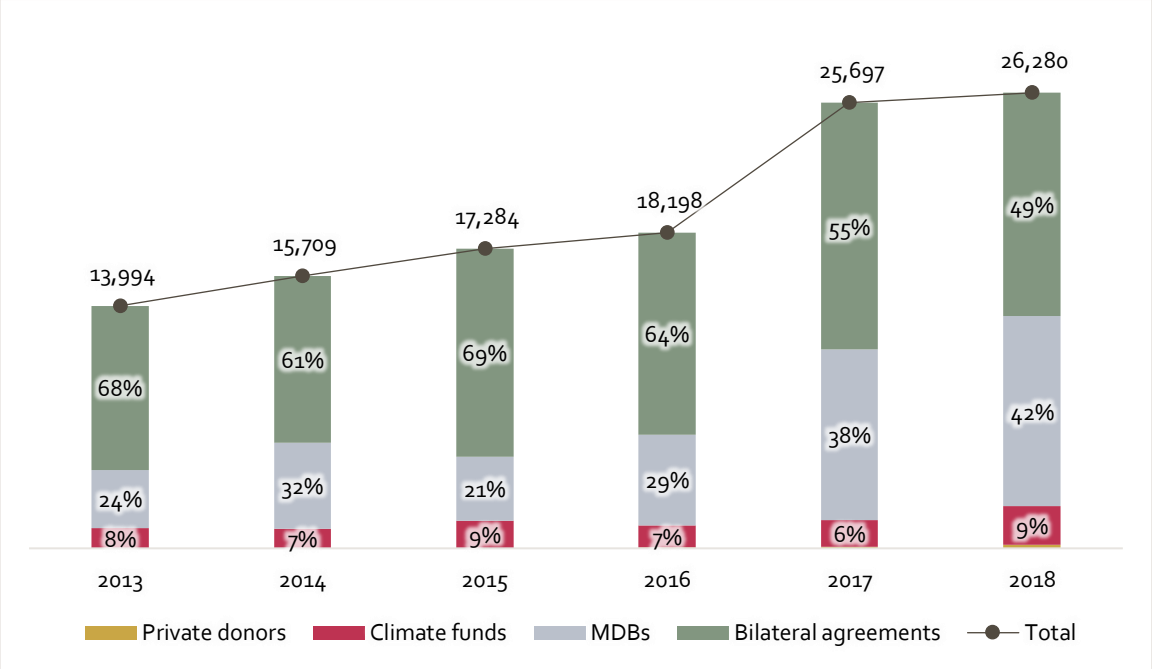
[46] CPI data provides the broadest overview of the climate finance landscape due to methodological issues these figures cannot be interpreted and compare to the 100bn Paris Agreement commitment of climate finance for Annex I parties.
[47] CPI, 2019
[48] CPI, 2019.

attributed to OECD countries. This chapter uses the fuller figure of USD 27 billion for adaptation, cognisant that the sources for these flows are both OECD and non-OECD countries.

3. ADAPTATION FINANCE

7. **Climate finance is seeing an expansion in volume and new business models.** Compared to previous years, the level of adaptation finance increased in 2017 and 2018. The increase from previous years is mainly accounted for by increases from bilateral agencies and MDBs (see Figure III-2). The latter often use loans and increase the debt burden of developing countries (see Figure III-3).[49] Looking forward, the World Bank Group has a target of direct adaptation finance of USD 50 billion by 2025.[50] The WB will deliver this funding through regular programmes, such as standard project finance, policy-based lending, performance-for-results loans and resilience bonds. However, the WB is not targeting any set of countries and will not lower its requirements for accessing this funding. As a result, some countries will be unable to access this funding (e.g. if the country has restrictions on debt levels given IMF programmes).[51] Such unprecedented commitments and conditionalities lead to a crowded landscape. To promote the paradigm shift in adaptation, there is an opportunity for the GCF to better its strategic positioning.

Figure III-2. Adaptation finance (USD million) from different actors for the years 2013–2018



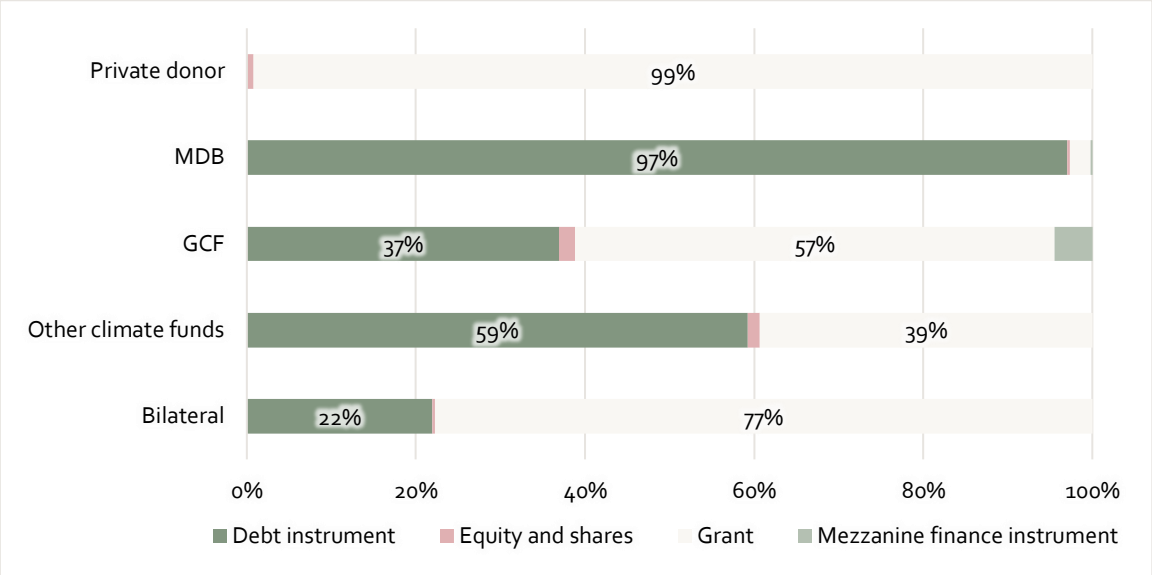
Source: OECD climate-related finance 2013–2018. Analysis by IEU Datalab.
Note: This figure combines OECD and GCF data on finance directed to adaptation result areas, either through adaptation-only or cross-cutting projects. This amount in 2018 represented an increase from previous years.

8. **There are six multilateral climate funds particularly relevant to adaptation.** In chronological order since they became operational, they are: (i) the LDCF; (ii) the SCCF; (iii) the AF; (iv) the Pilot Program for Climate Resilience (PPCR); (v) the Adaptation for Smallholder Agriculture

[49] World Bank 2019 – Green Bond Impact Report. In 2019, the World Bank Group reported a total of USD 10.5 billion in proceeds allocated to support financing-eligible projects. A quarter of this was allocated to adaptation interventions.
[50] World Bank Group. (2019) *The World Bank Group Action Plan on Climate Change Adaptation and Resilience.*
[51] IEU. Forward-looking Performance Review - Country Case Study Grenada.

Programme (ASAP); and (vi) the GCF. Furthermore, the Global Environment Facility (GEF) Trust Fund has also financed some adaptation interventions, most notably under its Strategic Priority for Adaptation (SPA). The LDCF and SCCF have been in place since 2002 and are housed by the GEF. The AF was established in 2007 under the UNFCCC Kyoto Protocol and is now linked to the Paris Agreement. Finally, the PPCR was established one year later (2008) as part of the Climate Investment Funds (CIF).[52] The ASAP was launched by IFAD in 2012.

Figure III-3. Share of financial instruments used across adaptation finance actors



Source: OECD climate-related finance 2013–2018. Analysis by IEU Datalab.

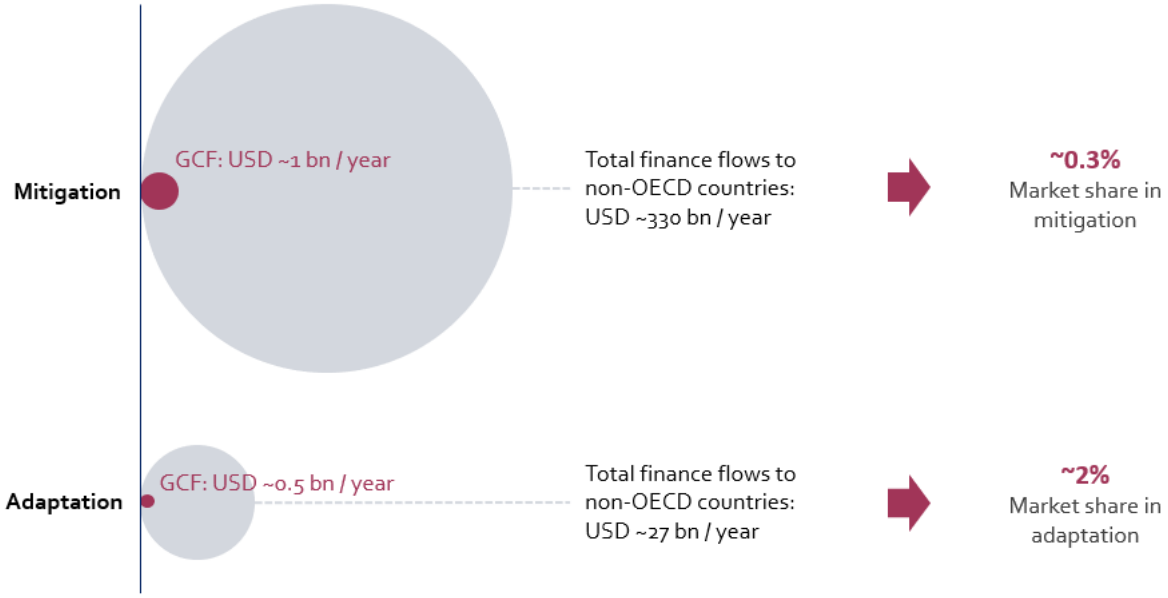
4. THE GCF IN THE ADAPTATION FINANCE SPACE

9. **The UNFCCC established the role of the GCF in climate finance, and acknowledged it in the GCF GI.** As highlighted in Chapter II, the Paris Agreement encourages the coordination of support from, among others, public and private, bilateral and multilateral sources.[53] Furthermore, the Paris Agreement decided that the GCF and the GEF, LDCF and SCCF (administered by the GEF) and the AF, the entities entrusted with the operation of the Financial Mechanism of the Convention, would serve the Paris Agreement.[54]
10. **The GI guides the GCF role in climate finance in the context of coherence and complementarity**. The GI provides that, "The Fund shall operate in the context of appropriate arrangements between itself and other existing funds under the Convention, and between itself and other funds, entities and channels of climate change financing outside the Fund." It also states, "The Board will develop methods to enhance complementarity between the activities of the Fund and the activities of other relevant bilateral, regional and global funding mechanisms and institutions, to better mobilize the full range of financial and technical capacities. The Fund will promote coherence in programming at the national level through appropriate mechanisms. The Fund will also initiate discussions on coherence in climate finance delivery with other relevant multilateral entities."[55]

[52] Climate Funds Update (2019) *https://climatefundsupdate.org/the-funds/*
[53] Ibid – paragraph 55.
[54] Ibid – paragraph 59.
[55] Governing Instrument of the Green Climate Fund, paragraphs 33 and 34.

11. **In adaptation finance, the GCF is a relatively small player but has a larger opportunity to make a mark in this area than it does in mitigation finance**. In 2018, GCF commitments of USD 805 million constituted about 3 per cent of the annual global flows to adaptation. However, since 2018, GCF commitments to adaptation have fallen back to USD 349.3 million and USD 535.04 million committed in 2019 and 2020 respectively. Although the GCF is small as regards the budgets of governments and development banks, the Fund's role is considered to be greater in adaptation than in mitigation, because mitigation can more easily attract financing from domestic, private sector and commercial investors (see Figure III-4).[56] Furthermore, mitigation markets are well developed and the business case for private sector investments is clear (e.g. in renewable energy or energy efficiency). In adaptation, there is a stronger need for transformational finance to lead the development of new markets.

Figure III-4. Relative size of the GCF in mitigation and adaptation

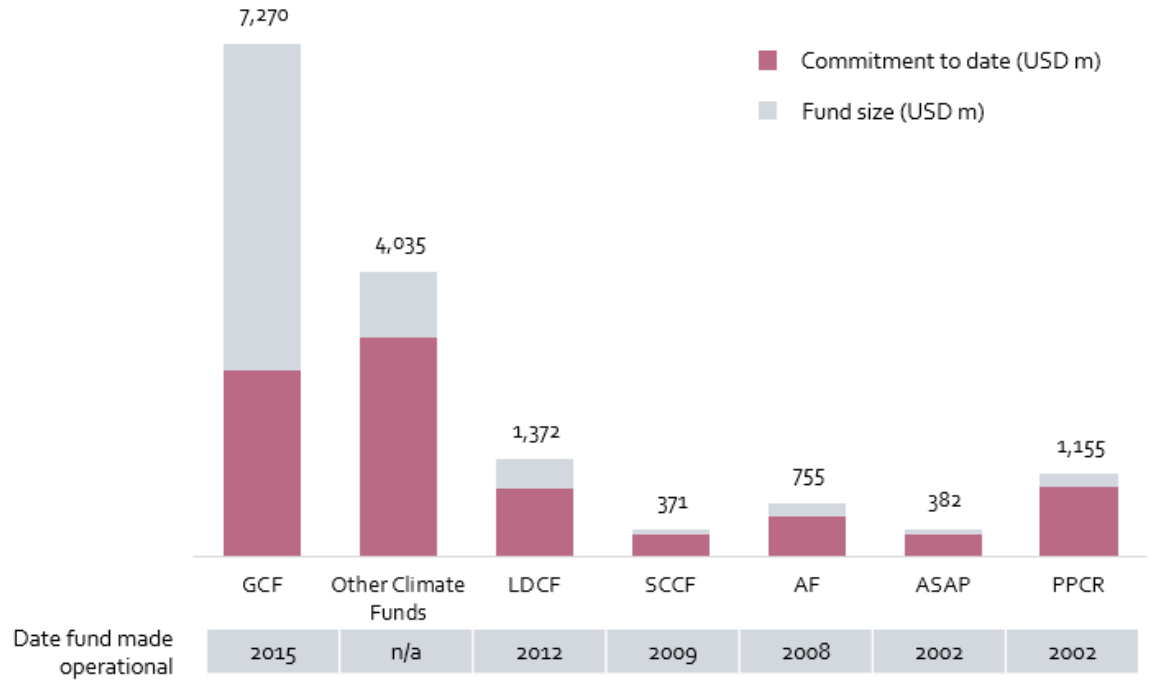


Source: Climate Policy Initiative – Climate Finance Landscape 2019. Analysis by IEU Datalab.
Note: Bubble size is not indicative of actual flows.

12. **Comparing the GCF to other climate funds that focus on adaptation, the GCF has a larger market share.** The current adaptation portfolio, including the adaptation components in cross-cutting projects, in terms of the committed amount, is USD 2.63 billion. This includes finance directed to adaptation result areas, either through adaptation-only or through cross-cutting projects. The commitments of the GCF are larger than other key climate fund commitments combined (see Figure III-5).[57] Like other climate funds, the GCF is dependent on future voluntary contributions from countries. The outcomes of the replenishment cycles of the different funds, including the GCF, are yet to be determined. Potentially, the GCF could benefit from a different funding scale, which would enable the Fund to engage in longer-term and larger-scale programmes. In particular, the decision of the United States of America's administration to re-join the Paris Agreement increases the likelihood of this happening.

[56] GCF, IEU. Forward-looking Performance Review of the Green Climate Fund.
[57] This includes the AF, the LDCF, the SCCF, the ASAP and the PPCR. The GEF is not included as a direct comparison, given that its main adaptation strategy is through the LDCF and SCCF, and the GEF itself mainstreams adaptation in other focal areas.

Figure III-5. Climate adaptation funds' committed amounts and total fund size[58]



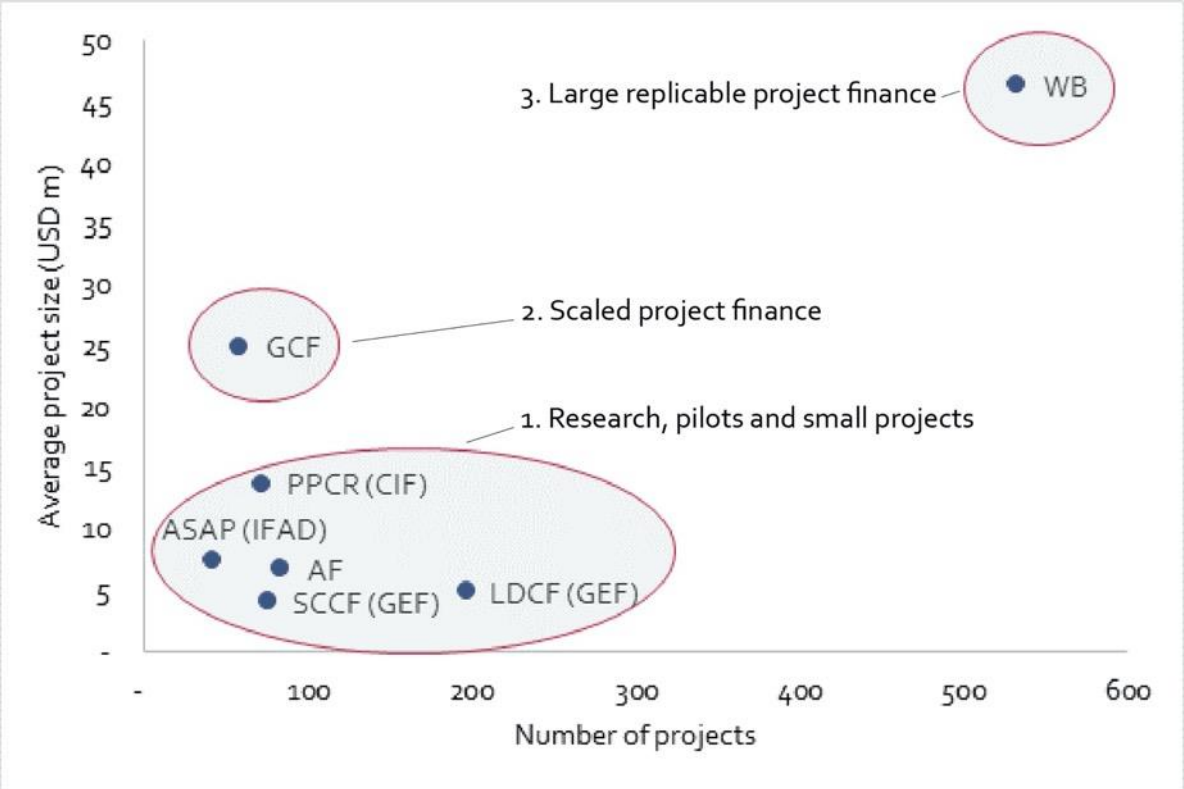
Source: Heinrich Boll Stiftung: Climate Funds Update 2020. Analysis by IEU Datalab.

C. POSITIONING OF THE GCF

13. **The GCF funds fewer, larger projects than many dedicated climate funds, but these are smaller than those supported by WB and other MDBs** (see Figure III-6). On the one hand, climate funds (besides the GCF) mainly support research, pilots and small projects. On the other hand, MDBs have a large number of large projects. Although the underlying intention is not apparent, the GCF portfolio has supported projects positioned between the portfolios of the climate funds and MDBs in terms of scale. This is emerging as a niche, where the GCF could play a unique role in providing resources for innovative and replicable approaches, projects and programmes.

[58] GCF fund size refers to the funding available for adaptation and mitigation.

Figure III-6. GCF positioning in the climate finance space



Source: Compiled based on publicly available data from GEF 2018; AF 2018; CIF 2018; GCF 2020; WB 2018; and IFAD 2018. Analysis by IEU Datalab.
Note: This figure is adopted from the Future of the Funds report by WRI (2017).

14. **The GCF has not further defined a specific approach and vision for adaptation programming, given its anticipated programming capacity.** The total anticipated programming capacity of the GCF for 2020 to 2023 is projected to be in the range of 200–260 new projects in total, or around 50–65 projects per year, depending on average project size and the depth of measures to improve operational efficiency. With measures to further refine the simplified approval process (SAP), this could reach the higher end of the range and include 20–25 SAP projects per year. To date, the adaptation portfolio is based on a country-driven approach with projects defined by the adaptation result areas of the RMF.[59]
15. **The GCF has the opportunity to actively and intentionally scale project finance to concepts tested by climate funds, enabling replication by other actors, including the MDBs**. During our interviews for this evaluation, most stakeholders and adaptation experts acknowledged that the main factors for seeking finance from the GCF include its ability to provide finance at a larger scale, and replicate across a set of countries and flexible finance windows. Most AE representatives acknowledged this to be one of the key reasons to seek financing from the GCF rather than from other adaptation funds.
16. **The GCF's broad suite of instruments and modalities enable it to support pilot projects and programmes** through grants, and to provide equity and guarantees on concessional terms to allow pilots to scale, before supporting the transition to debt financing by other actors, if appropriate and

[59] The RMF and the USP describe eight results areas of the Fund, with livelihoods of people and communities; health, food and water security; infrastructure and built environment; ecosystems and ecosystem services for adaptation. See Chapter VIII.

consistent with country needs. The GCF can also help replicate projects and programmes through programmatic national, regional and multi-country approaches.

17. **Based on its mandates, several options exist for the GCF to position itself in adaptation finance.** The GCF has not sufficiently clarified its role or vision in adaptation finance. In the remainder of the chapter, we describe the different aspects highlighted throughout our interviews. These include: (i) scaling up of innovative and replicable concepts: (ii) use of a range of financial instruments: (iii) adaptation planning support: and (iv) coherence and complementarity at the national, subnational and local level.

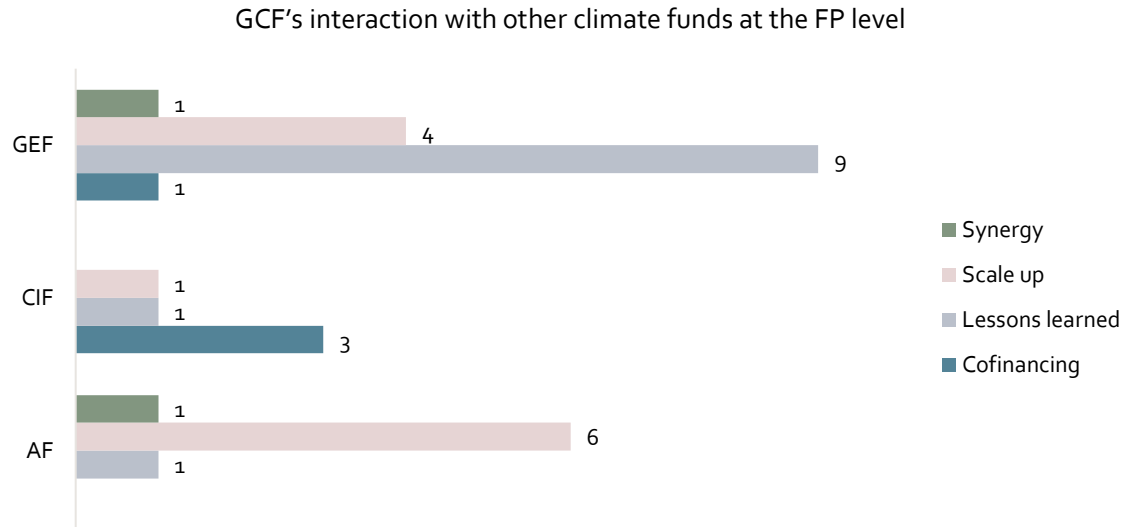
1. SCALING UP OF INNOVATIVE AND REPLICABLE CONCEPTS

18. **Scaling up is part of the GCF's initial strategy and its new strategic plan to build on the successes and synergies with other climate funds.** The USP of the GCF explicitly refers to "working to scale up successes and advance programming synergies with other climate funds (such as the Global Environment Facility and AF)".[60] To track progress against this intention, the Secretariat has highlighted the interactions of individual projects with other climate funds. The Secretariat has classified these in four categories:[61] (i) scale up – funding proposals scaling up experiences from other climate funds: (ii) synergy – funding proposals scaling up activities implemented with the support of other climate funds; (iii) lessons learned – funding proposals implementing lessons learned from initiatives financed by other climate funds; and (iv) co-financing – funding proposals attracting co-financing from another climate fund. Currently, while individual funding proposals (FPs) might refer to the previous projects/programmes of other climate funds, there has been little systematic screening of CNs and FPs, to date, according to their scaling and synergy potential with other climate funds.

19. **The GCF has had limited interaction with other funds at the project level.** In the GCF portfolio, 32 projects interact with specific projects from other climate funds, 23 of which are adaptation or cross-cutting. The main interactions at the project level with the AF are related to scaling up projects, which is seen in positive terms in the AF. There are nine projects where the GCF is drawing lessons from the GEF, without necessarily scaling up the project (see Figure III-7). There are 13 projects in the category "Lessons learned" or "Scale up", for a total of USD 377 million (~14 per cent of the finance committed to adaptation). Interviews have shown regular exchanges occur with the AF to identify AF projects that can be scaled-up through the SAP or regular GCF funding proposals.[62] However, engagement with other climate funds or other relevant bilateral, regional and global funding mechanisms and institutions, to better mobilize the full range of financial and technical capacities, appears limited. There is potential for much stronger and proactive collaboration, to enhance coherence and complementarity in adaptation finance.

[60] Para. 12 - GCF/B.27/21 – Updated Strategic Plan for the Green Climate Fund: 2020–2023.
[61] GCF/B.24/Inf.08. The categorization has been retrofitted to previous investments.
[62] GCF/B.27/17 – Para. 94 - Ninth Report of the Green Climate Fund to the Conference of the Parties to the United Nations Framework Convention on Climate Change.

Figure III-7. GCF interactions with other climate funds throughout adaptation and cross-cutting projects



Source: GCF Secretariat Annual Report

20. **Interview data show that most national stakeholders stated that the lack of coordination between climate funds at the national level presents a challenge,** particularly for most vulnerable developing countries that have small government administrations and limited human capacity. The NDAs stated that a lack of clarity and guidance in implementing a country ownership approach continues to be a challenge. This finding also underlines the findings of the IEU evaluation of the country-ownership approach. Furthermore, by seeking these opportunities more proactively, the GCF may enable coordination at national and regional level for scaling innovative concepts and projects (see Chapter IX for a more in-depth discussion on innovation).

2. USING ITS FLEXIBLE SUITE OF FINANCIAL INSTRUMENTS

21. **Compared to other adaptation funds, the GCF is the only fund with a wide range of financial instruments available. The only partial exception would be the PPCR of CIF** (see Table III-1). While acknowledging there is no universal agreement on financing adaptation via loans and many countries are not able to increase external debt,[63] equity and guarantees are instruments available only to the GCF and hold considerable potential. Using such instruments to de-risk investments from MDBs and private investors is an opportunity unique for the GCF and could have a catalyzing effect for adaptation project finance.

[63] World Resource Institute - Future of the Funds.

Table III-1. Available instruments for adaptation, by provider

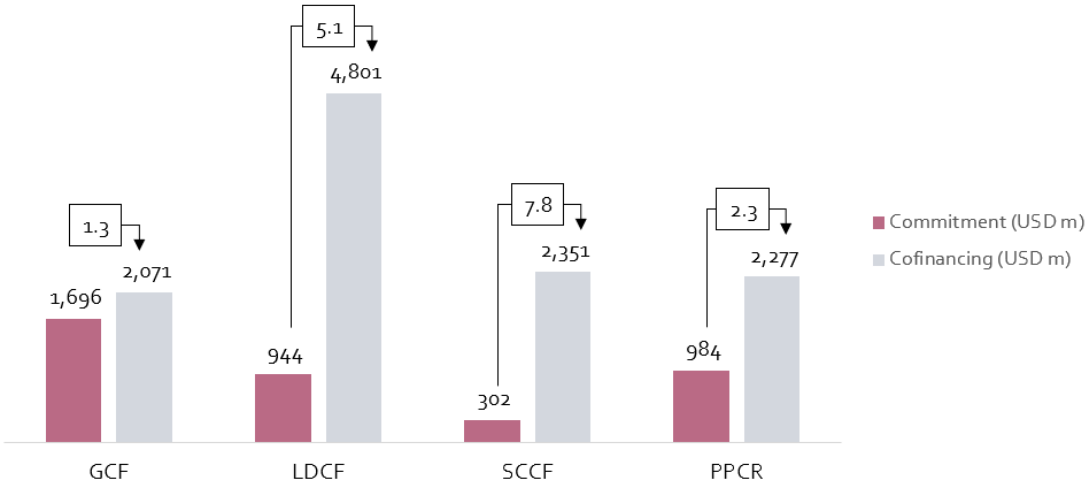
FUND	GCF	LDCF	SCCF	PPCR	AF
Project size (USD m)	2-378 [64]	5-10	5-10	5-15	5-10
Instruments	Grants Loans Equity Guarantees	Grants	Grants	Grants Concessional loans	Grants
Focus	Adaptation, Cross-cutting, Mitigation	Adaptation	Adaptation	Adaptation	Adaptation

Source: Compiled based on data from GEF 2014b; CIF 2010a; GCF 2014c; and decision B.08/12.

22. **In adaptation, the GCF has not used such instruments for scaling.** One of the underlying reasons is that revenue-generating activities are limited in adaptation. Most investments relate to infrastructure or agriculture interventions, where MDBs are established primary investors. In its current portfolio, only 18 per cent of GCF adaptation finance[65] is non-grant finance, which underlines the concentrated use of GCF instruments in its adaptation portfolio. This issue is further explored in Chapter V on the adaptation project portfolio and Chapter VI on private sector engagement.
23. **Despite its mandate to de-risk, scale and utilize a diverse set of instruments, the GCF has a lower (expected) co-financing ratio than other climate finance mechanisms** (see Figure III-8).[66] For example, the funds administered by the GEF (LDCF and SCCF) have overall higher leverage than the adaptation portfolio of the GCF.[67] This is surprising, given the variances in mandate, scale and types of financing.[68] There are several factors to consider in interpreting these figures: (i) LDCF and SCCF only finance the additional cost of adaptation and consider co-finance as a requirement to finance projects; (ii) in the case of the GEF, it is acknowledged that the high co-financing rates of a few projects skew the aggregate data;[69] and (iii) a large share of this co-finance in GEF projects is from the GCF itself. On the other hand, the GCF contribution to the projects it finances is larger, indicating the Fund's stronger role in making the projects happen.

[64] There is no established lower or upper bound for GCF projects – the figures reported refer to the smallest (SAP003) and largest (FP025) projects in the adaptation and cross-cutting portfolio.
[65] Refers to the adaptation finance part of adaptation and cross-cutting projects.
[66] Co-financing ratios are calculated as expected co-financing divided by approved funding. There is no analysis of actual co-financing at the end of the project. Some of the co-financing promised during project preparation may not have materialized or new co-financing may be attracted to the project.
[67] WRI (2017). *Future of the Funds.* pp. 29-30.
[68] It should be noted that a comparison between LDCF, SCCF and GCF is limited, due to methodologies used in calculating co-financing.
[69] Ibid.

Figure III-8. Co-financing ratios by climate funds focused on financing adaptation



Source: Compiled based on publicly available data from GCF2020; LDCF2020; SCCF2020; and PPCR2020.
Note: The co-financing included here is from adaptation projects only and did not consider cross-cutting projects.

24. **Considering the GCF adaptation portfolio, the co-finance in GCF adaptation projects is mostly public capital** (e.g. MDBs, DFIs and countries' government budgets). A much larger share of co-finance in adaptation comes from countries themselves, and less than 2 per cent comes from the private sector in adaptation-only projects. For pure adaptation projects (thus excluding cross-cutting projects), the GCF attracted a total of USD 2.07 billion of co-finance from other actors in the adaptation finance space (see Table III-2 and chapter V).[70]

Table III-2. Types of actors providing co-finance for GCF adaptation projects

CO-FINANCIER FOR GCF ADAPTATION PROJECTS	TOTAL AMOUNT (USD)	PERCENTAGE OF THE TOTAL CO-FINANCE
Government	906,347,485.7	44%
Multilateral development banks	596,326,887.8	29%
More than one type of organization merged as a single co-financier	57,726,000.0	12%
Bilateral fund/aid	205,583,626.5	10%
United Nations agencies	37,819,905.0	2%
Private	36,084,856.0	2%
Unknown/not determined	18,299,111.8	1%
Bilateral government	7,155,014.8	0.3%
Non-profits/philanthropical foundations	5,240,900.0	0.3%
Grand total	2,070,583,787.6	100%

Source: GCF Tableau server data and the integrated portfolio management system (IPMS), as of 13 November 2020.

[70] The GCF has no strict requirement on co-financing. The amounts reported in the chart come from the project documentation and there is no assessment of who is co-financing whom.

D. UNIQUE ROLE OF THE GCF BEYOND FINANCING PROJECTS

1. SUPPORTING COUNTRIES' ADAPTATION PLANNING

25. **The mandate of the GCF includes several unique parts: its accountability to the COP, commitment to country ownership, direct access, and balance between adaptation and mitigation**. The GCF also has a mandate from the UNFCCC to support countries developing their NAPs or other national adaptation planning processes. The GI states, "The Fund will support developing countries in pursuing project-based and programmatic approaches in accordance with climate change strategies and plans, such as low-emission development strategies or plans, nationally appropriate […], national adaptation plans of action (NAPAs), NAPs and other related activities." The RPSP can provide this support. The GI further notes that the "Fund will provide resources for readiness and preparatory activities and technical assistance, such as the preparation or strengthening of low-emission development strategies or plans, […] and for in-country institutional strengthening, including the strengthening of capacities for country coordination and to meet fiduciary principles and standards and environmental and social safeguards, in order to enable countries to directly access the Fund."[71]

26. **When compared with other countries, the GCF has the largest availability of resources dedicated to adaptation planning**. The GCF may provide "up to USD 3 million per country for the formulation of NAPs and/or other adaptation planning processes", which may include "support for subnational adaptation plans and/or sectoral adaptation planning processes".[72] Other climate funds able to finance support activities to enable the development of NAPs are, for example, the LDCF and SCCF,[73] with mandates to focus on LDC and non-LDC countries, respectively. In addition to climate funds, other bilateral and multilateral finance sources (e.g. Japan International Cooperation Agency [JICA]; the UK Foreign, Commonwealth and Development Office [FCDO]; *Deutsche Gesellschaft für Internationale Zusammenarbeit* [GIZ]; the Government of Canada; WB; IDB; the International Institute for Sustainable Development [IISD]; and the International Institute for Environment and Development [IIED]) are also supporting countries in the development of their NAPs. The success of adaptation planning is often linked to a complementary and coherent approach at national, subnational and project level. The GCF mandate is to operate in the context of appropriate arrangements between itself and other existing funds, entities and stakeholders. Interviews with in-country stakeholders made it clear that while adaptation planning was important, coordination of such planning efforts at country level can be challenging. A more in-depth analysis of the adaptation planning portfolio of the GCF can be found in Chapter IV.

2. EXERTING ITS CONVENING POWER

27. **The GCF has strong convening power that can become an opportunity for coherent and complementary adaptation planning and financing of adaptation activities with other climate funds and other organizations**. In fact, by convening providers and recipients of funding around the same discussion tables, such as international sources of finance and local institutional stakeholders, the GCF not only has an opportunity to become an active part of more collaborative

[71] GCF Governing Instrument.
[72] Available at *https://www.greenclimate.fund/readiness/naps*.
[73] Under decision 12/CP.18, the GEF, as the operating entity of the LDCF, was mandated "to enable activities for the preparation of the national adaptation plan process by the least developed country parties" (UNFCCC, 2013, p.4). Under decision 12/CP18, the UNFCCC requested the GEF to "consider how to enable activities for the preparation of the national adaptation plan process for interested developing country parties that are not least developed country parties" through the SCCF (UNFCCC, 2013, p.4).

interventions, but can actively drive these initiatives. In this context, the GCF Operational Framework for Complementarity and Coherence outlines four pillars reflecting the GI, which are: (i) Board-level discussions on fund-to-fund arrangements; (ii) enhanced complementarity at the activity level; (iii) promotion of coherence at the national programming level; and (iv) complementarity at the level of delivery of climate finance through an established dialogue.[74]

28. **The GCF has not yet completed sufficient systematic country-level work to ensure coherence and complementarity in the delivery of adaptation finance**. The Annual Dialogue for Climate Finance Delivery is an example of coordination activities, but information on this initiative's actual content is not available. Points (ii) and (iii) of the Operational Framework are of significance, as the coherent country-level interventions are vital from a country perspective. The importance of finding such synergies locally applies to the delivery of project finance and readiness support, especially in states with weak institutional frameworks. To this purpose, the GCF has started engaging in several activities, such as the mapping of complementarity at the project level and the nascent exercise with AEs to build on the work previously conducted in-country. The information on these initiatives is currently only considered a reporting requirement and not used to reflect on the learning regarding complementarity and coherence, and not used as a strategic tool for the GCF.

3. EXPECTED PREDICTABILITY

29. **Green Climate Fund finance is expected to be adequate, predictable and additional, but these terms are not clearly defined.** The GI indicates that the "Fund will play a key role in channelling new, additional, adequate and predictable financial resources to developing countries and will catalyze climate finance, both public and private and at the international and national levels".[75] However, a review of Board decisions and consultations with the Secretariat indicate that the concepts of additionality, adequacy and predictability have not been appropriately defined within the GCF.

30. **The lack of precision on adequacy and predictability prevents the GCF from developing methods to enhance complementarity and coherence with other relevant funds,** especially other climate funds, in the context of adaptation. This is despite the fact that there are frameworks that could help define these concepts for the GCF. For instance, adequacy can be interpreted either in terms of amount or meeting adaptation needs, and the literature generally interprets it in terms of the former.[76] It can be argued that given the large unmet needs in adaptation, GCF resources can only be fully adequate if either the GCF can attract significant co-finance or increase its resource mobilization. Finally, the concept of additionality is loosely defined within the UNFCCC, and the GCF has not taken an active stance towards this issue.[77]

4. KNOWLEDGE MANAGEMENT

31. **Knowledge management efforts are still too nascent at the GCF**. The USP highlights the intention to further coordinate knowledge management efforts,[78] and a recent initiative aims to support the development of sectoral strategies. To do so, the GCF has established 14 communities of practice to leverage expertise from 28 organizations worldwide on a variety of topics. These range from specific sectors (e.g. agriculture, ecosystems, water) to more cross-cutting issues (e.g.

[74] Annex III – GCF/B.24/ Inf.08; annex III – GCF/B.27/Inf.12.
[75] GCF Governing Instrument 3.
[76] Pauw, P. (2015) *Private finance for adaptation: do private realities meet public ambitions?*
[77] UNCTAD (2015).
[78] Para. 12 - GCF/B.27/21 Updated Strategic Plan: "[…] the GCF will seek to drive cooperation between financing mechanisms to help countries navigate the climate finance landscape".

adaptation planning, innovative financial instruments, project structuring and finance). Individuals work on a pro-bono basis to provide specialist support. As a nascent initiative, it is too early to establish whether these communities of practice are achieving the expected results.

32. **The GCF has benefited from other funds' experience, but the GCF's experiences and lessons learned are yet to be shared with others. The GCF's mandate as a learning organization, and its learning function, are established through the GI**. It states the "Fund will be scalable and flexible and will be a continuously learning institution guided by processes for monitoring and evaluation". The GCF can use its reach to be a conduit for knowledge transfer between countries for innovation, replication and scaling of projects and programmes, and also for the sharing of knowledge about best practices at national and subnational levels. Considering that adaptation planning and implementation are complex and context specific, such a role could be instrumental in adaptation finance. In this context, leadership in adaptation finance refers to leading the way and actively sharing lessons with peers about what works and what does not regarding financing and business models for adaptation. While there is evidence that the GCF has been learning from the experience of other funds both from an operational perspective (i.e. accreditation policy) and at the project level, most external stakeholders highlight how lessons from the GCF have not yet reached other funds. In consultations for this evaluation, stakeholders and adaptation experts recognized the COP initiative as an area where the GCF could lead the way and provide guidance.

Chapter IV. GCF READINESS SUPPORT FOR ADAPTATION PLANNING

KEY RECOMMENDATIONS

- The GCF should raise the reach, use and awareness of RPSP grants for adaptation planning in vulnerable countries.
- The GCF should address technical capacity challenges in NDAs, including through training clusters of government officials to build sustained knowledge.
- The GCF should facilitate matchmaking between countries and locally and regionally embedded RPSP delivery partners. This will relieve a constraint for some countries when accessing RPSP support.
- The GCF should monitor the quality of RPSP adaptation planning through building and fast-tracking an outcome/impact measurement framework.

KEY FINDINGS

- The Board responded to COP guidance to support adaptation planning with the establishment of the RPSP. The GCF has provided USD 139 million of RPSP support for adaptation to a total of 57 countries with 58 grants, covering 37 per cent of eligible countries, 33 per cent of vulnerable countries and 18 per cent of the SIDS.
- In total, 55 per cent of GCF-eligible countries have so far engaged with the GCF for adaptation planning. The requirements for proposals, capacity concerns and matchmaking with adequate delivery partners are perceived hurdles in accessing readiness support for adaptation planning.
- The approval process for RPSP adaptation planning varies, with times ranging from 14 days to more than three years. There are attempts to reduce delays, such as through the use of national and remote consultants.
- Due to the young nature of adaptation planning support, fully attributing GCF RPSP support to concrete outcomes is challenging, as is assessing quality, as no outcome or impact measurement framework is operational yet.

A. Overview

1. This chapter highlights the background and performance of readiness support for adaptation planning. Examining this support involves assessing the reach and flexibility of the GCF regarding readiness, before turning to implementation and results. The chapter highlights a steady increase in approvals over the past three years in conjunction with a slightly increasing trend in both the number of grants and the amount disbursed in the same period.

B. Readiness support for adaptation planning

1. Background on readiness support for adaptation planning

2. The RPSP has five objectives that cover: (i) capacity building; (ii) strategic frameworks; (iii) NAPs and adaptation planning processes; (iv) pipeline development; and (v) knowledge sharing and learning. The objective on NAPs and adaptation planning processes is covered in more detail below. The other four objectives of the RPSP do not have a specific adaptation focus. However, two things are worth noting. Firstly, as stated in Chapter II, in decision B.26/05, the Board expressed support to ensure readiness assistance for resilient recovery efforts in light of the COVID-19 pandemic. This GCF Support to Climate Resilient Recovery provides countries with three options, and the effectiveness of this support is not assessed by this report. Second, this report does not examine the overall effectiveness of the RPSP. Instead, this evaluation is informed by the 2018 IEU independent evaluation of the RPSP, which found that, among other things:
   - The capacity-building support of the RPSP is seen in many countries as insufficient for enabling pipeline development.
   - Support for DAEs has not yet translated into significant GCF pipeline development.
   - The RPSP had not adequately contributed to the development of domestic policies and institutions that improve the incentives for crowding-in private sector investment.
3. **Adaptation planning is critical for enabling both public and private actors to prepare for and respond to climate change impacts.** Adaptation planning is a form of proactive adaptation defined as "the use of information about present and future climate change to review the suitability of current and planned practices, policies and infrastructure".[79] Adaptation planning is increasingly receiving attention as a valued approach to enhanced action on adaptation. Adaptation planning seeks to enable public and private adaptation to climate change through a wide range of strategies, plans, policies, laws, regulations and directives.
4. **In adaptation, there is a strong need for funding and institutional interventions to support countries' readiness.** Institutional strengthening requires long-term engagement and funding that can enable country-driven adaptation finance in the future, and build adaptive capacity in local institutions. Building strong local institutions and strengthening local entities' capacities in developing countries, is a key aspect of the GCF's role in adaptation planning. For example, the GI states, "The Fund will provide resources for readiness and preparatory activities and technical assistance, such as […] strategies or plans, NAMAs, NAPs, NAPAs and for in-country institutional strengthening."

[79] Füssel, H.M. (2007). Adaptation planning for climate change: concepts, assessment approaches and key lessons. *Sustainability Science* 2:265–275.

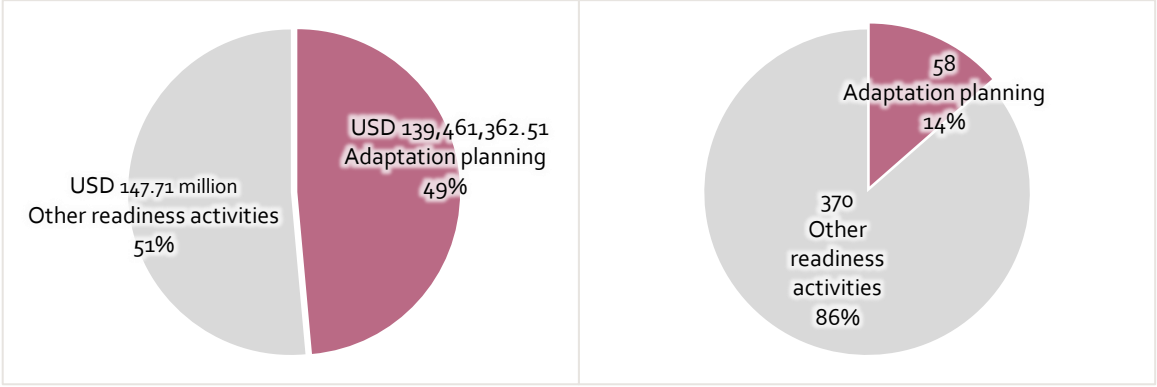
5. **Effective adaptation planning can help strengthen a country's adaptive capacity**. This can be defined in terms of climate information availability, knowledge of climate vulnerability, enabling environment, policies, ability to act, monitoring and evaluation, coordination and prioritization capacity (see Chapter II).[80] Based on information extracted from the 21 NAPs that have been submitted to the UNFCCC, 18 highlight how strengthening institutional capacity, improving knowledge management and incorporating climate change into development policies and laws are key adaptation needs.[81]
6. **A key process is NAP development**. The NAP process or other national strategic documents or both, can help facilitate long-term planning, particularly as countries update these documents periodically. This process enables parties to identify medium- and long-term adaptation needs and develop and implement strategies and programmes to address those needs. The process also includes a prioritized pipeline of funding proposals, including those (but not exclusively) for submission to the GCF.
7. **The support given by the RPSP for adaptation planning is core to the GCF mandate**. Paragraph 36 of the GI states the GCF will support developing countries in pursuing project-based and programmatic approaches in accordance with climate change strategies and plans, such as NAPs. Paragraph 40 of the GI states the GCF will provide resources for RPSP activities, including NAPs.
8. **To enhance the availability of adaptation support, the COP in 2015 requested the Board to expedite support for LDCs and other developing countries to formulate and implement NAPs.**[82] In response to this guidance, and through decision B.13/09 in 2016, the Board decided to support developing countries in the formulation of NAPs and other adaptation planning processes and the subsequent implementation of projects, policies and programmes identified by them. The GCF RPSP guidebook further specifies this as providing "…resources for strengthening institutional capacities, governance mechanisms and planning and programming frameworks to identify a transformational long-term climate action agenda for developing countries".[83]
9. **The Executive Director can approve up to USD 3 million per country through RPSP modalities to formulate NAPs and/or other national adaptation planning processes**. These are based on an assessment of country circumstances and needs. The Board also invited NDAs and focal points to collaborate with RPSP delivery partners and AEs, to submit requests for support to formulate their NAPs and/or other adaptation planning processes. Countries can access this finance through one proposal with one delivery partner, or multiple sequential proposals.

2. PERFORMANCE ON READINESS SUPPORT FOR ADAPTATION PLANNING

10. **Finance from the RPSP for adaptation planning amounts to USD 139 million or 49 per cent of all readiness finance, and supports adaptation planning in 57 countries with 58 grants** (see Figure IV-1). The current readiness programme consists of USD 287 million for 428 grants in 138 countries (see Figure IV-1). Figure IV-2 shows a map with countries' engagement levels in GCF readiness adaptation planning.

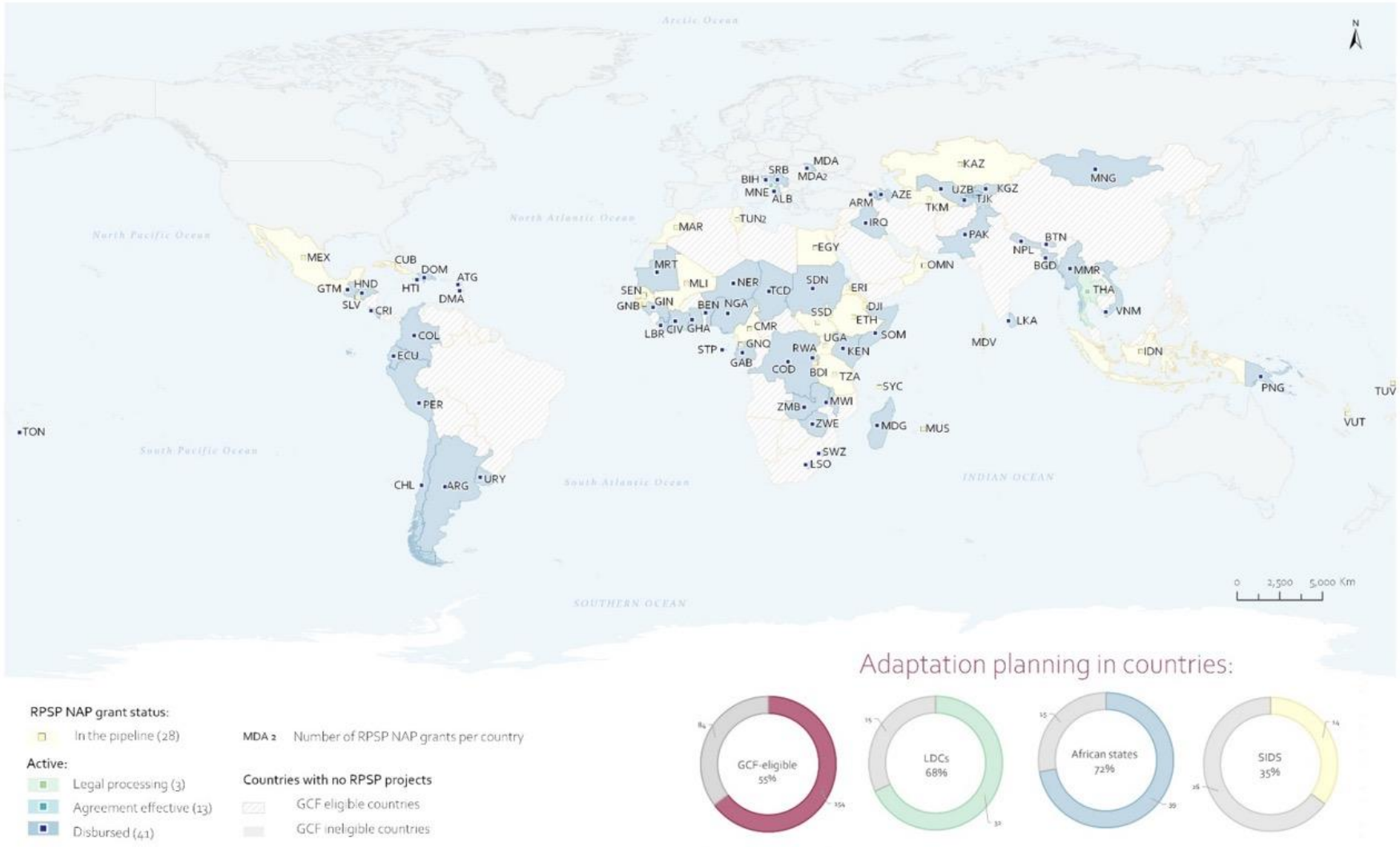
[80] WRI, 2012.
[81] IEU DataLab analysis.
[82] UNFCCC decision 1/CP.21, para. 46.
[83] RPSP Guidebook, 2020.

Figure IV-1. Approved readiness funding (left) and number of grants (right) by programme activity



Source: GCF Fluxx data, as of 13 November 2020.

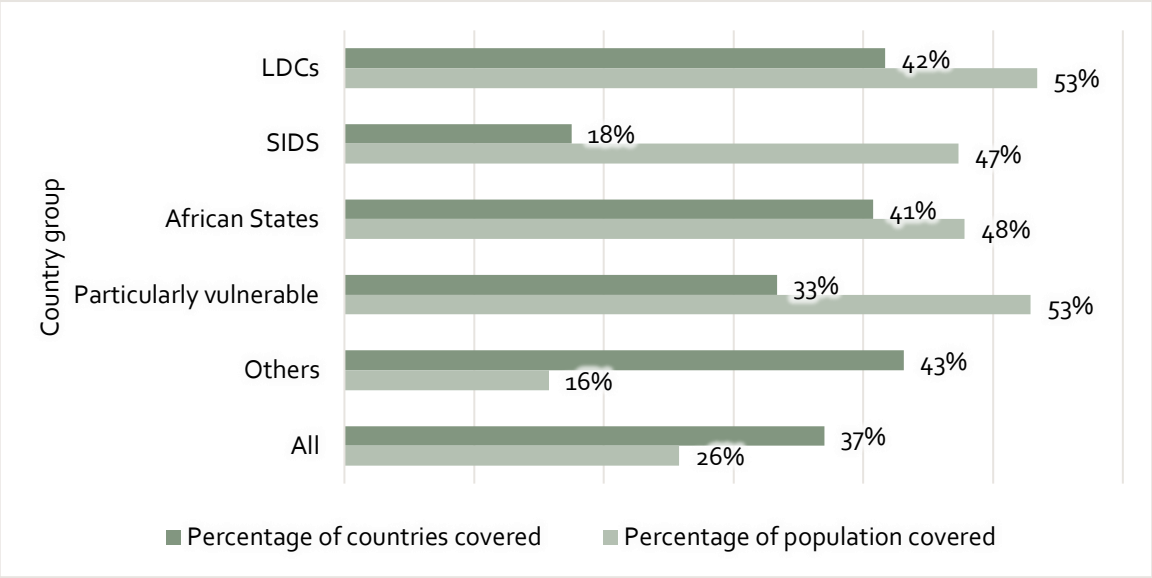
Figure IV-2. Geographic distribution of readiness adaptation planning support



Source: GCF Fluxx data, as of 13 November 2020.

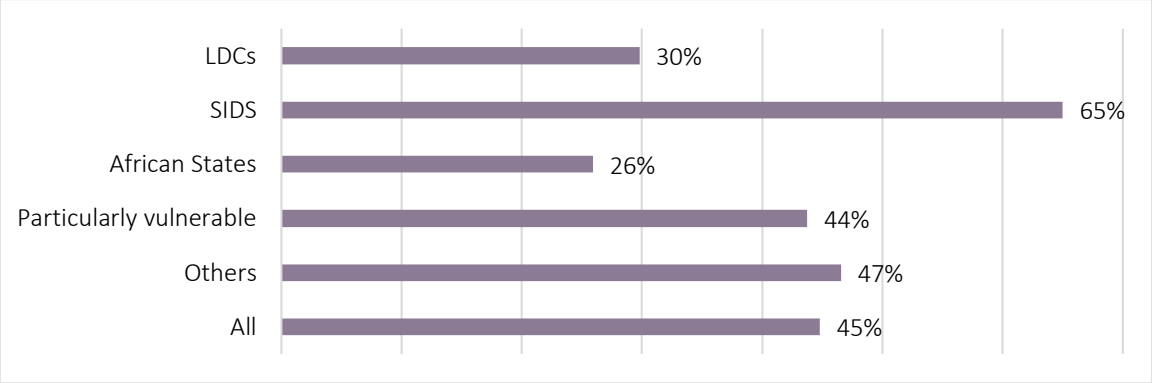
11. **So far, 37 per cent of GCF-eligible countries (57 out of 154 countries) have an approved RPSP adaptation planning grant.** This is equivalent to 26 per cent of the target population (see Figure IV-3). In total, 55 per cent of GCF-eligible countries (85 out of 154 countries) have so far engaged with the GCF for adaptation planning (either with an approved or pipeline grant), which means that 45 per cent of countries (69 out of 154 countries) have not (see Figure IV-4). Among country groups, the percentage of countries with no engagement is particularly large for SIDS, at 65 per cent (26 out of 40 countries).

Figure IV-3. Percentage coverage of readiness adaptation planning (approved grants)



Source: GCF Fluxx data, as of 13 November 2020.

Figure IV-4. Percentage of countries with no engagement (i.e. without approved or pipeline grant) in readiness adaptation planning

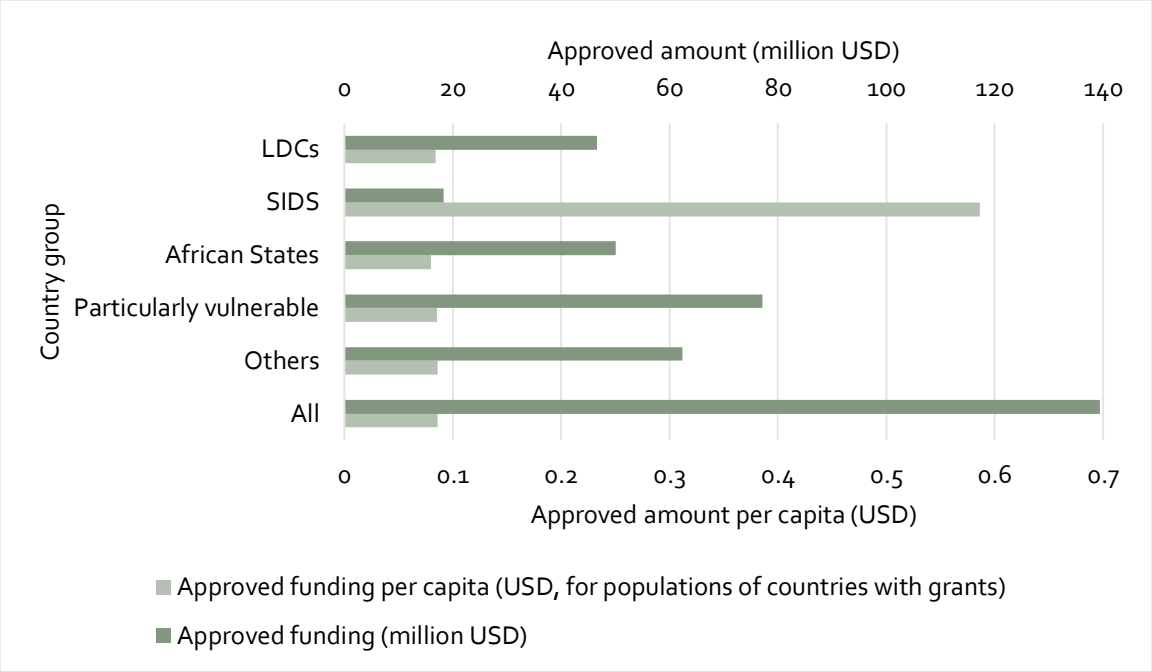


Source: GCF Fluxx data, as of 13 November 2020.

12. **Of the particularly vulnerable countries (LDCs, SIDS, and/or African States), 33 per cent have an approved RPSP adaptation planning grant from the GCF.** This represents 53 per cent of the population of these countries (see Figure IV-2). Only 18 per cent of GCF-eligible SIDS are covered by adaptation planning grants (amounting to 47 per cent of the population in GCF-eligible SIDS – see Figure IV-3 and the recent evaluation of the SIDS). Figure IV-5 illustrates the approved amounts per country group and approved funding per capita (country population). Stakeholders in LDCs and African States have indicated there is also low capacity for adaptation planning among leading

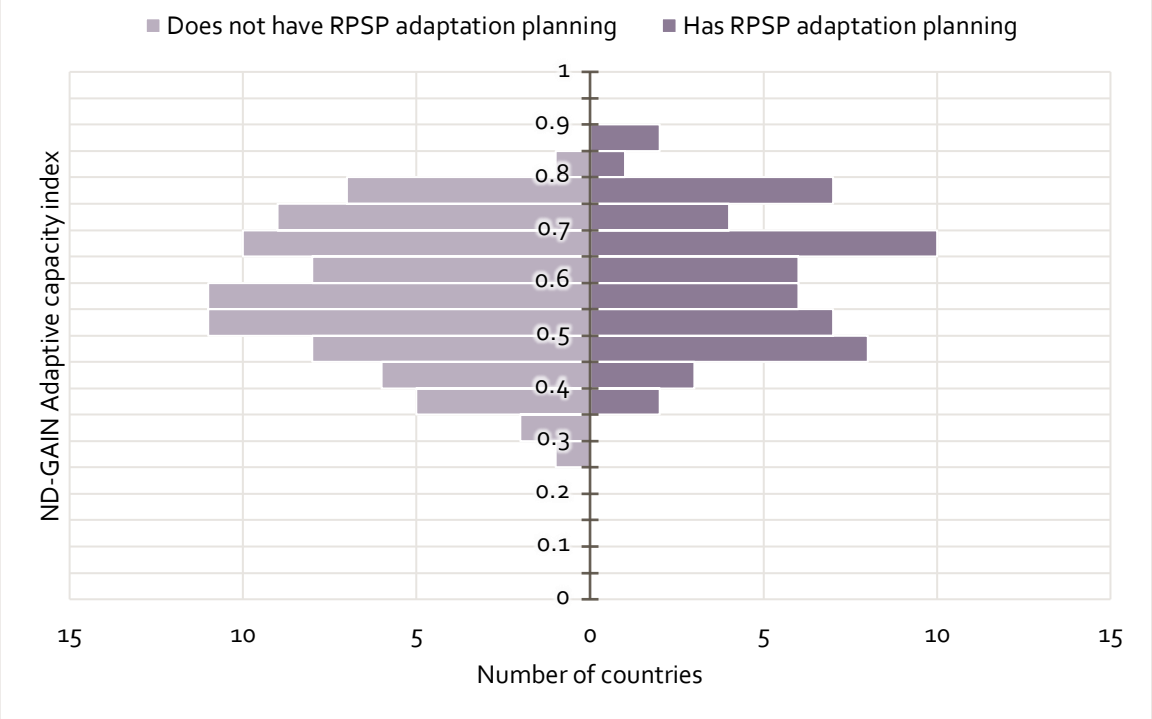
national stakeholders. Figure IV-6 shows that many countries with low adaptive capacity still need GCF RPSP support for adaptation planning.

Figure IV-5. Readiness funding for approved grants nominal and per capita (country population)



Source: GCF Fluxx data, as of 13 November 2020.

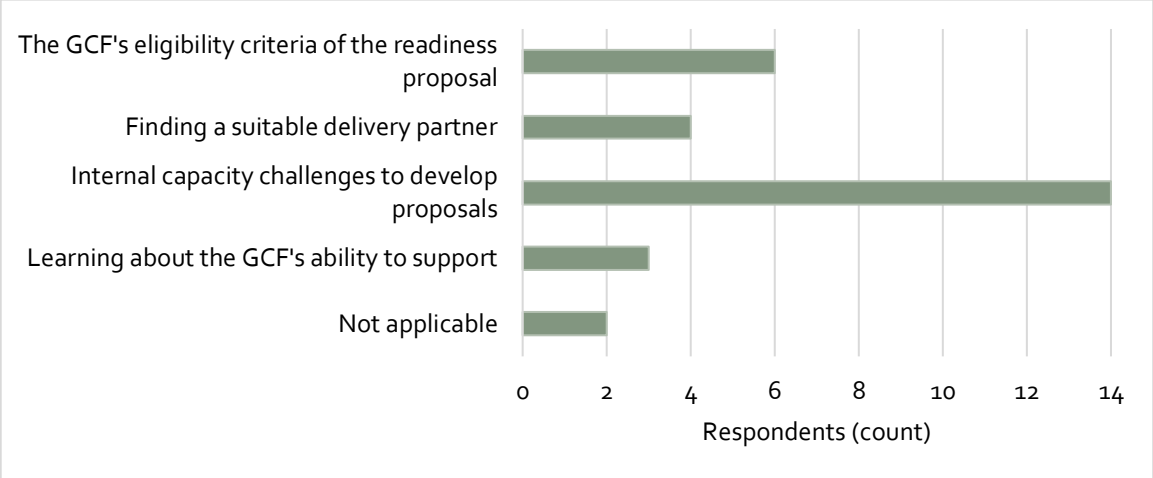
Figure IV-6. Adaptive capacity (ND-GAIN) of countries with and without the GCF readiness adaptation planning grant



Source: ND-GAIN 2018; GCF Fluxx data, as of 13 November 2020.

13. **Perceived hurdles in accessing RPSP support for adaptation planning include fulfilling the requirements in developing proposals, capacity concerns and matchmaking with adequate delivery partners.** To understand the possible reasons for the challenges NDAs face when applying for RPSP support, the evaluation team conducted an online survey with all 57 NDAs that receive support for adaptation planning. The survey had a response rate of 42 per cent and found that the major challenges are limited internal capacity in developing proposals, GCF eligibility criteria for RPSP proposals, and difficulties in finding a suitable delivery partner (see Figure IV-7). For example, one respondent's feedback noted "…complexity of procedures and language, and the review process was quite cumbersome".

Figure IV-7. Perceived challenges in applying for readiness funding for adaptation

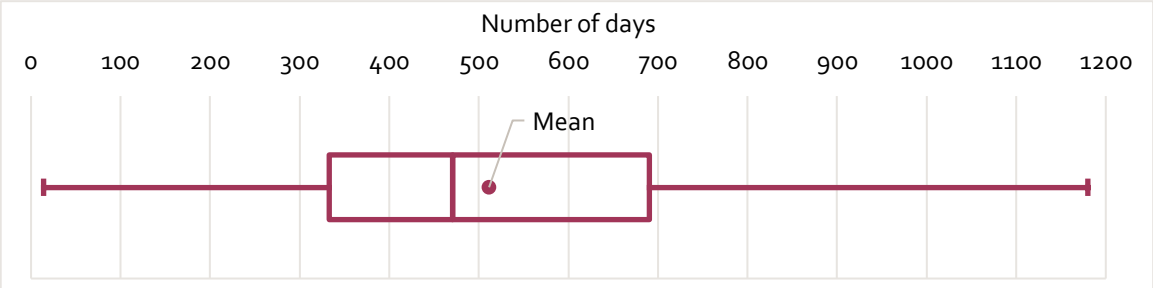


Source: GCF IEU AEs survey data, as of 13 November 2020.

14. **In theory, the GCF is flexible when choosing delivery partners for adaptation planning.** By offering the option to work with multiple partners, countries can access the most relevant expertise to formulate adaptation planning activities. Also, any organization, not just GCF AEs, can implement adaptation planning proposals if they meet the minimum financial and fiduciary requirements of the Financial Management Capacity Assessment (FMCA). Such flexibility could be expanded.
15. **However, in practice, United Nations agencies make up the bulk of delivery partners in the portfolio**. Out of 58 RPSP adaptation planning grants currently approved, 47 are with three United Nations agencies as the delivery partner, namely the Food and Agriculture Organization (FAO), UNEP and United Nations Development Programme (UNDP). Attempts to diversify are ongoing, with the GCF encouraging the engagement of national consultants. International delivery partners also contribute to national capacity, as many proposals include activities such as training-of-trainers programmes and training modules that are integrated into government/academic programmes. These training activities strengthen national capacity and potentially reduce reliance on international assistance. Interviewees have raised concerns that national capacity should be built urgently, to ensure the sustained use of such strategies and plans.
16. **One way to build national capacity rapidly is through increased use of locally – and regionally – embedded delivery partners**. Such actors often have a greater understanding of local contexts and priorities and because of this can respond more precisely to country needs.
17. **The time for RPSP adaptation proposals to gain approval varies but ranges from 14 days to more than three years (with an average of 511 days,** see Figure IV-8). This is a relatively long

time, especially compared to the much more complicated and larger project funding proposals. Most proposal approval processes are delayed by the interaction between comments from the Secretariat and responses from national stakeholders. Issues that appear to hamper proposal development include: (i) developing a theory of change; (ii) articulating activities and deliverables that are action- and results-oriented; (iii) budgetary issues; (iv) the choice of a delivery partner, which can be challenging in various vulnerable countries (e.g. Islamic Republic of Afghanistan, the Syrian Arab Republic, the Republic of Yemen); and (v) the lack of support for staff costs in national organizations. Proposals that apply the appraisal criteria upon entry are likely to reduce the time from submission to approval (fastest examples are 6–8 months with 2–3 review rounds). In this respect, quality at the point of entry appears to matter.

Figure IV-8. Number of days from submission to approval among 58 readiness adaptation planning grants



Source: GCF Fluxx data, as of 13 November 2020.

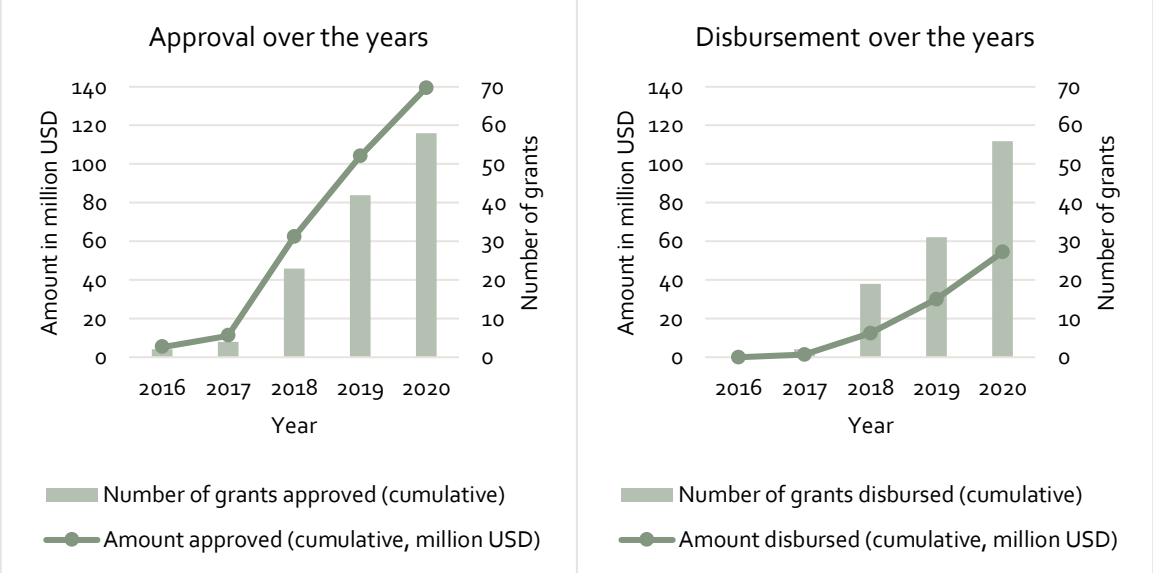
18. Stakeholders have indicated opportunities and best practices for improving the effectiveness and longevity of capacity building. A good example is the training of clusters of participants to build sustained technical capacity built in NDAs and other local organizations, with the help of RPSP support. Several interviewees in the countries opined that the GCF should be more flexible and forward-thinking in its approach to building capacity that can be retrained in the ministries. Past experience has shown that through staff rotation in the ministries, technical capacity was often lost after trainings. This becomes particularly relevant for NDAs, especially when team capacity building includes different levels of seniority within institutions, so institutional memory is built and maintained.
19. The GCF supports proposal development. However, most stakeholders expressed that this capacity support still falls short of countries' needs and requires further strengthening. Since 2018, the GCF has supported 11 countries with technical assistance packages to prepare adaptation planning proposals. For example, the GCF provides ad hoc assistance through remote consultants. Given the large share of countries unable to develop a proposal, the GCF could actively promote this technical assistance opportunity to encourage greater uptake and use. This is particularly relevant for the most vulnerable developing countries. In recent months, such technical assistance was not available to many countries due to the COVID-19 pandemic, which halted mission travel for remote consultants. Alternative ways of providing ad hoc assistance were not developed.

C. IMPLEMENTATION AND RESULTS

20. **Five years after the COP requested the GCF to support adaptation planning, 39 per cent of RPSP grants have been disbursed**. The GCF is disbursing funds in tranches and must meet certain milestones. Both the number of grants approved and disbursement rates appear to have been consistent since 2018 (see Figure IV-9). However, and as the Secretariat notes, the funding that has

been disbursed to countries has not been utilized immediately. One reason for this is that countries have concerns about having appropriate implementation structures in place. To date, there is one fully disbursed grant (Republic of Liberia).

Figure IV-9. Number of adaptation planning grants and volume of finance approved over time (left) and number of adaptation planning grants and volume of finance disbursed over time (right)



Source: GCF Fluxx data, as of 13 November 2020.

21. **The GCF is expected to strengthen the planning landscape for adaptation significantly through RPSP support.** The ongoing analysis of approved proposals indicates the GCF is planning to deliver (as of August 2020):[84]

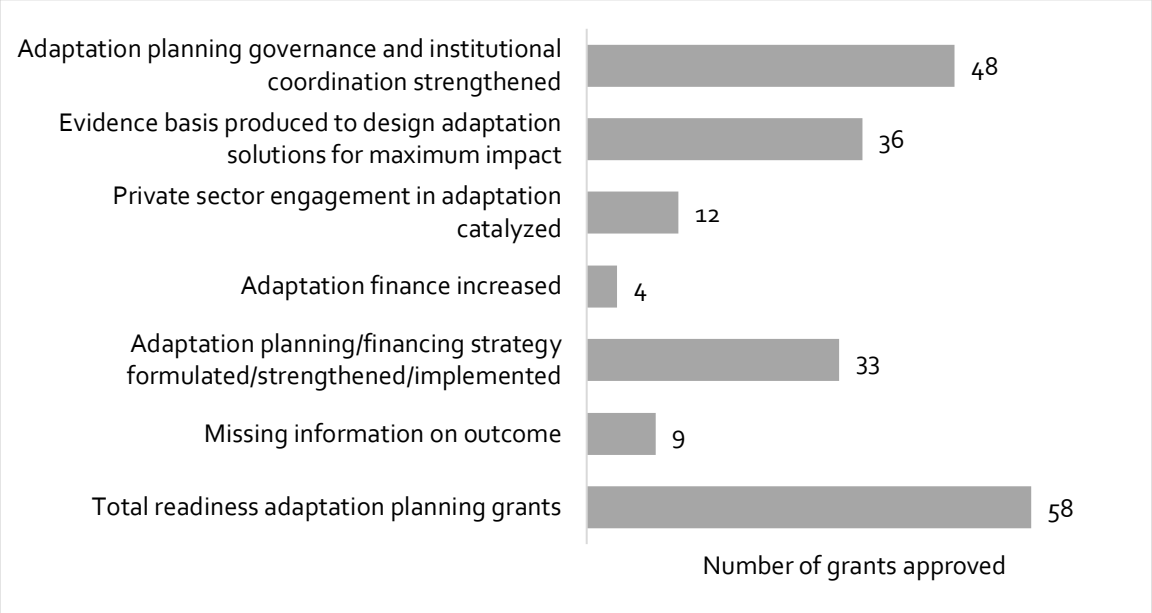
- 58 NAPs and other national adaptation planning documents, new and/or revised
- 130 sub-national level adaptation plans, new and/or revised
- 104 sectoral adaptation plans, new and/or revised
- 45 climate change risk, vulnerability and hazard assessments
- 47 inter- and intra-institutional coordination and decision-making mechanisms
- 47 stakeholder engagement frameworks and agreements
- 42 financing strategies for specific adaptation priorities
- 118 concept notes targeting a range of climate finance sources, including GCF

22. **For adaptation planning, the RPSP has several predefined outcomes as per the proposal template, including the establishment of integrated adaptation planning and monitoring systems. However, approved proposals show a more diversified range of outcomes, beyond the template's description. For adaptation planning, the RPSP is expected to support developing countries in establishing integrated adaptation planning and monitoring systems, to enable climate resilience across sectors,** and to strengthen the impact and catalyze the scale of public and private adaptation finance. Based on a review of submitted RPSP proposals for adaptation planning, there are multiple expected outcomes mentioned, beyond those outcome areas defined in the RPSP template. The RPSP proposal template for adaptation planning describes only four outcome areas:

[84] GCF, GCF in Brief. Adaptation Planning (2020).

adaptation planning governance and institutional coordination strengthened; evidence-bases used to design adaptation solutions for maximum impact; private sector engagement in adaptation catalyzed; and adaptation finance increased. The review, however, showed multiple outcomes, as can be seen in Figure IV-10. Note that of the 58 approved RPSP adaptation planning grants, 9 projects did not include any information regarding expected outcomes.

Figure IV-10. Expected outcomes of the GCF's readiness adaptation planning



Source: Information extracted from approved RPSP proposals for adaptation planning, Analysis IEU DataLab. As of 13 November 2020.

23. **However, the final impacts of readiness adaptation planning grants have not been widely observed due to the programme's relatively new nature**. The programme's support for adaptation started in 2016, and grants usually last for 3 years. Several grants have received no-cost extensions from the GCF. It is also challenging for the GCF to assess the quality of RPSP proposals in adaptation planning as no outcome or impact measurement framework is operational yet.

24. **The GCF has responded to the Covid-19 pandemic by** taking measures to mitigate the pandemic's impact on adaptation planning proposals under implementation. The GCF has provided a 6-month blanket no-cost extension, a flexible budget reallocation of up to 25 per cent, flexible use of contingency funds and an increase in the cap for project management costs. The impact of COVID-19 on the review and approval processes is moderate, and the GCF continues processing country submissions.[85]

Box IV-1. How readiness for NDA and adaptation planning leads to proposal development

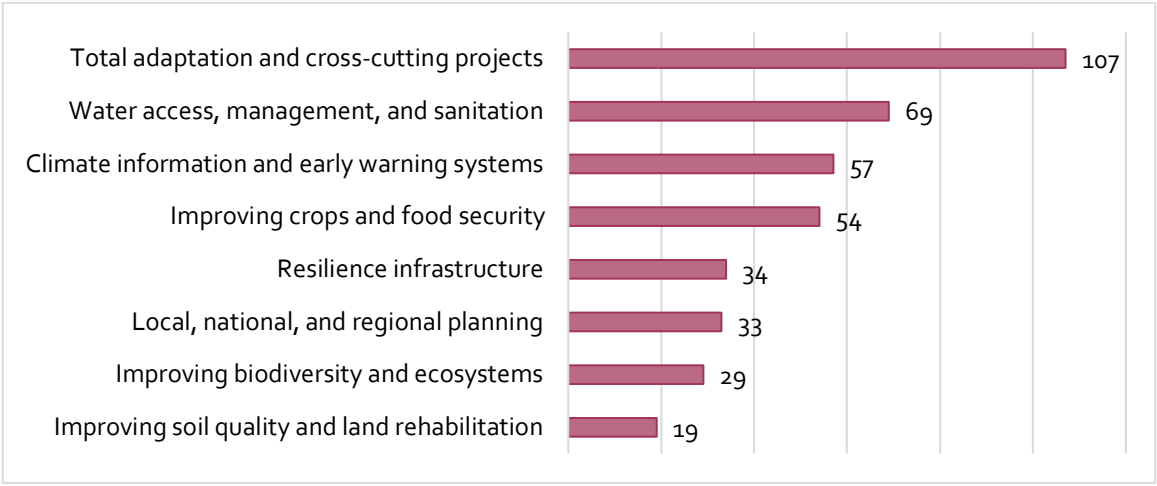
A country that has been successful in attracting and using readiness for strengthening institutions and policies is Tajikistan. It is widely recognized as one of the countries most vulnerable to climate change in the Central Asian region. Just a decade ago, climate finance was largely new to the country. There was little institutional capacity, and personnel resources for the topic were limited. Before the GCF became operational in 2014, Tajikistan secured support for strengthening the NDA from GIZ. The NDA received training on climate finance readiness on behalf of the German Ministry for Economic Cooperation and Development. The GIZ also helped the Tajik Committee for Environmental Protection (CEP, the NDA) to

[85] GCF (2020). GCF in Brief: Adaptation Planning.

develop a no-objection procedure. Tajikistan now has five ongoing projects, of which four are adaptation-focused and one is cross-cutting. Interviewees, including from the NDA itself, consider this early capacity-building support combined with the ongoing RPSP support as advantageous for getting projects through the GCF project funding cycle.

25. **Finally, in addition to RPSP support, the GCF also supports adaptation planning through projects**. Some 31 per cent (33 out of 107) of current adaptation projects also have a focus on supporting the country to integrate climate change into local or national planning, and 53 per cent (57 out of 107) of the projects have a component to improve countries' or regions' access to climate information (see Figure IV-11).

Figure IV-11. Number of adaptation/cross-cutting projects addressing specific impact areas



Source: GCF funding proposals, extracted by the IEU, as of 13 November 2020.

Chapter V. GCF ADAPTATION PORTFOLIO

KEY RECOMMENDATIONS

- The GCF should explore options to address the adaptation needs of the most vulnerable countries within its targeted geography.
- The GCF should find ways to remove barriers related to the availability of and requirements for data needed to verify climate vulnerability, and should consider alternative systems of (traditional) knowledge.
- The GCF should urgently clarify the role and use of climate rationale in the funding proposal review and appraisal process, to reduce the burden of project preparation and development for AEs.

KEY FINDINGS

- The adaptation portfolio has a large number of projects with a small average project size. Only 4 out of 67 funded adaptation proposals are programmes. There is only one large-scale project.
- Adaptation projects on average take over two years from proposal submission to concluding the legal agreement. It takes adaptation projects longer than mitigation projects to move to the next stage, for both approved projects and projects in the pipeline. This trend is increasing over time.
- The legal agreements for DAEs are particularly challenging. It takes, on average, 475 days for national DAEs to conclude legal negotiations for adaptation projects, compared to 208 days for mitigation.
- Further key reasons for the delays in adaptation projects are the availability of data, lack of guidance on the concept of climate rationale at AE and Secretariat level, and the complexity of adaptation projects. Adaptation projects require more specific data to prove their climate vulnerability, have less standardized business models, require more local high-resolution data to analyze climate risks, and have complex execution structures. These characteristics make the processing of adaptation projects slow and costly, and access to the GCF difficult.
- Some 40 per cent of all registered CNs for adaptation projects are withdrawn during the review process. Survey respondents identified climate rationale as the single most difficult hurdle for project development in both adaptation and cross-cutting projects.
- Adaptation finance is predominantly channelled through IAEs as grants, with little involvement from private sector finance. As a result, the gap between grant-equivalent and nominal amounts in mitigation and adaptation portfolios has widened. Also, there is a lack of clarity in the concessionality policy.
- The GCF has established targets to support vulnerable countries in adaptation, but many vulnerable countries are yet to be reached and finance per capita figures remain low. Some 67 per cent of adaptation finance is currently directed to those most vulnerable to climate risks and least ready to adapt. But the GCF still has challenges in reaching the most vulnerable and least-ready countries, with 59 countries receiving no GCF adaptation finance.
- Delays in disbursement are caused by both internal (project governance or management, procurement) and external (e.g. COVID-19 related) factors.

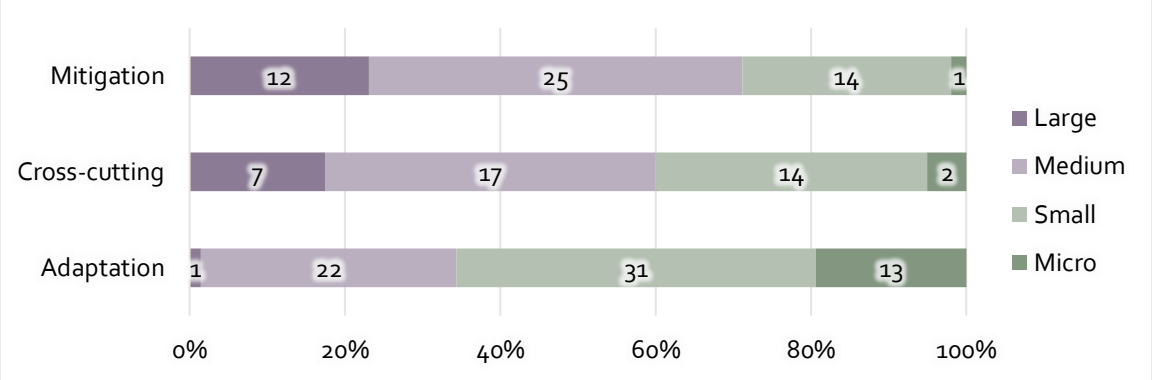
A. Overview

1. This chapter assesses the adaptation project cycle, including the proposal approval process (the SAP), before looking at the portfolio, project types and sizes, and the involvement of AEs and private sector actors. The chapter reviews whether the GCF is targeting vulnerable countries, reaching the most vulnerable communities and meeting their sectoral needs. It concludes by assessing disbursements and co-finance ratios to date, arguing that these are important for addressing the urgency and financial needs in adaptation. The chapter examines the question, to what extent has the GCF adaptation portfolio met expectations in terms of volume and quality?

B. Adaptation portfolio

2. **As of 13 November 2020, the GCF had committed USD 2.6 billion to adaptation activities via 67 adaptation and 40 cross-cutting projects**. Of this amount, USD 1.69 billion is committed to projects that have a 100 per cent focus on adaptation result areas, and USD 937.6 million is committed to the estimated adaptation part of cross-cutting projects.[86]
3. **The adaptation portfolio is characterized by a larger number of projects with smaller average project sizes**. Mitigation projects are typically of significant scale, with 71 per cent of all mitigation projects categorized as large or medium, whereas 34 per cent of all adaptation projects (23 out of a total 67 projects) fall into these categories (see Figure V-1). In the adaptation portfolio, there is only one large adaptation project (FP008 Fiji Urban Water Supply and Wastewater Management Project with ADB as the AE). This project qualifies as "large" due to co-finance: the total project size is USD 405 million, of which USD 31 million (8 per cent of the total) is GCF finance. However, as analyzed in Chapter II, on average the GCF's adaptation projects are still larger than those of the climate finance mechanisms (e.g. LDCF, AF).
4. **Besides projects, the GCF defines programmes as sets of interlinked individual projects or phases, unified by a common vision, objectives and strategic goal**, which will deliver sustained climate results and impact in the GCF results areas efficiently, effectively and at scale.[87] There are only 4 GCF programmes in adaptation (out of 67 funded proposals), while there are 25 (out of 52) in mitigation and 10 (out of 40) in cross-cutting.

Figure V-1. Number of projects by project size for each project theme



Source: GCF iPMS data, as of 13 November 2020.

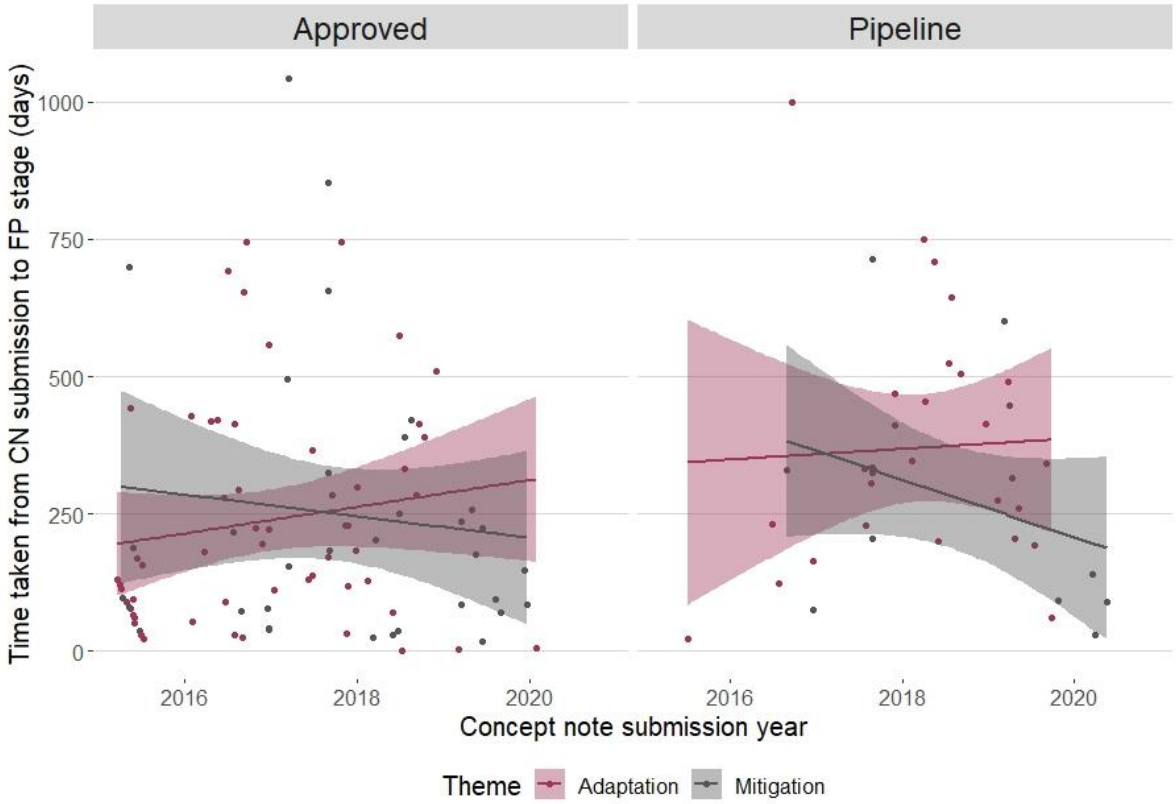
[86] Based on the part of financing in FPs that is estimated to be targeted for the four climate change adaptation results areas.
[87] Green Climate Fund (2020). GCF Programming Manual.

C. PROJECT CYCLE

1. PROPOSAL APPROVAL PROCESS

5. **On average, adaptation projects take longer to complete the GCF approval process, compared to mitigation and cross-cutting projects.** Adaptation projects on average take over two years (109 days more than mitigation projects) to conclude the project approval process, including a legal agreement. The total time for adaptation projects from funding proposal submission to Board approval is, on average, 350 days (compared to 296 days for mitigation). Legal arrangements require, on average, another 449 days to arrive at an effective funded activity agreement (FAA) (compared to 394 days for mitigation projects). The time it takes for adaptation projects to move through the cycle is increasing, whereas for mitigation it is decreasing (see Figure V-2).

Figure V-2. Time taken from concept note submission to funding proposal stage



Source: GCF iPMS FAA data, as of 13 November 2020.

Box V-1. How more complex governance structures can cause delays

The FP014, titled "Climate Adaptation and Mitigation Program for the Aral Sea Basin (CAMP4ASB)" is a World Bank Group programme active in the Republic of Uzbekistan and in Tajikistan. It concerns a cross-boundary project, involving natural resources from both countries. The programme builds regional cooperation in addressing the challenges of climate change, through an investment facility that provides support for the adoption of climate-smart rural production and landscape management investments. Investments via the facility will be demand-driven, but will include crop diversification, water resource management, rehabilitation of degraded land, conservation agriculture, livestock production improvements, agro-products processing, energy efficiency improvements and expansion of renewable energy sources. The project targets the poorest and most climate-vulnerable rural communities, benefiting farmers in rural villages in particular. The project was approved by the Board in June 2016, but only reached an FAA in July 2020. This was largely due to stalled governance negotiations. As it concerns a cross-boundary project, a comprehensive governance structure was set up. In addition to the WB as AE, the EE in the project is the Executive Committee for the International Fund for Saving the Aral Sea (EC-IFAS), an international body. There is also a regional coordination unit (RCU), which is the Regional Environmental Center for Central Asia (CAREC), an independent, non-commercial, international organization, founded by all five Central Asian countries as well as the European Commission and UNDP. In addition, national coordination units (NCUs) are involved, including the Uzbekistan Ministry of Agriculture and Water Resources and the Tajikistan Committee on Environmental Protection. Finally, there is a regional steering committee, comprising representatives from the NCUs and from the implementing agencies that host the NCU in each country, the Director of the RCU, and the Chairs of EC-IFAS and the Interstate Commission for Sustainable Development. As all entities were involved and had a say in project implementation aspects, reaching a legal agreement proved challenging, resulting in a 4-year process to achieve an FAA.

6. **This evaluation found the following three key reasons for such delays: data availability, climate rationale considerations and the legal capacities of AEs.** First, compared to other projects at the GCF, adaptation projects require significantly more data to evidence their climate vulnerability, through vulnerability assessments and environmental and social impact assessment (ESIA). Project developers often face scarce data sources and limited data availability, and climate vulnerability is difficult to measure in general. Most interviewees and AE representatives stressed that it is challenging to identify and collect the right data to prove climate vulnerability for adaptation projects, especially in geographies or sectors with limited data availability. The evaluation team found that justification of climate vulnerability has been considered a key challenge for the vulnerable group of SIDS, African States and LDCs. Interview respondents from AEs and DAEs alike reported capacity and resource constraints, as well as a lack of historical climate change data. This challenge was further highlighted in the analysis of withdrawn CNs and project proposals. The established C-NET (Climate Network) is effectively a horizontal unit within the GCF, and aims to provide support in the integration of climate science into GCF operations.

7. **The GCF does not offer clear guidance on the use of the concept of climate rationale.** The latest project proposal templates do not offer clear guidance on description requirements for climate rationale in project proposals.[88] Without a clear and consistent set of pathways – from impacts on natural systems, through impacts on human systems and how interventions will address these challenges, to the benefits for citizens of developing countries (and the linkages therein) – AEs find it challenging to make a convincing case for the climate rationale of GCF project proposals. This effect is further aggravated for AEs that have limited technical capacity.
8. **Besides the lack of guidance on the description of climate rationale, consultations with the Secretariat and the iTAP have shown there is no systematic approach to the requirements and the review process for climate rationale**. This aspect has been further highlighted in interviews with project developers and AEs. Most AEs raised concerns about repeated identical technical made by the Secretariat during their reviews of project proposals. On occasion, AEs received contradictory feedback and comments on project impacts and the associated climate rationale. The majority of interviewees could not identify if their description of climate rationale should include climate change risks, impacts, design considerations, governance context and project costs, all of which were guiding questions used by other institutions to establish climate adaptation relevance.[89] Survey respondents identified climate rationale as a key reason for the withdrawal of project proposals (as described in detail below). The USP aims to issue sectoral guidance for result areas, which could contribute to guiding AEs in designing projects with a strong climate rationale and create a consistent approach for this assessment across the Secretariat and iTAP.
9. **The second factor contributing to delays relates to complex project designs.** Adaptation projects are typically based on local, tailored solutions with more complex governance structures compared to standardized mitigation business models (see Box V-1). They take longer to develop and prepare and are more complex to implement and assess. A recent IEU working paper examined the overall question of complexity and used a selection of projects and programmes approved by the Board. Based on a complexity rubric and a random sample of GCF projects, adaptation projects had a larger number of stakeholder groups, a larger number of described impacts and were acting in more sectors, compared to mitigation projects.[90] A recent IEU learning paper further examined the concept of complexity in the context of climate change projects at the GCF. This report introduces a diagnostic tool for mapping complex human-climate systems, by mapping all core systems and subsystems, and linking them into a network of interactions. The paper highlights that cross-cutting and adaptation projects, even if smaller in size, show relatively larger networks within which the project is working.[91] These findings were also further strengthened through interviews for this evaluation. Interviewees noted that because of their context-driven and community-driven

[88] The current FP template provides the following parameters for climate rationale:

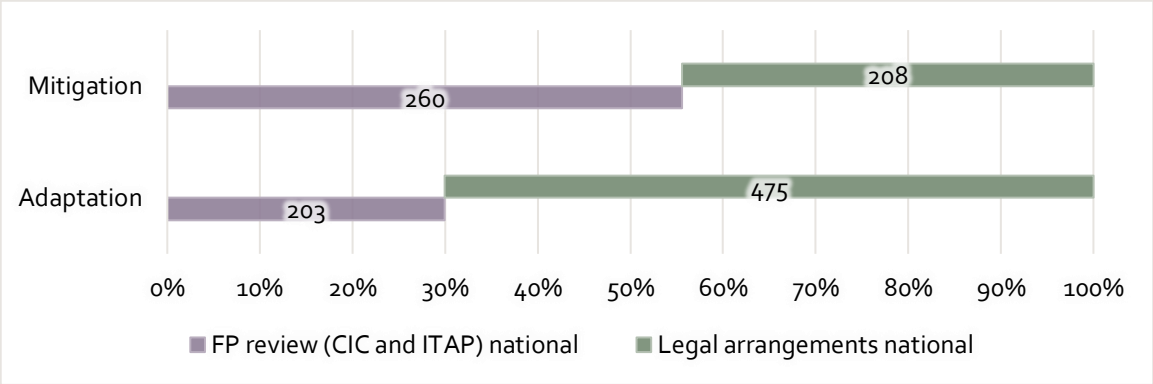
- B1. Describe the climate vulnerabilities and impacts, GHG emissions profile, and mitigation and adaptation needs that the prospective intervention is envisaged to address.
- Please indicate how the project fits in with the country's national priorities and its full ownership of the concept.
- Is the project/programme directly contributing to the country's INDC/NDC or national climate strategies or other plans such as NAMAs, NAPs or equivalent? If so, please describe which priorities identified in these documents the proposed project is aiming to address and/or improve.
- Describe the main root causes and barriers (social, gender, fiscal, regulatory, technological, financial, ecological, institutional, etc.) that need to be addressed.
- Where relevant, and particularly for private sector project/programme, please describe the key characteristics and dynamics of the sector or market in which the project/programme will operate.

[89] The informational document GCF/B.21/Inf.08 "Steps to enhance the climate rationale of GCF-supported activities" described a set of guiding questions currently being used by other institutions to establish climate adaptation relevance.
[90] DeCoste, S., Puri, J. (2019). Complexity, climate change and evaluation. IEU Working Paper No. 2.
[91] Wiesner, K., Puri, J., Reumann, A. (2020). How to bridge the gap between complexity science and evaluation, IEU Learning Paper, 2020.

approaches, adaptation project development requires more interactions at local and subnational level compared to other projects. In particular, projects in the result area of ecosystem services are considered more challenging because of the linkages between natural and human systems. Interviewees in the countries and stakeholders of the GCF ecosystem have raised concerns about language being a barrier to legal negotiation. As all legal documentation is in English, this is apparent in the context where English is not the language of business.

10. **The third factor is the legal capacity of DAEs, which creates major challenges for these actors to fulfil the condition for effectiveness in adaptation projects.** It takes, on average, 470 days for DAEs (both regional and national) to finalize the legal arrangements for adaptation projects, compared to an average of 355 days for mitigation projects. This figure is more serious for national DAEs. It takes an average of 475 days for national DAEs to finalize adaptation projects, compared to 208 days for them to finalize mitigation projects (see Figure V-3).

Figure V-3. Average number of days taken for project review and legal arrangements for projects with national DAEs



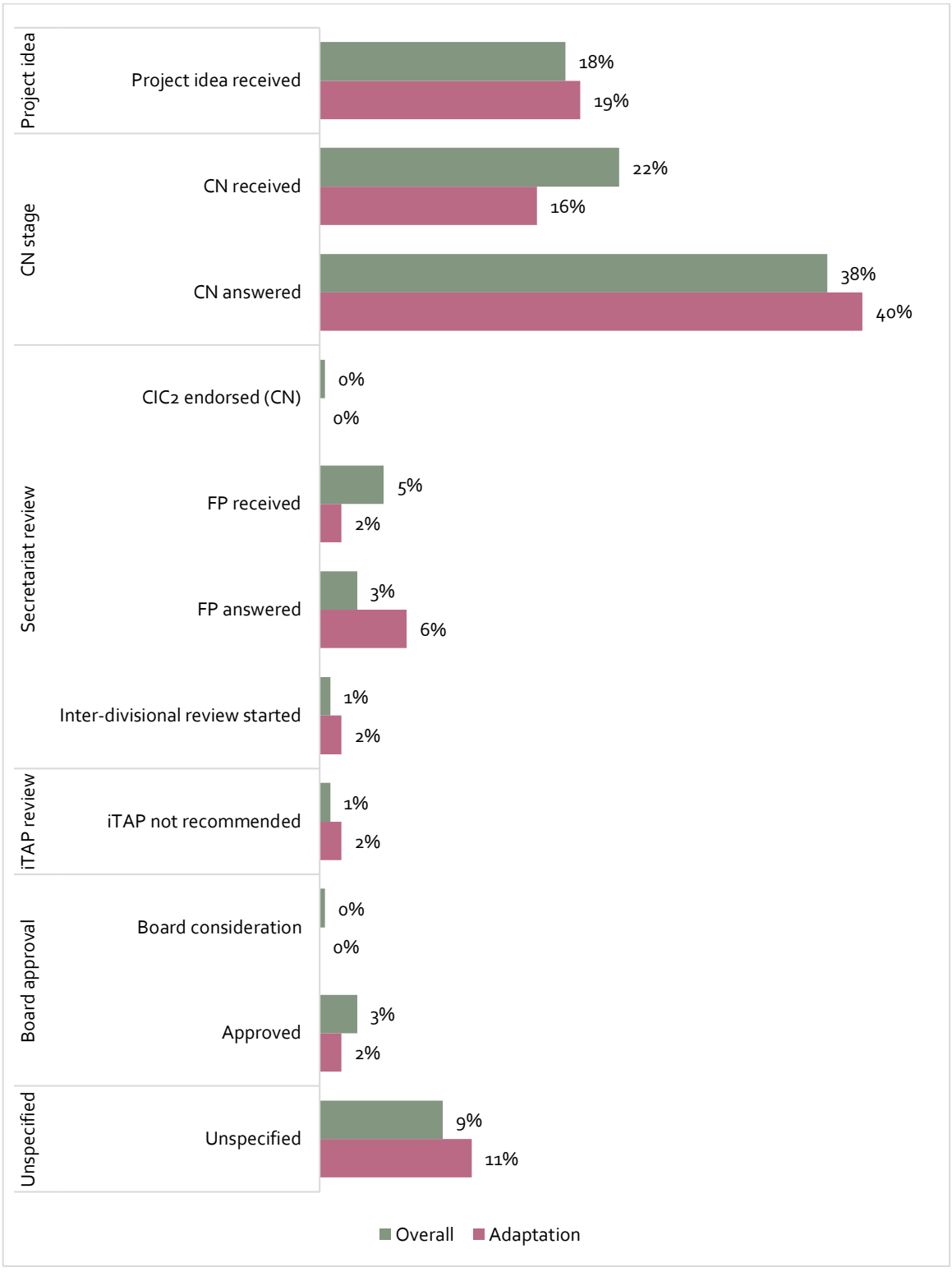
Source: GCF iPMS FAA data, as of 13 November 2020.

11. **The time it takes for adaptation projects to move through the project cycle, and the associated costs, create a reputational risk for the GCF.** These delays affect the willingness of (innovative) project developers to submit projects. The IEU accreditation synthesis previously found a similar challenge in the accreditation process and recommended building legal capacities across AEs as well as in the Secretariat.

2. WITHDRAWN PROJECTS AND CONCEPT NOTES

12. **Relative to the overall portfolio, adaptation FPs and CNs have a higher rate of withdrawal.** A greater proportion of the adaptation-focused CNs (40 per cent) have been withdrawn after being processed by the Secretariat than is the case for the portfolio as a whole (see Figure ***V-4***). For adaptation CNs, it took a median time of 721 days from CN submission to being withdrawn. Based on the information extracted from a non-random sample of CNs from the pipeline (with a focus on LDCs and African States), the proportion of withdrawn CNs is higher for non-grant instruments compared to grant instruments in this specific sample. Interviewed stakeholders also explained that withdrawals occurred on account of the long review time taken by the Secretariat and the difficulty in demonstrating GCF requirements, including investment criteria.

Figure V-4. Percentage of projects withdrawn at different stages of project review

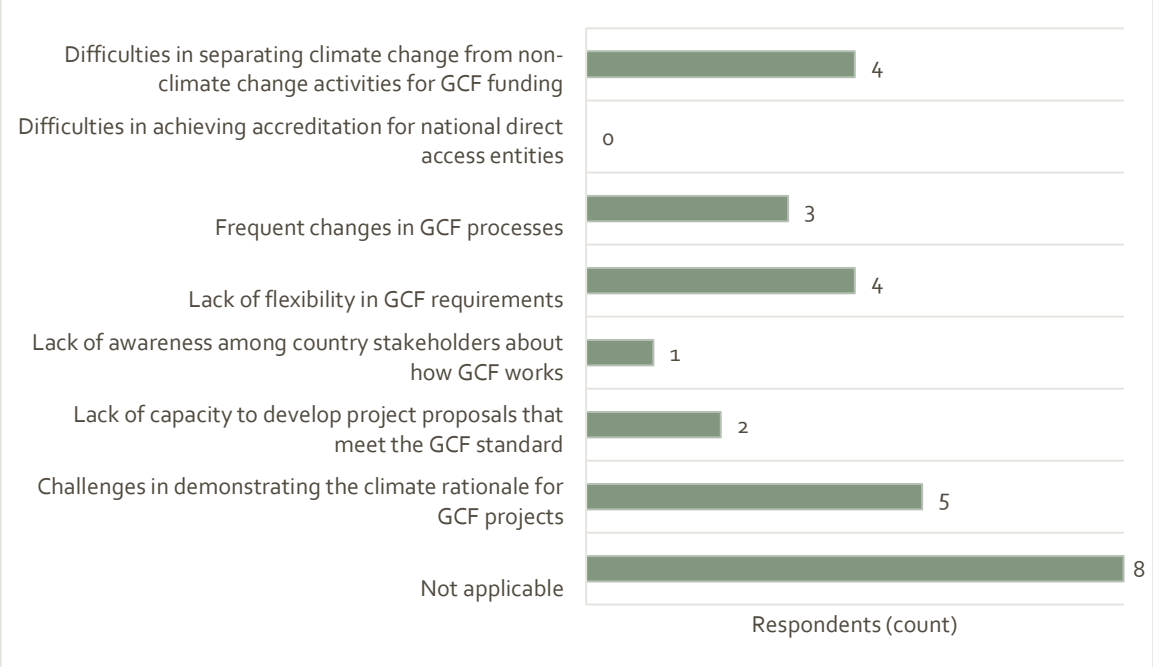


Source: GCF iPMS data, as of 13 November 2020.

13. **Survey respondents identify that demonstrating climate rationale is perceived as a key hurdle and reason for withdrawing projects.** In the online survey of AEs, 34 responses were recorded from a survey population of 79 AEs with adaptation and cross-cutting projects in the portfolio

(response rate of 43 per cent).[92] When asked to provide reasons for withdrawn adaptation projects, most respondents identified the challenge in demonstrating the climate rationale for the GCF project; the separation of climate change from non-climate activities for GCF funding; and a perceived lack of flexibility in GCF requirements (see Figure V-5). For example, one respondent stated, "GCF has to be flexible on evidence-based demonstration of climate rationale. It should not only be based on data. This is unfair to countries who for lack of financial resources to gather the required data are not able to establish the linkages with data." Another AE respondent further stated that, from their perspective, the "…availability of a minimum of 30 years of data for several African countries where climate information systems are still rudimentary is a big challenge". Yet another respondent highlighted the need to use alternative data sources to supplement existing climate data when making a case for the climate rationale of projects.

Figure V-5. If any of the concept notes you developed (adaptation and cross-cutting theme) have been withdrawn, what were the reasons?



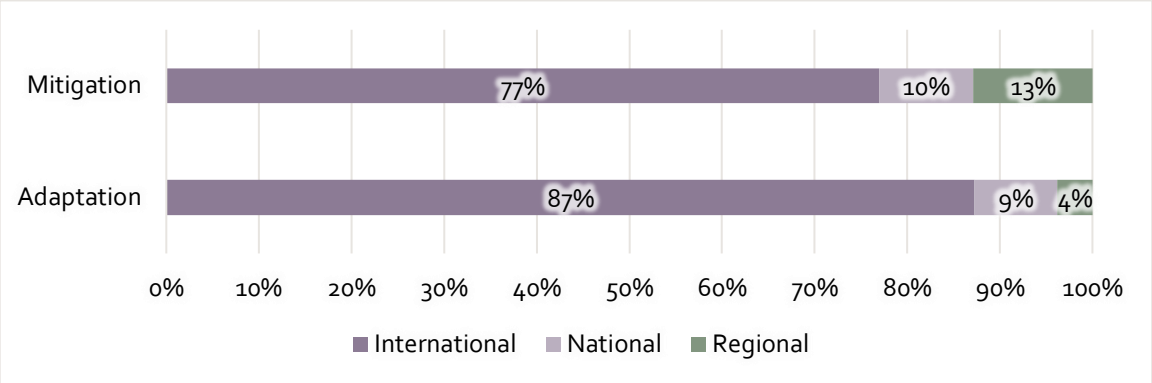
Source: Online survey on AEs.

3. INVOLVEMENT OF ACCREDITED ENTITIES AND THE PRIVATE SECTOR

14. **Adaptation support from the GCF is predominantly channelled through IAEs**. In terms of adaptation finance, 87 per cent is channelled through IAEs. The involvement of regional DAEs is strikingly low: only 4 per cent of the adaptation portfolio is channelled through these actors (Chapter VII on the business model analyzes this in more detail).

[92] Of the 34 responses, 28 per cent were from national DAEs, 17 per cent from regional DAEs and 44 per cent from IAEs.

Figure V-6. Percentage of AE types per project theme



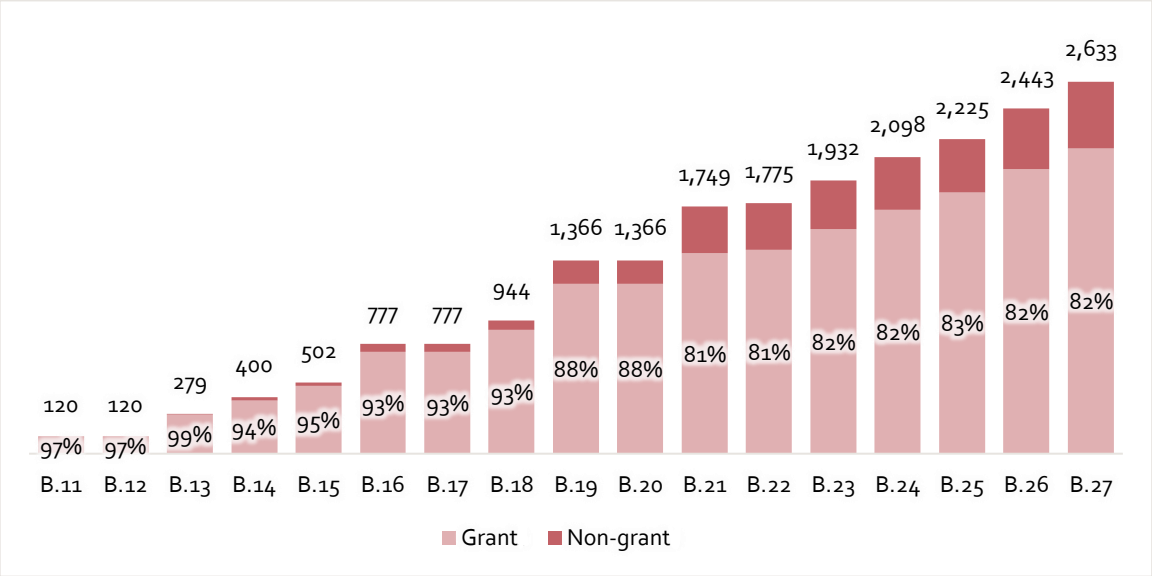
Source: GCF Tableau server data, as of 13 November 2020.

15. **Private sector involvement through the PSF in adaptation projects is extremely low**. The current adaptation portfolio includes only two PSF projects and another nine PSF cross-cutting projects that have an adaptation element. Adaptation finance through the two PSF adaptation projects amounts to USD 230 million, including the adaptation part of cross-cutting projects (USD 41.5 million committed through adaptation projects and USD 188.6 million through cross-cutting projects). Private sector participation is similarly low (between 7.7 per cent and 12.2 per cent) across three result areas (health, food and water security; livelihoods of people and communities; infrastructure and built environment) and significantly lower for ecosystem and ecosystem services (3.3 per cent). It should be noted that in DMA projects, certain sub-components involve private sector actors, but they are not the major risk-bearing actors in these projects. Chapter VI analyzes GCF private-sector engagement in adaptation in more detail.

4. INSTRUMENT USE

16. **The adaptation portfolio is overwhelmingly dominated by grant instruments**. As of November 2020, 82 per cent of the total committed finance to adaptation (including adaptation components in cross-cutting projects) in nominal terms was through grants. As Figure V-7 shows, this has been relatively constant through time. The non-grant part is largely linked to adaptation activities within cross-cutting projects. Pure adaptation projects are 96 per cent funded by grants (USD 1.631 billion), and only the small remainder (4 per cent) is supported by non-grant instruments.

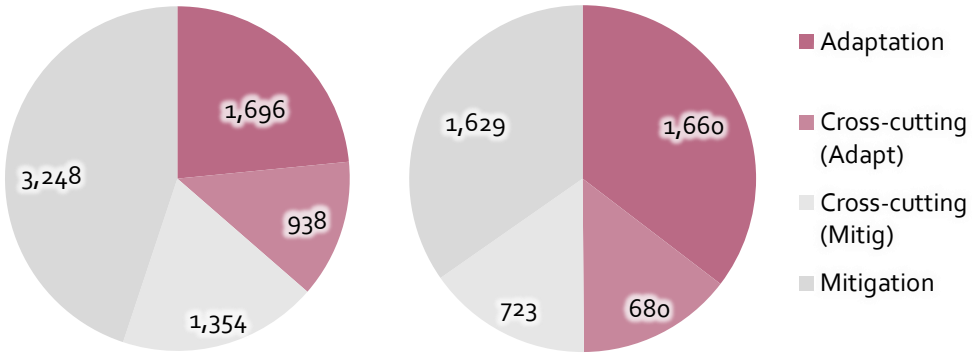
Figure V-7. Adaptation finance (USD million) by instrument type



Source: GCF Tableau server data, as of 13 November 2020.

17. **Although the portfolio is evenly split in grant equivalent terms, in nominal terms the adaptation portfolio represents about 36 per cent of the total current GCF portfolio** (see Figure V-8). For cross-cutting projects the adaptation portion is calculated based on the funding proposal's estimated allocation of funding over the mitigation and adaptation result areas.

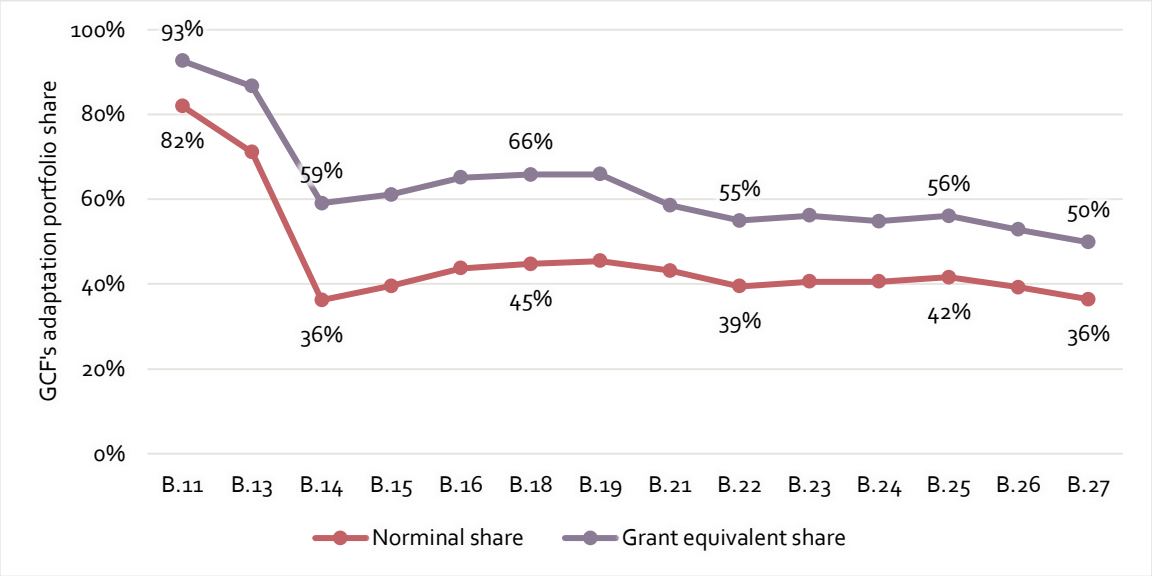
Figure V-8. GCF committed financing in nominal (left) and grant equivalent terms (right)



Source: GCF Tableau server data, as of 13 November 2020.

18. **Since 2018, the balance between adaptation and mitigation activities has widened in nominal terms.** As Figure V-9 shows, the adaptation share of the portfolio in nominal terms is consistently becoming smaller. This is because over 80 per cent of the adaptation portfolio utilizes grants, whereas mitigation projects have received higher amounts of funding, mostly through non-grant finance and loans with limited concessionality, increasing the nominal amount for mitigation at the same time as increasing the grant equivalent amount for adaptation.

Figure V-9. Adaptation share of financing in nominal and grant equivalent terms



Source: GCF Tableau server data, as of 13 November 2020.

19. **While the GCF Board has decided to measure the balance of the portfolio in terms of grant equivalent,** there is some lack of clarity in the approach to concessionality, particularly in how grant equivalent figures are calculated for non-grant financial instruments, such as equity stakes and guarantees.[93] This is a relatively new approach to calculating official development assistance and the concessionality therein, and there is a lack of clarity on how the GCF applies this to the full suite of instruments at its disposal. Concessionality is not yet differentiated across adaptation and mitigation projects (and for cross-cutting projects, via the proportion of finance directed to mitigation and adaptation result areas). This could be an area for the GCF to clarify. Markets for mitigation investments in renewable energy and energy efficiency are relatively mature and require less concessionality in most contexts to allow a reasonable level of return. Adaptation, on the other hand, is, in the words of one interviewee, "…where mitigation was 20 years ago". Return-generating adaptation projects are scarce and these investments have a much larger viability gap.

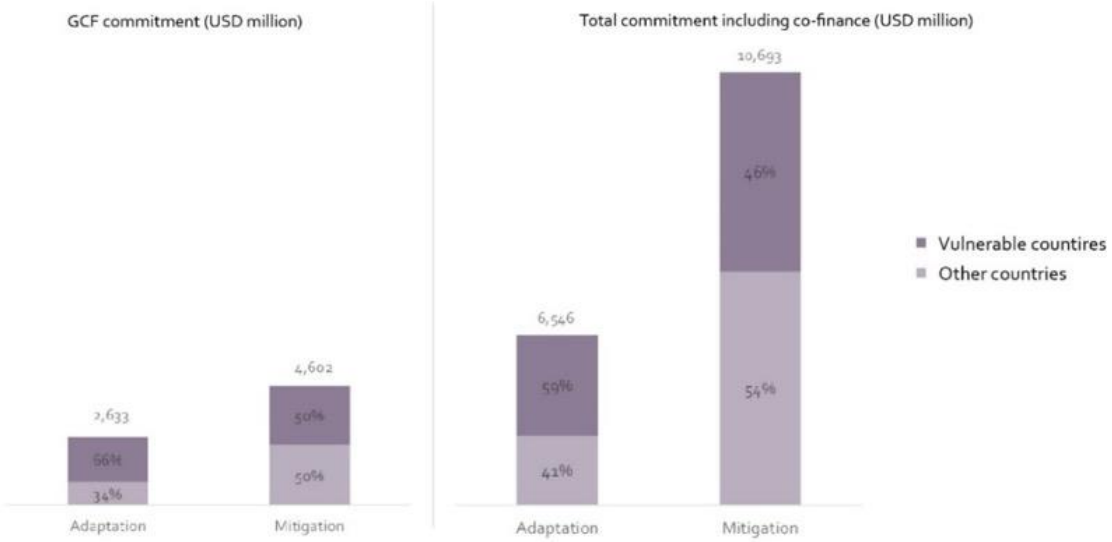
5. TARGETING VULNERABLE COUNTRIES

20. **The GCF has set up targets to support vulnerable countries in adaptation, but many vulnerable countries are yet to be reached and finance per capita remains low.** From a targeting perspective, the committed finance for LDCs, SIDS and African States amounts to USD 1.7 billion, or 66 per cent of the nominal total adaptation finance. This exceeds the minimum floor of 50 per cent the GCF aims for, but the portfolio is still unevenly targeted (see Figure V-10 below). Of the

[93] Grant equivalence is now used for official development assistance flows and has been used by the OECD Development Assistance Committee (OECD-DAC) since 2018. The measure aims to facilitate the comparison of financial instruments, such as grants and loans. The full face value of a grant is used when calculating grant equivalence. For loans, the first step is to calculate the grant element within this borrowing. This is based on four elements: the interest rate (or, more accurately, the differential between the interest rate for the loan and market rates), the grace period (that is, the time between the loan agreement and the first scheduled repayment rate), the length of the loan (which is sometimes termed as the 'maturity', in essence the time between the loan agreement and final repayment date), and the discount rate (which is used to calculate present values from the stream of payments in the future). This last point deserves some explanation. As loan repayments occur in the future (the time frame of which is uncertain and unknowable), the present value of these repayments needs to be adjusted. This is usually done by discounting these future repayments by the interest rate the debtor country can raise for this money on international markets, leading to present value estimates. When calculating grant equivalent figures, all MDBs and global institutions (including the GCF) use a discount rate of 5 per cent.

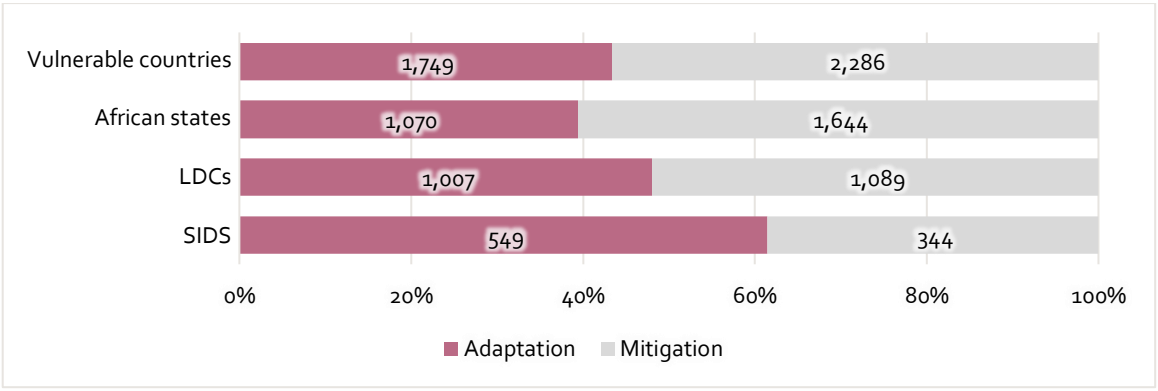
1.7 billion of adaptation finance directed to vulnerable countries, 31 per cent reaches SIDS, 58 per cent LDCs and 61 per cent African States (categories are not mutually exclusive, see Figure V-11). However, from a country perspective, certain vulnerable groups (namely, African States) receive more mitigation than adaptation finance.

Figure V-10. Adaptation financing for the most vulnerable countries



Source: GCF Tableau server finance data, as of 13 November 2020.

Figure V-11. Finance for the most vulnerable countries (USD million)

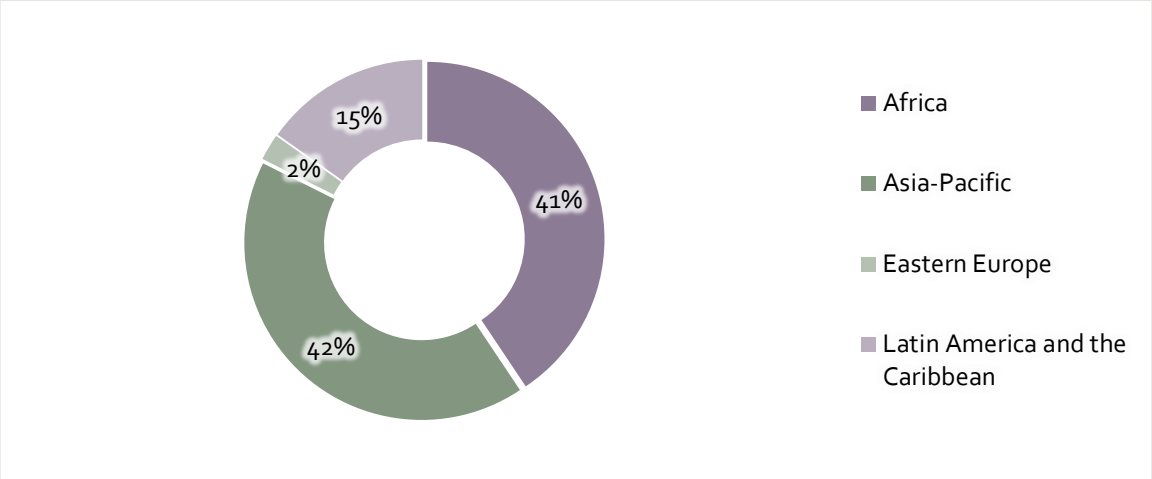


Source: GCF Tableau server finance data, as of 13 November 2020.

21. **Based on geographic distribution, Africa and the Asia-Pacific receive 83 per cent of all adaptation financing, while 59 countries receive no GCF adaptation finance.** Overall, 41 per cent of the total amount is committed to projects in Africa and a similar amount to projects in the Asia-Pacific. About 15 per cent is committed to Latin America and the Caribbean (see Figure V-12). The remaining 2 per cent is committed to projects in Eastern Europe. The commitments by country vary, with a maximum of USD 138 million. Top recipients are the United Republic of Tanzania, the Federal Democratic Republic of Ethiopia, Mongolia, Morocco, the Democratic Socialist Republic of Sri Lanka, and the People's Republic of Bangladesh. However, the largest beneficiaries in terms of financing per capita are SIDS (more than USD 100 per person), which is reflective of high transaction costs and low capacities. Figure V-13 offers a breakdown of the number of countries per

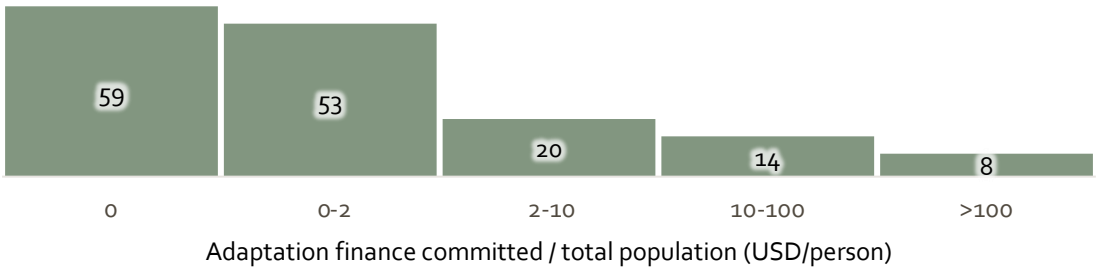
category of committed finance per person. It is also worth noting that 59 countries have received no adaptation finance, and for 53 countries, GCF committed finance is less than USD 2 per capita.

Figure V-12. Geographic distribution of committed financing



Source: GCF Tableau server finance data, as of 13 November 2020.

Figure V-13. Number of countries per category of committed finance per person



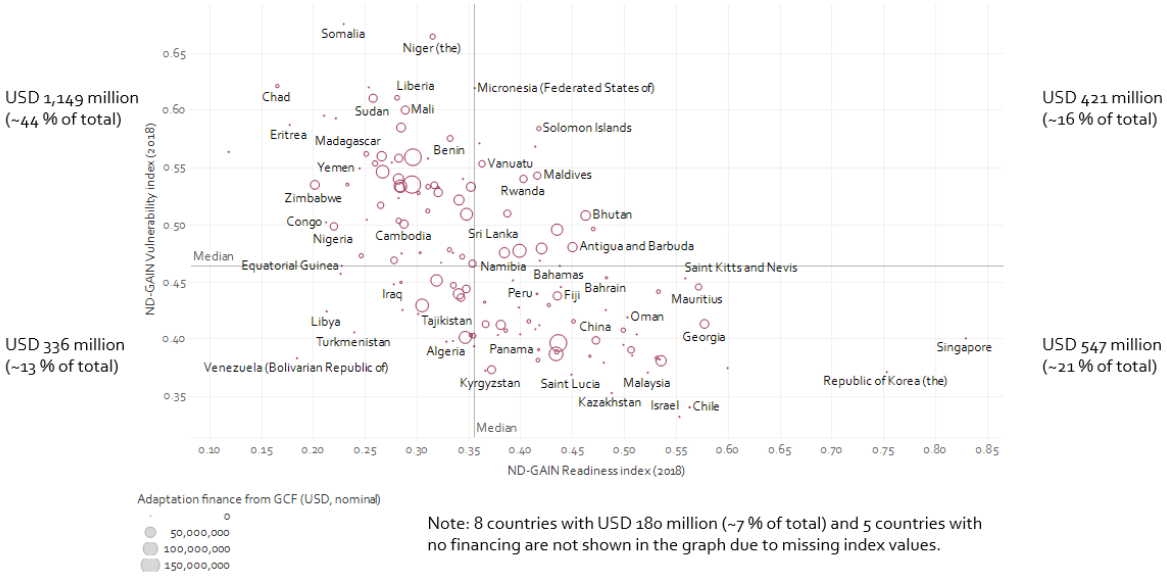
Source: GCF Tableau server finance data, as of 13 November 2020.

6. REACHING THE MOST VULNERABLE

22. **In terms of volume, 67 per cent of adaptation finance is currently directed to those most vulnerable to climate risks and least ready to adapt**. The GCF finances projects in 97 out of the 154 eligible countries. Of these, 66 are among the most vulnerable countries (LDCs/SIDS/African States). However, the 154 eligible countries place different levels of priority on climate change. One approach to understanding the urgency for adaptation finance across different countries is their level of readiness and vulnerability. The top left quadrant of Figure V-14 includes countries with both a high level of vulnerability and low readiness (as compiled by the ND-Gain index). The chart shows the amount of GCF finance for adaptation across four quadrants created using the median readiness and vulnerability values. Around USD 1.15 billion, or 44 per cent of finance, flows to countries that are most vulnerable to climate risks and least ready to adapt.
23. **However, the GCF still has challenges in reaching the most vulnerable and least-ready countries**. Figure V-15 shows that GCF financing has reached 10 of the 19 countries which are least

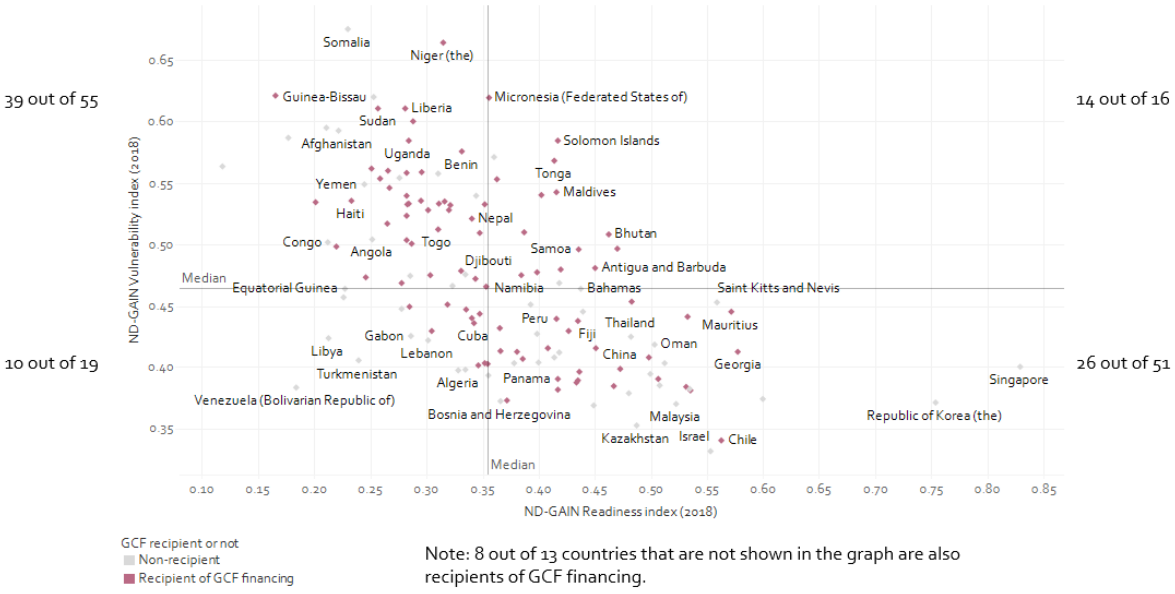
ready and particularly vulnerable to the challenges of climate change, as measured by the ND-Gain index.

Figure V-14. Adaptation finance by level of readiness and vulnerability (using the ND-GAIN index)



Source: ND-GAIN, 2018, GCF Tableau server finance data, as of 13 November 2020.

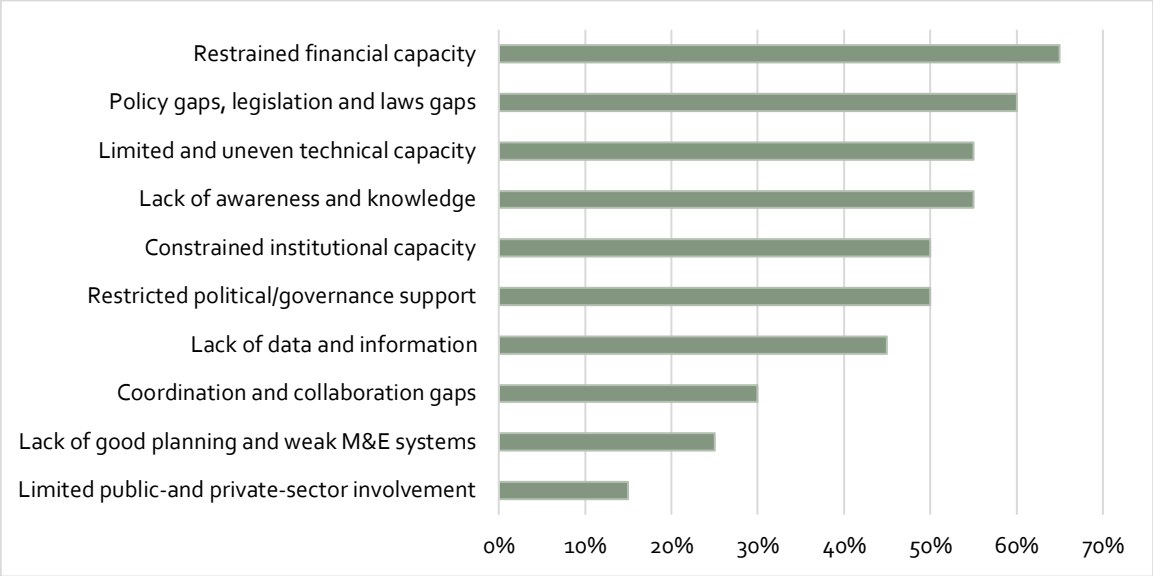
Figure V-15. Country needs according to the ND-GAIN index



Source: ND-GAIN, 2018.

24. **Based on available NAPs, a key barrier to adaptation remains access to finance**. The evaluation team reviewed the countries' NAP documents submitted to UNFCCC. Some 65 per cent of countries noted that limitations on capacity to access financing for adaptation are key barriers to adaptation (see Figure V-16 below).

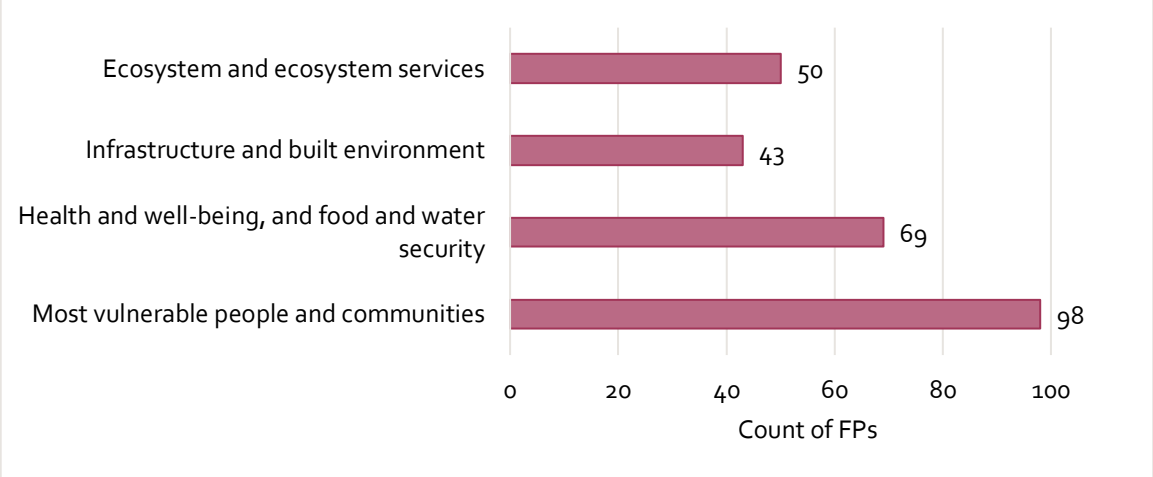
Figure V-16. Countries' reported barriers to adaptation



Source: Information from 21 NAP documents submitted to UNFCCC.

25. **In total, 91 per cent of adaptation projects state they are reaching vulnerable communities as a specific focus.** However, it is not possible to adequately assess whether the GCF is prioritizing vulnerable communities within countries due to data and methodological challenges. Assessing the extent to which the GCF is prioritizing vulnerable communities within countries is challenging. A number of projects will benefit entire countries or regions, including but not limited to vulnerable communities (e.g. more resilient infrastructure and early warning weather sustems), so it can be questioned whether vulnerable communities are specifically targeted. However, reaching the most vulnerable people and communities is a result area, and 98 out of the 107 adaptation and cross-cutting projects with an adaptation component state they specifically target vulnerable communities (see Figure V-17). But, as Chapter VIII highlights, this is mostly because this results area is defined far too broadly. Country cases provide examples of vulnerable communities within countries being reached. More work still needs to be done to consider prioritizing vulnerable communities within countries, as well as capturing results on this (see Chapter VIII).

Figure V-17. Approved projects targeting adaptation result areas



Source: GCF iPMS data, as of 13 November 2020.

7. MEETING SECTORAL ADAPTATION NEEDS

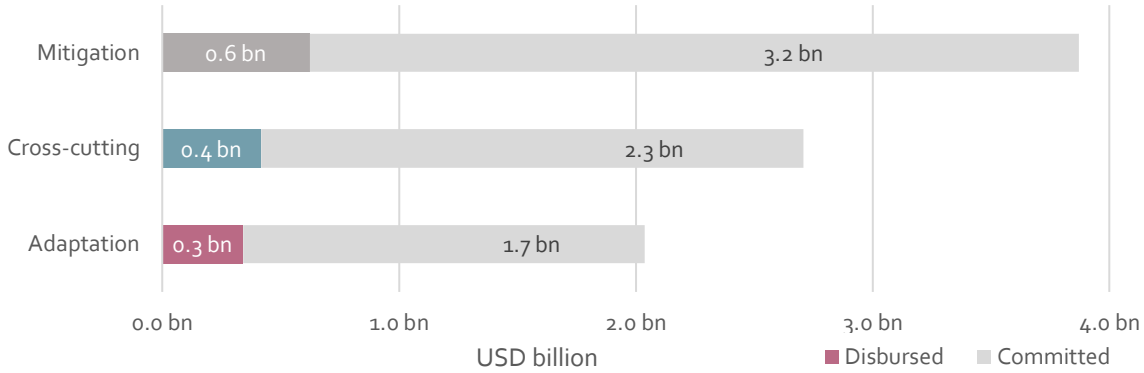
26. **Due to the lack of completed NAPs, a comprehensive assessment of whether the GCF is meeting sectoral needs is not possible.** However, country case studies show that GCF investments are in line with priorities. Recipient countries have specific sectoral needs, dependent on the level of climate exposure/sensitivity/adaptive capacity across key areas, such as in the agriculture and water sectors. Sectoral priorities are different in each country, and due to the limited number of NAPs submitted, it is still challenging to assess country needs in a comprehensive way. Chapter VIII discusses how GCF result areas can also use a sectoral breakdown to increase precision and comparability with other climate funds.

8. MEETING DISBURSEMENT GOALS

27. **Delays in disbursement are caused by a variety of factors related to (i) the GCF business model (the most common factor being legal), (ii) factors internal to the projects (project governance or management, procurement), and (iii) external factors** (e.g. COVID-19 related issues). Around 20 per cent of total commitments on adaptation projects had been disbursed as of B.27. Overall, 70 per cent of the projects have received their first disbursement. A total of 20 out of 67 pure adaptation projects have received no disbursements to date (30 per cent of projects), and 17 out of the 40 cross-cutting projects with an adaptation component have received no disbursements (43 per cent).

    In several projects, legal issues have held back implementation after Board approval. For instance, the evaluation found delays on account of various issues, including agreeing on legal documents between involved parties and the GCF, language barriers, and the no-objection letter from NDAs. The second set of factors are internal. In some cases, project governance or management issues have caused delays, especially in larger projects where national and subnational governments are involved. Agreeing on allocation of activities and budgetary issues, especially in changing (political) circumstances, has brought a need for more negotiations and caused delays. In one of the country cases, an issue was also identified around procurement, where the EE and other involved contractors had challenges understanding, following and managing the procurement rules of a large IAE. Finally, there was the significant impact of COVID-19 on various projects, particularly those that entailed the involvement and travel of (international) specialist consultants who were essential for project implementation activities. As Figure V-18 below shows, mitigation projects progress slightly faster than adaptation projects, and private sector projects progress slightly faster than public projects. This is due to the more established business models in mitigation, which hold less potential for delays, and is also due to the use of non-grant instruments.

Figure V-18. Disbursement status of committed funding



Source: GCF iPMS disbursement data, as of 13 November 2020.

Box V-2. Causes of delays in the case of a project in The Gambia

The Gambia was one of the first African countries to access GCF funds for adaptation projects. The resulting project is called the Large-Scale Ecosystem-Based Adaptation in The Gambia: Developing a Climate Resilient, Natural Resource Based Economy (ecosystem-based adaptation [EbA] project), with UNEP as AE and the Ministry of Environment, Climate Change, Water, Forests and Wildlife as EE. The aim of the project is to use EbA approaches to build the climate resilience of rural landscapes and facilitate the development of a natural resource-based economy. This will benefit both the environment and communities by restoring degraded forests and agricultural landscapes with climate resilient plant species, and facilitating the establishment of commercially viable natural resource-based businesses.

The project was approved in June 2016, but it started about 18 months after approval, in February 2018. This delay was due to staff changes and project assumptions that needed to be clarified at the beginning of implementation. Initial delays in the implementation of the project were caused by some of the project assumptions made in the project design. Targets in the first year were unrealistic for all components and therefore time was needed to reformulate, while research was needed to revise some targets or give new mandates where necessary. A lot of time was needed to obtain clarity on some of the assumptions that were made in the project documents. This is important, as disbursement was linked to meeting targets.

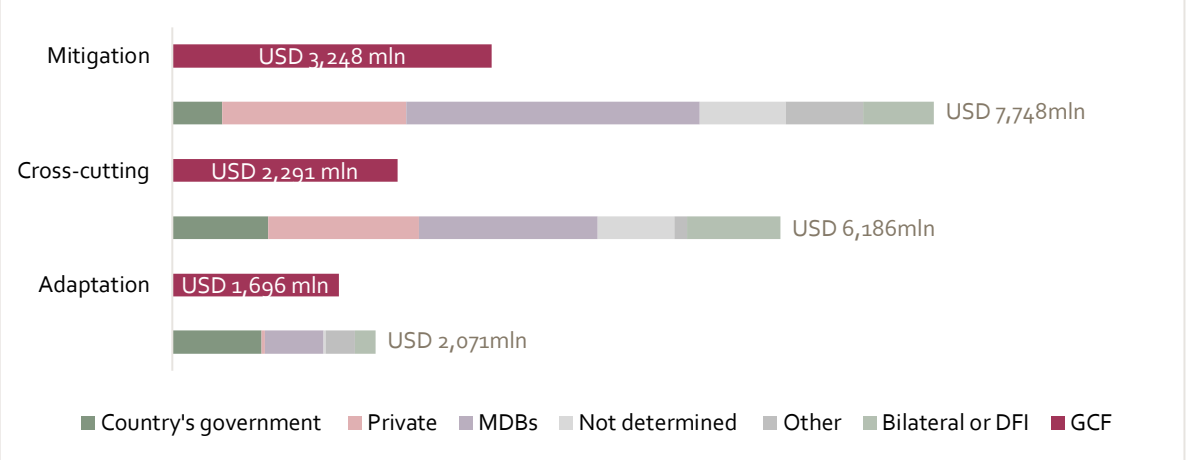
For implementation, there are further challenges in adhering to the procurement rules of the AE, which cause delays. Procurement rules and procedures for an AE such as UNEP are very cumbersome and challenging. For a project that is procurement-heavy (nearly 75 per cent of the EbA project relies on procurement), a lot of time is spent on learning procurement procedures as the project managers are not familiar with them. As a solution, the EbA project used the funds from the capacity needs assessment of the EE to develop a fiduciary risk management plan. This then provided for the capacity-building activities of staff in procurement. While a solution was found in the end, a lot of time was spent on this. Moving forward, it was suggested that the GCF take the lessons from this challenge and integrate them into other project designs to avoid similar delays.

D. CO-FINANCE

28. **The GCF strategic objective for co-finance is modest,[94] and the level of co-financing in the adaptation portfolio is relatively low.** The expected co-financing ratio for adaptation projects is 1.2, which is lower than the ratio of 2.4 for mitigation projects. In the estimated adaptation part of cross-cutting projects the ratio is somewhat higher, but it is not possible to link co-finance directly to the adaptation part. The lower ratios are largely due to the fact that adaptation projects are funded through grants, which generate less co-finance. They are also the result of the limited financial return-generating nature of adaptation projects, which holds back private sector investment in adaptation, in turn preventing co-finance from the private sector (more analysis in Chapter VI). This has led to a significantly lower total of leveraged adaptation finance compared to mitigation. Total leveraged co-finance for projects is USD 2.07 billion for adaptation, USD 6.18 billion for cross-cutting and USD 7.74 billion for mitigation.

29. **The (expected) co-finance largely comes from public actors.** Figure V-19 shows that national governments are the key provider of co-finance in adaptation projects. Public funding can only cover a fraction of financing needs, and many developing countries already have high debt levels, so there remains an untapped potential to further diversify co-financiers, particularly from the private sector. On the other hand, the GCF has not clarified the types of projects where there should be no expectation or limited expectation of co-finance (e.g. in smaller projects that offer direct solutions in the most vulnerable countries).

Figure V-19. Co-finance by the GCF via its adaptation and cross-cutting portfolio, per institution type and per instrument



Source: Tableau server finance data, as of 13 November 2020.

30. **The modest co-financing targets in the USP provide a limited opportunity to make use of instruments where co-finance ratios are typically higher**, particularly using equity, guarantees and financial structures that leverage finance such as blended finance vehicles or climate adaptation/resilience bonds. The ability of the current portfolio to catalyze the involvement of private sector investors is therefore limited.

[94] On co-finance, the USP sets a strategic objective for "significantly increased portfolio level mobilization achieved through the GCF contributions to private sector projects under the PSF, relative to the IRM". It further clarifies that the "IRM private sector co-financing was 1:3. Information on mobilized private finance will be compiled by the Secretariat when data becomes available through AE reporting. Portfolio-level mobilization of private finance for GCF-1 will initially be assessed in relation to the IRM private sector co-financing." Calculations made by IEU suggest an expected co-financing ratio for adaptation projects of 1.2, which is lower than the ratio of 2.4 for mitigation projects.

Chapter VI. GCF PRIVATE SECTOR ENGAGEMENT IN ADAPTATION

KEY RECOMMENDATIONS

- The GCF urgently needs a strategy for the private sector, particularly for adaptation finance. The strategy should include guidance on: (i) which private sector actors the GCF wants to engage with and how; (ii) what actions minimize market distortions and moral hazard ; (iii) which sectors hold opportunities for adaptation; and (iv) how the instruments at the GCF's disposal should be used.
- The GCF should consider a private sector approach that addresses capacity support to small- and medium-sized firms. The GCF should clarify what the RPSP can do for small- and medium-sized private sector companies.
- In piloting the project-specific assessment approach, the Board should consider the needs of the adaptation portfolio with a focus on private sector engagement.
- The GCF should strengthen incentives to support cooperation between the DMA and PSF in jointly assessing projects and identifying opportunities, particularly for blended finance.

KEY FINDINGS

- The GI, Board decisions and the USP emphasize it is important to explore all financing options, including leveraging private sector funding for adaptation.
- Among the climate funds, the GCF has the strongest private sector focus and the best ability to scale projects through its large fund size, risk appetite and flexible suite of financial instruments. The portfolio suggests the GCF has not fully utilized this opportunity to date.
- At the moment, only one in five AEs has a private sector focus, with most of these having been accredited recently. Most PSF projects are managed by public entities that have a private sector focus, such as MDBs.
- There are only two PSF pure adaptation projects in the portfolio (USD 42 million or 1.6 per cent of total adaptation finance, and 0.6 per cent of all GCF finance). When including the estimated adaptation part of cross-cutting projects, adaptation finance through the private sector amounts to USD 230 million (8.7 per cent of adaptation finance or 3.2 per cent of total GCF finance).
- The ability of the GCF to source and support PSF projects has stalled: since B.21 (October 2018), only USD 10.8 million (0.4 per cent of total adaptation finance) has been committed.
- Despite the GCF's unique high risk appetite and flexible suite of instruments, on average only an estimated 18 cents per 1 GCF-invested dollar is generated as co-finance from the private sector.
- External market-related factors, including fewer investable opportunities and predictable return flows, constrain private sector engagement, as do internal factors such as the reactive business model, lack of predictability and the upfront costs.
- Cooperation between the DMA and PSF in jointly assessing projects and identifying opportunities is mainly informal and ad hoc. Opportunities exist to create an incentive structure for greater cooperation, particularly with regard to blended finance.

A. Overview

1. This chapter highlights the importance of private sector finance in closing the adaptation financing gap, as set out in Board decisions and in the GI. It assesses GCF engagement with the private sector in adaptation by looking at AEs that have the characteristics of a private sector entity, and at PSF projects in the adaptation portfolio. It also highlights the challenges, both internal and external to the GCF, in engaging with and catalyzing finance from the private sector. The chapter concludes by charting a road map for the GCF to use its leverage and risk appetite to deliver more private sector adaptation projects.

B. The importance of private sector finance in adaptation

2. **In order to achieve a paradigm shift in adaptation and close the adaptation financing gap, the involvement of the private sector is fundamental and a precondition**. While a paradigm shift is occurring in subsectors of mitigation (notably in renewable energy and energy efficiency), there is an increasing urgency for investments in adaptation. As public funding can only cover a fraction of financing needs and the debt levels of many developing countries are already high, effective involvement of the private sector is a precondition for sustainable finance and closing the adaptation financing gap (see Chapter III).[95] In order to promote the paradigm shift in adaptation, it is important for the GCF to effectively engage with the private sector and leverage private sector funding.
3. **Adaptation financing gaps are both a challenge and a market opportunity for the private sector in the delivery of climate-smart solutions**. Investment needs in the infrastructure, energy and other built environment sectors, as well as in coastal protection, have estimated annual shortfalls of approximately USD 26 billion. These shortfalls are followed by waste and wastewater management with a gap of between USD 8.9 billion and USD 11.6 billion, and agricultural, forestry and land use with a gap of between USD 4.9 billion and USD 5.2 billion.[96]
4. **Private companies can be incentivized to implement adaptation measures**.[97] Despite insufficient levels of public financial support, and the risk of moral hazard due to government backstopping, firms can be incentivized to invest in adaptation. This incentivization can be achieved through structuring forms of blended finance with the GCF acting as an anchor investor, taking on a first loss position.[98]
5. **Of the multilateral climate funds, the GCF has the strongest private sector focus, mandate on adaptation finance and ability to scale projects through its large fund size.** The GCF GI states, "The Fund will have a private sector facility that enables it to directly and indirectly finance private sector mitigation and adaptation activities at the national, regional and international levels." It also states, "The facility will promote the participation of private sector actors in developing countries, in

[95] UNEP (2021). *Adaptation Gap Report 2020.* Nairobi.
[96] Climate Investment Funds (2016). *Private Sector Investment in Climate Adaptation in Developing Countries: Landscape, Lessons Learned and Future Opportunities*, pp. 20-22.
[97] The private sector constitutes the segment of an economy owned and managed by individuals or organizations that are not directly under the control of the government or any public agency. These can be financial or asset owners, financial intermediaries, project developers, providers of goods or services, or direct beneficiaries. This chapter mainly considers projects which are housed within the GCF's PSF, as more than half of project risk is borne by private sector actors. Further indicators for the private sector portfolio include projects with private sector AEs, projects with non-grant instruments, projects that mobilize co-finance with private sector actors, and engagement with the private sector including through the RPSP. These indicators are discussed below. Respondents from the GCF Secretariat have not put forward a consistent definition of private sector engagement or the private sector at large.
[98] Swann, S., & Miller, A. (2019). *Driving Finance Today for the Climate Resilient Society of Tomorrow*. Global Commission on Adaptation Background Report.

particular local actors, including small- and medium-sized enterprises and local financial intermediaries. The facility will also support activities to enable private sector involvement in SIDS and LDCs." Further, the GI states:

> The Fund will provide financing in the form of grants and concessional lending, and through other modalities, instruments or facilities as may be approved by the Board. Financing will be tailored to cover the identifiable additional costs of the investment necessary to make the project viable. **The Fund will seek to catalyze additional public and private finance through its activities at the national and international levels**" (emphasis ours).

This last point is important, and provides an opportunity for further clarity. The GCF's risk management framework and the investment framework support this mandate through a described risk appetite and flexible suite of financial instruments.

6. **In this respect, the GI mandated the Board to "develop the necessary arrangements, including access modalities, to operationalize the [private sector] facility".** The Board has taken several steps to allow the private sector to participate in the GCF, beyond its role of accrediting entities from the private sector.[99] The Board also invited private sector actors, as stakeholders, to participate and provide input through the Private Sector Advisory Group (PSAG).[100] The GI also strengthened the involvement of the private sector at the Board level by including two private sector representatives, one each from developing and developed countries, to act as active observers to the Board.[101] Referring back to the GI, the Fund would provide finance to cover the "identifiable additional costs of the investment necessary to make the project viable", using all available instruments, modalities or facilities as may be approved by the Board. Decision B.04/08 stipulated the PSF should address barriers to private sector investment in adaptation, mobilize funds at scale and minimize market distortions and moral hazard (see Annex 4 for an overview of the evolution of the GCF approach to the private sector).
7. **The USP further acknowledges the importance of private sector involvement in adaptation**. Financial flows managed by the private sector consistent with a pathway towards climate resilient development, are key to realizing the scale of resources – in the trillions – needed to implement developing countries' NDCs, NAPs, technology plans and other climate strategies. The GCF's 2020–2023 programming aims to systematically realize the potential to deploy resources at scale, and support activities to increase the impact of investments, while encouraging a wider alignment of financial flows with countries' climate plans and strategies.[102]
8. **Effectively engaging the private sector in adaptation is an available niche into which the GCF needs to move**. The need for investment, combined with the GCF's mandate, its risk appetite, unique suite of instruments and position as the leading global climate fund, means the GCF is uniquely positioned to take a leading role in further engaging the private sector in adaptation. It creates an opportunity to support new models and raise awareness within the private sector about what adaptation is and how revenue-generating models can be originated and implemented, alongside the sustained awareness campaigns that are needed to address the scarce resources and limited knowledge of adaptation.

[99] FCCC/CP/2011/9/Add/, decision 3/CP.17/, annex 2, 52.
[100] The GCF Board formally established the PSAG at the fifth meeting of the Board (B.05) in 2013. In decision GCF/B.05/23, annex XIX, the Board defined the PSAG terms of reference as well as its membership composition. Decision B.06/04 explained how the "modalities for the operation of the Fund's Private Sector Facility will be developed based on the recommendations of the Private Sector Advisory Group".
[101] FCCC/CP/2011/9/Add/, decision 3/CP.17/, annex 2, 52.
[102] GCF/B.27/21, titled "Updated Strategic Plan".

C. GCF ENGAGEMENT WITH THE PRIVATE SECTOR IN ADAPTATION

1. ACCREDITED ENTITIES RELEVANT FOR PRIVATE SECTOR

9. **For effective private sector involvement in adaptation, an adequate set of AEs is needed. As of 13 November 2020, only 23 per cent of AEs would have self-identified as private sector entities and were accredited for a range of fiduciary standards**. The COP requested the Board to accelerate the operationalization of the PSF by aiming to ensure that private sector entities and public entities with relevant experience in working with the private sector were accredited.[103] As of 13 November 2020, of the 103 entities approved by the Board for accreditation to the GCF, 24 were accredited as private sector entities, most of which had become accredited in the past two years.[104] As the example in Box VI-1 below shows, private sector DAEs, particularly, can play pivotal roles in bridging the gap between the public and private sectors, can support the NDA and be effective and efficient in their own projects, and can be examples to other actors. The lack of AEs with the capacity and readiness to work with the PSF is one of the key challenges for the facility. The PSF has used measures to proactively engage with national, regional and international AEs, but only with limited success. In the view of Secretariat counterparts, accreditation is considered a barrier to private-sector led and financed adaptation projects. Table VI-1 shows 24 of the private sector AEs that have reported their interest in considering adaptation in their future portfolio. This group of AEs is varied in terms of accreditation type, interest in the GCF and their individual capacities, which poses a challenge for the GCF to cultivate a strong private sector portfolio on adaptation.

Table VI-1. Private sector accredited entities expecting to finance adaptation projects

ENTITY NAME	ACCESS MODALITY	CONSIDERATION OF ADAPTATION PROJECTS	ADAPTATION RESULTS AREAS			
			MOST VULNERABLE PEOPLE AND COMMUNITIES	HEALTH AND WELL-BEING, AND FOOD AND WATER SECURITY	INFRASTRUCTURE AND BUILT ENVIRONMENT	ECOSYSTEM AND ECOSYSTEM SERVICES
Acumen	Regional	Yes	Yes	Yes	No	No
AFC	International	Yes	No	No	Yes	No
CDG Capital	National	Yes	No	Yes	No	No
Deutsche Bank AG	International	Yes	No	Yes	Yes	No
FYNSA	National	No	No	No	No	No
MAAML	International	Yes	Yes	No	Yes	Yes
MUFG (formerly BTMU)	International	No	No	No	No	No
NEFCO	International	Yes	Yes	Yes	No	Yes

[103] By UNFCCC decision 7/CP.20, paragraph 9.
[104] During the accreditation process, candidate AEs need to self-identify whether they are private or public. The Secretariat grants self-identification accordingly. This has some influence on fiduciary standards later in terms of on-lending and the blending of instruments.

Entity name	Access modality	Consideration of adaptation projects	Adaptation results areas			
			Most vulnerable people and communities	Health and well-being, and food and water security	Infrastructure and built environment	Ecosystem and ecosystem services
PCA	International	Yes	Yes	Yes	Yes	Yes
XacBank	National	Yes	Yes	Yes	Yes	No
AWB	Regional	Yes	Yes	Yes	Yes	Yes
CRDB	National	Yes	Yes	Yes	Yes	Yes
EGH	National	Yes	No	Yes	Yes	No
JS Bank	National	Yes	Yes	Yes	Yes	Yes
TDB Mongolia	National	Yes	Yes	Yes	Yes	Yes
BNP Paribas	International	Yes	No	No	Yes	Yes
Camco	International	No	No	No	No	No
Crédit Agricole CIB	International	Yes	No	Yes	Yes	No
HSBC	International	Yes	Yes	Yes	Yes	No
IDFC	National	Yes	Yes	No	Yes	No
IEISL	National	No	No	No	No	No
KCB	National	Yes	Yes	Yes	Yes	Yes
LBA (formerly CNCAS)	National	Yes	Yes	No	No	No
Yes Bank	National	Yes	Yes	Yes	Yes	No

Source: The GCF Accreditation team.

10. **Interviewed country respondents acknowledge a key role for the private sector in implementing NAPs (and other adaptation planning documents) but also indicate limited awareness and engagement between NDAs and private-sector AEs at the country level.** Interviews with NDAs have underlined the findings of the IEU's analysis on the PSF strategy and a survey conducted as part of the FPR in 2019, and showed that most NDAs are unclear on how to advance from general frameworks/sector priorities to a private sector pipeline and investments, despite the recognized importance of the private sector in climate change. In most cases, the government entities acting as NDAs do not have a track record of engaging with private sector entities (beyond some financial institutions). Country case studies have shown that, in the case of active projects, NDAs are insufficiently aware of the performance of private sector projects as these

are mainly executed by international development banks as part of regional or global projects. Reporting and communication requirements are often not clear to the NDAs and IAEs. Ensuring the engagement of the private sector in adaptation planning is key to developing local climate management capacity in the country, and to ensuring successful implementation of climate adaptation projects. Country stakeholders stated that involving the local private sector in climate adaptation is a particular challenge and requires further attention.

11. **Stakeholder engagement and a review of RPSP proposals for adaptation planning have also shown there is a maturity gap between the type of RPSP support and that given for the development of private sector focused projects**. While some RPSP proposals for adaptation planning mentioned the private sector (private sector engagement in 12 out of 58 grants), most of the proposed activities would not build technical capacity or strategic plans for private sector involvement in adaptation FPs. More mature private sector support would include the development of studies, plans and strategy; building supporting mechanisms for market activation and reform; and supporting the project pipeline through CNs and FPs. However, most proposals related to country consultative processes and awareness building. This shows a disconnect between GCF RPSP support and the private sector mandate in adaptation finance.

Table VI-2. Most and least mentioned challenges or areas of support needed by countries

No.	Most commonly mentioned challenges/areas of support needed	Least commonly mentioned challenges/areas of support needed
1.	Building technical skills on project development, including CNs and FPs	Supporting local private sector entities
2.	Feasibility studies, vulnerability studies and other research activities necessary during the design of CNs and FPs	Lack of awareness among local stakeholders on the funding windows available at the GCF (e.g. PPF and readiness NAP)
3.	Baseline data collection and supporting the country with systems for generating scientific data for climate change	Building open and accessible local-level climate change information and impact data inventories, as well as analytical capacity
4.	Climate rationale requirements: better communication, systematic sharing of lessons learned and best practices	Creating a conducive environment and opportunities for private sector engagement
5.	Building the capacity of national entities, including micro and small enterprises to participate in adaptation projects	

Source: Based on qualitative data from virtual country missions and stakeholder interviews.

2. Private sector-led GCF adaptation projects

12. **Despite its high risk appetite and the fundamental need for climate adaptation action, there are only two privately initiated adaptation projects and nine cross-cutting projects that include an adaptation component**. The two PSF adaptation projects are FP078 Acumen Resilient Agriculture Fund, initiated by the impact investment fund Acumen, and FP097 CAMBio II, initiated by the Central American Bank for Economic Integration (CABEI). Table VI-3 below provides an overview of all PSF projects with an adaptation component. In cross-cutting projects, the adaptation component mostly has a limited focus compared to mitigation and is very small in two cases.

Table VI-3. PSF portfolio of adaptation and cross-cutting (with adaptation components) projects

FP#	NAME	AE	BOARD	NUMBER OF COUNTRIES	ADAPTATION FOCUS (%)
FP005	KawiSafi Ventures Fund	Acumen	B.11	2	15%
FP025	GCF-EBRD SEFF Co-financing Programme	EBRD	B.14	10	6%
FP026	Sustainable Landscapes in Eastern Madagascar	CI	B.14	1	57%
FP048	Low Emissions and Climate Resilient Agriculture Risk Sharing Facility	IDB	B.18	2	60%
FP078	Acumen Resilient Agriculture Fund (ARAF)	Acumen	B.19	4	100%
FP095	Transforming Financial Systems for Climate	AFD	B.21	17	40%
FP097	Productive Investment Initiative for Adaptation to Climate Change (CAMBio II)	CABEI	B.21	7	100%
FP098	DBSA Climate Finance Facility	DBSA	B.21	4	30%
FP114	Program on Affirmative Finance Action for Women in Africa (AFAWA): Financing Climate Resilient Agricultural Practices in Ghana	AfDB	B.23	1	30%
FP115	*Espejo de Tarapacá*	MUFG Bank	B.23	1	1.4%
SAP013	Scaling Smart, Solar, Energy Access Microgrids in Haiti	NEFCO	B.25	1	40%

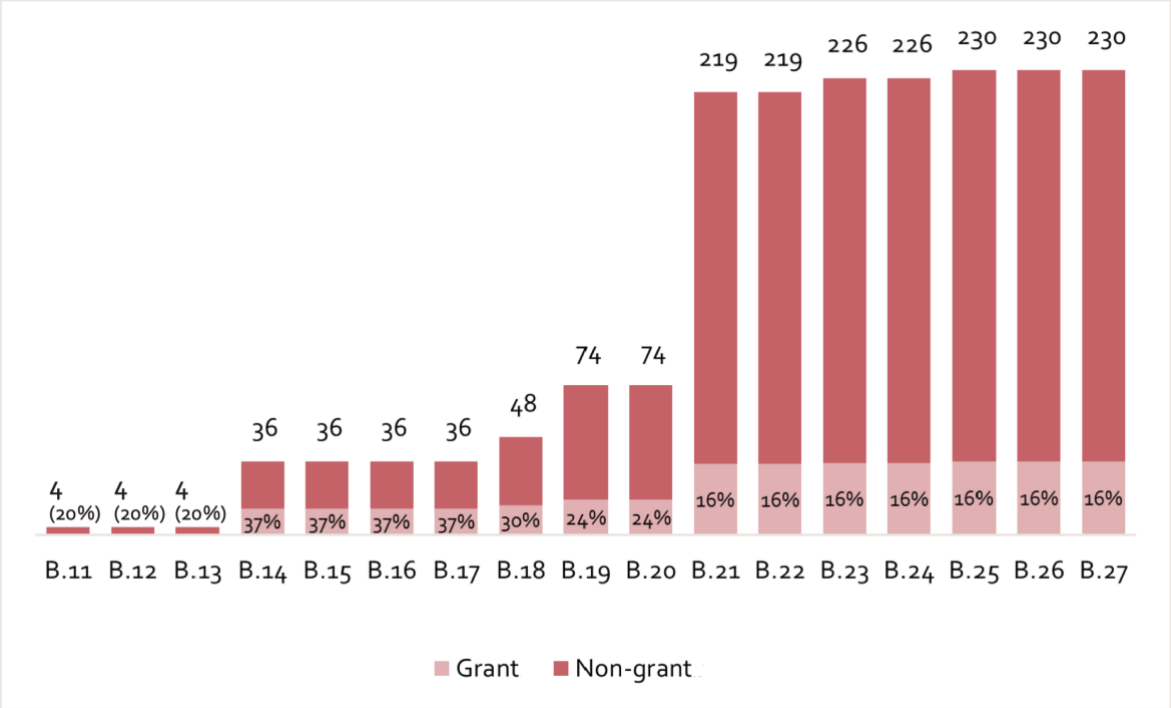
Source: iPMS, as of 13 November 2020.
Note: The percentage of adaptation focus is based on the part of financing in FPs that is estimated to be targeted for the four climate change adaptation results areas.

Box VI-1. How a private-sector DAE can play a pivotal role in a country

Mongolia is extremely vulnerable to climate change. It has been able to develop and get GCF support for six projects, while another three multi-country projects also include a focus on Mongolia. The key role in Mongolia is played by the NDA, but it received strong support, cooperation and coordination from a national commercial bank, XacBank. Along with the NDA, there is an informal leadership role for the bank in the country. XacBank was one of the first private sector AEs to become accredited, and it has built up long-standing engagement and extensive practical experience in cooperating with the GCF. The bank was the AE for the very first completed project funded by the GCF – with the construction and operationalization of the Govisumber solar PV plant – and has progressed well with its micro, small- and medium-sized enterprises (MSME) business loan programme for energy efficiency. The staff of the specialist Ecobanking Department within XacBank are of high quality and have good knowledge of GCF processes. That is why XacBank was also able to act as the delivery partner for an RPSP grant for NDA strengthening and country programme development. This has resulted in a strong and detailed country programme, which includes the strong engagement and involvement of the private sector. XacBank has also served as an inspiration for other banks, and in 2020 the Trade and Development Bank of Mongolia also became accredited. Finally, it played a catalytic role in bringing the entire Mongolian financial sector together to establish the Mongolia Green Finance Corporation, a project approved as FP153 at B.27 in November 2020.

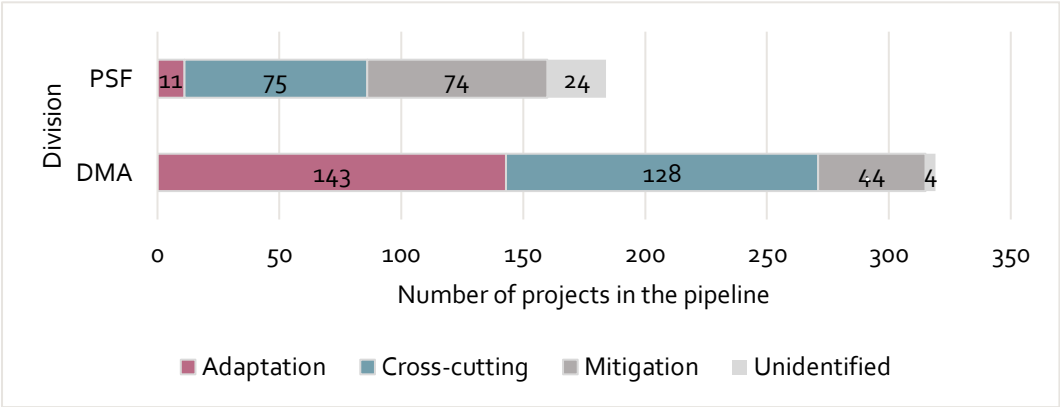
13. **GCF finance through private sector actors in adaptation is a fraction of total (adaptation) finance**. The two private sector adaptation projects in the portfolio represent USD 42 million or 1.6 per cent of total adaptation finance, and 0.6 per cent of all GCF finance. Including the estimated adaptation part of cross-cutting projects, the adaptation finance through private sector projects amounts USD 230 million, or 8.7 per cent of adaptation finance or 3.2 per cent of total GCF finance. Although participation by the private sector in adaptation finance is below 20 per cent for all MDBs, some report a higher participation of the private sector than the GCF, despite the GCF's higher risk appetite.
14. **The ability of the GCF to source and support private sector adaptation projects has always been limited and now appears to have stalled**. Since B.21 (October 2018), only USD 11 million has been committed to PSF adaptation projects. The big leap at B.21 was due to a single project approval, FP095, which is a major multi-country credit line programme, where 40 per cent of funding is expected to flow to climate adaptation (see Figure VI-1). **The pipeline also holds limited opportunities**. Figure VI-2 shows there are currently only 11 PSF adaptation projects in the pipeline, representing 2 per cent of total pipeline projects.

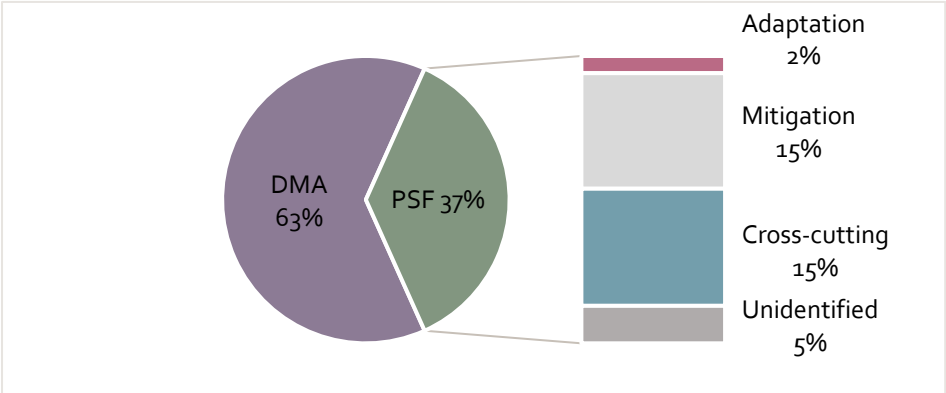
Figure VI-1. Amount of GCF adaptation finance committed through the PSF over time in grant and non-grant instruments (in nominal terms)



Source: Tableau server finance data, as of 13 November 2020. Figures presented in USD million.

Figure VI-2. Adaptation project pipeline by division





Source: Tableau server iPMS data, as of 13 November 2020.

15. **Considering the PSF adaptation project portfolio, most of the AEs are public international entities with a focus on private sector operations**. To date, there is only one commercial private sector entity (MUFG Bank) managing the implementation of a project with an adaptation component (FP115). This project was only approved at the twenty-third meeting of the Board (B.23). The initial engagement and development of this project was, however, through the engagement with the EE, *Energía de Tarapacá* SpA, an energy project development company. As shown in Table VI-2, most PSF adaptation projects, including adaptation components in cross-cutting projects, are provided by only a few actors, notably the non-profit investment fund manager Acumen and publicly owned but private sector focused development banks – for example, AfDB, EBRD, IDB and Development Bank of Southern Africa (DBSA), with 11 projects approved and 86 in the pipeline.
16. **Most adaptation projects with private sector involvement focus on agriculture, while not all adaptation elements are clearly specified in FPs**. The two PSF adaptation projects focus on enhancing resilient agriculture. The adaptation component in a vast majority of the cross-cutting projects with the private sector also involves the agriculture sector. So far, private sector focused adaptation projects are limited to a few sectors, with little overlap with other sectors in the same project. Alongside the need for climate resilient agriculture, there are opportunities for the private sector in making essential infrastructure climate resilient, and in industries that could provide adaptation goods and services, such as weather-related services or climate insurance. The GCF project portfolio already contains examples. In FP040, the Fund supports the climate resilient enhancement of a hydropower plant in Tajikistan. For FP011 in The Gambia, the GCF supports the development of eco-tourism as part of an ecosystem adaptation project. The GCF also explores the willingness of the private sector to pay for advanced weather information in a project that supports the legal and structural transformation of the Tajik hydrological and meteorological agency (FP075).

Box VI-2. Can the GCF support willingness-to-pay forms of irrigation?

Irrigation is an important building block for agricultural adaptation projects in the face of unpredictable precipitation patterns. Irrigation may be introduced as a new technology (an innovation) to the project region. Alternatively, existing irrigation systems could be rehabilitated during a project.

As of B.27, the GCF portfolio consists of 67 projects in adaptation, 52 in mitigation and 40 with a cross-cutting focus. Among the 107 adaptation and cross-cutting projects, 48 identify a need for individual-level behaviour change in forestry and/or agriculture. This excludes 5 projects that work through financial intermediaries as they have not yet determined the final project activities to be financed. Among this subset of 48 projects, 29 mention activities related to irrigation within their logical frameworks. This includes any type of irrigation system, such as bulk water supply or community and on-farm irrigation. Almost all agricultural projects with the focus on infrastructure (user infrastructure) and half of all projects that primarily improve livelihoods (empowerment), contain irrigation-related activities. For example, FP016 in Sri Lanka includes the improvement of community irrigation systems and drinking water supply in an integrated system, and FP041 in Tanzania highlights large-scale drinking water supply for urban and rural households, and improvements in small-scale irrigation systems.

Olum et al. (2020) review factors that facilitate or hinder the adoption of agricultural innovations in the fields of water improvement technologies, environmental and crop protection innovations, as well as crop and animal improvement technologies. A higher stated or revealed willingness-to-pay (WTP) is interpreted as a higher likelihood of adoption. Among sociodemographic characteristics, education, farming experience and a young age were positively associated with WTP. Income and perceived usefulness of the innovation also had a positive effect, whereas the WTP decreased with the cost of the innovation. The provision of (accurate) information and trainings further increased the likelihood of adoption. In most cases, the amount users were willing to pay was insufficient for full cost recovery. This points to an area where the GCF can

act to de-risk investments in irrigation schemes from private sector actors. Only a few studies in the review considered psychological factors. Risk awareness and trust in the innovation provider helped adoption, and risk aversion was found to be detrimental.

17. **Equity investments in funds and guarantees hold potential for more leverage**. The GCF is yet to make appropriate use of diversified instruments, especially equity investments in impact funds focused on adaptation and (first loss) guarantees that hold potential for targeting local small- and medium-sized enterprises. There is an opportunity to help draw in the private sector, generate higher levels of co-finance and – perhaps most importantly – have a major demonstration effect. A first example of such a private sector investment to help small-scale farmers adapt can be seen in ARAF (see Box VI-3 below). Diversification in the use of instruments could also strengthen the positioning of private sector engagement and investment in DMA public sector projects. The recent SIDS evaluation found that there were limited PSF projects in adaptation and that DMA projects increasingly recognized the role and importance of the private sector, as recorded through private sector engagement at the project level. Of the DMA adaptation projects in SIDS that plan to engage local enterprises, about half plan to provide direct support to those enterprises.[105] To date, however, there is little coordination on such efforts across the divisions of the DMA and PSF.
18. **Currently, there is renewed interest in debt instruments as a form of climate finance, including from multilateral development banks and the GCF.** The rising debt levels in LDCs are leading to limited rescheduling of bilateral debt by major creditors. Co-ordinated debt relief offers severely indebted countries an opportunity to keep debt burdens sustainable. On the other hand, smaller piecemeal debt swaps usually have a limited impact on overall debt burdens and rarely deliver additional resources to the debtor country (and/or government budget), or deliver more resources for climate purposes.[106]
19. **If the GCF wishes to play a role in a debt swap, it must recognize that debt swaps in themselves can be beneficial or harmful for developing countries.** They are a container concept, which include a very wide range of contractual terms between the creditor, debtor, third parties (a role which the GCF is seeking to play) and any further actors, including oversight committees. The key criteria any debt swap should be assessed against are whether it: (i) increases available resources to the debtor country at the country level, and generates extra budgetary room for the national government; (ii) whether the resources provided by the swap are additional to other donor support and reserved domestic budget lines for, in this case, climate purposes; (iii) whether the swap is large enough to create indirect (positive) economic effects; (iv) whether the swap is largely in line with current national policy; and (v) whether the swap is aligned with country systems.[107]

[105] IEU (2020). Independent Evaluation of the Relevance and Effectiveness of the Green Climate Fund's Investments in Small Island Developing States. The SIDS projects to date include credit lines, a risk sharing facility, direct lending, microloans, blended loan financing modalities, a matching grant facility, a revolving fund and other instruments to engage the local private sector.
[106] Cassimon, D., Prowse, M. and Essers, D. (2014). Financing the clean development mechanism through debt-for-efficiency swaps? Case study evidence from a Uruguayan wind farm project. *The European Journal of Development Research*, *26*(1), pp.142-159.
[107] Cassimon, D., Prowse, M. and Essers, D. (2011). The pitfalls and potential of debt-for-nature swaps: A US-Indonesian case study. *Global Environmental Change*, *21*(1), pp.93-102.

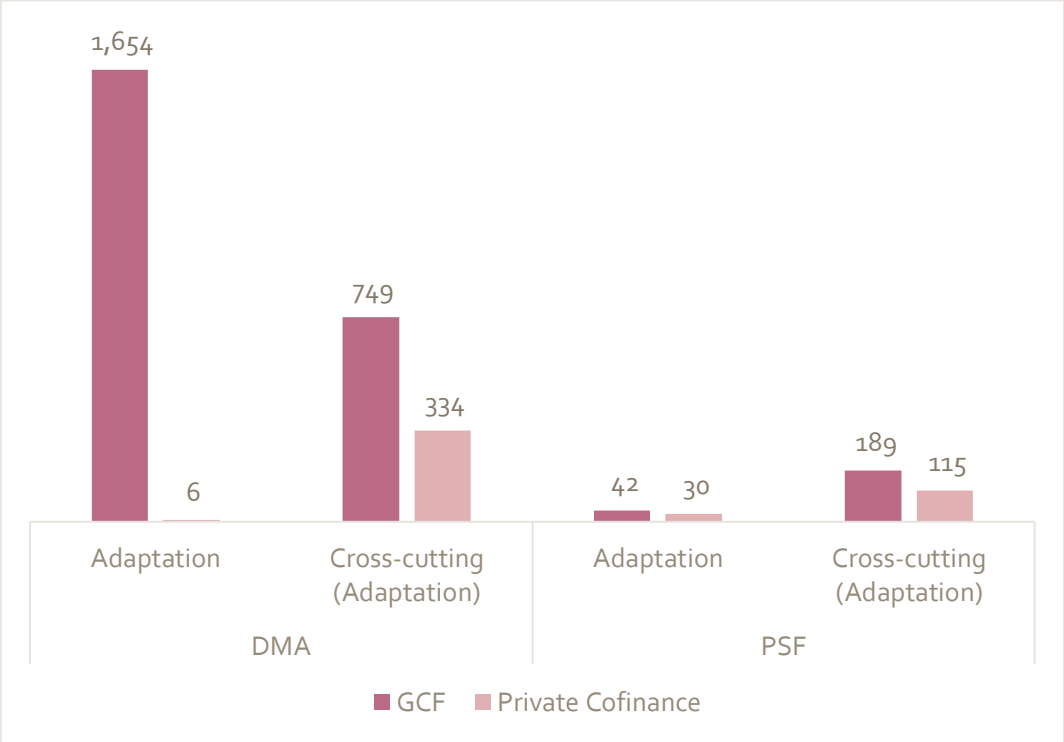
Box VI-3. Example of an equity investment in an adaptation-focused investment fund

While the private sector plays an increasingly important role in renewable energy markets, there is a dearth of business support for climate adaptation, especially for smallholder farmers who bear the brunt of global warming. The innovative ARAF project draws in private sector investment to help small-scale farmers adapt, made possible by the GCF anchor investment. At the nineteenth meeting of the Board (B.19), in March 2018, the GCF approved an investment in ARAF, with USD 26 million in equity and USD 3 million in grants. The ARAF is managed by Acumen, an impact fund manager. The GCF anchor investment of USD 23 million in equity in the first loss pool of ARAF is catalytic, as it de-risks the investment for risk-averse private sector investors, and the project is expected to generate another USD 25 million in co-financing. The ARAF is designed to support pioneering and early-growth innovative agribusinesses that enhance the climate resilience of smallholder farmers. Agriculture is a major industry in the target countries, and up to 80 per cent of farmland is managed by smallholder farmers who are highly vulnerable to the impacts of climate change. Climate resilience is key to ensuring a long-term sustainable increase in agriculture productivity and incomes for smallholder farmers. The investments will improve climate resilience to ensure long-term sustainable increases in agriculture productivity and incomes for smallholder farmers. It is expected to shift the pattern of investment in climate change adaptation activities in Africa from grants to a long-term capital approach, enabling smallholder farmers to respond to climate change more efficiently and effectively. The fund supports innovative private social entrepreneurs in MSMEs by providing aggregator and digital platforms and innovative financial services to smallholder farmers.

20. **Despite the mandate of the GCF, its unique high risk appetite and flexible suite of financial instruments, there has been a limited amount of co-finance from the private sector.** The GI, the Initial Strategic Plan (ISP), Board decisions and the USP stress the role of the GCF in crowding-in and maximizing the engagement of the private sector in financing and facilitating a paradigm shift. The GCF's USD 2.63 billion of adaptation-focused finance across both DMA and PSF has been able to attract a total of USD 485 million in additional finance from private sector actors. This means that for every dollar of GCF investment, 18 cents are being brought in by the private sector actors. For a Fund with such a mandate, high risk appetite, a flexible suite of instruments and a reputation as the leading global climate finance mechanism, this needs attention. As shown in Figure VI-3, below, the PSF projects have generated between 60 and 70 cents per dollar,[108] which is significantly less in the DMA projects. In pure adaptation-focused DMA projects, the USD 6 million of private sector co-finance represents only 0.4 cents per GCF-invested dollar. The DMA and PSF, combined, have an opportunity to explore how the private sector can be better leveraged in adaptation projects.

[108] The co-finance figures in cross-cutting projects are estimates. Co-finance is now split up as per the expected flows to results areas by project developers, and the co-finance is carved up accordingly. This is no guarantee that the co-finance is aimed at or used for adaptation purposes, but it is the best available methodology to estimate co-finance flows in cross-cutting projects.

Figure VI-3. Co-finance by division (USD million) generated from private sector actors



Source: Tableau server finance data, as of 13 November 2020.

D. CHALLENGES IN GCF ENGAGEMENT WITH THE PRIVATE SECTOR IN ADAPTATION

21. The GCF's private sector engagement in adaptation is constrained by a combination of market-related and internal factors.

1. MARKET CHALLENGES

22. **In adaptation finance, investable opportunities that generate a financial return are limited compared to mitigation**. Based on stakeholder and expert feedback, adaptation projects that involve system-scale interventions often have a public goods and/or common pool resource profile – for example, water management, ecosystems management and public infrastructure networks – in terms of types of economic goods. This means that purely privately initiated and funded projects are challenging to originate, and that private initiatives without consistent public sector oversight may even be non-desirable. The implementation of these measures requires, in most cases, public funding or at least public intervention as a regulator or coordinator of collective actions.[109]

23. **Although adaptation to climate change makes business sense for some types of projects and subcomponents, local, regional and global companies in developing countries face significant barriers to making such investments**. The following factors play a role:

- Awareness of risks and opportunities, constrained by the technical expertise, information and capacity available to the company.

[109] Altamirano, M.A. Leveraging Private Sector Investments in Adaptation: Report on the Global Climate Finance Architecture. Deltares, The Netherlands.

- Adaptation investments are cost-saving in nature and often have a limited revenue-generating potential given existing regulatory frameworks, which makes these investments less attractive.
- Benefits take place in the long term, while the private sector works with very high discount rates that are higher in developing countries where the access to capital is limited.
- Funding constraints and high upfront additional costs (e.g. consideration of climate risks may substantially increase average costs for environmental impact analysis).
- Generic investment barriers of a regulatory, political and institutional nature.

24. An example of where these risks come together in adaptation projects is flood protection measures, where the capital-intensive nature, asset specificity, delayed and dispersed benefits, high risk profiles and limited autonomous earning power provide barriers to private sector involvement.
25. **Many of the instruments that could increase the contribution of the private sector to adaptation are still in the early stages of development**. Financial structures such as adaptation-focused impact investment funds, blended finance vehicles, devolved finance or adaptation and resilience bonds are still very new instruments, particularly in developing countries, with little knowledge available about feasibility and success. These solutions have shown their relevance in general development finance as well as climate-change mitigation finance, and require further piloting for adaptation solutions.

2. INTERNAL CHALLENGES

26. The GCF internal factors that are hampering engagement with the private sector and making it difficult to catalyze finance from it, include its reactive business model, the length of project approval and legal assessment timelines, and the perceived lack of predictability of project implementation.
27. **The GCF business model, with country ownership as a tenet, and its reliance on funding proposals submitted by AEs are considered a hindrance for effective private sector engagement.** The pool of AEs with the capacity and readiness to submit private sector adaptation projects is very limited and young. Most private sector focused AEs have only recently become accredited. Furthermore, the GCF has limited means to incentivize AEs to bring certain types of projects forward. National designated authorities recognize their limitations in engaging with the private sector, due to capacity. Direct access entities are currently the best opportunity for a robust private sector project pipeline, but they face capacity challenges and a funding limit.
28. **The duration of project approval processes also affects the willingness of the private sector,** because the timelines often do not match the timelines for private sector project development and decision-making processes. Related to this are high upfront costs in terms of staff, pre-implementation studies, and budgetary resources, which are a major hurdle. This is particularly an issue because GCF decision-making is perceived as insufficiently predictable. Several private sector entities interviewed indicated that the lack of predictability in terms of timelines for approval and implementation means they hold back projects.
29. **There is not enough coordination between the DMA and PSF in reviewing and developing proposals in which private sector engagements could be sought through financial instruments such as public-private partnerships (PPPs) and blended finance.** At present, there is a divide in the composition of PSF and DMA portfolios. All adaptation projects managed by the DMA are initiated by United Nations organizations and/or MDBs. Most envision a direct finance strategy from public funds complemented with GCF support. Projects rely strongly on grants, with only two projects requesting senior loans. Meanwhile, the two adaptation projects in the PSF portfolio involve

equity and loans, with grants playing a minor part. None of the projects involve the combination of both departments and funding windows, where concessional funding is used to support both the public side and the private side at the same time. More recently, enhanced coordination between the DMA and PSF has taken place through interdivisional reviews of projects, where for all PSF projects there is at least one technical reviewer from the DMA and vice versa. In addition, the rationale of how to assign the right combination of grant, loans and equity and how to incentivize and allocate funding to projects initiated by PPPs is under development. These are positive signs, and more joint solutions that involve public and private sector actors are encouraged as they will be fundamental to strengthening adaptation support, particularly from the private sector. Box VI-4 below examines the extent to which the structure and staffing of the GCF Secretariat is conducive for promoting and enhancing the role of the private sector in adaptation. In addition, Box VI-5 highlights the institutional architecture of the GCF and the incentive structure within the organization.

Box VI-4. Blended finance supported by the GCF

An example of a blended finance structure supported by the GCF is FP099, Climate Investor One (CIO). The CIO is a blended finance facility that can provide finance throughout the entire infrastructure investment cycle, including pre-funding to cover development costs for renewable energy investments through equity financing in 11 low-income countries. The GCF provided USD 100 million in grant finance to this initiative, channelled via the Netherlands Development Finance Company (FMO), while the programme itself is executed by climate fund managers, a leading blended finance fund manager and a joint venture between FMO and Sanlam InfraWorks. The CIO is expected to leverage USD 721 million in additional equity and grant finance. The Construction Equity Fund (CEF) of the CIO was designed to have three tranches so as to attract multiple investor classes. The first tranche, Tier 1, holds a junior equity position in the structure of the CEF, which absorbs a higher portion of risk by providing a “first loss” buffer to the CEF. The GCF funding is used for this tranche. The second tranche, Tier 2, holds an ordinary equity position and targets commercial investors seeking commercial returns within the Fund, at an acceptable risk profile. Tier 2 is supported by the first loss position of Tier 1 and affords a hurdle rate to investors on successful projects. This means that Tier 2 investors will receive their capital and the hurdle-rate return after Tier 3 investors have been repaid their capital plus return. The third tranche, Tier 3, ranks in a senior equity position and provides investors a guaranteed return on the back of an Export Credit Agency (ECA) guarantee. This tranche is designed for investors with no or minimal prior developing-markets investment track record, who invest in CIO with a more risk-averse position than investors in Tier 2. Tier 3 returns are supported by the first loss position of Tier 1, as well as the greater risk exposure of Tier 2. Dividing the CEF into three tranches enables an effect across the three tiers that de-risks the investment proposition for commercial investors in tiers 2 and 3, while supporting their returns by utilizing risk-tolerant, highly additional donor capital in Tier 1. This means that with the GCF’s investment, the structure can attract commercial private sector investors as well as investors with no or minimal prior experience investing in climate in developing markets.

30. **The request for proposals (RFP) modality holds potential for private sector engagement in adaptation, but earlier RFPs focused on the private sector-faced challenges.** In 2017, the GCF Board allocated up to USD 500 million for the Mobilizing Funds at Scale (MFS) Pilot Programme to identify innovative, high-impact projects and programmes that mobilize private sector investment in climate change projects or services. The RFP effectively drew the attention of the private sector towards climate investments. With 350 submissions in total, the RFP was oversubscribed 36 times over, with bids totalling more than USD 43 billion for the 258 CNs that passed the preliminary

review. The investment amount requested from the GCF in those 258 notes was USD 18 billion.[110] The proposals include some very innovative concepts and about a third aimed at adaptation or had an adaptation component, which is a promising sign of increasing interest in adaptation from the private sector. Following a rigorous review according to the criteria set out in the RFP, 30 proposals were shortlisted. However, out of these private sector entities, only 20 per cent were already private sector AEs. Many applicants did not find an AE, and several faced lengthy review processes. Two cross-cutting projects with adaptation components have so far been approved (FP115 *Espejo de Tarapacá* approved at B.23 in July 2019[111] and FP128 Arbaro Fund – Sustainable Forestry Fund approved at the twenty-fifth meeting of the Board (B.25) in March 2020) out of the 258 CNs that passed the preliminary review. Considering lessons from this RFP, there may be an opportunity for a new RFP modality with a specific focus on private sector engagement in adaptation. Consideration should then be given to project or programme-specific accreditation to be able to attract more private sector entities, as most of those attracted in the initial RFP were not accredited for the GCF and did not want to go through the process.

31. **The GCF lacks a strategy for engaging the private sector in adaptation**. While the USP acknowledges that contributing to making sure financial flows managed by the private sector are consistent with a pathway towards climate-resilient development is key to realizing the scale of resources, there is no specific strategy or approach by the PSF or DMA on how to further clarify and strengthen private sector engagement.

Box VI-5. GCF institutional architecture and incentive structure

The GCF can leverage both public and private funds for adaptation activities. However, the capital mobilized by adaptation projects is mostly public capital (MDBs, DFIs and government budget) with only a very small part coming from the private sector.

In this context, it is important to consider the role of the institutional architecture in establishing an organizational incentive structure to support the delivery of private sector adaptation projects. There are cognitive biases and organizational aspects within every structure that can act as barriers to the establishment of the type of culture that supports the achievement of goals. These biases and organizational elements can influence the ability of the GCF to meet its adaptation financing objectives.

In order to highlight the organizational issues that influence the ability of the GCF to be a leader in adaptation and pursue innovative financing approaches, the evaluation conducted a series of interviews with colleagues from the Secretariat to answer the following question: to what extent is the structure and staffing of the GCF Secretariat conducive to and sufficient for promoting and enhancing the role of the private sector in adaptation?

The GCF's Strategic Plan highlights the importance of the forthcoming private sector strategy and the importance of establishing key performance indicators (KPIs) for the private sector in supporting climate change adaptation. However, currently, there are no specific KPIs that incentivize the submission of more and innovative private sector adaptation projects in the pipeline, or that foster greater collaboration between the PSF and other divisions such as the DMA.

The interviews highlighted three main organizational issues within the GCF that can affect the private sector adaptation portfolio: (i) divisional capacity requirements, (ii) a lack of KPIs, and (iii) involvement of the PSF in projects' origination.

(i) *Divisional capacity requirements:* There is currently no capacity gap assessment that could highlight divisional needs and the necessary skills and competences that are required. Overall, the GCF is facing a backlog within the pipeline due to being understaffed, having a relatively high turnover rate

[110] See *https://www.greenclimate.fund/500m.*
[111] Although FP115 holds a very minor adaptation element, estimated at 1.4 per cent of funding.

and lengthy recruitment periods. This suggests that current staff are working longer hours than expected, which may, in turn, be affecting productivity. The analysis of prospective adaptation projects requires both time and resources: adaptation projects are complex, often with many overlapping components and a wide range of stakeholders. A capacity gap assessment would improve the likelihood of meeting growing organizational demands and goals.

(ii) *Lack of private sector adaptation-specific KPIs:* The forthcoming private sector strategy will be available at the end of 2021. Determining reasonable KPIs for private sector adaptation projects is complicated by the uncertainty and long-term horizon of adaptation projects' impacts. In order to ensure the GCF meets its objectives in terms of adaptation financing and support, it is essential to consider designing specific indicators to measure performance against targets. Currently, most of the KPIs developed by the GCF are numerical, as it takes time and vision to develop qualitative indicators. Moreover, there is a lack of internal coordination between divisions on projects' divisional support. For example, the nascent GCF People's Plan states that divisional and team concerns currently tend to overshadow a whole-organization vision. The fostering of a collaborative culture between sectoral specialists in the DMA and financing specialists in the PSF occurs informally, but could be increased through reforming the Performance Management and Development System (PMDS) structure and encouraging the creation of cross-divisional KPIs.

(iii) *Involvement of PSF in origination:* Only a limited number of AEs are interested in developing private sector adaptation projects. As highlighted above, projects are complex and rely on long-term returns that are not easily measurable. In addition, entities are not sufficiently incentivized to submit adaptation proposals to the PSF. More encouragement could be offered through the readiness programmes, the elaboration of entity workplans, and NAPs to address the low appetite for risk and innovation. Moreover, the PSF has limited control over the portfolio at origination and could be more involved in the development of sectoral guides, which could highlight return-generating opportunities for private sector investments.

3. OPPORTUNITIES

32. **Supporting synergies between public and private actors holds untapped potential for the GCF**. Private sector actors are strategic partners in the achievement of climate goals, primarily due to the expertise and complementary strengths they bring to the table, which are particularly important in ensuring sustainability in service delivery. This means there is an opportunity for the PSF and DMA to formally cooperate more actively.

33. **The GCF has the potential to take a global thought leadership role by undertaking or commissioning deeper analysis of the business models and bankable investment opportunities for the involvement of the private sector in adaptation.** The GCF should undertake further analysis of the business models (e.g. financing modalities, products) of the CNs already received under previously issued private sector requests for proposals (e.g. MSMEs, and mobilizing funds at scale), as well as private sector adaptation projects in the existing pipelines. This analysis can provide information on the composition of adaptation projects, the areas covered and the instruments used. It can inform the identification of gaps, either in areas to be developed or in products/instruments to be used, which can further guide future private sector engagement.

34. **There is a useful model in the development and issuance of adaptation and resilience bonds in LDCs and SIDS, where markets for bonds are still young**. Adaptation and resilience bonds have the potential to attract deep pockets of institutional capital. The GCF is supporting Jamaica to set up the Caribbean's first regional green bond exchange through the RPSP. As part of this programme,

the Jamaican Ministry of Economic Growth and Job Creation is developing a regulatory framework for green bonds, raising awareness in the marketplace among potential issuers and investors, and ultimately will issue a green bond on the exchange. Such efforts can be replicated across developing countries in order to achieve the required scale of finance.

35. **In terms of instruments, the GCF is able to support blended finance to test innovative business models for climate resilient solutions. Blended finance would also allow the use of climate data to inform private sector decision-making.** Blended finance structures are potentially powerful tools for catalyzing private finance by using scarce public resources to de-risk adaptation investment opportunities and address certain country risks. The GCF can support developing countries to do this. Its Project Preparation Facility (PPF) provides countries with financial and technical assistance to translate priority NAP concepts into project funding proposals, and it can support developing countries in identifying an optimal mix of policy instruments and blended financing structures to create markets.

Chapter VII. GCF BUSINESS MODEL

KEY RECOMMENDATIONS

- The GCF Board should finalize the policy on programmatic approaches, with due consideration of the perspectives of AEs. In particular, such approaches should include single- and multi-country programmes and provisions to streamline the processes for sub-project approval and changes, while ensuring appropriate due diligence.
- The GCF should recognize the regional aspects of adaptation challenges and solutions, and re-emphasize the potential of regional DAEs.
- The GCF should diversify the financial instruments it uses in adaptation projects, particularly those that increase scale through higher co-finance ratios. In particular, the GCF can increase the use of equity investments, guarantees, and devolved finance and blended finance. The use of such instruments is not a substitute for grant instruments, but rather a complement to them.
- The GCF should consider developing a stakeholder engagement policy. Inclusive stakeholder engagement that delivers meaningful and active participation in project design and implementation should be strengthened, and it should not only include NDAs and focal points, but also CSOs, indigenous communities and the private sector. This can reduce material risks from project implementation, including maladaptation.

KEY FINDINGS

- Regional DAEs are the most underrepresented in the GCF adaptation portfolio due partly to capacity, experience and network limitations in originating and implementing adaptation projects.
- International accredited entities are overrepresented in the adaptation portfolio: 87 per cent of adaptation finance is committed through IAEs, with more than half of adaptation finance going through six IAEs. This is despite an AE pool where 60 per cent are direct and 40 per cent are international.
- Some 96 per cent of committed adaptation financing on pure adaptation projects flows through grants. Regional DAEs use a more diverse set of instruments than national DAEs or IAEs. There is an opportunity to channel more adaptation financing through regional DAEs and to use other instruments such as equity and (first loss) guarantees.
- High upfront costs of doing business with the GCF are a concern. Programmatic approaches, especially for longer-term and larger-scale interventions, can limit such burdens.
- A particular challenge for project developers is meeting the technical requirements of funding proposals, especially data that demonstrate climate rationale.
- National designated authorities are key in successful adaptation project development. Countries with strong NDAs, which can engage many stakeholders and bring projects through the long design and proposal stage, have more adaptation projects approved by the GCF. Understanding the characteristics of successful NDAs is critical.
- Because adaptation requires multi-stakeholder engagement, the inclusion of CSOs via NDAs can benefit the adaptation portfolio. The GCF can encourage NDAs to make the project process more inclusive.

A. Overview

1. This chapter assesses the extent to which the GCF business model is fit for purpose to ensure successful adaptation planning and implementation of adaptation projects. For this, the evaluation team addresses the key question of whether the GCF's operational and business models are suitable and future-fit for supporting the most impactful adaptation projects. It examines the accreditation process, the role of AEs and NDAs and their respective experiences in navigating the business model to bring adaptation projects through to approval. It explores the instruments used in the adaptation portfolio and the distinct need for programmatic approaches. This chapter also highlights the key policy areas that can further support the adaptation portfolio. It starts by drawing lessons from the independent synthesis of the accreditation function.

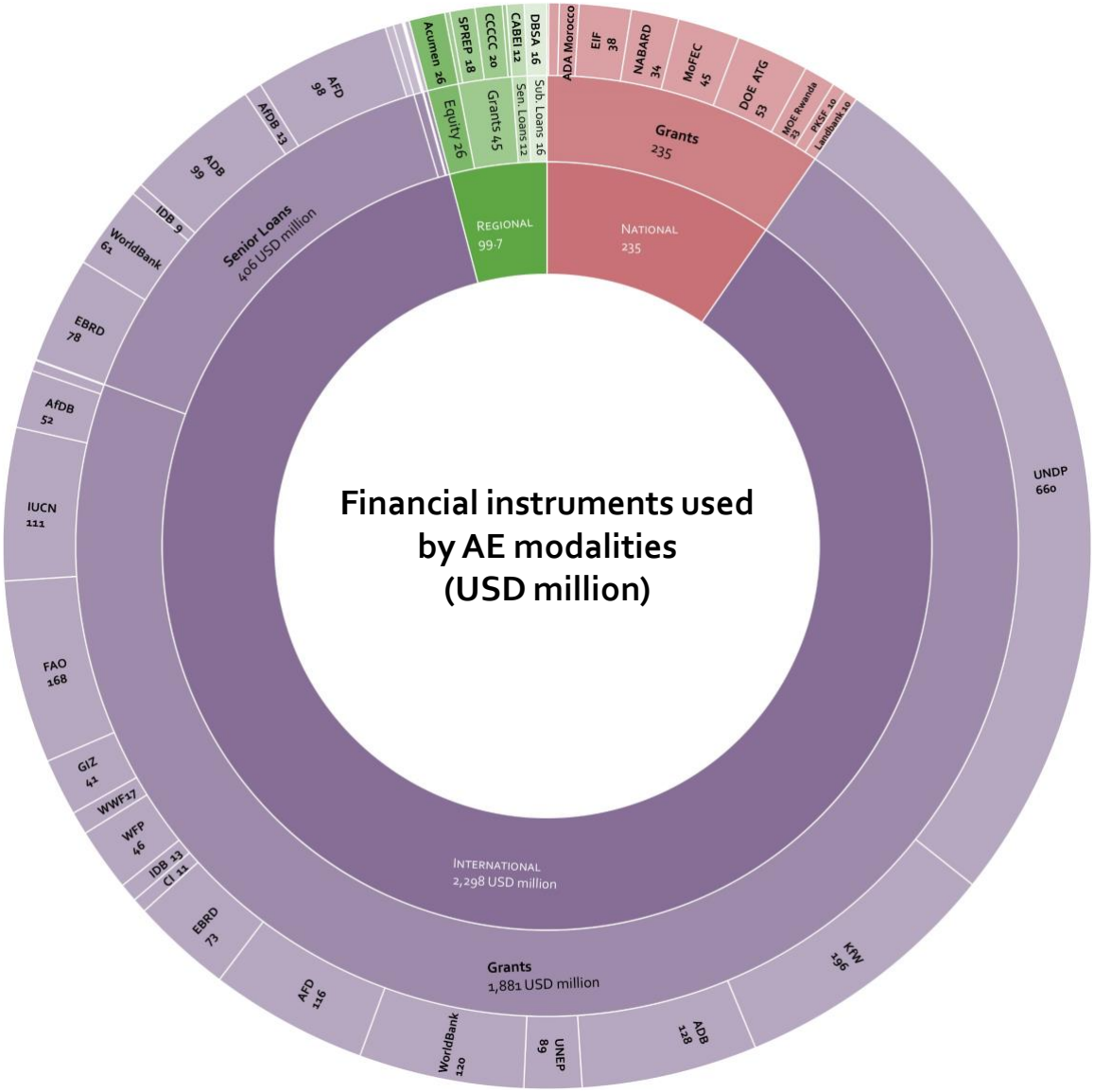
B. Working with the GCF as an accredited entity

1. Accredited entities in the adaptation portfolio

2. **Direct or international AEs play an important role in the GCF business model, including in adaptation.** The GI states that access "will be through national, regional and international implementing entities accredited by the Board. Recipient countries will determine the mode of access and both modalities can be used simultaneously." The GI clarifies further that, "Recipient countries will nominate competent subnational, national and regional implementing entities for accreditation to receive funding." It also highlights that the use of direct access aims to enhance country ownership of projects and programmes. The accreditation process for all implementing entities is based on specific accreditation criteria that reflect the Fund's fiduciary principles and standards and environmental and social safeguards.
3. **The accreditation process is therefore central to the functioning of the business model that aims to achieve a paradigm shift and provide direct access**. However, accreditation has also become the means for a wide range of other goals. The IEU's Synthesis of the Accreditation Function found potential tensions between a wide range of goals assigned to accreditation.[112] Given the limited resources of the GCF, accreditation may not deliver on all these dimensions. For example, there is no evidence that accreditation systematically builds the capacity of entities.[113]
4. **The adaptation portfolio is concentrated within a handful of AEs in terms of committed financing**. As of B.27, 87 per cent of all committed finance for adaptation projects will go to IAEs, USD 2,298 million in total, including adaptation components in cross-cutting projects. The remaining 13 per cent is committed to adaptation projects proposed by national and regional DAEs, which respectively will receive USD 235.2 million and USD 99.7 million (see the inner-most circle in Figure VII-1). More than 50 per cent of pure adaptation financing is committed to the six largest international AEs, with 35 per cent going to a single IAE, the UNDP.[114] The other five AEs – KfW, UNEP, the World Bank and EBRD – are MDBs or United Nations programmes.

[112] For example, contributing to a paradigm shift towards climate resilient development pathways; ensuring country ownership; creating partners for financing climate initiatives; developing AEs as funding channels for the delivery of climate finance; greater private sector involvement; developing the capacities of DAEs and countries; due diligence of project implementation structures and processes; and ensuring high fiduciary, environmental and social safeguard and gender standards.
[113] Independent Evaluation Unit (2020). Independent Synthesis of the GCF's Accreditation Function.
[114] It is worth noting that UNDP has a specific mandate to support projects from LDCs that do not have a national DAE, possibly contributing to its overrepresentation in the adaptation portfolio.

Figure VII-1. Adaptation portfolio by accredited entity type and financial instruments they use



Source: GCF Tableau data, as prepared and analyzed by the IEU DataLab.

5. **Adaptation projects in the portfolio are similarly concentrated within a handful of large AEs.** Of the 67 adaptation projects in the portfolio as of B.27, 53 are implemented through international AEs, while just 11 are from national DAEs and 3 are from regional DAEs. This implies that in addition to IAEs making up the largest amount of financing in the adaptation portfolio, they will implement the largest number of projects. Regional DAEs are the most underrepresented in the GCF adaptation portfolio. The challenge of increasing regional DAE activity may be due in part to the lack of regional DAEs with the capacity, experience and networks to implement GCF projects. Furthermore, in some instances, IAEs may be the best suited to carry an adaptation project through given their experience managing large, complex adaptation projects in hard to reach places. For example, SAP017, "Climate proofing food production investments in Imbo and Moso basins in the Republic of Burundi", is a project recently approved at B.27 under IFAD. It is the first GCF project in Burundi, one of the poorest countries facing severe climate change challenges. The IFAD manages four projects, including SAP017. Two are strict adaptation projects and two cross-cutting

projects, signalling its capacity to steer GCF financing towards places where adaptation problems address major climate risks.

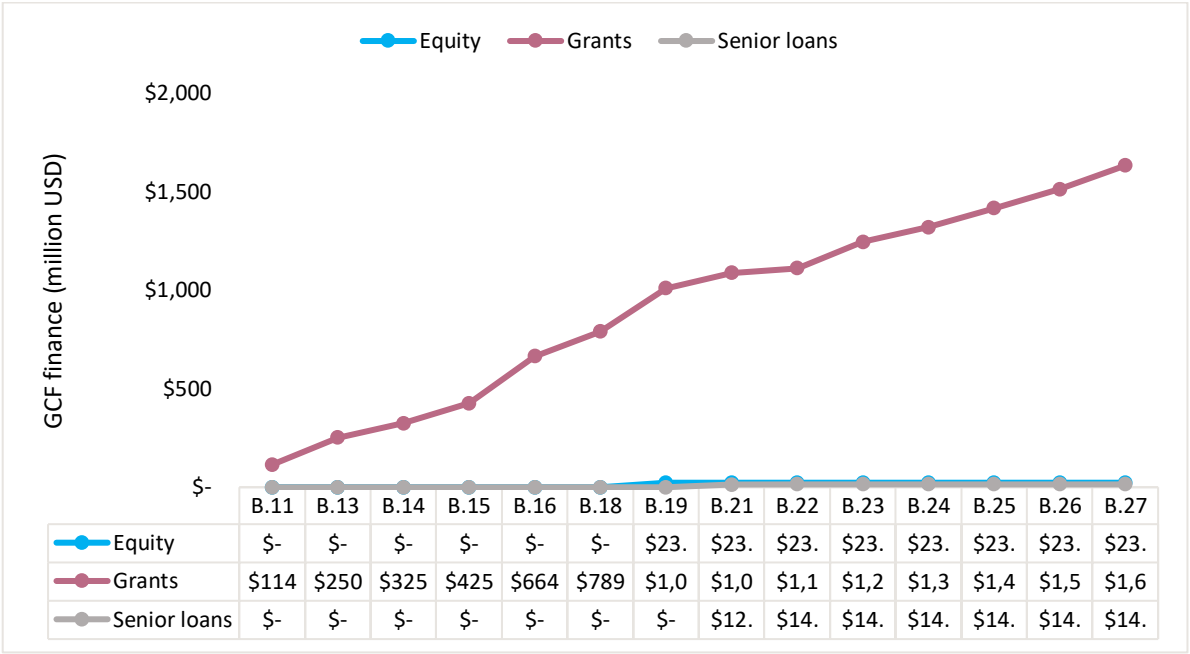
6. **The low participation of DAEs in the GCF adaptation project portfolio is a concern, but a larger DAE share may not be likely in the near future.** According to IEU projections from the SIDS evaluation based on data from the twenty-sixth meeting of the Board (B.26), if the funding allocated to DAEs is doubled, DAEs would have a 25 per cent share of the GCF funding portfolio by 2023.[115] In a best-case scenario, if the DAE funding allocation sees a significant 50 per cent increase in commitment for DAEs in GCF-1, DAEs would occupy a 37 per cent share of the overall GCF funding portfolio by 2023. These projections show that strategic targets for accreditation may become necessary, to foster the greater participation of DAEs in project implementation and in the GCF portfolio overall.

C. INSTRUMENTS USED IN THE ADAPTATION PORTFOLIO

1. PORTFOLIO RELIANCE ON GRANTS

7. Portfolio concentration also appears in financing instruments, since grants are the most applied instrument by the GCF in the adaptation portfolio. Overall, 42 per cent of the total GCF portfolio is financed by loans, followed closely by grants (41 per cent), and equity (5.6 per cent). Compared to the overall portfolio, the total adaptation finance committed through adaptation and cross-cutting is made up of 82 per cent grant financing, followed by loans (16 per cent) and equity (1.3 per cent – see Figure VII-2 and Figure VII-3). Pure adaptation projects are 96 per cent funded by grants, whereas cross-cutting adaptation projects are more likely to include loans, both senior (40 per cent) and subordinated (2 per cent).

Figure VII-2. GCF cumulative commitment in adaptation by financial instrument

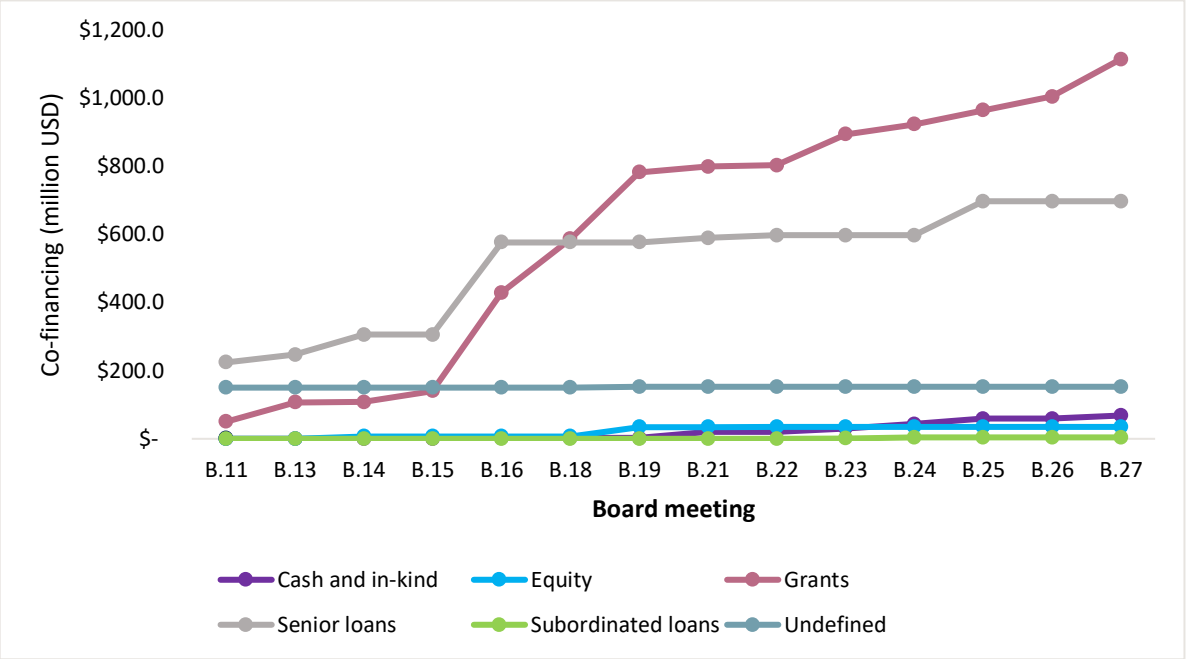


	B.11	B.13	B.14	B.15	B.16	B.18	B.19	B.21	B.22	B.23	B.24	B.25	B.26	B.27
Equity	$-	$-	$-	$-	$-	$-	$23.	$23.	$23.	$23.	$23.	$23.	$23.	$23.
Grants	$114	$250	$325	$425	$664	$789	$1,0	$1,0	$1,1	$1,2	$1,3	$1,4	$1,5	$1,6
Senior loans	$-	$-	$-	$-	$-	$-	$-	$12.	$14.	$14.	$14.	$14.	$14.	$14.

Source: GCF Tableau server finance data, as of 13 November 2020.

[115] IEU (2020). Independent Evaluation of the Relevance and Effectiveness of the Green Climate Fund's Investments in Small Island Developing States.

Figure VII-3. Co-financing in adaptation by financial instrument



Source: GCF Tableau server finance data, as of 13 November 2020.

8. **The reliance on grant financing reflects the nature of the adaptation portfolio, which is highly concentrated with IAEs**. Also, many AEs are only accredited as grant instruments. Although they also use senior loans, IAEs rely on grants for most of their adaptation project financing. The UNDP, which alone accounts for nearly 35 per cent of all committed financing to pure adaptation projects, exclusively uses grants for financing its adaptation projects with the GCF. Other large IAEs also only use grants from the GCF, including KfW, FAO, UNEP and others. One reason for this is that many AEs are accredited only for their core functional usage, and not for other instruments. In addition, and as highlighted in Chapter II, many adaptation projects involve providing public goods and/or services, capacity building or other means of support that are non-revenue generating and which are ideally suited to the use of grants.

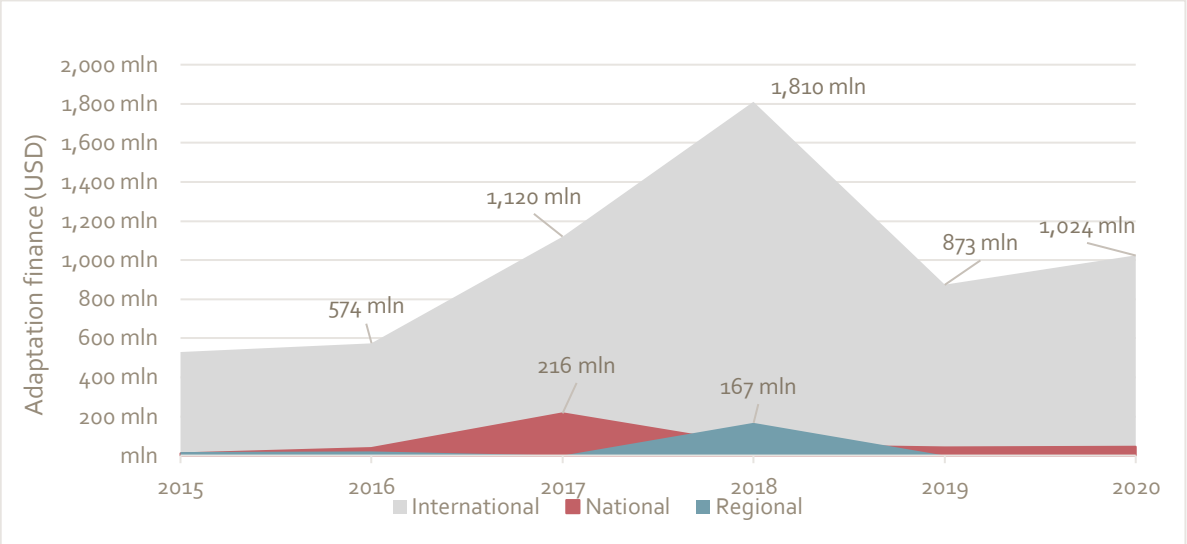
2. Activating regional and national DAEs

9. **Regional DAEs use the widest variety of instruments.** One approach to addressing the concentration caused by the GCF business model is to diversify the AEs undertaking projects in the portfolio. In particular, regional DAEs could be better leveraged for the adaptation portfolio since they apply a wide range of financial instruments. Increasing their activities in the adaptation portfolio would thus reduce both concentrations in AEs and financial instrument usage. Although the adaptation financing flows committed to regional DAEs represent the smallest share, it is the most diverse in financial instruments usage. Like the national DAEs and IAEs, regional DAEs use grant financing the most as a share of their committed financing. However, regional DAEs also use senior loans, subordinated loans and equity in financing their projects. Diversifying the pool of AEs through DAEs could also encourage more private sector activity. There are currently few private sector AEs of any type active in the adaptation portfolio (see Chapter VI). However, there are indications that DAEs from the private sector are interested in greater involvement with the GCF.
10. **The GCF lends support to AEs for project preparation, accreditation and capacity building.** The problem of overrepresentation of IAEs in project portfolios is common to all GCF activities,

and is not unique to the adaptation portfolio. It has been highlighted in several IEU evaluations, including in the FPR, in the evaluation of the accreditation process, and, most recently, the SIDS evaluation. The GCF is actively addressing this. As of 31 August 2020, GCF had provided in-kind accreditation support to 230 entities nominated by the NDAs and focal points of 96 countries.[116] Also, as of 31 August 2020, the GCF had provided technical assistance and disbursed USD 1.1 million for implementation support to 33 DAEs to help them meet accreditation requirements.[117] A more personal touch may also be needed. Results from the country case study in The Gambia showed that AEs felt that, during the accreditation process, they could have received greater support from the Secretariat. Interviewees during the case study suggested that building deeper personal relationships with Secretariat staff would improve progress.

11. **More time is needed to see the effects of GCF support to AEs on the portfolio's concentration.** The results of GCF support to DAEs may take some time to materialize. As of B.27, IAEs continued to receive the lion's share of committed financing for adaptation projects. Figure VII-4 below shows that national DAEs and regional DAEs appear to have received little to no committed funding for adaptation at B.27, and that this has been the case for some time.

Figure VII-4. Adaptation finance (GCF and co-financing) by entity modality over time



Source: GCF Tableau server data, as of 13 November 2020.

D. THE NEED FOR PROGRAMMATIC APPROACHES

12. **Administrative and preparation requirements are considered a technical and budgetary challenge for both DAEs as well as IAEs.** In-country interviews conducted for this evaluation shed light on the challenges that AEs and NDAs face when working with the GCF to get projects approved for adaptation. While the accreditation process requires IAEs and DAEs to address policy gaps and update their fiduciary and environmental and social safeguards (ESS) policies, subsequent project development for the GCF involves extensive administrative and research work before project approval, particularly for vulnerability assessment. The Secretariat review process is considered lengthy and includes extensive commenting from the Secretariat on CNs and FPs. Revisions require

[116] In addition, a user-friendly version of the online GCF accreditation self-assessment tool is available on the GCF website.
[117] GCF/B.27/17. Page 15, para. 50.

unanticipated budgetary adjustments and are straining the staff resources of smaller entities. In particular, DAEs perceive this as a structural disadvantage more than IAEs, which tend to have larger staff pools and greater financial resources.

13. **One way to offset the high upfront costs of doing business with the GCF is to engage in longer-term and larger scale programmes**. Programmatic approaches are central to the GI of the GCF (see paragraph 36), but, as of 13 November 2020, and as highlighted in Chapter V, only 6 per cent of pure adaptation projects are programmatic, a much smaller proportion than pure mitigation projects (48 per cent).[118] Adaptation interventions often involve a range of components which tackle the multiple constraints that limit the degree to which beneficiaries can increase their resilience. The global replicability is therefore less than in mitigation projects, such as those in renewable energy or energy efficiency. However, at a national and regional level, programmatic approaches limit the burdens that early upfront costs place on AEs. In addition, programmatic approaches are important to leverage lessons from one project to another and to foster innovative replication.
14. **However, to date, GCF does not have a policy approach to guide the preparation, review and approval of programmatic funding proposals**.[119] As analyzed in document GCF/B.25/08, setting clear and proper policy and guidance on programmatic approaches would help accelerate access for countries, increase adaptation finance flows and facilitate cooperation among multiple AEs. Simultaneously, it would provide more flexibility to meet country needs, and increase the breadth of instruments. The establishment of clear guidance in the programmatic approach would reduce costs for AEs and countries, compared to the case of individual projects. The USP adopted by the Board at B.27 focuses on the development of policy guidelines for such approaches, and this work should be supported.[120]
15. **A different way of overcoming the high costs of doing business with the GCF is through the greater use of regional DAEs.** These actors have greater reach and, in many cases, greater experience in meeting the standards which limit the reputational risks to the GCF. In addition, regional DAEs are embedded more tightly within national-level politics and policy circles than IAEs.
16. **A particular challenge in meeting the technical requirements of projects is access to data to demonstrate the climate rationale.** The iTAP reviews and assesses funding proposals against the six investment criteria adopted, and against the sub-criteria and indicative assessment factors. A 2020 review of the iTAP structure and operations found that AEs report substantial frustrations at the lack of clarity on iTAP expectations. Accredited entities may receive important feedback from the iTAP that fundamentally contradicts the Secretariat's guidance and/or includes unimplementable conditions just before the Board meeting targeted for approval.[121] One way to expedite the climate-rationale assessment of funding proposals is to provide open access aggregated feedback for reviewed funding proposals on climate rationale, highlighting the most frequent challenges and best practices. Open access to iTAP feedback would enable the monitoring of AE progress in capacity building and highlight existing gaps in climate impact assessment.
17. **For some, the business model of the GCF is perceived as opaque, making working with the GCF more difficult**. In several country case studies, individuals mentioned that the accreditation

[118] As highlighted in Chapter V, besides projects, the GCF defines programmes as sets of interlinked individual projects or phases, unified by a common vision, objectives and strategic goal, which will deliver sustained climate results and impact in the GCF results areas efficiently, effectively and at scale.
[119] Several documents on policy guidelines on programmatic approach, such as document GCF/B.25/08, have been issued to the Board for consideration. However, no policy document has been adopted by the Board to date.
[120] GCF/B.27/21. Para. (iii) of (c), 20.
[121] GCF/B.25/10. Revision of the structure and operations of the independent Technical Advisory Panel. Available at *https://www.greenclimate.fund/sites/default/files/document/gcf-b25-10.pdf*.

process was unclear, or that the project approval process was overly burdensome and costly. For instance, the lack of a clear set of requirements was highlighted by some respondents. Such an overview of requirements could make it more effective and efficient for institutions to evaluate the likelihood of success before fully engaging with a long process that imparts costs to small entities with limited resources.

18. **For others, the Fund is perceived as having insufficiently predictable processes in terms of timelines and decision-making**. Unpredictability appears to be primarily caused by the heavy workload on the Secretariat, and timelines and consistency have recently improved. In Tajikistan, one interviewee reflected on the process of proposing projects and getting them approved. They noted several issues. First, the strict ESS they were required to adhere to, despite being an international AE with many of the same safeguards, seemed to duplicate pre-existing safeguards that were in place. The interviewee argued the GCF should recognize AEs with comparable safeguards to reduce the administrative burden involved in project approval. Second, the proposals went through several rounds of revision (upward of 20 in one instance), some of which were with specialists. Although the interviewee noted this improved the proposal, the revisions also caused delays and made it costlier to work with the GCF, such that AEs ultimately may go elsewhere for financing rather than to the GCF. Third, the requirement that project proposals be submitted ahead of a deadline for approval at the upcoming Board meetings, or risk having to wait until the next Board meeting, created undue stress for the project team (including attending to the many comments in the FP).
19. **The complexity of adaptation projects makes getting projects approved harder than it is for mitigation or cross-cutting projects.** As discussed in Chapter V, the time it takes for adaptation projects to move through the project cycle is longer than for mitigation projects – for both approved projects and those in the pipeline – and is increasing. Furthermore, even after projects are approved, it can take up to two years to receive a legal agreement. A key reason is that adaptation projects require local, tailored solutions and have more complex governance structures than mitigation projects. This structure therefore takes longer to develop and prepare, and results in projects that are ultimately more complex to implement and assess. Thus for AEs and NDAs seeking financing for projects that meet their country's needs concerning adaptation climate risks, working with the GCF is not an easy undertaking.
20. **The difficulties of working with the GCF combine to create a high upfront cost.** The GCF's high policy standards for AE accreditation, the extensive requirements placed on NDAs that may lack capacity, the allegedly opaque and unpredictable nature of GCF processes and procedures, and adaptation projects' characteristics, mean that the GCF business model imposes a large upfront cost. This cost manifests itself in the many revisions proposals require, the time and person-hours needed by AEs to work with NDAs and the GCF, and the resources necessary to wait for long project approval times. As a result of this upfront cost, the adaptation portfolio of the GCF is concentrated in AEs that can afford such costs but rely on a limited number of instruments. These are predominantly large IAEs using grant financing for public sector projects. The projects of regional or national DAEs, which tend to be smaller and less able to pay the GCF's upfront costs to do business, are represented less in the adaptation portfolio's composition.

E. POLICY AREAS TO SUPPORT THE ADAPTATION PORTFOLIO

21. **A clear policy on costing adaptation is key to supporting the adaptation portfolio.** In paragraph 35, the GI mandates that the GCF will finance the agreed full and incremental costs for activities to enable and support enhanced action on adaptation. The Board requested, in decision B.19/06, the

Secretariat to develop policies on the review of the financial terms and conditions of GCF instruments and concessionality, incremental costs and full costs, and co-financing while taking an integrated approach to resolving interrelated policy gaps. At B.21, the Secretariat suggested proposals for an incremental and full-cost calculation methodology, but the discussion was not opened. To help close the policy gap, the review and development of policies for the financial terms and conditions of GCF instruments and concessionality, incremental cost and full cost, are included in the USP for 2020–2023.[122]

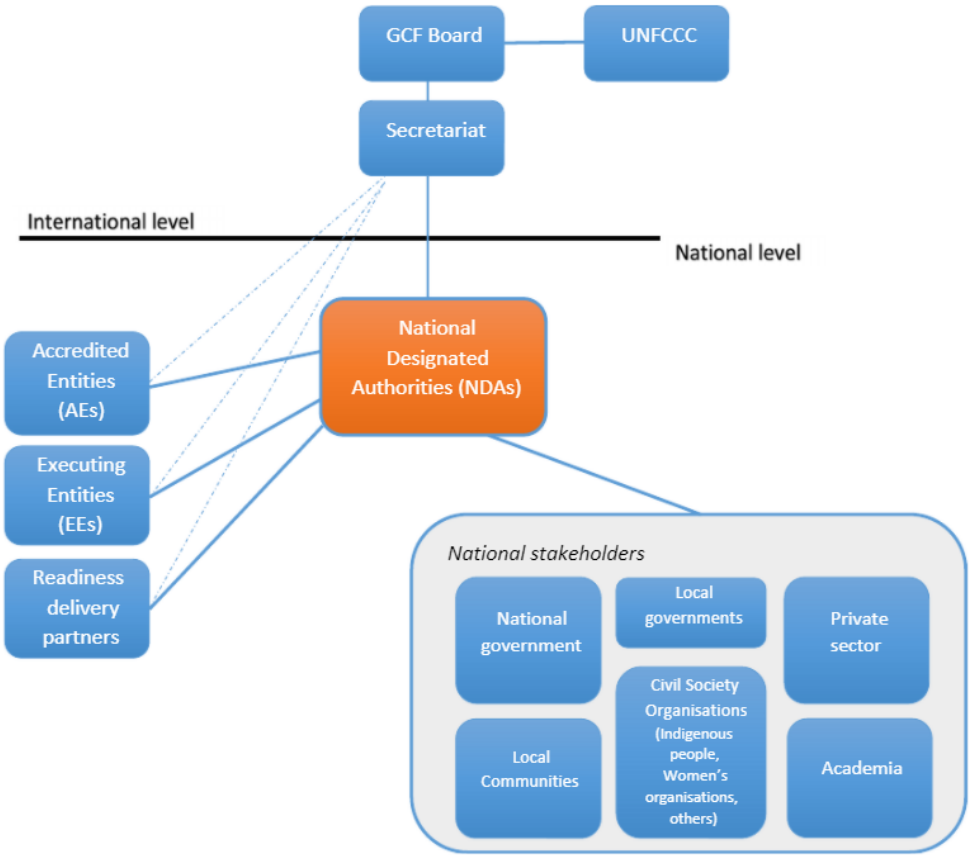
Policies on restructuring and cancellation could also play an important role in the adaptation portfolio. The GCF adopted the policy on restructuring and cancellation at B.21 to set out the mechanism for decision-making regarding an approved funding proposal in situations where there has been one or a combination of circumstances.[123] This policy could play a much greater role in supporting adaptation projects during their implementation by providing a degree of flexibility, with the establishment of clear programmatic approaches that have not been sufficiently developed to date.

F. NDAs IN THE ADAPTATION PORTFOLIO

22. **Alongside AEs, NDAs play an equally critical role in the GCF business model and have the potential to be a significant enabler of adaptation**. National designated authorities are governmental institutions that sit at the heart of the GCF country ownership approach to doing business in developing countries. A recent review of NDA institutional effectiveness in the GCF business model shows that, with a more tailored approach to building NDA capacity, NDAs can contribute to a more efficient and effective adaptation portfolio and generally help the GCF contribute to a paradigm shift towards low-emission and climate resilient development.[124] Specifically, the review highlighted the role NDAs play in the GCF business model as a key piece of the puzzle, holding together the various international, national and sub-national stakeholders involved in GCF projects, especially for adaptation. The NDAs are the link between the international political agents, namely the GCF and the UNFCCC, AEs, EEs and other partners and the national and sub-national agents. The latter include various types of organizations, such as national governments, local governments, CSOs, private sector organizations, and academia (see Figure VII-5).

[122] GCF/B.27/11. Paragraph (c) of 20.
[123] They include: (i) a failure to fulfil the conditions to be met prior to the execution of the FAA within the time frame established by the accreditation master agreement or the Approval Decision, as appropriate; (ii) a request for an extension of the time frame established by the accreditation master agreement or the Approval Decision (as defined below) to fulfil the conditions to be met prior to the execution of the FAA; (iii) a request for a waiver of a condition imposed in the Approval Decision; and (iv) a request for a change to an approved funding proposal or restructuring of a funded activity.
[124] Zamarioli, L.H.; Pauw, P.; Grüning, C. (2020). Country Ownership as the Means for Paradigm Shift: The Case of the Green Climate Fund. *Sustainability* 12, no. 14: 5714. Available at *https://doi.org/10.3390/su12145714.*

Figure VII-5. Role of the NDA as an enabler[125]



Source: Zamarioli, L.H.; Pauw, P.; Grüning, C. (2020). Country Ownership as the Means for Paradigm Shift: The Case of the Green Climate Fund. Available at https://doi.org/10.3390/su12145714

23. **National designated authorities face many challenges in implementing their role, both political and technical.** They face significant challenges in working with the GCF. Although these challenges are not adaptation specific, they do affect the quality of the GCF adaptation portfolio. One challenge is turnover within NDAs, as noted in previous IEU evaluations.[126] Country case studies highlighted that NDAs can struggle to retain institutional memory. The NDAs also report instances of being bypassed by the GCF, which may communicate directly with AEs regarding projects, leaving them out of the loop.[127] Moreover, the complexity of the political landscape in which NDAs must manoeuvre should not be underestimated. Engaging stakeholders from federal, state or provincial and local authorities for large projects requires a certain degree of political experience, not to mention the international level of engagement. Finally, there is the project's complexity, where individuals within NDAs may have varying familiarity with the financial or technical characteristics of large-scale adaptation projects, but are expected to ensure their alignment with national strategies and plans.
24. **National designated authorities may lack the capacity to overcome the challenges they face in this pivotal role.** They vary widely across countries in their type of government office, level and institutions, but typically are part of a national government's ministry of environment, ministry of finance and/or economy, an environmental agency or some other form of government department. In

[125] As used in Zamarioli, et al. (2020).
[126] For example, see chapter 5, box 5-2. Independent Evaluation of the Green Climate Fund's Country Ownership Approach. Evaluation Report No. 4, October 2019.
[127] Zamarioli, et al. (2020).

a recent survey of NDAs, it was highlighted that although they had sufficient agency to fulfil their many roles within the GCF business model, NDAs would benefit from a diverse range of capacity building via readiness support from the GCF.[128] These needs include ensuring projects are aligned with the various policies of the GCF; facilitating the nomination of DAEs; aligning projects with national strategies and plans; and reviewing the financial components of projects, among other requirements.

25. **The review found that an NDA's institutional capacity was critical for DAE accreditation**. The number of DAEs indicated to the GCF for nomination increased with GCF readiness support and NDAs' institutional affiliations. Furthermore, NDAs appear to face difficulties in mobilizing the private sector, for several reasons, including a lack of institutional knowledge and capacity regarding financial instruments, or familiarity and ties to the private sector.[129]

26. **Interviewees highlighted how early capacity-building support that strengthens NDAs enable them to influence AE and portfolio composition proactively**. Another approach the GCF can take to address concentration through its business model is to empower NDAs through capacity building. Strong NDAs, as mentioned above, are highly effective, whereas weak NDAs lack the capacity to overcome the challenges of working with the GCF. One example of a strong NDA that benefited from capacity building support is the NDA in Tajikistan, the CEP. Established in 2008, the CEP has served as the NDA for GCF since 2014. When the CEP became the NDA for Tajikistan, it was new to climate finance. There was little institutional capacity, and personnel resources for the topic were limited, which threatened to inhibit the ability of CEP to attract financing for climate adaptation projects from the GCF effectively. In 2014, the CEP was working closely with GIZ, which had been involved in setting up the CEP as the NDA. The GIZ provided training on climate finance readiness on behalf of the German Ministry for Economic Cooperation and Development. One interviewee who was engaged in this activity credits this early capacity-building support from GIZ for giving CEP an edge in getting projects through the complex GCF project funding cycle. The CEP was also a beneficiary of support from the CIF PPCR programme.[130]

27. **There are several key attributes of a strong NDA that can be an enabler for adaptation.** Key attributes of an effective, strong NDA appear to include the following: they are represented by a neutral position; they consolidate key and relevant stakeholders, such as line and finance ministries, sub-national actors, the private sector, CSOs, indigenous peoples' groups, vulnerable communities and international entities; they deliver consistent and predictable actions and budgets; and they have a clear understanding of the structures, divisions and teams they must communicate with within the GCF. One example is the NDA in Mongolia, which has been highlighted for its effectiveness in previous IEU evaluations, including in the IEU evaluation of the country ownership approach. The NDA in Mongolia is the Ministry of Environment and Tourism, an agency that straddles the country's environmental and economic needs. This helps give it a neutral position that allows it to bring various stakeholders together within the country, including CSOs and PSOs. Furthermore, the NDA focal point has extensive experience navigating international and national governmental bodies, including the UNFCCC, thus providing the capacity and network necessary to guide funding proposals through the GCF approval process.

28. **Interviews with NDAs have highlighted that the GCF can play a role beyond providing RPSP and capacity-building support.** While RPSP and capacity-building support are required from the

[128] Zamarioli, et al. (2020).
[129] Ibid.
[130] Specifically, the PPCR Programme included a project titled "Capacity Development Technical Assistance" that focused on identifying potential implementing entities for the Adaptation Fund. As part of this project, PPCR conducted a gap analysis of potential application, which identified capable AEs to work with CEP.

GCF to help NDAs – and it should continue to provide such support – there are other things the GCF can do as well. For instance, the GCF can act as a conduit of knowledge sharing between strong NDAs and those in need of capacity building, by holding forums and workshops whereby NDAs share experiences across countries and regions. The GCF could also provide reports with specific guidance for best practices by NDAs, such as establishing a non-appointed, civil servant to serve as the focal point to reduce turnover. Interviewees have also asked for the provision of accessible, pragmatic documents such as checklists, how-to sheets and/or lists of service suppliers, for NDAs learning how to navigate GCF policies and procedures.

29. **Because adaptation requires multi-stakeholder engagement, there is a need to foster the inclusion of CSOs via NDAs. Such inclusion is of particular importance in a context-driven adaptation portfolio. National designated authorities have not been encouraged by the GCF to make the project process more inclusive.** Focused interviews with CSO stakeholders of the GCF reveal a lack of sufficient formal participation of CSOs, PSOs, indigenous peoples and vulnerable communities in the business model, particularly at the project level during preparation and during implementation. The representatives of CSOs argue that their involvement early on in GCF adaptation projects, which tend to have a greater local component than mitigation interventions, would, in the long run, make adaptation projects more efficient and effective. This is because on-the-ground and traditional knowledge from national or regional CSOs, including from sub-national locations, is crucial for adaptation projects, as it may mitigate environmental, social and governance risks. Currently, inclusion in project preparation and planning is ad hoc, according to one interviewee, who noted that the country ownership approach in practice translates to a national government-led approach. This interviewee explained that the situation was especially true for projects led by IAEs. International accredited entities may have little if any ties to local organizations on the ground. As required by the GCF indigenous peoples' policy, they assess any potential harm by interacting with indigenous people. In practice, IAEs tend to follow a high-level, consultative approach rather than an inclusive approach that involves indigenous people and CSOs during the development of projects. There is a lack of country ownership guidelines that encourage NDAs and AEs to include CSOs and indigenous representatives more proactively in project development and the review process at country level. Such guidelines could help to highlight best practices for NDAs to enhance local climate management across different stakeholders. There is currently no stakeholder engagement policy in place that would further formalize such requirements for the AEs as well. Both the lack of guidelines for an inclusive and comprehensive country ownership approach, and the lack of a stakeholder engagement policy have been findings of previous IEU evaluations, as well. These findings underline the urgency and severity of this need in respect to the adaptation approach and portfolio.

Chapter VIII. MANAGEMENT FOR ADAPTATION RESULTS AND IMPACT MEASUREMENT

KEY RECOMMENDATIONS

- The GCF Secretariat should further engage with other climate funds and communities of practice to refine indicators, measurement and the clarity of aggregation, and also improve the Fund-level indicator of direct and indirect beneficiaries.
- Recognizing the limitations of the current set of indicators, the GCF should address challenges in adaptation-related measurement on project- and Fund-level indicators.
- As adaptation result areas are broad, the GCF should also trace results at the sectoral level for portfolio management. This will allow aggregation at the portfolio level to facilitate greater knowledge of results and comparability with other climate funds.
- The GCF should consider whether an adaptation investment is meeting a national priority by linking results areas to an indicator for a country's adaptation needs.
- The GCF should utilize results-based financing to a greater extent within its adaptation portfolio.

KEY FINDINGS

- In adaptation programming, there are numerous widely recognized challenges to measuring the impact of adaptation interventions. A key practical challenge in steering on impact and measurement focuses on the Fund-level indicator of numbers of beneficiaries, which is the only core adaptation indicator currently operationalized.
- The GCF does not have a specific approach regarding adaptation or achieving impact in its adaptation portfolio. The Fund uses several frameworks to guide the review and approval processes within the GCF Secretariat, and builds its portfolio through a country-driven approach.
- The four adaptation result areas, defined by the RMF, are the only measures available for identifying GCF adaptation projects and cross-cutting projects with adaptation components. No additional definition has been used to identify adaptation projects.
- The draft IRMF proposes introducing four new qualitative indicators to assess and track project and programme contributions to systemic change, to achieve a paradigm shift.
- With 91 per cent coverage, the Most Vulnerable People and Communities results area acts as a chapeau and is too broad to aid learning. No GCF project focuses solely on climate change's impact on health.
- The GCF distinguishes impacts from co-benefits in its funding proposals, but until recently guidance on differentiating impacts from co-benefits was limited and not systematic.
- Double counting of beneficiaries is unavoidable and presents a key challenge for results management. At times, GCF reporting of the total number of beneficiaries exceeds the country's population.
- The depth of impact for adaptation interventions cannot be monitored with the current set of indicators. The GCF currently has no systematic approach to assess the depth of adaptation impacts.
- LORTA baseline household data shows how GCF projects are targeting households which are, on average, poor and vulnerable.
- Results-based financing holds considerable potential within the GCF adaptation portfolio.

A. Overview

1. This chapter addresses the outcomes and impact of the GCF portfolio in adaptation and the Fund's ability to manage results. It describes the current approach of the GCF toward steering on impact and measurement of results, and the challenges inherent in both these areas. The chapter then analyzes the type and scale of adaptation impacts expected from the GCF project portfolio. The analysis draws on the extracted self-reported data from the funding proposals of 107 adaptation and cross-cutting projects. It addresses the result areas, expected impacts and the claimed environmental, social and socioeconomic co-benefits. Furthermore, the chapter also includes a review of the actual results achieved to date, to the extent possible. The analysis is primarily based on virtual country missions, project deep dives and a desk review of data from the annual performance reports (APRs). In addition to this, the knowledge gained through interviews and surveys builds additional evidence on the likelihood of outcomes and the challenges with results management. The key evaluation question this chapter focuses on, is: Does the GCF steer for the most impactful adaptation projects, and what are its results?

B. Aiming for maximum adaptation

1. Guiding principles

2. **The GI mandates the GCF to maximize the impacts of its investments in adaptation.** In paragraph 3, the GI notes that, "The Fund will strive to maximize the impact of its funding for adaptation and mitigation, and seek a balance between the two, while promoting environmental, social, economic and development co-benefits and taking a gender-sensitive approach." Regarding adaptation, the GCF took up this mandate at the fifth meeting of the Board (B.05), wherein the Board decided that, "...in relation to adaptation, resources will be allocated based on: (i) the ability of a proposed activity to demonstrate its potential to adapt to the impacts of climate change in the context of promoting sustainable development and a paradigm shift […]." Most Secretariat interviewees have recognized the importance of the GCF mandate for maximizing the impacts of its investments, including in the context of its adaptation portfolio. Few consultations have shown a clear approach in the development and review process for adaptation projects and programmes. Most Secretariat interviewees underlined the challenges with respect to the business model, discussed in the previous chapters of this report. They highlighted the lack of guidance on impact potential and paradigm shift, the lack of clarity on the adaptation approach, and challenges with climate rationale. The GCF is not the only organization with challenges in maximizing the impacts of an investment portfolio and its individual projects, which are constantly evolving.
3. **Following the challenges in maximizing impact, comparator organizations have created frameworks for steering a portfolio for impact. The GCF has not been able to learn from such approaches.** In practice, managing a portfolio's impact is commonly understood as allocating finance to projects based on their adaptation impact potential. Such an approach usually requires achieving the results the organization is mandated to achieve. As a result, a standardized approach to steering for impact (akin to reporting financial results) does not truly exist. Rather, guidelines for managing portfolio impact offer an approach to integrating impact in investment decision-making. In 2019, the International Finance Corporation (IFC) introduced the Operating Principles for Impact

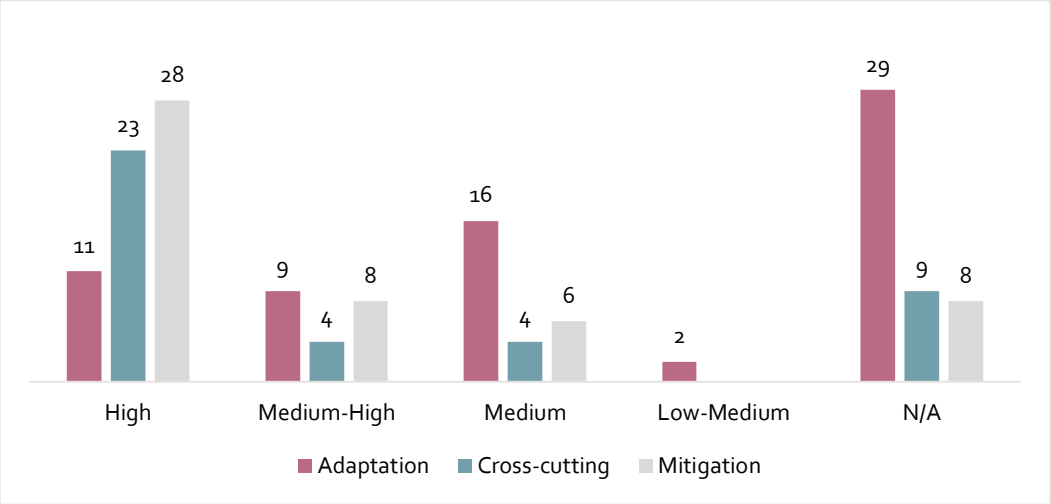
Investment Management.[131] The principles are signed by 111 signatories across 29 countries, including many of the GCF's AEs and peers, such as Acumen, the EBRD, and JICA (IFC, 2020).

2. CURRENT GCF APPROACH TO STEERING ON IMPACT

4. **The GCF does not have a specific approach regarding adaptation or achieving impact in its adaptation portfolio. The GCF uses several frameworks to guide the review and approval process within the GCF Secretariat, and builds its portfolio through a country-driven approach**. As per decisions B.05/03, B.07/06, and B.09/05, the GCF employs six investment criteria across the entire portfolio to review and approve the FPs submitted by AEs. With the adoption of the investment criteria indicators (decision B.22/05), the GCF opted for indicators that would assess proposals during a pilot period but without using them in a binary pass/fail fashion. Most importantly, this pilot included several indicators: (i) an adaptation impact indicator; (ii) an indicator for the paradigm shift potential; (iii) a co-benefit indicator for sustainable development potential; and (iv) an indicator for country needs in terms of barriers to climate-related finance (see Table IX-1). During the proposal and review process, AEs comply with the categorization and preparation of a log frame based on the RMF. Other frameworks considered at this stage include the monitoring and accountability framework for AEs, and the risk management framework. To evaluate FPs ex ante, the Secretariat looks at a project's "impact potential" (this process is discussed in more detail below). The scores provided through the Secretariat's review process and the iTAP review process show no clear alignment across the review process. Consultations with Secretariat staff suggest there is little evidence that the above frameworks are used to actively steer the adaptation portfolio or individual projects. No targets are identified with respect to either indicators described through the investment framework or the result areas described through the RMF and the IRMF (as per informational document GCF/B.27/inf.14).
5. **To evaluate FPs ex ante, the Secretariat looks at a project's impact potential.** The initial investment framework (IIF) includes several adaptation impact indicators. These provide an indicative assessment factor for projects and include, among others, the expected total number of direct and indirect beneficiaries, the degree to which the activity avoids lock-in of long-lived climate-vulnerable infrastructure, and the expected increase in the generation and use of climate information in decision-making.[132] The Secretariat uses these factors to score projects in the adaptation portfolio based on their impact potential at four levels: low-medium, medium, medium-high, and high (see Figure VIII-1 below). For many adaptation projects (29 out of 67) the investment criteria assessment has been marked as not applicable, including the impact potential indicator. This suggests the Secretariat finds it challenging to assess impact ex ante for adaptation projects.

[131] IFC (2019). *Investing for Impact: Operating Principles for Impact Management*. Washington, DC. Available at *https://www.ifc.org/wps/wcm/connect/720ed26b-48fe-40fb-9807-711d869c5bf9/Impact+Investing_Principles_FINAL_4-25-19_footnote+change_web.pdf?MOD=AJPERES&CVID=mJ20IIA.* There are nine principles that provide a framework for investors to design and implement impact-management systems with the intent to contribute to measurable positive social or environmental impacts, alongside financial returns.
[132] There are eight factors in total.

Figure VIII-1. Secretariat assessment on the impact potential investment criteria



Source: GCF FPs and Secretariat's assessments, extracted by the IEU DataLab, as of 13 November 2020.

3. CURRENT GCF APPROACH TO MEASUREMENT OF RESULTS

6. **The four adaptation result areas, defined by the RMF, are the only measures available for identifying GCF adaptation projects and cross-cutting projects with adaptation components. No additional definition has been used to identify adaptation projects.** In decision B.07/04, the Board approved the GCF's Initial Results Management Framework. Annex III to document GCF/B.07/04 presents the initial adaptation logic model which identified "increased climate resilient sustainable development" as the highest level of achievement. This logic model also adopts Fund-level impacts for adaptation. Following this Board decision, the Secretariat presented the Further Development of the Initial Results Management Framework document at the eighth meeting of the Board (B.08).[133] The result areas for adaptation are described as: (i) most vulnerable people and communities; (ii) health, food and water security; (iii) infrastructure and the built environment; and (iv) ecosystems and ecosystem services. The Strategic Plan 2020–2023 refers to and reiterates the same result areas. The GCF expects AEs to self-identify and self-categorize their CN or FP within the adaptation result areas or, for a cross-cutting project, across both adaptation and mitigation result areas. This categorization can be adjusted through engagement with the Secretariat.
7. **The total number of direct and indirect beneficiaries is the only adaptation core indicator currently operationalized.** At B.08 the Board adopted the proposed adaptation performance measurement framework and approved a limited number of indicators for expected adaptation results. However, the majority of indicators presented to the Board were not adopted and the Secretariat was encouraged to further refine these. Both the adopted and non-adopted indicators are presented in Table VIII-1. The IEU's independent review of the RMF suggests that indicators described by the performance measurement framework (PMF) have been used interchangeably by the Secretariat since its adoption.

[133] B.08/07.

Table VIII-1. Indicators for the expected results in adaptation in the GCF adaptation performance measurement framework

EXPECTED RESULT	INDICATOR ✓= **DECIDED** ☐ = NOTED, BUT FURTHER REFINEMENT * = CORE
Paradigm shift objective	
Increased climate-resilient sustainable development	☐ Degree to which the Fund is achieving a climate-resilient sustainable development impact
Fund-level impacts	
	✓* **Total number of direct and indirect beneficiaries; number of beneficiaries relative to total population**
Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions	☐1.1 Change in expected losses of lives and economic assets (USD) due to the impact of the intervention
	☐ 1.2 Number of males and females benefiting from the adoption of diversified, climate-resilient livelihood options (including fisheries, agriculture, tourism, etc.)
	☐ 1.3 Number of GCF funded projects/programmes that support effective adaptation to fish stock
2.0 Increased resilience of health and well-being, and food and water security	✓ **2.1 Number of males and females benefiting from introduced health measures responding to climate-sensitive diseases**
	✓ **2.2 Number of food-secure households (in areas/periods at risk of climate change impacts)**
	✓ **2.2 Number of males and females with year-round access to reliable and safe water supply despite climate shocks and stresses**
3.0 Increased resilience of infrastructure and the built environment to climate change threats	☐ * 3.1 Number and value of physical assets made more resilient to climate variability and change, considering human benefits (reported where applicable)
4.0 Improved resilience of ecosystems and ecosystem services	☐ 4.1 Coverage/scale of ecosystems protected and strengthened in response to climate variability and change
	☐ 4.2 Value (USD) of ecosystem services generated or protected in response to climate change

Source: Table 2 "Adaptation performance measurement framework" in annex VIII to decision B.08/07.

8. **The draft IRMF proposes introducing four new qualitative indicators to assess and track project and programme contributions to systemic change to achieve a paradigm shift.**[134] In addition to the two Fund-level core indicators, specifically "GHG emission reduced (mitigation)" and "direct and indirect beneficiaries per result areas (adaptation)", the draft IRMF will have two additional quantitative indicators: (i) improved physical assets for emission reductions or increased resilience against climate hazards, per result area and asset type (mitigation and adaptation), and (ii) natural resource assets with strengthened low emissions or increased resilience against climate

[134] GCF/B.27/inf.14.

hazards, per result area and asset type (mitigation and adaptation). These two additional quantitative indicators assess the improvement in man-made physical assets (value in USD) and natural assets (hectares) that strengthen climate change resilience or increase resilience or both. Based on consultations with AEs and implementing entities, the inclusion of additional indicators is generally received as a positive development. Respondents also highlighted the importance of the GCF continuing a flexible approach to use of indicators for the reporting on progress with outputs, outcomes and Fund-level impacts. The GCF's challenge has been to develop a set of indicators that are measurable, precise and aggregable at the Fund level, while also considering the risk of double counting. The above-mentioned two additional qualitative indicators proposed by the draft IRMF provide a potential for better guidance and management of results at the project and Fund level, with a well-articulated result tracking tool.

Box VIII-1. Comparison of the results management framework and the integrated results management framework

A comparison of the RMF and the IRMF shows that the IRMF has a much more systematic approach to results measurement than the RMF, and focuses on higher-level results.

On the impact level, the IRMF assesses the contribution of GCF projects to paradigm shift on three dimensions:

- Scale: degree to which there has been a significant increase in quantifiable results within and beyond the scope of the intervention, including evidence of scaling up innovation and replication.
- Depth: degree to which an intervention has been taken up in terms of shift in behaviour, markets, systems, policies and decision-making and embedded within the intervention's targeted groups and/or systems without equally increasing its cost base.
- Sustainability: degree to which a structural, cultural and financial base has been created to support the desired change and is continued over time.

The Secretariat has developed multi-item scorecards for measuring a project's contribution to paradigm shift. On the outcome level, the IRMF contains variables related to "reduced emissions and increased resilience" as well as "systemic change". The first set captures climate change-related results that are in line with the investment framework and the GCF result areas: emissions reduction, number of beneficiaries and value added to physical and natural assets. Each of these variables is measured by one core indicator and several supplementary indicators.

Systemic change relates to outcomes that increase the longevity of results and indirect project benefits, measured by four indicators:

- Institutional and regulatory frameworks
- Diffusion of technology and innovation
- Market development and transformation
- Knowledge generation, capture and learning

Each item will be measured by a scorecard approach. If adopted by the Board, AEs will only need to pick those items on the scorecard that relate to their project activities.

Source: Desk review of the RMF and IRMF.

9. **Within adaptation planning, the results management of outcomes and impacts is still under development.** While the Board and the Secretariat are updating the results management for projects and programmes, this is yet to happen for adaptation planning and other GCF support programmes. The GCF is playing a significant role in the identification of adaptation needs, and in the development of strategies and plans related to adaptation, including strengthening technical

capacities within countries. While Chapter IV describes larger challenges to do with GCF support to adaptation planning, the GCF would benefit from a systematic approach to the monitoring and results management of adaptation planning. The IEU's RPSP and ESS evaluations have previously highlighted how outcomes in adaptation planning and GCF support programmes have not been captured systematically through a results management system. Capacity strengthening, development of in-country systems and adaptation planning are important steps for adaptation implementation, the progress of which needs to be tracked and its results measured.

4. CHALLENGES RELATED TO STEERING ON IMPACT AND MEASUREMENT

10. **The challenges the GCF faces in relation to steering on impact and measurement consist primarily of three types: adaptation-wide, practical and definitional.** We discuss these three challenges in turn.

11. **In adaptation programming, there are numerous widely recognized challenges to measuring the impact of adaptation interventions**. In this respect, a one-size-fits-all impact framework is neither desirable nor necessary. Leiter et al. (2019) compare the adaptation assessment frameworks and metrics used by many of the GCF's peers, such as the AF.[135] They argue that most available frameworks and metrics for adaptation assessment do not permit consistent international comparison and assessment, since existing frameworks are designed for monitoring and evaluation at community, project, programme or sector levels, not at national or global levels. In addition, current frameworks for adaptation use context-specific approaches and metrics that prevent comparison across different contexts. The result is an inability for the international adaptation community to track and assess adaptation across contexts. The aggregation of outcomes and impacts at a fund level is therefore considered to be a substantial challenge. Key challenges for monitoring and evaluating adaptation interventions overall and which are pertinent to the GCF include the following:

    - There are significant lags in the period between an adaptation intervention and its measurable benefits
    - Uncertainties are inherent in adaptation
    - Adaptation spans multiple administrative levels and economic sectors
    - There is no one set of indicators or monitoring and evaluation approaches
    - Adaptation is a process, not an end point

12. **Adaptation-measurement frameworks vary across rural and urban settings and across scales.** A comparison of 35 resilience-measurement frameworks, including from UNISDR, UNDP, GEF, FAO, the UK Department for International Development (DfID), as well as NGOs and think tanks, found that 28 focus on the local level (including individual, household and community levels) and are tied to specific interventions. Most are for rural development contexts. The casual pathways for resilience are clearest at this local level.[136] The remaining 7 resilience-measurement frameworks focus on systems, institutions and policies, including at municipal, regional or national levels. Urban-based frameworks focus on the reliability of critical infrastructure and governance structures, including design quality and stability of employment. Measurement frameworks at these levels

[135] Leiter, T., Olhoff, A., Al Azar, R., Barmby, V., Bours, D., Clement, V.W.C., Dale, T.W., Davies, C., and Jacobs, H. (2019). *Adaptation metrics: current landscape and evolving practices*. Rotterdam and Washington, DC. Available at www.gca.org.

[136] ODI (2016). *Analysis of Resilience Measurement Frameworks and Approaches*. Prepared by ODI, and members of the Resilience Measurement, Evidence and Learning COP. Available at https://www.fsnnetwork.org/sites/default/files/analysis_of_resilience_measurement_frameworks_and_approaches.pdf.

struggle with the complexity of the theories of change of these interventions. A range of frameworks stress the importance of measuring resilience through time.

13. **Considering the long-term nature of adaptation investments, high climate risk environments and an absence of a one-size-fits-all approach, resilience frameworks can serve as benchmarks for indicating the impact of projects and sub-portfolios.** As adaptation projects are often long-term investments in areas with high climate risks, it is difficult to assess ex ante impacts in terms of economic, environmental or social outcomes. The insurance industry commonly use loss avoidance as an indicator that can be estimated ex ante, but that requires harmonized estimations across projects. In the absence of agreed-upon indicators for loss avoidance, resilience frameworks can serve as benchmarks for project impacts and can inform decision-making. The use of resilience frameworks would require entities to maintain a degree of flexibility and ensure adaptive management to be able to adjust and restructure the implementation of projects and programmes.
14. **The UNEP provides guidance on how to overcome the challenges faced by adaptation measurement frameworks that can help the GCF maximize the impact of its adaptation portfolio.** The 2017 UNEP Adaptation Gap Report assessed 216 existing adaptation frameworks and recommended six criteria for a global framework for assessing progress on adaptation: frameworks should include metrics that are aggregable; definitions, assumptions and methods should be transparent; measurement should be tracked longitudinally; the framework should be feasible; it should be coherent; and it should be sensitive to the national context.[137] We now turn to practical challenges.
15. **A key practical challenge in steering on impact and measurement focuses on the Fund-level indicator of numbers of beneficiaries.** The main adaptation indicators, direct and indirect project beneficiaries, are very broad and are limited in two important respects. First, there is no agreed methodology for how beneficiaries are counted, which can lead to double counting or overcounting (discussed in the following section in relation to the adaptation portfolio). Second, this indicator provides little information regarding the depth of benefits accrued by project beneficiaries (also discussed in the following section). Both these shortcomings highlight how the indicator does not offer an ability to rigorously compare benefits across projects. As is commonly found across climate funds, the diversity of adaptation interventions, and the large number of components within projects addressing different result areas, means that it is not straightforward to aggregate results. Indicators are either generic and lack sufficient precision (such as direct and indirect beneficiaries), or are too specific and therefore not aggregable across projects (e.g. benefits per hectare, per kilometre of road or per district). An analysis by the Frankfurt School concluded that while number of beneficiaries can be aggregated, the "heterogeneity of the assumptions and calculation methods makes a comparison of expected number of beneficiaries difficult, if not impossible."[138] The study recommends providing a greater variety of sub-indicators that projects could choose from, and to provide detailed guidance on calculation methods.
16. **Two examples from country case studies illustrate the limitations of solely using direct and indirect beneficiaries.** In some instances, projects report highly detailed numbers of individuals expected to benefit from the projects by using survey techniques, such as FP042, "Irrigation development and adaptation of irrigated agriculture to climate change in semi-arid Morocco". In other instances, projects take a much more high-level, assumption-based approach to reporting project beneficiaries, such as FP040, "Tajikistan: Scaling up Hydropower Sector Climate

[137] UNEP. (2017). The Adaptation Gap Report 2017.
[138] Frankfurt School (2020). Available at *https://www.fs-unep-centre.org/wp-content/uploads/2020/04/GCFMonitor-edition2-final.pdf.*

Resilience", which assumes that since the project is aimed at improving the resilience of the country's energy grid, all individuals with access to electricity in the country will benefit, and that those individuals in neighbouring countries that consume imported Tajikistan-generated energy will also benefit, making the total number of beneficiaries greater than the country's population. Ultimately, these are estimates proposed and performed by AEs during the process of project development. Most stakeholders stated that the lack of support and guidance throughout the GCF project development process led to this lack of precision.

17. **Building on the IEU's independent review of the RMF, there are key definitional issues which challenge the GCF's ability to steer on impact and measurement.** First, the result areas in adaptation described above are broadly defined and do not clearly identify which activities fit under each area. This is especially true for the Most Vulnerable People and Communities and Health, Food and Water Security results area. Second, there is currently a lack of clarity around what constitutes direct impacts from adaptation projects and different types economic, social and environmental co-benefits. These issues have inhibited the GCF's ability to accurately measure and manage the impacts of its adaptation portfolio, and project proposals may have overstated estimated impacts. In adaptation specifically, this may have occurred because FPs failed to consider secondary market-effects, feedback loops, or (low) take-up of their projects (which highlights the last-mile challenge and the need to consider the insights behavioural science can offer, see Box VIII-2). The IEU's independent review of the RMF found many FPs lacked clarity on how they will measure impact. We discuss both issues in relation to the GCF adaptation portfolio in the following section.

Box VIII-2. Steering for impact when building resilient communities in Uganda

The theory of change for FP034, "Building Resilient Communities, Wetland Ecosystems and Associated Catchments in Uganda", highlights how the project restores wetlands and strengthens wetland management (Component 1) and introduces sustainable agricultural practices, together with alternative livelihood options (Component 2). This is being complemented through the provision of climate information and disaster warnings (Component 3). The outcome target is to strengthen adaptive capacities.

When we focus on the output goals in the theory of change, we can see that behaviour change plays at least a partial role in all components. Component 1 requires ecosystem rehabilitation, which is not considered individual-level behaviour change, but then relies on changes in ecosystem management to sustain the results, which does involve changes in behaviour. Similarly, Component 3 relies on improvements of climate information infrastructure and distribution channels. The use of that information for farming and ecosystem management also requires behaviour change, as does the introduction of sustainable agricultural practices, together with alternative livelihood options.

For example, wetland management practices are expected to be strengthened through community mobilization and sensitization activities. Resilient farming practices are being improved through the training of extension officers, and alternative livelihood options will be provided through direct training sessions. The use of climate information is being promoted through tailoring products to the needs of recipients by conducting stakeholder consultations. Farmers and extension officers are receiving training on how to use climate information.

The project considers two barriers related to behaviour change: (i) that capability depends on the quality of extension services; and (ii) the opportunity for resilient farming practices is affected by a lack of climate information. Project planners have explicitly considered the risk that communities may show lacklustre commitment to the project, but believe the likelihood of this is low. For example, the project builds on experiences of a smaller-scale project in the region which demonstrated how projects in the area showed a high uptake of climate-smart farming practices.

Overall, the project considers opportunity and capability barriers to behaviour change, and both are explicitly addressed through training, restoration activities and the provision of tailored climate

information. Formative research prior to implementation highlighted how communities may be reluctant to participate, and the project is aware of the changing incentives by supporting alternative livelihood options for communities. Behaviour change lies at the heart of this project intervention and recognizing this explicitly and integrating behavioural insights into implementation will increase the likelihood of the project's success.

C. GCF ADAPTATION RESULTS

18. To systematically review the impact of the GCF adaptation portfolio, the evaluation team uses three key dimensions which are helpful to understand the expected results and impact of the adaptation and cross-cutting portfolio, based on the Impact Management Project (IMP) framework.[139] The framework includes five dimensions, namely "What", "How much", "Who", "Risk" and "Contribution". The section focuses on the first three core dimensions to structure insights on expected results and impact, given the Fund's reporting systems. The GCF's impact-reporting system enables a portfolio-wide, high-level assessment of the "What" and the "How much" but does not report systematically on who its beneficiaries are. However, based on LORTA baseline data, the IEU can offer insights into the characteristics of GCF project beneficiaries.

1. EXPECTED IMPACT AREAS OF THE GCF PORTFOLIO – 'WHAT?'

19. **Green Climate Fund project and programme finance is allocated to eight different result areas, of which four are specific to adaptation.** Most of the projects in the portfolio address more than one of the result areas, depending on the components of the project.
20. **Some 91 per cent of the projects claim to contribute to the Most Vulnerable People and Communities result area, and the largest proportion of financing (33 per cent of the total) is mapped onto this result area.** In the current portfolio, activities mapped to this result area refer often to disaster risk management (e.g. provision of climate information services and early warning systems), while supply chain resilience or general community resilience are also mapped to this area. This result area is far too broad, making it challenging to systematically analyze the portfolio impacts on a narrower thematic or sectoral level. Such analysis could offer a better understanding of portfolio impacts and facilitate cross-learning between projects.
21. **A large share of the total outstanding finance, or 28 per cent, is mapped onto the Health, Food and Water Security result area.** Projects' components mapped to this result area refer mostly to water sector resilience projects, enhanced water management practices for agriculture or general agriculture productivity. Credit lines for agri-MSMEs (e.g. FP082, FP095) are also mapped here. While enhancing food and water security are certainly key outcomes of GCF adaptation and cross-cutting projects, their focus on health-related issues is limited. No GCF project focuses solely on climate change's impact on health. Health is never the core area of a GCF project.
22. **Some 23 per cent of adaptation finance is mapped onto Infrastructure and the Built Environment.** The area receiving the least finance (16 per cent of the total) is the only non-anthropocentric result area, Ecosystems and Ecosystem Services, onto which 50 projects are mapped

[139] The IMP provides a forum for building global consensus on how to measure, manage and report impacts on sustainability. It is relevant for enterprises and investors who want to manage environmental, social and governance (ESG) risks, as well as those who also want to contribute positively to global goals. Available at *https://impactmanagementproject.com.*

to a greater or lesser extent. Activities here include the interplay between ecosystems and communities or their agricultural system. Projects with a strong focus on ecosystems include FP135 in several African countries and FP087 in Guatemala.

23. **Given this structure, it is challenging to match the GCF result areas for adaptation to sectors, or indicators describing adaptation needs and capacity**. Table VIII-2 links result areas to specific sectors utilized by the ND-Gain index (food, health, water, human habitat, infrastructure, and ecosystem services). It simply illustrates that the GCF result areas are extremely broad and do not allow enough clarity to accurately assess results and impact. In addition to the result areas, a more granular sectoral approach to clustering adaptation results would allow the tracking and tracing of results at the sectoral level (ex ante, during monitoring, as well as feeding back lessons learned). These can be aggregated up at the portfolio level to allow greater comparability and coherence with other climate funds. Utilizing a more sectoral approach to adaptation results could also allow easier assessment of whether GCF interventions are meeting a national priority.

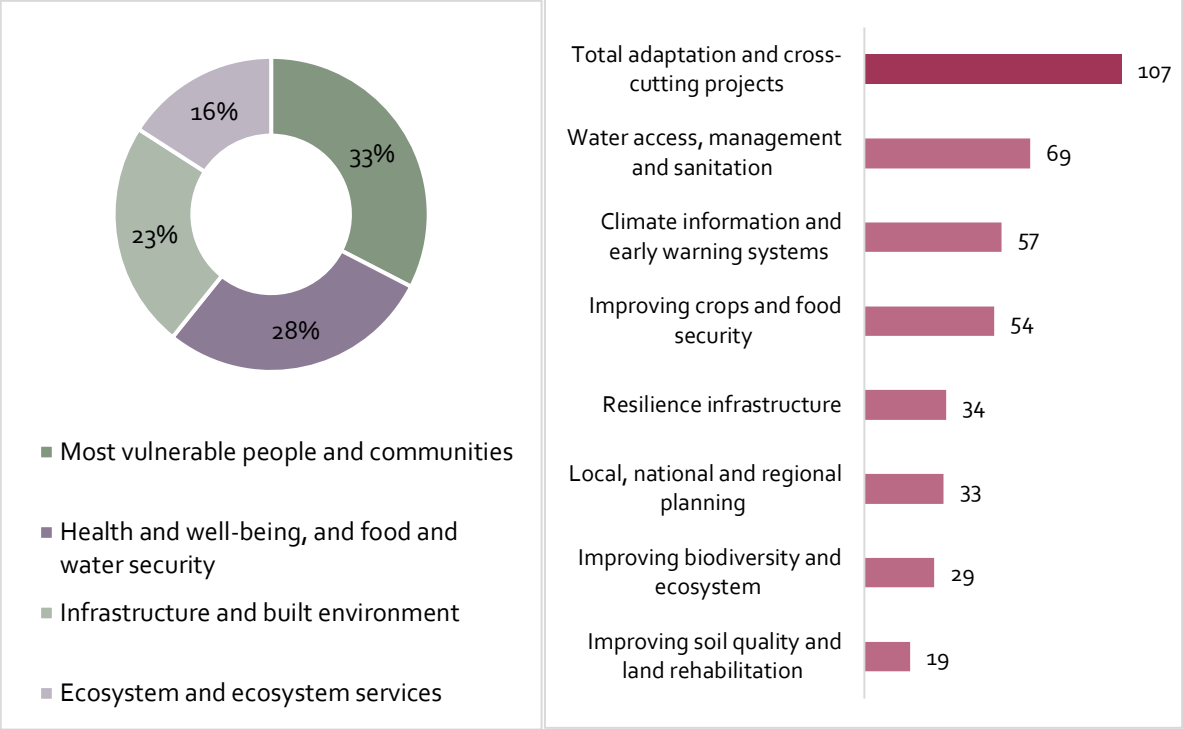
Table VIII-2. Linkages between the GCF adaptation result areas and the ND-GAIN sectors

ND-GAIN SECTORS	GCF RESULT AREAS
Food	Health, food and water security
Health	Health, food and water security
Water	Health, food and water security
Human Habitat	Infrastructure and built environment
Infrastructure	Infrastructure and built environment
Ecosystem services	Ecosystems and ecosystems services
-	Most vulnerable people and communities

24. **Beyond result areas, we can obtain more precision about expected impacts by looking at more detailed impact areas, as mentioned in FPs submitted to the GCF**. In the adaptation portfolio, water projects and early warning systems are the most frequent. Figure VIII-2 shows the number of projects that address a specific impact area and suggests that the GCF adaptation portfolio has a strong focus on projects related to water practices (access, management, and sanitation) which are included in 69 out of the 107 projects in scope.[140] These are in some cases directly linked to food security and improved crops in projects aimed at improving water management practices in agriculture. An additional frequent project type is related to improved climate information and delivery of early warning systems which are present in more than half of the project portfolio.

[140] The number of projects is not a sufficient indicator to describe the depth of the portfolio's impact, but provides a sense for the frequency of certain interventions throughout the portfolio. Given that each project addresses more than one impact area, the sum is larger than the number of adaptation and cross-cutting projects. Each project addresses from one up to seven of the listed impact areas.

Figure VIII-2. GCF adaptation finance by result area (left) and number of projects that address a specific adaptation impact area (right)

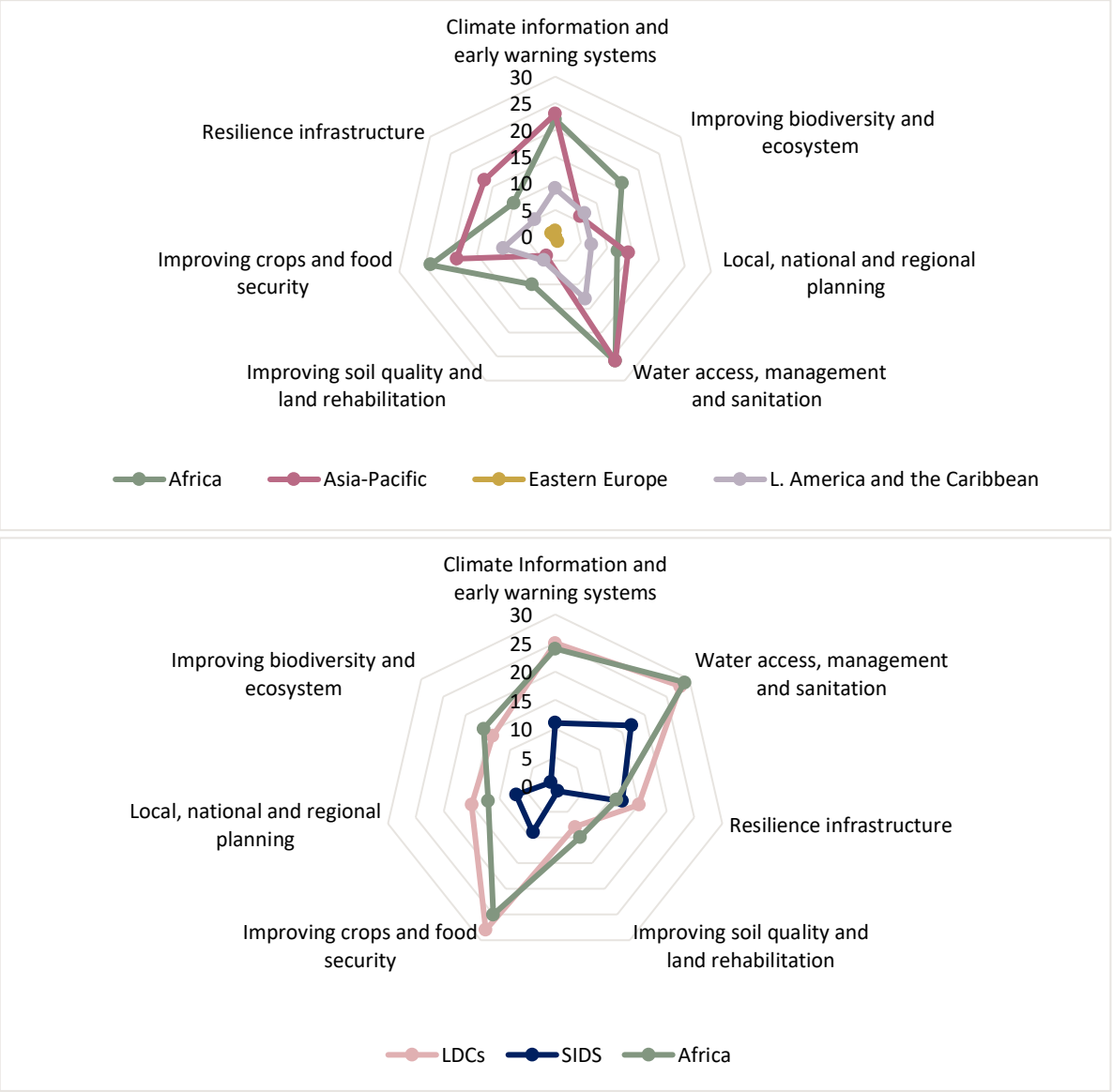


Source: GCF Tableau server, and extraction from FPs.

25. **The frequency of these impact areas is broadly similar across Africa, Asia-Pacific and Latin America and the Caribbean.** Figure VIII-3 shows similar trends in each of the regions, but sharp differences in the total amount of projects in each of the regions. It should be noted that there are no targets for any of the broader regions. However, the GCF is mandated to emphasize LDCs, SIDS and African States, by considering the urgent and immediate needs of countries particularly vulnerable to climate change. In particular, the similar proportion of projects addressing "water access, management and sanitation", "improving crops and food security" and "climate information and early warning systems" is a common feature across all regions, as is the limited number of projects addressing "improving soil quality and land rehabilitation". Small differences can also be observed, such as the larger proportion of projects in Africa specifically addressing "improving biodiversity and ecosystems" compared to the Asia-Pacific and, to a lesser extent, Latin America and the Caribbean. Moreover, the larger proportion of projects specifically addressing "resilient infrastructure" in the Asia-Pacific, especially compared to Latin America and the Caribbean. It should be noted that these represent self-reported information by AEs in the FPs.[141]

[141] Extraction and categorization have been done by IEU DataLab.

Figure VIII-3. Number of projects that address a specific impact area by region (upper) and by vulnerability category (lower)

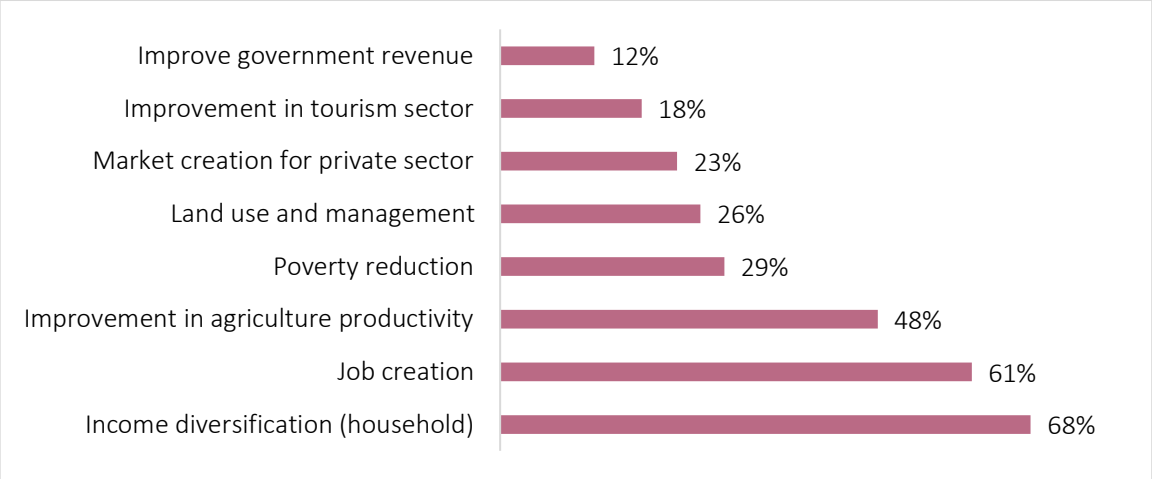


Source: Extraction of self-reported information from FPs, analysis IEU DataLab.

26. **The GCF distinguishes impact from co-benefits in its FPs, but until recently guidance on the identification of co-benefits was limited and not systematic.** With mitigation projects, the core expected impact is clear (e.g. emissions reduction). It is not as simple with adaptation projects. In fact, while for mitigation any benefit other than emission reduction can be accounted for as a co-benefit, in adaptation the two concepts are very much interlinked. Co-benefits can be of an environmental, social or economic nature. In EbA projects, for example, the social and environmental aspects are at the core of the intervention. In essence, the extent to which benefits are core or considered co-benefits depends on the nature of the intervention which, as we have seen, varies widely within adaptation. In economic terms, the most frequently expected co-benefits are income diversification (addressed by 68 per cent of the projects), job creation (61 per cent of the projects) and improvement in agricultural productivity (48 per cent of the projects, see Figure VIII-4). Consultations with in-country stakeholders showed that at times there is little clarity regarding the definition and subsequent identification of environmental, social and economic co-

benefits. This absence of guidance has also been raised by the IEU independent evaluation of the ESS. The aggregation and interpretation of these co-benefits is therefore of limited value.

Figure VIII-4. Number of projects that address a specific impact area by region



Source: GCF FPs. Exacted self-reported information from FPs, analysis by IEU DataLab.

Box VIII-3. Economic impact of adaptation projects

The FP042 in Morocco is one example of an adaptation project expected to provide economic co-benefits as well as broader effects. Titled "Irrigation development and adaptation of irrigated agriculture to climate", FP042 is a multi-faceted irrigation project that aims to use dam water to irrigate semi-arid agricultural land for growing and producing dates in a holistic, scalable and sustainable manner, while simultaneously reducing the area's dependence of both small- and large-scale farmers depleting groundwater reserves. In its FP, the project defines the impacts it expects to have, and how it will achieve them. For instance, the project's economic co-benefits are expected to affect 5,500 people directly through improved access to water and a better irrigation network. About 1,300 farms, mostly smallholder (<0.5 ha per family farm), will be supported by the project across seven oases. An additional 4,000 ha of irrigated agricultural land, upon project completion, are anticipated to produce up to 40,000 tonnes of dates per year, generating ~USD 400 million in sales value and thereby helping Morocco inch closer towards the production goal of producing 160,000 tonnes of dates by 2020. There are also more holistic impacts that the project aims to support. There are expected social benefits to local communities from the project from the participatory nature of the community development plans, which will have a specific focus on women's empowerment in the decision-making processes. There are also expected environmental benefits from preserving 1,000 ha of oases and the biodiversity they contain, as well as the 20 million m^3 of ground water conserved per year.

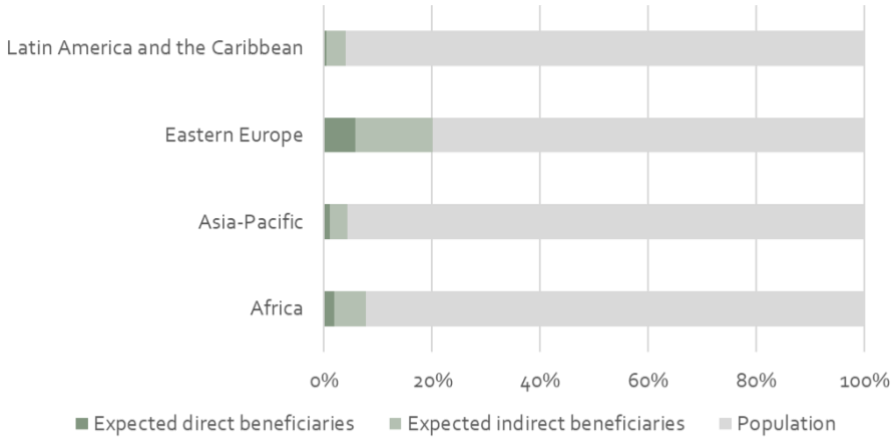
2. EXPECTED SCALE AND DEPTH OF IMPACT OF THE GCF PORTFOLIO – 'HOW MUCH?'

27. **To address the question of expected impact, in terms of scale and depth, the evaluation team reviewed all 107 adaptation and cross-cutting FPs, including annexes, to identify expected impacts.** It should be noted that in an earlier study on the evaluability of FPs, the IEU noted concerns regarding the completeness and details included in project FPs and planning.[142]

28. **Based on the GCF adaptation core impact indicator, the GCF expects to reach about 400 million beneficiaries globally with its current adaptation portfolio.** Across the different areas described, the current GCF adaptation portfolio addresses a total of approximately 46 million direct beneficiaries, while the cross-cutting portfolio reaches a total of approximately 65 million beneficiaries. The number of indirect beneficiaries is estimated at 151 million for the adaptation portfolio, and 139 million for the cross-cutting portfolio.[143] Through its programmes and projects, the GCF aims to reach around 209 million total (direct and indirect) beneficiaries in the most vulnerable countries (LDCs, SIDS and African States). This equates to 12 per cent of the population in the most vulnerable countries.

29. **To gain a sense of the scale of the impact of the adaptation portfolio, these figures can be related to the total population in the respective countries or regions.** Figure VIII-5 shows the percentage of expected total beneficiaries as a proportion of the total population by region. In relative terms, this is highest in Eastern Europe at 20 per cent. In this region, for example, it is by expanding early warning systems (FP068, Georgia) and through forestry projects (SAP014, Republic of Armenia) that the GCF reaches a total of about 7 million beneficiaries. Conversely, in Asia-Pacific, Africa and Latin America, 4–8 per cent of the total population should be reached by GCF projects. It is important to note that the core indicator – the number of beneficiaries – does not provide any indication of the depth of the impact.

Figure VIII-5. Expected beneficiaries by region as a percentage of total population



Source: FPs, World Bank population data.

[142] Independent Evaluation Unit (2019). Becoming bigger, better, smarter: A summary of the evaluability of Green Climate Fund proposals. IEU Working Paper No. 1, 2019. This study found that, at that stage, 80 per cent of proposals did not have well-defined theories of change, and half of all proposals did not identify possible unintended consequences of their programmes. In addition, while half of proposals had the potential to identify and measure causal change, only one-quarter of the proposals aimed to complete the relevant economic analyses. The study also found that only 15 per cent of the proposals allowed for credible measurement of progress on investment criteria. Finally, just 13 per cent of proposals provided impact indicators deemed capable of measuring the magnitude of causal change, with only 10 per cent of proposals including a plan for collecting data of sufficient quality for a causal evaluation.

[143] In cross-cutting projects, the number of beneficiaries cannot be attributed to adaptation or mitigation activities, so the entire number is reported.

30. **Double counting of beneficiaries is unavoidable and presents a key challenge for results management at the GCF. At times, GCF reporting exceeds the total population of countries.** The same beneficiary can be reached by different projects and can benefit in different ways (e.g. the same individual gaining access to early warning systems and benefiting from more resilient infrastructure). Therefore, in certain cases the total number (direct and indirect) of beneficiaries can be larger than the country population. This is to be expected in small countries with urgent climate needs where multiple projects are implemented. Table VIII-3 below shows different examples of countries for which the total number of beneficiaries reported exceeds the total population, for different reasons. These can be, for example, related to several projects reaching the same beneficiaries (as in the case of the Republic of the Marshall Islands, and Tajikistan), or to a methodological issue in the estimates performed ex ante. Reporting beneficiaries by sector or the type of impact supported, may be one option to improve reporting quality and enable a better understanding of project and portfolio impacts.

Table VIII-3. Cases where the total number (direct and indirect) of beneficiaries is larger than the country population

Country	Projects	Direct beneficiaries (% of population)	Indirect beneficiaries (% of population)
Marshall Islands	FP066, FP112	53%	134%
Tajikistan	FP014, FP040, FP075	121%	93%
Liberia	SAP018	46%	109%

Source: GCF FPs, exacted self-reported information from FPs.

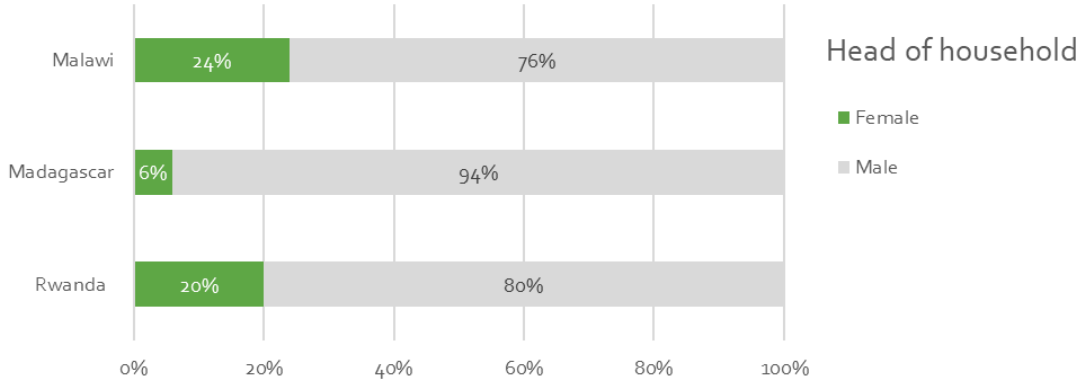
31. **The depth of impact of adaptation interventions cannot be monitored with the current set of indicators. The GCF currently has no methodological approach to assess the depth of its adaptation impacts in a systematic way.** The depth of impact of an adaptation intervention is likely to depend on three factors: (i) the degree of a region's climatic vulnerability; (ii) the extent to which the local communities are able to cope with that risk; and (iii) the nature of the intervention itself. For this, two considerations determine if an adaptation investment is important: (i) meeting a national priority by linking result areas (or, more concretely, sectoral breakdowns), and (ii) using an external objective indicator for adaptive capacity. This could be approached in at least two different ways. For example, an external indicator for adaptive capacity, such as that utilized by the ND-Gain index could be systematically linked with GCF result areas (and/or sectoral breakdowns). Alternatively, and using a more qualitative and country-owned approach, investments could be triangulated with national adaptation planning documents (such as NAPs) through the use of a specified protocol, so that claims could be replicated and verified.

3. Expected beneficiaries of the GCF portfolio – 'Who?'

32. **Assessing who are the beneficiaries of GCF projects on a portfolio level is difficult due to the lack of systematic reporting along this dimension. Direct beneficiaries of GCF projects can be households, communities or SMEs.** Most stakeholders interviewed have highlighted the flexibility but also the challenge regarding the precise measurement of this Fund-level indicator. Consultations with the Secretariat have also highlighted the current challenges in systematic and specific reporting on who is reached by GCF investments. More granularity on the characteristics of the expected beneficiaries for selected projects can be found through the IEU LORTA window.

33. **The LORTA programme provides information about the returns of GCF investments and helps GCF projects track implementation fidelity.** The LORTA incorporates state-of-the-art approaches for measuring results and informing effectiveness and efficiency into funded projects. It employs mixed methods approaches that involve quantitative and qualitative data collection methods and analysis. A selection of GCF projects under LORTA, produced baseline data from households in the Republic of Rwanda, the Republic of Madagascar and the Republic of Malawi. For each of the three cases, the projects have started implementation. The figures reported below are taken from samples which are representative of total direct project beneficiaries. The descriptive statistics illustrate that when beneficiaries are reached by GCF projects, they are likely to benefit considerably.

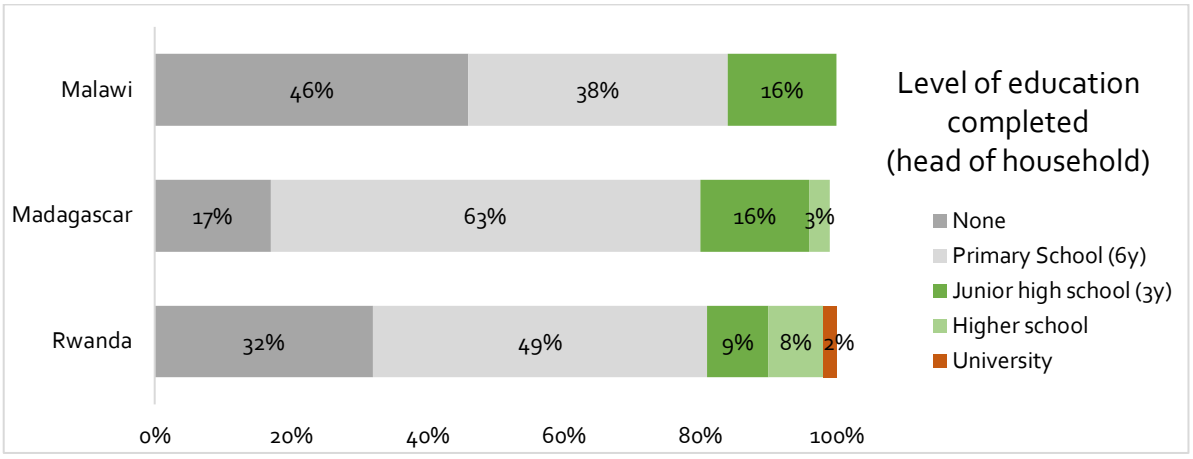
Figure VIII-6. Proportion of households headed by women (Malawi, Madagascar, Rwanda)



Source: LORTA data.

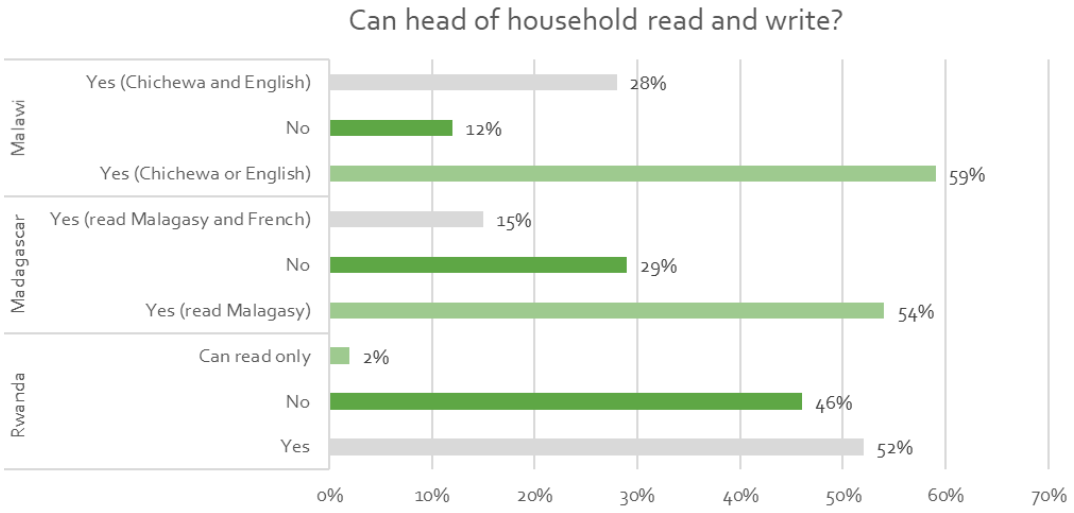
34. **LORTA baseline household data shows how GCF projects are targeting households which are, on average, poor and vulnerable**. At baseline, at least 70 per cent of household heads have not completed secondary school, between 12–46 per cent of household heads cannot read, and one-fifth of households in Rwanda and Malawi are women-headed households (see Figure VIII-6, Figure VIII-7 and Figure VIII-8). In the case of Madagascar, the majority of houses have poles, bamboo and thatched roofing. In Malawi, around a third of households have a thatched roof. In Rwanda, almost all households have iron sheets. At least 54 per cent of households in Malawi and Madagascar access weather/climate information through a radio, with 44 per cent doing so via a mobile phone in Rwanda. Household access to weather/climate information in Malawi and Madagascar is further described in Figure VIII-9.

Figure VIII-7. Education level of household head (Malawi, Madagascar, Rwanda)



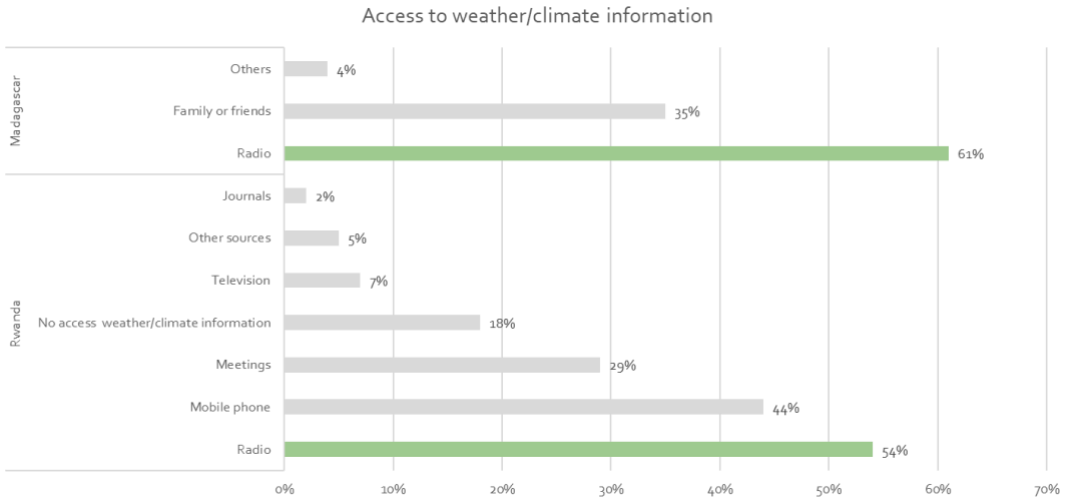
Source: LORTA data.

Figure VIII-8. Ability of household head to read and write (Malawi, Madagascar, Rwanda)



Source: LORTA data.

Figure VIII-9. Access to weather/climate information (Madagascar, Rwanda)

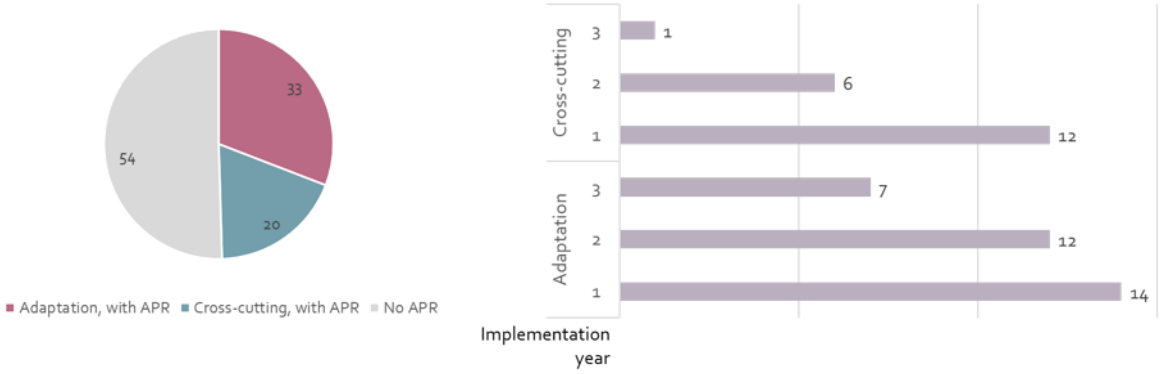


Source: LORTA data.

4. ACTUAL IMPACT RESULTS

35. **The GCF portfolio is still very young regarding implementation, to observe actual results on the ground.** As mentioned above, GCF disbursement to date (e.g. transferred to AEs) is around 20 per cent of total commitments. To assess progress on the ground, the best available information comes from self-reported APRs submitted by AEs. About half (53) of the adaptation/cross-cutting projects have at least one APR, and in 2020, 33 adaptation APRs and 20 cross-cutting APRs were submitted by AEs. Twenty-six of these projects are only in their first year of implementation, which often means the project has been working on setting up project structures and little has happened on the ground.

Figure VIII-10.APRs available in 2020 (left) and number of APRs per implementation year for adaptation/cross-cutting projects (right)

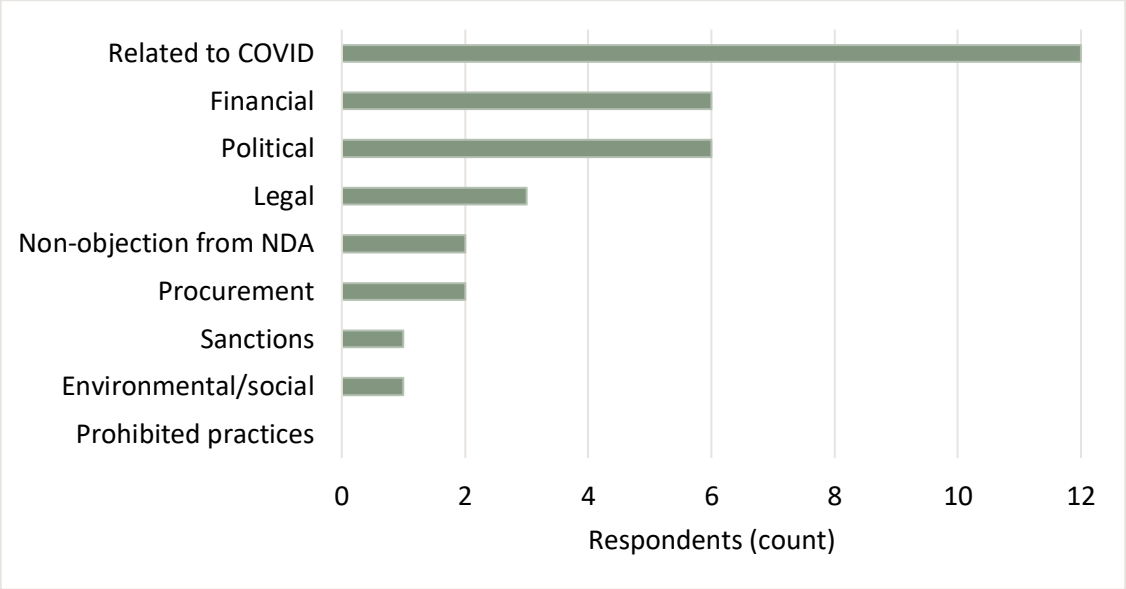


Source: Annual performance reviews.

36. **Only 5 per cent of the total target/expected beneficiaries have been reported, based on 53 APRs. The adaptation impact achieved to date is largely driven by the progress reporting of two projects.** The number of beneficiaries reached through the 53 projects for which an APR is available amount to approximately 4.2 million (1.9 million for adaptation, 2.3 million for cross-cutting). This corresponds to the 5 per cent of the total target beneficiaries expected for the 53 projects considered in the APR sample, and to 1 per cent of the total target beneficiaries in the 107 projects in the current portfolio. In adaptation-only projects, this result (1.9 million beneficiaries) is largely driven by the number of beneficiaries reported by FP002 (‘Scaling up the use of Modernized Climate information and Early Warning Systems in Malawi’). The FP002 project accounts for 85 per cent of the 1.9 billion beneficiaries reported for adaptation projects. Similarly, in the case of cross-cutting projects, FP070 (‘Global Clean Cooking Program in Bangladesh’) accounts for 95 per cent of the 2.3 million beneficiaries reached to date.

37. **Procurement and implementation are fundamental challenges for adaptation projects. Temporal aspects are also considered a key challenge.** In some cases, no beneficiaries were reported due to data gaps in reporting. In other cases, such as in infrastructure projects, beneficiaries will only be reached at the end of project realization. The COVID-19 pandemic has exposed new and unanticipated challenges in project implementation. The survey of AEs highlighted that delays in GCF activities due to COVID-19, including lockdown measures, banning meetings and travel restriction measures, were the most frequent causes of implementation delays. Other frequently-reported implementation challenges were of a financial and political nature (see Figure VIII-11). The survey also highlighted an important factor from COVID-19 for revenue generating adaptation interventions. Specifically, that “non-grant instruments are a challenge for implementing climate adaptation projects when revenue streams are not apparent”.

Figure VIII-11.If any of the concept notes you developed (adaptation and cross-cutting theme) were withdrawn, what were the reasons?



Source: Online survey data from AEs.

5. RESULTS-BASED FINANCING

38. **Results-based financing has grown considerably in recent years. Experts highlight how results-based payments – payments to agents for achieving pre-agreed, verified results – present a unique approach that is applicable to adaptation interventions.** A recent evidence review from the IEU highlights that between 2016 and 2020, at least USD 529 million of GCF funding was approved to be disbursed using results-based modalities deployed as part of 15 projects (either wholly or in part).[144] These projects are highlighted in Table VIII-4. When Alldredge et al. (2021) consider the total commitments to all 15 projects, the GCF has made a financial commitment of around USD 693 million between 2016 and 2020 (with 76 per cent of this for results-based modalities).[145] The GCF has mainly used a results-based payment instrument for projects under the its REDD+ results-based payments (RBP) pilot programme, to provide monetary transfers to countries for verified emissions reductions stemming from reduced deforestation and forest degradation. However, and importantly for adaptation, a results-based approach has also been deployed as part of the projects in the adaptation portfolio that use grants, which is reflected in the underlying budget allocations. Table VIII-4 lists the projects that use an RBP modality. The Annex 6 breaks down the budget share associated with these results-based sub-components by showing an intervention heat map of GCF results-based financing in nominal USD millions. It shows that 10 of the 15 results-based projects funded by the GCF to date have utilized payments for environmental services (PES) mechanisms to create incentive for suppliers or beneficiaries: three used conditional cash transfers (CCTs), and one project used combined CCT- and voucher-based approaches.

[144] Alldredge, Josh Meuth, Emma De Roy, Elangtlhoko Mokgano, Peter Mwandri, Tulika Narayan, Martin Prowse, Jyotsna Puri, William Rafferty, Anu Rangarajan, and Faraz Usmani (2020). Evidence review on results-based payments: Evidence Gap Map and Intervention Heat Map. IEU learning paper, December 2020. Independent Evaluation Unit, Green Climate Fund. Songdo, South Korea.
[145] Alldredge et al. (2021) excluded any amount co-financed by national governments or other organizations. In addition, they excluded a 2.5 per cent charge indicated for the use of proceeds and non-carbon benefits) as disbursed under results-based modalities.

Projects that have used CCT- and voucher-based approaches have targeted a wide range of sector-specific and socioeconomic outcomes.

39. **Results-based financing provides an opportunity to build an incentive structure in adaptation projects for implementing agents to deliver on time, to budget and for results to be verified by independent third parties.** The evidence review highlights how certain types of results-based modalities – vouchers, pay-for-performance models, PES and CCTs – have been studied widely, while other types, such as grand challenges, impact bonds, advance market commitments and pull mechanisms are less abundant. The GCF includes performance-based financing within its financial modalities, and can learn from best practices regarding how to use such results-based modalities for adaptation interventions within its portfolio.

Table VIII-4. GCF projects that use the results-based payment modality

GCF PROJECT NUMBER	COUNTRY FOCUS	GCF FINANCIAL INSTRUMENT	RBP INTERVENTION TYPE	TOTAL GCF COMMITMENT (USD, MILLIONS)	RBP-ALLOCATED AMOUNT (USD, MILLIONS)
FP019	Ecuador	Grants	PES	41.2	17.0
FP062	Paraguay	Grants	CCT	25.1	2.4
FP067	Tajikistan	Grants	CCT	9.3	1.6
FP100	Brazil	Results-based payment	PES	96.5	94.1
FP110	Ecuador	Results-based payment	PES	18.6	18.1
FP117	Lao PDR	Grants	PES	17.8	4.1
FP120	Chile	Results-based payment	PES	63.6	62.1
FP121	Paraguay	Results-based payment	PES	50.0	48.8
FP125	Viet Nam	Grants	CCT/Voucher	30.2	3.5
FP130	Indonesia	Results-based payment	PES	103.8	101.3
FP134	Colombia	Results-based payment	PES	28.2	27.5
FP142	Argentina	Results-based payment	PES	82.0	80.0
FP144	Costa Rica	Results-based payment	PES	54.1	52.8
FP146	Nicaragua	Senior loans/grants	PES	64.1	12.1
SAP002	Kyrgyzstan	Grants	CCT	8.6	3.1

Source: Alldredge et al. (2020). Evidence review on results-based payments: Evidence Gap Map and Intervention Heat Map. IEU learning paper, December 2020.

Chapter IX. INNOVATION AND RISK

KEY RECOMMENDATIONS

- As innovation is part of the strategic priorities for 2020–2023, the GCF should clearly identify and incentivize innovation.
- The GCF should define the delivery of successful structures, systems and organizations as actual project impacts. One such example would be defining support for innovative structures, such as blended finance vehicles for adaptation, which are successfully used in mitigation (e.g. in FP099: Climate Investor One) but not yet in adaptation.
- The GCF should strengthen programmatic approaches in adaptation finance, as they are important for leveraging lessons from one project to another, and for fostering innovative replication. The focus here is on transferring knowledge between projects in the same sector or results area. This should involve different AEs that execute different projects, but closely interact to exchange knowledge, capabilities and approaches.

KEY FINDINGS

- The Secretariat's USP outlines a clear strategic vision for 2020 to 2023, linking innovation to promoting paradigm shift towards climate-resilient development pathways in the context of sustainable development.
- However, innovation is no longer included as an activity-specific sub-criterion for paradigm shift potential. Moreover, the level or types of innovation have not been systematically defined in the project and programme review process.
- The gender policy directly links climate change interventions and innovation, but there is little evidence and guidance on how this can be achieved.
- Based on country needs, adaptation innovation in "software" (i.e. organizational, behavioural and procedural) is needed the most. Forms of social and institutional innovation, including traditional knowledge, which create new delivery models are often more important than technological innovation.
- A review of funding proposals shows the tendency for adaptation projects to have greater potential for transformation.
- Innovation comes with the risk of failure and is loosely addressed in the risk assessment approach of the GCF, as defined in the risk management framework.
- The stated risk appetite of the GCF is conducive to innovation in adaptation projects. But its revealed risk appetite is considerably less than its stated appetite.
- Replication of innovation is not pursed at the GCF level. Programmatic approaches present an opportunity to leverage lessons from one project to another.

A. Overview

1. This chapter assesses whether the GCF sufficiently utilizes its risk appetite. It also looks at the extent to which the GCF has supported adaptation projects that can be considered innovative, and charts a path for the GCF to support innovation in adaptation. The chapter starts by assessing the approach of the GCF to innovation in the USP, and where the Fund already shows promising signs of supporting innovative approaches. The chapter assesses whether the GCF is helping to contribute to innovation in adaptation, and where the GCF has (or has not) been innovative to date. The chapter highlights some of the intrinsic differences between innovation in mitigation and adaptation, with the latter relying more on changes in organizational, behavioural, systemic and procedural aspects, in contrast to technological or economic forms. This chapter closes by highlighting the other side of the innovation coin – that is, the risk of failure. The evaluation question for this chapter is: Does the GCF focus sufficiently on innovation and does it take the right level of risk?

B. Innovation mandate at the GCF

2. **Operationally, innovation plays an integral part of the paradigm-shift mandate of the GCF.** The GI states, "In the context of sustainable development, the Fund will promote the paradigm shift towards low-emission and climate resilient development pathways by providing support to developing countries to limit or reduce their GHG emissions and to adapt to the impacts of climate change, taking into account the needs of those developing countries particularly vulnerable to the adverse effects of climate change." With its decision B.09/05, the Board adopted the initial activity-specific sub-criteria and indicative assessment factors and decided to use them as indicative minimum benchmarks during the project and programme proposal approval process at the GCF, "to ensure that [they] demonstrate the maximum potential for a paradigm shift". Decision B.19/07 decided to refer to these as investment criteria indicators. One of the key indicators for the paradigm shift investment criteria is innovation.[146] The indicator is further expressed as "opportunities for targeting innovative solutions, new market segments, developing or adopting new technologies, business models, modal shifts and/or processes". In addition to this, the effectiveness and efficiency investment criteria is also guided by the sub-criteria of "application of best practices and degree of innovation (mostly referring to technological innovation)".[147] Innovation is only mentioned once in the GI where it states "the Board shall also ensure adequate resources for capacity-building and technology development and transfer. The Fund will also provide resources for innovative and replicable approaches."
3. **This role for innovation is reinforced in the USP for 2020–2023,** which states that strategic programming will seek to: " … (b) Promote projects and programmes with potential for innovation, replication, scale and financial sustainability (reflecting the components of paradigm shift), as well as projects which deliver integrated mitigation, adaptation and development benefits; and (c) Show how the risk appetite of GCF differs from other climate multilateral funds, which is to take on risks that other funds/institutions are not able or willing to take, by increasing instances in which GCF takes educated risks – to support technology development and transfer, first loss positions or participation in higher risk tranches – to demonstrate the viability of innovative approaches and deliver scale." The USP further specifies that the GCF aims to play a more proactive role in

[146] Decision B.19/07 Investment criteria indicators – Development of a Proposal. Decision B.22/15: Adoption of Investment Criteria Indicators for a pilot period, further clarified some of the indicators and identified a pilot period of one year.
[147] Decision B.09/05 Initial investment framework sub-criteria and assessment factors; annex III: Initial investment framework: activity-specific sub-criteria and indicative assessment factors.

supporting the upstream project and programme design process and in assisting with structuring innovative investments, forging novel investment partnerships and drawing on global expertise.

4. **The USP reveals the importance the Fund attaches to innovation.** The GCF identifies the financing of innovative projects and programmes as an important outcome for achieving a paradigm shift, together with programming resources at scale, ensuring country ownership, implementing transparent and inclusive procedures and crowding-in, and maximizing the engagement of the private sector. The GCF seeks to employ programmatic approaches towards strengthening the institutional and human capacity needs of developing countries. In short, innovation is core to the mission of the GCF, although it does not make this very explicit.
5. **Within the USP, the most tangible innovation ambition to date is cooperation with the UNFCCC on technological innovation**. The USP mentions that the GCF will strengthen collaboration with the Technology Mechanism of the UNFCCC to identify where the GCF can unblock bottlenecks in value-chains for technology innovation, diffusion and transfer and to support national innovation systems and local technology production. These are worthy intentions – especially the limited transfer of adaptation technologies – but, as we will see below, this is more applicable to mitigation than adaptation.
6. **The innovation aims expressed in the USP are not informed by the investment criteria indicators or any other framework**, given the absence of innovation in the newly adopted investment criteria indicators. In decision B.22/15, the Board adopted these indicators, including an adaptation impact indicator, co-benefit indicator and a necessary conditions indicator, for a pilot period of one year. By design, these indicators do not directly inform innovation at the GCF.
7. **Moreover, innovation is not systematically defined or scored by either iTAP or Secretariat assessments.** While the PSF has been using a scorecard approach in which innovation is mentioned, a lack of guidance regarding innovation creates a tension between these two sources of information. Interviews with AEs noted they had not received any guidance on the concept of innovation and how it should be integrated into FPs. For example, the GCF programming manual published in 2020 does not offer clear guidance on this. Interviews with AEs also highlighted that they had received comments on innovation that were subsequently addressed in the development and approval process of FPs.
8. **Table** IX-1 **below examines the extent to which the current investment criteria are conducive for the GCF financing innovative projects**. The picture that emerges, though somewhat normative, shows a mixed result: of the eight adaptation investment indicators (that underly the six investment criteria), three are conducive to innovation, three are partially conducive, one is neutral and one is non-conducive to innovation. In other words, although innovative projects may be brought to and financed by the GCF, there is insufficient emphasis on this happening structurally, and rather limited guidance for facilitation. In interviews for this evaluation, respondents highlighted that they did not fully realize they had to demonstrate innovation or justify that their proposals are following an innovative approach.
9. **One policy that explicitly links innovation and project interventions is the gender policy.** Per decision B.24/12, Adoption of the Updated Gender Policy and Gender Action Plan of the GCF 2020–2023, the GCF expressed three main objectives for this policy, including, “To support climate change interventions and innovations through a comprehensive gender approach, applied both within the institution and by its network of partners, including AEs, NDAs and focal points and delivery partners for activities under the GCF Readiness and Preparatory Support Programme.” Respondents in interviews highlighted that there was little clarity on how projects should address

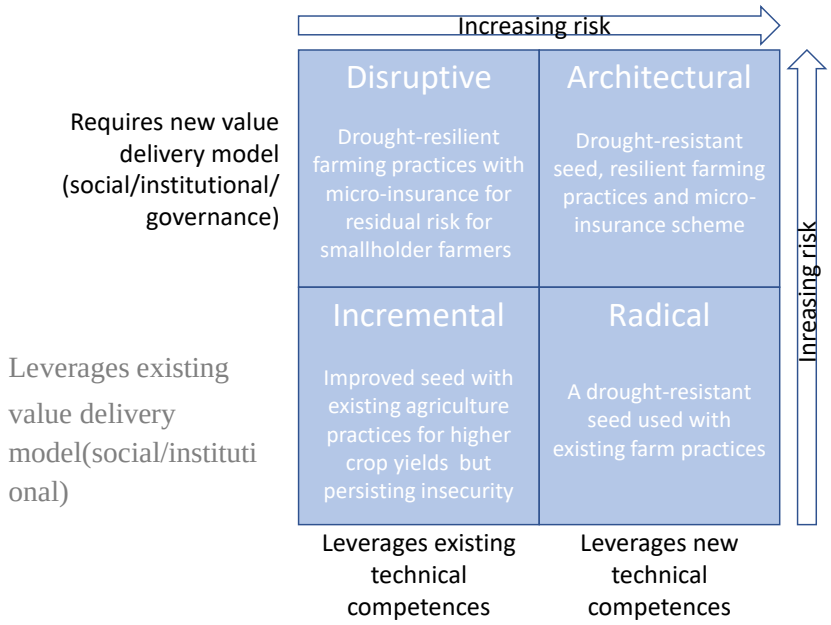
innovation through a comprehensive gender approach in adaptation projects. Put simply, the link between innovation and gender has not been clearly explained to these interviewees.

1. DIFFERENT TYPES OF INNOVATION IN ADAPTATION

10. **Innovation is different from invention or putting new ideas into practice.** Encapsulated in the novelty part of the definition is that innovation entails something new, be it the application of a new technology or a process in an organization of how something is done. The value part of the definition implies that innovation creates value for stakeholders, be it financial, environmental, social or otherwise. Another aspect of the definition relates to risk. Risk should be an "informed" risk so stakeholders invest in the best idea (whether this is with financial or human resources). The definition also implies that innovation should have the potential to be more effective than existing approaches. Overall, innovation can be defined as *novelty and the creation of value*.

11. **It is useful to distinguish between four different types of innovation: incremental, disruptive, radical, and architectural.** Figure IX-1 uses the example of drought-resilient agriculture across these four types of innovation.[148] The graphic illustrates how innovations can either use existing or new delivery models and leverage either existing technical competencies or new technical competences. One can argue that within climate adaptation innovation in delivery models, that innovation of the disruptive and possibly architectural type, is more important than leveraging technical competencies. The reason behind this is that the most vulnerable countries are vulnerable due to socioeconomic and other structural reasons as much as they are, because of climatic factors. Enhancing their adaptive capacity often means addressing underlying reasons rather than providing technical competencies or adaptation technologies aimed at specific dimensions of climate change. It should also be recognized that the different mandates and capabilities of (financial) actors active in adaptation mean they vary in terms of the types of innovation that they can deliver best.

Figure IX-1. Four different types of innovation (modified after Pisano[149]) illustrated for the case of drought-affected agriculture



Source: Pisano, G.P. (2015). You need an innovation strategy. *Harvard Business Review*.

[148] The term "delivery model" in the figure refers to how a social system or organization creates, captures or contributes value to itself or to its stakeholders.
[149] Pisano G.P. (2015). You need an innovation strategy. *Harvard Business Review*.

12. **Innovation in climate adaptation is fundamentally different from mitigation.** This is encapsulated by the IPCC, which stated that "unlike mitigation, where low carbon technologies are often new and protected by patents held in developed countries, in adaptation the technologies are often familiar and applied elsewhere. For example, agricultural practices that are well known in a region some distance away may now be applicable but unfamiliar within a region of interest".[150] In this respect, technological innovation appears to play less of a role in adaptation than in mitigation. A recent WB publication[151] shows that while the number of new patents for technologies aimed at climate adaptation has increased in line with new patents for all technologies, it lags considerably behind mitigation technology patents, whose share of all patents doubled during the same period. This study also shows that technology transfer activity towards low-income countries is well below that of mitigation technologies, which the UNFCCC[152] attributes to insufficient demand due to economic and financial issues.[153]

2. WHAT ADAPTATION INNOVATIONS DO COUNTRIES NEED?

13. **Based on country needs, adaptation innovation in "software" (i.e. organizational, behavioural and procedural) is needed the most.** As highlighted in Chapter II, the IPCC provides an extensive, but not exhaustive, list of adaptation needs.[154] It categorizes these needs in terms of biophysical and environmental needs; social needs; institutional needs; private sector engagement needs; and information, capacity and resource needs, the latter including finance. To reiterate from Chapter II, the IPCC (2014) clusters these needs in the following way:
    - Structural/physical, comprising: (i) engineered/built environment; (ii) technological; (iii) ecosystem-based; and (iv) services
    - Social, comprising: (i) educational; (ii) informational; and (iii) behavioural
    - Institutional, comprising: (i) economic; (ii) laws and regulations; and (iii) government policies and programmes
14. **Whereas the first category is a mixture of "hardware" factors (notably tangible products, technology, equipment, etc.) and "software" (organizational, behavioural and procedural), software dominates the other two categories.** Most adaptation options require complex social and institutional delivery systems. It follows that innovation is most needed in these "soft" areas. As a stylized fact, one can argue that while in mitigation projects the focus is often, but not exclusively, on hardware and economic aspects, in adaptation the focus tends to be more on software factors.[155] This has implications for how GCF should think on innovation in adaptation.
15. **Technological ('hardware') innovation can be important but the transfer of existing technologies is more important than the development of new ones.** Technological innovations are important for shifting fundamental limits to adaptation. Examples are new crop and animal

[150] Noble, I.R., S. Huq, Y.A. Anokhin, J. Carmin, D. Goudou, F.P. Lansigan, B. Osman-Elasha, and A. Villamizar (2014). *Adaptation needs and options*. In: Climate Change 2014: Impacts, Adaptation and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 833-868.
[151] Antoine Dechezleprêtre et al. (2020). *Invention and global diffusion of technologies for climate change adaptation: A patent analysis.* World Bank. Available at https://openknowledge.worldbank.org/handle/10986/33883.
[152] UNFCCC (2018). Summary of country priorities: Technology Needs Assessments 2015–2018.
[153] For more than 90 per cent of the adaptation technologies, economic and financial barriers to transfer exist (the next highest barriers being: legal and regulatory; technical and information awareness).
[154] IPCC (2014). Adaptation needs and options. Fifth Assessment Report (AR5), Chapter 14.
[155] In this respect, Collof et al. (2017)[155] describe transformational adaptation as a process, and highlight: (i) transformation of eco-systems; (ii) transformation of decision contexts; and (iii) transformation as developing the capacity for adaptive, transformative governance. Amongst these, the second type of transformation is non-deliberate and contingent on the first type, whereas the third type is a deliberate process.

varieties, mechanical and passive cooling systems, and early warning systems or nature-based solutions. But, as highlighted above, oftentimes, new technologies suitable for a particular region may already be available elsewhere. Knowledge and transfer of adaptation technologies is therefore probably more important than the development of new ones. Such technology transfers may in fact be easier in adaptation than for mitigation given that they are often not protected by patents held in developed countries. For example, to address water scarcity issues in many places, existing water storage, use and water efficiency technologies will all need to be more widely transferred.

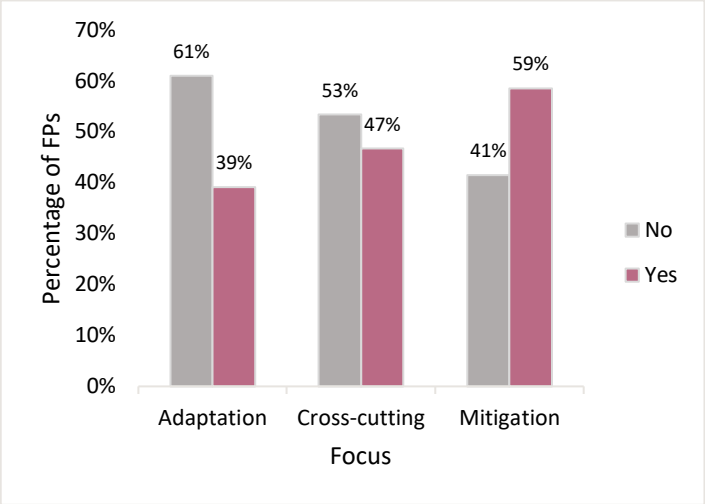
16. **An informational GCF Board document on the support options for technology-collaborative research and development, describes innovation as a collaborative process.**[156] While the focus is on technological innovation, the document also speaks of "collaborative research development and demonstration", "grassroots innovation", "indigenous innovation" and "inclusive innovation", which are very much relevant for "software" innovation needed in adaptation. Collaborative innovation offers the best chance of being effective but because of its design, it cannot be efficient. Interactions (or worse, debate and conflict) increase disproportionally with the number of stakeholders involved while the potential for synergy rapidly decreases.
17. **Collaborative innovation implies that the focus is more on the process than on detailed and ex ante defined outcomes.** In fact, a focus on outcomes may exclude the discovery of truly new delivery systems which should be the key objective for innovative projects in adaptation. It is self-evident that any project should harbour expectations about outcomes, but in adaptation these serve as contextual background. As stated by Thomas S. Kuhn, "… novelty emerges only with difficulty, manifested by resistance, against a background of expectation".[157]

3. INNOVATION IN THE GCF PORTFOLIO

18. **Adaptation projects mention innovation less than mitigation and cross-cutting projects.** It is inherently difficult to identify the level of innovation in the GCF adaptation portfolio. Based on cursory inspection of project documentation as well as a number of interviews with GCF staff, it is clear that a number of FPs show potential to be innovative, although it is still too early to tell in most cases. To get an impression of the innovative potential of the entire GCF adaptation portfolio, Figure IX-2 shows which fraction of the 152[158] FPs include any reference to innovation. As can be seen, 39 per cent of adaptation FPs refer to innovation, which is lower than that for cross-cutting FPs, and especially proposals focusing on mitigation.

[156] The informational document (GCF/B.18/12) "Options for support for technology collaborative research and development" has not been endorsed by the Board, to date.
[157] Kuhn, T.S. (1962). *The Structure of Scientific Revolutions.* Chicago: University of Chicago Press.
[158] Funding proposals excluding REDD+ projects and lapsed projects.

Figure IX-2. Funding proposals that mention innovation



Source: Self-reported information from the FPs, as of 13 November 2020.

19. **The fact that adaptation projects reference innovation less is not entirely surprising.** As mentioned above, mitigation projects comprise to a greater extent technological intervention, and to many people innovation is more associated with "hardware" factors than with "software" ones that aim for societal, (individual) behavioural and institutional changes, as is often the case in adaptation. In focused interviews, GCF staff confirmed the existence of a technology-centric bias on what innovation is. At the same time, it was widely acknowledged that in adaptation the needs for true innovation are even more profound.
20. **Although one cannot establish an optimal level of innovation using the above information, a comparison to mitigation seems to show an "innovation gap" in the GCF adaptation portfolio.** Of course, we acknowledge that self-reported innovation in FPs is far from an ideal measure of the true innovation potential of projects. But triangulating the opinions of GCF staff and stakeholders, portfolio-wide innovation references and a high-level inspection of adaptation projects, we think the innovation gap is real. It is important to note however that Figure IX-2 does not show evolution over time, because the sample size does not allow for that. Nonetheless, both internal and external stakeholders acknowledge that the innovativeness of projects has improved since GCF's early years, when considerable political pressure was exerted to show that the GCF was functional and able to commit and disburse capital.
21. **Social innovation and the use of traditional knowledge are important elements in context-specific adaptation projects.** Interviewees from the SIDS evaluation pointed out that in resource-constrained contexts, such as in many vulnerable countries, local and proven solutions often have a higher likelihood of adoption and maintenance (sustainability) than newer technologies. Interviewees in the countries chosen for this evaluation further underlined these findings. They stressed the importance of social and informal networks being integrated into climate action. Interviewees also stated that there are tensions between the need for proven technologies to address the urgency in climate adaptation and the need for innovative approaches to social and institutional structure to ensure sustained impacts.
22. **On the other hand, a review of funding proposals shows that adaptation projects tend to have greater potential for transformation.** Box IX-1 below summarizes a recent assessment of a

paradigm shift (or transformational change) at the GCF using self-reported project data.[159] It shows that, based on the self-reported data from funding proposals, adaptation projects show greater potential for transformational change than either mitigation or cross-cutting projects. In this respect, the emergent niche and role of the GCF in adaptation can contribute more to a paradigm shift in this area as opposed to in mitigation.

Box IX-1. Adaptation projects show greater potential for transformational change than either mitigation or cross-cutting projects

Climate finance institutions have been tasked with effectively and efficiently dispersing funds to spur the transition to low-carbon, climate-resilient economies, and the GCF is the climate fund expected to assist the most vulnerable in adapting to and mitigating climate change because of its mandate to contribute to a paradigm shift. To understand if the GCF portfolio is on track to achieve this aim, Puri et al. (2021) reviewed the project documents of GCF investments through March 2020 (N=125 projects). They examined the attributes of these investments by applying a framework for potential transformational change, comprised of eight components:

- Scale
- Behaviour change (including stakeholder engagement; social learning; social change)
- Replicability
- Sustainability
- Innovation (including risk-taking)
- Policy change (including governance)
- Depth of change
- Relevance

Puri et al. (2021) used bivariate statistics and multivariate cluster analysis to examine the GCF portfolio of mitigation, cross-cutting and adaptation projects. Bivariate tests found that adaptation projects show the greatest intention to integrate policy change into national planning processes, and that both adaptation and cross-cutting projects require a greater need for and expectation of behaviour change.

Results from cluster analysis showed how adaptation projects dominate clusters with high and medium potential for transformational change (with 47 per cent and 78 per cent of projects, respectively). In other words, adaptation projects show greater potential for transformational change than either mitigation or cross-cutting projects, based on the data from funding proposals self-reported by AEs.

However, even the high-potential cluster only displays the highest average scores for four of the eight components in our framework of transformational change. These findings present learning opportunities for future GCF project selection. The GCF could leverage its current resources carefully to attain transformational impacts, especially within adaptation, where the Fund has a greater market share compared to mitigation projects.

Source: Puri et al. (2021). Assessing the likelihood for transformational change at the Green Climate Fund. IEU Learning Paper.

[159] Puri, J., M. Prowse, E. De Roy and D. Huang (2021). Assessing the likelihood for transformational change at the Green Climate Fund. IEU Learning Paper.

Table IX-1. GCF investment criteria indicators

INVESTMENT CRITERIUM	ADAPTATION INDICATOR	CONDUCIVENESS TO INNOVATION IN ADAPTATION
Impact potential	**Adaptation impact indicator** Project proposals should describe the expected change in loss of lives, value of physical assets, livelihoods, and/or environmental or social losses due to the impact of extreme climate-related disasters and climate change in the geographical area of the GCF intervention. Proposals should also refer to the number of direct and indirect beneficiaries of the project, taking into account the needs of developing countries that are particularly vulnerable to the adverse effects of climate change.	**Partially conducive**: Expected climate change-related loss of lives and other losses are relevant preconditions for innovative adaptation projects. Description of anthropocentric indicators seem overly prescriptive for stimulating innovative projects that aim for structural changes.
Paradigm shift potential	**Necessary conditions indicator** Project proposals should identify a vision for paradigm shift as it relates to the subject of the project. The vision for paradigm shift should outline how the proposed project can catalyze impact beyond a one-off investment. This vision for longer-term change should be accompanied by a robust and convincing theory of change for replication and/or scaling up of the project results, including the long-term sustainability of the results, or by a description of the most binding constraint(s) to change, and how it/they will be addressed through the project.	**Partially conducive**: Although innovative projects *intend* to be eventually replicated or scaled up, the ex ante focus on *achieving* replication and/or scaling up could steer projects towards what already has been proven.
Sustainable development potential	**Co-benefits indicator** In addition to the impacts of the project, the proposals must identify at least one positive co-benefit – with an associated indicator, and baseline and target values, disaggregated for men and women if disaggregated data are available domestically – in at least two of the following four coverage areas: (i) economic co-benefits, such as the creation of jobs, poverty alleviation and enhancement of income and financial inclusion, especially among women; (ii) social co-benefits, such as improvements in health and safety, access to education, cultural preservation, improved access to energy, social inclusion, improved sanitation facilities and improved quality of and access to other public utilities such as water supply; (iii) environmental co-benefits, including increased air, water and soils quality, conservation and biodiversity; and (iv) gender empowerment co-benefits outlining how the project will reduce gender inequalities.	**Conducive**: Innovation in adaptation is inherently collaborative, and co-benefits are well aligned with that.
Needs of the recipient	**Barriers to climate-related finance**	**Conducive**: Identification of the barriers to accessing different sources of finance is a first step to addressing them.

INVESTMENT CRITERIUM	ADAPTATION INDICATOR	CONDUCIVENESS TO INNOVATION IN ADAPTATION
	Project proposals should describe the country's financial, economic, social and institutional needs and the barriers to accessing domestic (public), private and other international sources of climate-related finance. The proposal should outline how the proposed intervention will address the identified needs and barriers.	For true innovation, there must be a plan on how to leverage GCF finance to crowd in other financiers.
Country ownership	**Alignment with NDCs, relevant national plans indicator and/or enabling policy and institutional frameworks.** Project proposals should clearly describe how the proposed activities align with the country's NDC and other relevant national plans, and how the FP will help to achieve the NDC or these plans by making progress against specific targets defined in national climate policies and strategies, such as nationally appropriate mitigation actions and NAPs. The proposals should also outline how the project will help to achieve national development goals and/or climate change policies. Proposals should also reference the degree to which the project is supported by a country's enabling policy and institutional framework, or includes policy or institutional changes. **Explanation of engagement with relevant stakeholders, including NDAs indicator**: Project proposals should outline how they were developed in consultation with relevant stakeholders. Engagement with NDAs is required.	**Neutral**: NAPs are often not well developed, especially in the more vulnerable countries. Alignment with them does not foster innovation, nor does it hamper it. **Conducive**: Innovation in adaptation is inherently collaborative, and meaningful engagement with stakeholders encourages that.
Efficiency and effectiveness	**Mitigation and adaptation indicator**: expected rate of return. As appropriate, projects should provide an estimate of the expected economic internal rate of return and/or financial internal rate of return, depending on the needs of the project. **Mitigation and adaptation indicator**: application of best practices. Projects should describe how the proposal applies, and build on the best practices in the sector.	**Non-conducive**: Innovation in adaptation is much more explorative than outcomes are process path-dependent. **Partially conducive**: Innovation is about improving best practices rather than replicating them. On the other hand, establishing best practice delivery channels in a different context can be the actual innovation.

Source: Annex VII to decision B.22/15, paragraph (a).

C. RISK AND UNCERTAINTY

23. **Innovation is loosely addressed in the risk assessment approach of the GCF, as defined in the risk management framework.** As per decision B.17/11, the GCF adopted a first set of components for risk management, including inter alia a revised risk register, a risk appetite statement and risk guidelines for funding proposals. Following the general definition that risk "is a potential event that can threaten the achievement of an organization's goals", for each risk the following parameters are important: probability of impact; tolerance; mitigation; priority; and key indicators measurement. The proposed risk assessment approach includes two types of risk: inherent risk and residual risk.[160] None of the subsequent indicators would identify innovation as a component or subcomponent at the GCF level. However, decision B.17/11 also contained further updated guidelines for the funding proposals.[161] Here the Fund provides guidance on four types of risk, with one set of guidelines on the risk assessment of proposals and CNs. The guidelines further state the GCF must consider the risk of project/programme failure. Operationally, the risk assessment of a project/programme failing to deliver its target impact includes AE/EE capacity, project-specific execution risks, and financial viability. The guidelines further provide a link to GCF/B.12/32 annex I, which describes that in relation to the project and programme risk approach, the GCF is able to:

    - *Take on risks that other funds/institutions are not able or willing to take including risks associated with deploying innovative climate technologies*
    - *Pilot and potentially scale-up and replicate innovative approaches*
    - *Deploy the full range of financial instruments at its disposal*
    - *Leverage additional financing inputs from innovative and alternative sources*.[162]

    Unfortunately, the guidelines do not further specify the way in which an assessment approach should be carried out.

24. **In this respect, innovation comes with the risk of failure, and the stated and revealed risk appetite of the GCF needs to reflect that.** Inherent in innovation is the risk of failure. Not all innovation is worth the risk and not all risk mitigation (cost) is worth the hidden cost of foregone innovation. We now turn to how the evaluation assesses the stated risk appetite of the GCF, as well as how its project risk screening, management and mitigation are perceived by stakeholders.

25. **The stated risk appetite of the GCF in its risk management framework is conducive to innovation in adaptation projects.** As per the latest update of the GCF risk management framework through decision B.17/11, the framework distinguishes the following risk categories: compliance risk; legal risk; reputation risk; operational and IT risk; project/programme failure risk; and funding risk. For each of these categories, GCF analyzes the probability of occurrence and its impact, as well as the residual risk after GCF mitigation measures. Except for the compliance risk, the GCF will take on all other risk in a limited and controlled fashion, and will actively take on impact risk (part of the project/programme risk category). This stated preference is important

[160] "Risk that exists before an organization takes mitigation actions is inherent risk, and risk that remains after control measures are taken is residual risk. The objective of risk management is to maintain the residual risk level within risk appetite and tolerance set by the Board of an organization." Decision B.17/11: Adoption of revised risk register, risk appetite statement, risk dashboard, and risk guidelines for funding proposals; appendix I: Updated technical note from the Risk Management Committee and the revised risk register.
[161] Decision B.17/11 Adoption of revised risk register, risk appetite statement, risk dashboard, and risk guidelines for funding proposals; annex VIII: Risk management framework component IV – "Risk guidelines for funding proposals".
[162] Decision B.17/11 Adoption of revised risk register, risk appetite statement, risk dashboard, and risk guidelines for funding proposals; annex VIII: Risk management framework component IV – "Risk guidelines for funding proposals"; and GCF/B.12/32 annex I: Initial Strategic Plan for the GCF.

because it encourages innovative projects to seek GCF financing, especially in adaptation where the assessment of impact is more challenging.

26. **The revealed risk appetite of the GCF is considerably less than its stated appetite**. From the country studies, and also highlighted in the FPR of 2019, the GCF can be seen as rather demanding and risk-averse when it comes to the accreditation of entities and the approval of projects. The GCF's standards are high and its processes take a long time. While adaptation projects are smaller than mitigation projects, their funding proposal reviews and legal arrangements take longer (see Chapter V). This poses a relatively larger hurdle for DAEs than it does for large IAEs. Indeed, of the 67 adaptation projects, only 14 are implemented by regional or local DAEs.[163] As previously argued, the inherent nature of adaptation innovation is collaboration with local stakeholders. This implies that securing the involvement of local DAEs can be a substantial source of adaptation innovation, and the hurdles to their involvement thus mean hurdles to innovation.
27. **The efforts of the GCF to prevent false positives in terms of AEs and projects has a definite, although unknown, cost in term of false negatives.** The Fund's high standards and strict procedures are geared towards eliminating false positives, that is, the screening out of AEs and projects that are not worthy of GCF financing. The extent to which GCF standards and processes result in false negatives (i.e. worthy entities and projects not being accredited or approved) is largely unknown. Interviewees in countries and at the Secretariat recognized that a number of national organizations have given up on working with the GCF. In particular, few interviewees at the Secretariat indicated that DAEs are not considered riskier in comparison to IAEs with respect to implementation. While the evaluation team have not encountered any adaptation projects which were rejected by the GCF on the grounds of risk issues, the GCF does not systematically track projects and reasons for why potential projects have not materialized, to foster its own learning.
28. **The GCF should define delivery of successful structures, organizations or AEs as actual project impacts.** Whereas the Initial Results Management Framework (GCF/B.07/04) emphasized quantitative indicators such as the number of direct and indirect beneficiaries, the current draft IRMF (GCF/B.27/Inf.14) seems to pay more attention to systemic change. The evaluation team generally support this shift because change of systems and institutions is crucial for long-term successful adaptation.
29. **Replication of innovation is not pursued at the GCF level. Programmatic approaches present an opportunity to leverage lessons from one project to another and to foster innovative replication.** Focusing on transferring knowledge between projects in the same sector or results area, a programmatic approach ideally involves different AEs who execute different projects but closely interact to exchange knowledge, capabilities and approaches. Such an experimental approach to innovation is the preferred model of leading organizations like Google. Trial and error-based innovation occurs more between projects than within them. Most interviewees in the countries highlighted that little knowledge on best practices and innovations is shared across entities and regions, despite an expected potential for learning. Respondents stated that such an approach and knowledge sharing would help reduce the risk of failure and maladaptation right from the start.

[163] The pipeline for DAEs looks more promising (see Chapter VII).

Chapter X. CONCLUSIONS AND RECOMMENDATIONS

"Adaptation cannot be the neglected half of the climate equation."

- António Guterres, Remarks to the Climate Adaptation Summit, 25 January 2021 at the United Nations Headquarters -

1. One of the key motivators for the establishment for the GCF was the much needed balance in favour of adaptation finance. If vulnerable communities are to be made climate resilient, climate finance institutions have to be effective and efficient. To our knowledge, this evaluation is so far the only complete assessment of the GCF portfolio and its approach to climate adaptation. The evaluation team has identified six key factors that are critical to the GCF climate adaptation approach and portfolio. These six factors are: the positioning of GCF vis-à-vis other climate funds and multilateral organizations; the capacity for adaptation planning; the opportunity to scale up with the private sector; the importance and urgency of adaptation action and finance; the measurability of results; and lastly, the need for innovation.
2. This chapter presents the findings and recommendations of this report in addressing these six key factors, and compiles the conclusions and recommendations of the evaluation. The chapter highlights opportunities for the GCF which the Board can consider in the short to medium term.

A. KEY FINDINGS

KEY FINDING 1: POSITIONING IN ADAPTATION FINANCE

3. **Finding 1(a):** Unlike other climate funds, the GCF avoids defining adaptation, allowing flexibility for developing countries to define what adaptation means in their unique context. However, this reduces the precision of policies and strategies for stakeholders. Conceptually, adaptation is inextricably linked to, and at the centre of sustainable development. It is a subset of development in areas with high climate risks. The same also applies to adaptation finance.
4. **Finding 1(b):** The GCF is a minor actor in the overall climate finance space but has an opportunity to be more relevant in adaptation. Considering its mandates and resources, the GCF is uniquely positioned to finance projects at scale with a high risk appetite, if appropriate and consistent with country needs. However, the GCF has not clearly defined a specific approach for adaptation programming.
5. **Finding 1(c):** Project-level interactions between GCF proposals and the projects of other climate funds, multilateral partners and the private sector, have not yet been systematically identified nor actively pursued. There have been some attempts in the past few years to foster greater coordination at multiple levels.
6. **Finding 1(d):** The GCF also has the opportunity to clarify its role beyond adaptation finance. It can do this through its: (i) resources dedicated to adaptation planning; (ii) convening power at regional, national and subnational level; and (iii) knowledge management and sharing potential, to ensure coherence and complementarity in the delivery of adaptation planning and implementation.

KEY FINDING 2: CAPACITY FOR ADAPTATION PLANNING

7. **Finding 2(a):** The Board responded to COP guidance to support adaptation planning with the establishment of the RPSP. The GCF has provided USD 139 million of RPSP funding for adaptation planning to a total of 57 countries with 58 grants. However, it covers only 37 per cent of eligible countries, 33 per cent of vulnerable countries and 18 per cent of the SIDS.
8. **Finding 2(b):** In total, 55 per cent of GCF-eligible countries have so far engaged with the GCF for adaptation planning. The requirements for proposals, capacity concerns and matchmaking with adequate delivery partners, are perceived hurdles in accessing RPSP funding for adaptation planning.
9. **Finding 2(c):** The approval process for RPSP adaptation planning varies, with times ranging from 14 days to more than 3 years. There are attempts to reduce delays, such as through the use of national and remote consultants.
10. **Finding 2(d):** Due to the young nature of adaptation planning support, fully attributing the RPSP to concrete outcomes is challenging, as is assessing quality, as no outcome or impact measurement framework is operational yet.

KEY FINDINGS 3: SCALE AND THE PRIVATE SECTOR IN ADAPTATION

11. **Finding 3(a):** Among the climate funds, the GCF has the strongest private sector focus and the best ability to scale projects through its large fund size, risk appetite and flexible suite of financial instruments. The portfolio suggests that the GCF has not fully utilized this opportunity to date. At the moment, only one in five AEs has a private sector focus, with most of these being accredited recently. Most PSF projects are managed by public entities with a private sector focus, such as MDBs.
12. **Finding 3(b):** The ability of the GCF to source and support PSF projects has stalled: since B.21 only USD 10.8 million (0.4 per cent of total adaptation finance) has been committed. There are only two PSF pure adaptation projects in the portfolio, representing only 1.6 per cent of total adaptation finance and 0.6 per cent of all GCF finance. When including the estimated adaptation part of cross-cutting projects, adaptation finance through the private sector amounts to USD 230 million, representing 8.7 per cent of adaptation finance or 3.2 per cent of total GCF finance.
13. **Finding 3(c):** Despite the unique high risk appetite of the GCF and its flexible suite of instruments, on average only an estimated 18 cents per 1 GCF-invested dollar is generated as co-finance from the private sector. Most stakeholders refer to external and internal factors as reasons for low engagement. External market-related factors, including fewer investable opportunities and predictable return flows, constrain private sector engagement. In addition, internal factors include the reactive business model, lack of predictability and the upfront costs.
14. **Finding 3(d):** Cooperation between the DMA and PSF in jointly assessing projects and identifying opportunities is mainly informal and ad hoc. Opportunities exist to create an incentive structure for greater cooperation, particularly with regard to blended finance.

KEY FINDINGS 4: ACCESS AND BUSINESS MODEL

15. **Finding 4(a):** The adaptation portfolio has a large number of small-sized projects. Only 4 out of 67 funded GCF adaptation proposals are programmes. There is only one large scale adaptation project.
16. **Finding 4(b):** Adaptation projects on average take over two years from proposal submission to concluding the legal agreement. It takes adaptation projects longer than mitigation projects to move

to the next stage, for both approved projects and projects in the pipeline. It is particularly challenging for DAEs. It takes, on average, 475 days for national DAEs to conclude legal negotiations for adaptation projects, compared to 208 days for mitigation.

17. **Finding 4(c):** The availability of data, lack of guidance on the concept of climate rationale at AE and Secretariat level, and the complexity of adaptation projects are key reasons for delays. Adaptation projects require more specific and local high-resolution data to analyze climate risks, have less standardized business models and have complex execution structures. Some 40 per cent of all registered CNs for adaptation projects are withdrawn during the review process. Survey respondents identified climate rationale as the single most difficult hurdle for project development in both adaptation and cross-cutting projects.
18. **Finding 4(d):** The GCF has established targets to support vulnerable countries in adaptation, but many vulnerable countries are yet to be reached and finance per capita figures remain low. Some 67 per cent of adaptation finance is currently directed to those most vulnerable to climate risks and least ready to adapt. But the GCF still has challenges in reaching the most vulnerable and least-ready countries, with 59 countries receiving no GCF adaptation finance.
19. **Finding 4(e):** International accredited entities are overrepresented in the adaptation portfolio: 87 per cent of adaptation finance is committed through IAEs, with more than half of adaptation finance going through six IAEs. Regional DAEs are the most underrepresented in the GCF adaptation portfolio, due partly to capacity, experience and network limitations in originating and implementing adaptation projects.
20. **Finding 4(f):** Some 96 per cent of committed adaptation financing on pure adaptation projects flows through grants. Regional DAEs use a more diverse set of instruments than national DAEs or IAEs. There is an opportunity to channel more adaptation financing through regional DAEs and to use other instruments such as equity and (first-loss) guarantees. High upfront costs of doing business with the GCF are a concern. Programmatic approaches, especially for longer-term and larger-scale interventions, can limit such burdens.
21. **Finding 4(g):** National designated authorities are key in successful adaptation project development. Countries with strong NDAs, which can engage many stakeholders and bring projects through the long design and proposal stage, have more adaptation projects approved by the GCF. Understanding the characteristics of successful NDAs is critical. Because adaptation requires multi-stakeholder engagement, the inclusion of CSOs via NDAs can benefit the adaptation portfolio. The GCF can encourage NDAs to make the project process more inclusive.

KEY FINDINGS 5: RESULTS AND IMPACT MEASUREMENT

22. **Finding 5(a):** In adaptation programming, there are numerous widely recognized challenges to measuring the impact of adaptation interventions. A key practical challenge in steering on impact and measurement focuses on the Fund-level indicator of numbers of beneficiaries, which is the only adaptation core indicator currently operationalized. The double counting of beneficiaries is unavoidable and presents a key challenge for results management at the GCF. At times, GCF reporting exceeds the total population of countries.
23. **Finding 5(b):** The GCF does not have a specific approach regarding adaptation or achieving impact in its adaptation portfolio. It uses several frameworks to guide the review and approval process within the GCF Secretariat, and builds its portfolio through a country-driven approach. The four adaptation result areas, defined by the RMF, are the only measures available for identifying GCF adaptation components and projects. With 91 per cent coverage, the Most Vulnerable People and

Communities results area act as a chapeau, and is too broad to aid learning. No GCF project focuses solely on climate change's impact on health.

24. **Finding 5(c):** The depth of impact made by adaptation interventions cannot be monitored with the current set of indicators. The GCF currently has no systematic approach for assessing the depth of adaptation impacts. The draft IRMF proposes introducing four new qualitative indicators to assess and track project and programme contributions to systemic change to achieve a paradigm shift. There is an opportunity for the GCF to utilize results-based finance more in this area.
25. **Finding 5(d):** LORTA baseline household data show how GCF projects are targeting households which are, on average, poor and vulnerable.

KEY FINDINGS 6: INNOVATION AND RISK

26. **Finding 6(a):** The Secretariat's USP outlines a clear strategic vision for 2020 to 2023, linking innovation to promoting paradigm shift towards climate-resilient development pathways in the context of sustainable development. However, innovation is no longer included as an activity-specific sub-criterion for paradigm shift potential. The level or types of innovation have not been systematically defined in the GCF project and programme review process.
27. **Finding 6(b):** Based on country needs, adaptation innovation in "software" (i.e. organizational, behavioural and procedural) is needed the most. Forms of social and institutional innovation, including traditional knowledge, which create new delivery models are often more important than technological innovation. A review of funding proposals shows the tendency for adaptation projects to have greater potential for transformation.
28. **Finding 6(c):** Innovation comes with the risk of failure and is loosely addressed in the risk assessment approach of the GCF, as defined in the risk management framework. The GCF's stated risk appetite is conducive to innovation in adaptation projects, but its revealed risk appetite is considerably less than what is stated.
29. **Finding 6(d):** Replication of innovation is not pursed at the GCF level. Programmatic approaches present a great opportunity to leverage lessons from one project to another.

B. KEY RECOMMENDATIONS

30. The evaluation makes six major evidence-based recommendations to the GCF Board and Secretariat.

KEY RECOMMENDATION 1 – POSITIONING IN ADAPTATION FINANCE

31. The GCF should clarify its role in and vision for climate adaptation and implement methods to enhance complementarity with other climate funds and funding agencies, and promote coherence in programming.

32. **Recommendation 1(a):** The GCF should consolidate its unique position in adaptation finance, including the mandate to finance projects at scale with a high risk appetite.
33. **Recommendation 1(b):** The GCF should promote efficiency by pursuing greater coordination of adaptation efforts with NDAs, AEs and local stakeholders at the national and regional levels.
34. **Recommendation 1(c):** The GCF should use its convening and catalytic power to develop a set of best practices from stakeholders (including climate funds, NDAs and AEs) to share across the GCF ecosystem.

KEY RECOMMENDATION 2 – CAPACITY AND ADAPTATION PLANNING

35. The GCF should clarify the role of the RPSP for adaptation planning, address technical challenges, support matchmaking efforts and build monitoring of the results of RPSP support.

36. **Recommendation 2(a):** The GCF should raise awareness about RPSP grants, and improve the grants' reach and use for adaptation planning in vulnerable countries.

37. **Recommendation 2(b):** The GCF should address technical capacity challenges in NDAs, including through training clusters of government officials to build sustained knowledge.

38. **Recommendation 2(c):** The GCF should facilitate matchmaking between countries and locally and regionally embedded RPSP delivery partners. This will relieve a constraint for some countries when accessing RPSP support.

39. **Recommendation 2(d):** The GCF should monitor the quality of RPSP adaptation planning through building and fast-tracking an outcome/impact measurement framework.

KEY RECOMMENDATION 3 – SCALE AND THE PRIVATE SECTOR IN ADAPTATION

40. The GCF should define its approach to engaging with and catalyzing finance from the private sector in GCF support and programming windows.

41. **Recommendation 3(a):** The GCF urgently needs a strategy for the private sector, in particular in adaptation finance. The strategy should include guidance on: (i) which private sector actors the GCF wants to engage with and how; (ii) what is considered minimizing market distortions and moral hazard; (iii) which sectors hold opportunities for adaptation; and (iv) how the instruments at its disposal should be used.

42. **Recommendation 3(b):** The GCF should consider a private sector approach that addresses capacity support to small- and medium-sized firms. The GCF should clarify what the RPSP can do for small and medium-sized private sector companies.

43. **Recommendation 3(c):** In piloting the project-specific assessment approach, the GCF Board should consider the needs of the adaptation portfolio, including engagement of the private sector.

44. **Recommendation 3(d):** The GCF should strengthen incentives to support cooperation between the DMA and PSF in assessing projects and identifying opportunities, particularly for blended finance.

KEY RECOMMENDATION 4 - ACCESS AND BUSINESS MODEL

45. The GCF should respond to the urgency in adaptation by addressing policy gaps and the use of financial instruments and modalities.

46. **Recommendation 4(a):** The GCF should explore options to address the adaptation needs of the most vulnerable within its targeted geography.

47. **Recommendation 4(b):** The GCF should find ways to remove barriers related to the availability of and requirements needed for data to verify climate vulnerability, and consider alternative systems of (traditional) knowledge. It should urgently clarify the role and use of climate rationale in the funding proposal review and appraisal process, to reduce the burden of project preparation and development for AEs.

48. **Recommendation 4(c):** The Board should finalize the policy on programmatic approaches, with consideration of the perspectives of AEs. In particular, such approaches should include single- and multi-country programmes and provisions to streamline the processes for sub-project approval and changes, while ensuring appropriate due diligence. The GCF should recognize the regional aspects

of adaptation challenges and solutions, and re-emphasize the potential of regional DAEs while providing adequate staffing capacity at the Secretariat.

49. **Recommendation 4(d):** The GCF should diversify the financial instruments it uses in adaptation projects, particularly those that increase scale through higher co-finance ratios. In particular, the GCF can increase the use of equity investments, guarantees, and devolved and blended finance. The use of such instruments is not a substitute for grant instruments, but rather a complement to them.
50. **Recommendation 4(e):** The GCF should consider developing a stakeholder engagement policy. Inclusive stakeholder engagement that delivers meaningful and active participation in project design and implementation should be strengthened, and it should not only include NDAs and focal points, but also CSOs, indigenous communities, and the private sector. This can reduce material risks from project implementation, including maladaptation.

KEY RECOMMENDATION 5 – RESULTS AND IMPACT MEASUREMENT

51. The GCF should address adaptation-related measurement challenges to enhance active monitoring, project and Fund-level aggregation, and facilitate learning and steering.

52. **Recommendation 5(a):** The GCF Secretariat should further engage with other climate funds and communities of practice to refine indicators, measurement and the clarity of aggregation, and also improve the Fund-level indicator of direct and indirect beneficiaries.
53. **Recommendation 5(b):** Recognizing the limitations of the current set of indicators, the GCF should address challenges in adaptation-related measurement on project and Fund-level indicators.
54. **Recommendation 5(c):** As adaptation result areas are broad, the GCF should also trace results at the sectoral level for portfolio management. This will allow aggregation at the portfolio level to facilitate greater knowledge of results and comparability with other climate funds.
55. **Recommendation 5(d):** The GCF should consider whether an adaptation investment is meeting a national priority by linking results areas to an indicator for a country's adaptation needs.
56. **Recommendation 5(e):** The GCF should utilize results-based financing to a greater extent within its adaptation portfolio. This would create an incentive structure for implementing agents to deliver on time, to budget appropriately and for results to be verified by independent third parties.

KEY RECOMMENDATION 6 – INNOVATION AND RISK

57. The GCF should address the ongoing lack of clarity and guidance in its approach on innovation.

58. **Recommendation 6(a):** As innovation is part of the strategic priorities for 2020 to 2023, the GCF should clearly identify and incentivize innovation.
59. **Recommendation 6(b):** The GCF should define the delivery of successful structures, systems and organizations as actual project impacts. One such example would be defining support for innovative structures, such as blended finance vehicles for adaptation, which are successfully used in mitigation (e.g. in FP099: Climate Investor One) but not yet in adaptation.
60. **Recommendation 6(c):** The GCF should strengthen programmatic approaches in adaptation finance, as they are important for leveraging lessons from one project to another and for fostering innovative replication. The focus here is on transferring knowledge between projects in the same sector or results area. This should involve different AEs that execute different projects, but closely interact to exchange knowledge, capabilities and approaches.

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ANNEXES

Annex 1. EXAMPLES OF ADAPTATION INTERVENTIONS BY SECTOR AND INTERVENTION TYPE

Table A - 1. Examples of adaptation interventions by sector and intervention type

SECTOR	INTERVENTION TYPE	EXAMPLES OF ADAPTATION INTERVENTIONS
Water	Nature-based options	Wetland restoration; water conservation; river restoration; nature weirs; integrated water management; watershed management.
	Built infrastructure/structural	Dams, dykes, weirs, drainage systems, wells.
	Technological options	Desalination technology.
	Informational/educational	Water conservation education, flood information, early warning systems.
	Institutional/planning/policy/laws/regulations	Water policies, regulations.
	Financial/market mechanisms	Payment for ecosystem services; water payment; insurance for flooding.
	Social/behavioural	Migration due to floods/drought; social support due to floods/drought.
Forestry, fishing and agriculture	Nature-based options	Intercropping; conservation agriculture; changing planting dates; agroforestry; conservation tillage; bunds; traditional seeds/varieties; rain-fed irrigation; crop rotation; sustainable forestry and fishing.
	Built infrastructure/structural	Seed banks, wind shelters.
	Technological options	Drought-tolerant varieties, GMO, irrigation, fertilizer.
	Informational/educational	Extension services, trainings, information, early warning.
	Institutional/planning/policy/laws/regulations	Agricultural laws, NGO/government programmes.
	Financial/market mechanisms	Weather insurance, credit, subsidies.
	Social/behavioural	Cooperatives, informal groups.
Land-use and built environment	Nature-based options	Restoration; conservation; sustainable management; mangroves; sand dunes or marshes for coastal protection; integrated coastal zone management; green roofs/walls; green infrastructure; green and blue space in cities.

SECTOR	INTERVENTION TYPE	EXAMPLES OF ADAPTATION INTERVENTIONS
	Built infrastructure/structural	Sea walls, hazard-proof buildings, insulation for buildings.
	Technological options	Air-conditioning, cooling systems.
	Informational/educational	Sustainable management trainings, coastal early warning.
	Institutional/planning/policy/laws/regulations	Zoning; land-use plans; regulations and standards for buildings; government and NGO input.
	Financial/market mechanisms	Payment for ecosystem services.
	Social/behavioural	Support groups, migration from coastal areas.
Society, economy and health	Nature-based options	Nature management for vector control; nature-based/ecological livelihood diversification.
	Built infrastructure/structural	Shelters for disasters.
	Technological options	Bed nets, etc. for mosquitos; early warning technology/mapping.
	Informational/educational	Health-related information/education; financial information.
	Institutional/planning/policy/laws/regulations	Vulnerability-reducing programmes; disaster risk reduction laws and regulations; vaccination programmes; essential public health services; enhanced emergency medical services.
	Financial/market mechanisms	Cash transfers, credit, microcredit.
	Social/behavioural	Psychotherapies; livelihood diversification; household preparation and evacuation planning; social networks, social safety nets and social protection; food banks and distribution of food surplus; governance programmes.

Source: Reproduced from Doswald, N., Sánchez Torrente, L., Reumann, A., Leppert, G., Moull, K., Rocío Pérez, J. J., Köngeter, A., Fernández de Velasco, G., Harten, S., and Puri, J. (2020). Evidence Gap and Intervention Heat Maps of Climate Change Adaptation in Low- and Middle-Income Countries, DEval Discussion Paper 2/2020, German Institute for Development Evaluation (DEval) and Green Climate Fund Independent Evaluation Unit, Bonn, Germany and Songdo, South Korea. Available at *https://ieu.greenclimate.fund/evidence-review/adaptation.*

Annex 2. A SUMMARY OF HOW ADAPTATION HAS FEATURED IN EARLY BOARD DECISIONS

The Fund's approach to adaptation has evolved considerably since the publication of the GI in 2011, and has been guided by the Board's decisions and modalities. An early example is decision B.05/05, which reaffirmed the procedures for the allocation of Fund resources concerning adaptation, such that these allocations should be based on "(i) the ability of a proposed activity to demonstrate its potential to adapt to the impacts of climate change in the context of promoting sustainable development and a paradigm shift; (ii) the urgent and immediate needs of vulnerable countries, in particular, LDCs, SIDS and African States." The funding procedures were extended in decision B.06/04, which explained how the "modalities for the operation of the Fund's Private Sector Facility will be developed based on the recommendations of the Private Sector Advisory Group".

Two more refinements on adaptation funding were made at this Board meeting. First, decision B.06/05 requested the Secretariat to "further develop the proposals for adaptation result areas and indicators in conjunction with the Fund's results management framework". The Board also agreed to aim for a floor of 50 per cent of the adaptation allocation for particularly vulnerable countries, including the LDCs, SIDS and African States.

The seventh meeting of the Board (B.07) generated plenty of advances in how adaptation financing and project implementation was to be conducted by the Fund. First, decision B.07/04 outlined the initial adaptation logic model. Here, four Fund-level impacts for adaptation were highlighted:

- Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions
- Increased resilience of health and well-being, and food and water security
- Increased resilience of infrastructure and the built environment to climate change threats
- Improved resilience of ecosystems and ecosystem services

Further to this, four other project/programme-level outcomes for adaptation were defined:

- Strengthened institutional and regulatory systems for climate-responsive planning and development
- Increased generation and use of climate information in decision-making
- Strengthened adaptive capacity and reduced exposure to climate risks
- Strengthened awareness of climate threats and risk reduction processes

Decision B.07/04 also adopted two core indicators for adaptation, namely the total number of direct and indirect beneficiaries, and the number of beneficiaries relative to the total population. This Board meeting also clarified the funding process and modalities for adaptation.

While reaffirming the financial structures created to date, decision B.07/08 recognized that "the mitigation and adaptation windows and the PSF are integral components of the Fund that will evolve over time". Specifically, it decided "*to undertake a review of the initial modalities for the operation of the Fund's mitigation and adaptation windows and the PSF, no later than three years after the IRM of the Fund*".

The decision to develop further work on the financial modalities of the PSF was also tabled at B.08 with the deepening of the modalities around the PSF with the following agreement that "*modalities for mobilizing private sector resources at scale by the PSF and the use of other financial instruments, including guarantees and equity investment*".

The Board also agreed to receive the first report and recommendations of the PSAG, with a particular focus on: (i) the modalities to promote the participation of private sector actors in developing countries (especially small- and medium-sized enterprises in SIDS, LDCs and in African States) with a special emphasis on adaptation; and (ii) the modalities and instruments to mobilize private resources at scale, including through special financing vehicles or instruments, including risk mitigation instruments.

The Fund's framework for adaptation was further extended at the Board's next meeting. Decision B.08/07 adopted the Fund's adaptation performance measurement frameworks as a way of facilitating project and programme decisions. The performance management framework was aligned with the adaptation logic model, to expand the four Fund-level impacts and four programme/project-level impacts listed above, with a range of core indicators. However, only one of these indicators was approved by the Board, with the other 16 indicators being noted but requiring further refinement. The sole adaptation performance measurement indicator agreed upon by the Board was the "*total number of direct and indirect beneficiaries" and the "total number of beneficiaries relative to the total population*". The notes from the table which contained this information explain that:

> The two dimensions of support considered by the indicator – targeted and intensity level – help identify direct and indirect categories of beneficiaries, by measuring the number of people who received an input of support.

An explanatory note from the decision text further explains that, "When applicable, an indicator measuring additional financing from public and private sources on adaptation activities can be tracked and reported during project/programme implementation on a case-by-case basis."

Of particular interest among the broader 16 indicators noted by the Board was the indicator "increased resilience of infrastructure and the built environment to climate change threats". This refers to the number and value of physical assets made more resilient to climate variability and change, considering human benefits, by implementing agencies or intermediaries (and disaggregated by sector, type of asset and whether they were constructed or strengthened).

Adaptation appears to have taken a year-long hiatus in the Board's considerations at this point. It reappeared in decision B.12/07, when the Board requested the Secretariat to "*present a document for consideration by the Board at its thirteenth meeting on how the Fund may wish to support the CAF and relevant adaptation planning articles of the Paris Agreement*". Moreover, the Secretariat was encouraged to consider "joint mitigation and adaptation approaches for the integral and sustainable management of forests consistent with the United Nations Framework Convention on Climate Change Decision 16/CP.21".

The thirteenth meeting of the Board (B.13) brought several decisions on adaptation for consideration by the Board. Decision B.13/09 provided clarification and progress on GCF support for national adaptation processes. First, it expedited "*support for developing countries for the formulation of national adaptation plans […] and for the subsequent implementation of projects, policies and programmes identified*" by the UNFCCC. Second, it reiterated the B.06/06 decision for a 50:50 balance between mitigation and adaptation over time on a grant-equivalent basis. Third, it recalled that the "GCF will provide resources for readiness and preparatory activities, including for national adaptation plans", and reiterated that the GI clearly states the GCF will "support developing countries in pursuing project-based and programmatic approaches in accordance with climate change strategies and plans, such as national adaptation plans".

These decisions set the scene for the construction of the key components of the GCF architecture for adaptation.

Decision B.13/09 further invited NDAs and focal points to "*collaborate with readiness delivery partners and accredited entities, as appropriate, to submit requests for support to formulate their respective national adaptation plans and/or other adaptation planning processes*". It also invited "*accredited entities to collaborate with respective developing countries in preparing project and programme concept notes, funding proposals and Project Preparation Facility requests, in order to implement adaptation actions identified in NAPs and/or other adaptation planning processes.*"

Furthermore, it outlined how "the Executive Director can approve up to USD 3 million per country through the GCF Readiness and Preparatory Support Programme modalities, in order to support the formulation of national adaptation plans and/or other national adaptation planning processes" (see also decision B.13/27).

National adaptation plans and processes were also to be "established as a separate activity area of the Readiness and Preparatory Support Programme […] and that funding for this new activity area is additional to the existing USD 1 million cap per country per year [under the RPSP]". Here, the Board asked the Secretariat to report on the overall progress with adaptation in its RPSP reporting.

At B.13, the Board recognized that "accredited entities can bring forward programmatic approaches for the formulation of multi-country national adaptation plans and/or other adaptation planning processes under the project approval process, for countries not already in receipt of funding" under the PPF.

The Board also requested at the same meeting that the Secretariat continue "to engage with the Adaptation Committee and the Least Developed Countries Expert Group in improving access to financial support for the process to formulate and implement national adaptation plans".

It took some time for adaptation to return to the Board's agenda. Six meetings later, decision B.19/02 highlighted the UNFCCC guidance on deepening support for national adaptation planning processes. Decision B.19/15 also asserted that the Secretariat's internal review of the RPSP was duly noted, implementation improvements had been acknowledged and an additional USD 60 million was to be made available. This decision also recognized the need to improve the RPSP based on the IEU evaluation of the programme. Fee structures and the list of AEs and delivery partners were also changed.

Private sector involvement was first included in the Board's work plan at B.21. Decision B.21/04 stated that "*opportunities to engage the private sector, including local actors, in adaptation action at the national, regional and international levels*" were requested following up from decision B.17/06, paragraph (d)(ii).

The penultimate Board decision regarding adaptation was made at the twenty-second meeting of the Board (B.22). Decision B.22/11 noted "*that the Secretariat may accept multiple-year readiness requests, allocating up to USD 3 million for three years, while committing no more than USD 1 million per country per year, which is in addition to the national adaptation plans and/or other adaptation planning processes allocation*". The B.22 meeting also saw the outlining of the objectives and outcomes of the RPSP for 2019 to 2021.

This brings us to the most recent decision on adaptation, made at the twenty-fourth meeting of the Board (B.24) in mid-November 2019. With decision B.24/04, the Board decided to consider PSAG recommendations to engage the private sector, including local actors, in adaptation action at the national, regional and international levels, as requested under decisions B.15/03, paragraph (i), (ii); B.17/06, paragraph (d), (ii); and B.21/04, paragraph (c), (ii).

Annex 3. KEY POLICIES WITHIN THE OVERALL POLICY HOUSE THAT HAVE A PARTICULAR BEARING ON ADAPTATION

This annex explores the relevance and clarity of the policy framework that surrounds adaptation in the GCF. It also examines the use of climate data and climate rationale in policy and in the USP. In closing, the annex highlights some of the broader areas within the GCF, such as resource allocation, country programming, investment framework and the environmental and social standards policy, among others, to examine the role they have in the adaptation portfolio.

A. RELEVANCE OF GCF STRATEGIES, FRAMEWORKS AND POLICIES FOR ADAPTATION

The concept of adaptation is woven into the GI throughout the document. Early guidance from the UNFCCC COP to the GCF was translated into the GI of the GCF in several ways, giving extensive but sometimes unspecific or unclear guidance on adaptation.[164] One notable paragraph from the GI is paragraph 3, which lays out several key characteristics of the GCF adaptation approach, namely: the aim to maximize the impact of adaptation projects (see Chapter II on how the GCF and other funds do this, such as the IFC); the balanced resource allocation between mitigation and adaptation (see Chapter I for historical context to this balance, and Chapter V for an analysis of the portfolio data); and the promotion of environmental, social and development co-benefits.

As Chapter II highlights, the GCF does not adopt particular policies or strategies on adaptation. Instead, it has a large policy house, with each policy addressing mitigation and adaptation together. The USP for the GCF 2020–2023 outlines the strategy, objectives and priorities for this period and the key areas of actions required. A key set of early decisions by the Board (B.05/05; B.06/04; B.06/05) concerned resource allocation. The USP reconfirms similar procedures for GCF-1 (2020–2023) such that the GCF will be:

(i) Maintaining the 50:50 balance of adaptation and mitigation funding over time while seeking to deliver portfolio level mitigation and adaptation outcomes that exceed average initial resource mobilization outcomes.[165]

(ii) Maintaining a minimum allocation floor of 50 per cent of adaptation funding, to be provided to developing countries that are particularly vulnerable to the adverse effects of climate change, including SIDS, LDCs and African States, taking into account their urgent and immediate needs, while aiming to build on initial resource mobilization outcomes. The Board will aim for appropriate geographical balance.[166]

A country-driven approach to adaptation is a core part of the GCF's strategy. This is defined in the ISP of the GCF and the more recent USP for 2020–2023. The USP confirms that re-focussing GCF country programmes (CPs) is a key action area that should serve as a core tool for translating NDCs, NAPs and national climate strategies into country-driven investment programmes.

To strengthen country driven-planning in originating projects, entity work programmes (EWPs) should reflect and consider the project ideas identified and presented in CPs. However, the extent to which CPs sufficiently inform the current GCF pipeline is unclear. This could limit the linkages between future needs of in-country strategies and the future GCF portfolio. Also, the extent to which

[164] For example, see paras. 3, 35, 36, 37, 40, 41, 50, 52. See Annex 2 for a summary of how adaptation has featured in early Board decisions.
[165] Paragraph (i) of (i) of decision B.27/06.
[166] Paragraph (ii) of (i) of decision B.27/06.

there are clear linkages between CPs and EWPs is unclear. As highlighted above, the allocation of resources via funding proposals for preparatory activities and technical assistance should align with country needs as articulated in planning documents. However, based on NDC Explorer data, GCF projects are only partly targeting the adaptation needs identified in NDCs, especially in terms of the infrastructure and built environment, and ecosystem and ecosystem services result areas.

A third area is the investment framework. In decision B.07/06, the Board adopted the IIF,[167] which contained the initial criteria for assessing programme and project proposals across a range of domains. At B.08, the Board also requested the investment committee to submit definitions for activity-specific indicators, considering the IIF. In decision B.09/05, the Board adopted the initial activity-specific sub-criteria and indicative assessment factors.[168] At B.22 in February 2019, the Board approved investment criteria indicators for a pilot period of one year.[169] At this time, the Board emphasized the importance of different national circumstances. To account for this, a separate indicator was proposed for the impact potential of adaptation projects. At this stage, the Board instructed the Secretariat to discuss guiding AEs on implementing the new indicators (see annex VIII to decision B.22/15). The USP of the GCF states that GCF strategic priorities for 2020–2023 include "strengthening the GCF investment framework" as a key action for making the framework more clearly linked to performance criteria under the IRMF. That will ensure a more coherent approach to result management throughout the project development/project appraisal.[170] We now briefly highlight a range of other policies within the policy house.

First, cost approaches. As highlighted above, the GI mandates that the Fund finances adaptation in a way that "maximize[s] the impact of its funding for adaptation and mitigation, and seek[s] a balance between the two". However, in paragraph 35, it also mandates that the GCF finance the agreed full and incremental costs for activities, to enable and support enhanced adaptation action. At the eleventh meeting of the Board (B.11), the Board decided to review the proposal approval process, including incremental cost eligibility. At the seventeenth meeting of the Board (B.17), it requested and reviewed proposals. At B.19, the Board discussed the potential approaches to the incremental cost methodologies. The Board requested, in decision B.19/06, the Secretariat to develop policies on the review of the financial terms and conditions of GCF instruments and concessionality, incremental costs and full costs, and co-financing while taking an integrated approach to resolving interrelated policy gaps.

At B.21, the Secretariat suggested proposals for an incremental and full cost calculation methodology, but the discussion was not opened. The review and development of policies on the financial terms and conditions of GCF instruments and concessionality, incremental cost and full cost, are included in the USP for 2020–2023, to close these important gaps within the policy house.[171] In practice, the GCF does not strictly finance the incremental costs of climate adaptation. There are also instances where the full cost can be financed when adaptation projects qualify. As pointed out in a recent Secretariat paper written by the WRI,[172] given the diversity of adaptation interventions and complexity of local circumstances, the "one-size-fits-all" costing approach will not be appropriate for GCF adaptation finance. Instead, the report suggested the GCF could adopt guidance or guidelines for project proponents on possible cost approaches for adaptation projects in certain situations, as one of the largest climate funds. The GCF should also establish a clear

[167] Annex IXV to decision B.07/06.
[168] Annex III to decision B.09/05.
[169] Decision B.22/15.
[170] Paragraph (c) of 20, GCF/B.27/21.
[171] Paragraph (c) of 20, GCF/B.27/11.
[172] Page 50, "The GCF's approach to adaptation: analysis and implications for the Fund (GCF/B.21/inf.03/Add01)".

approach to the concessionality in private sector adaptation projects, to catalyze private sector finance at scale, one of the key strategic priorities of the USP.[173]

Several other GCF policies indirectly affect the adaptation portfolio. These include the ESS policy,[174] the gender policy,[175] and the indigenous peoples' policy,[176] each established with an important and specific purpose.

Although these policies do not make explicit accommodations for adaptation, the elements could inform a revised investment framework and IRMF, and the result-tracking tool when they are updated. For instance, the gender policy's objectives aim to address and reduce gender inequality, deepen stakeholder engagement and deliver better accountability to both men and women, to generate sustainable livelihood opportunities, health and well-being, and resilience against climate-induced shocks and risks at the project/portfolio level.[177] The adaptation performance measurement framework could imbed all of these attributes.

Policies on restructuring and cancellation could also play an important role in the adaptation portfolio. The GCF adopted the policy on restructuring and cancellation at B.21[178] to set out the mechanism for decision-making, in respect of an approved funding proposal in situations where there has been one or a combination of the following scenarios:

> (a) failure to fulfil the conditions to be met before the execution of the funded activity agreement within the time frame established by the accreditation master agreement or the Approval Decision, as appropriate.
>
> (b) a request for an extension of the time frame established by the accreditation master agreement or the Approval Decision (as defined below) to fulfil the conditions to be met prior to the execution of the FAA.
>
> (c) a request for a waiver of a condition imposed in the Approval Decision.
>
> (d) a request for a change to an approved funding proposal or restructuring of a funded activity.[179]

This policy could play a much greater role in supporting adaptation projects during their implementation, by providing a degree of flexibility with the establishment of clear thematic/sector/geographic/regional/country programmatic approaches that have not been sufficiently developed to date.[180]

[173] Paragraph (ii) of (c), 20, GCF/B.27/21.
[174] Decision B.19/10.
[175] Decision B.24/12.
[176] Decision B.19/11.
[177] Paragraph (b) of 12.
[178] Decision B.22/11.
[179] Page 1 of decision B.22/11.
[180] Key actions under the USP include the development of policy guidelines for programmatic approach (page 11 of GCF/B.26/17).

Annex 4. EVOLUTION OF THE GCF APPROACH TO THE PRIVATE SECTOR

The GI of the GCF mandates that:

> The Fund will play a key role in channelling new, additional, adequate and predictable financial resources to developing countries and will catalyze climate finance, both public and private and at the international and national levels. The Fund will pursue a country driven approach and promote and strengthen engagement at the country level through effective involvement of relevant institutions and stakeholders.[181]

Under the funding windows and the GCF's structural component of the GI, the foundations of the GCF's approach to the private sector is outlined as follows:

> Paragraph 41. The Fund will have a private sector facility that enables it to directly and indirectly finance private sector mitigation and adaptation activities at the national, regional and international levels.
>
> Paragraph 42. The operation of the facility will be consistent with a country driven approach.
>
> Paragraph 43. The facility will promote the participation of private sector actors in developing countries, in particular local actors, including small- and medium-sized enterprises and local financial intermediaries. The facility will also support activities to enable private sector involvement in SIDS and LDCs.[182]

The GI mandated the Board to "develop the necessary arrangements, including access modalities, to operationalize the facility".[183] It also allowed two private sector representatives, from both developing and developed countries, to act as active observers and invite private sector actors as stakeholders to participate and provide input. Moreover, it allowed the Fund to receive "financial inputs from a variety of other sources, public and private, including alternative sources".[184]

The GI further outlined that the Fund would provide finance to cover the "identifiable additional costs of the investment necessary to make the project viable" in the form of "grants and concessional lending, and through other modalities, instruments or facilities as may be approved by the Board".[185]

At its March 2013 meeting in Berlin, Federal Republic of Germany, the Board requested the Interim Secretariat to undertake work on several documents for the Fund's business model framework.[186] One document prepared for consideration at the June 2013 Board meeting was to address the PSF of the Fund, including providing:

- An assessment and implications of various institutional models for the PSF
- Objectives, results and performance indicators for the Fund's private sector engagement
- An assessment and implications of models for the delivery of the PSF resources, including direct, indirect or a combination and the financial instruments that could be utilized [187]

[181] FCCC/CP/2011/9/Add/, Decision 3/CP.17/ Annex (2), 52.
[182] FCCC/CP/2011/9/Add/, Decision 3/CP.17/ Annex (2), 52.
[183] FCCC/CP/2011/9/Add/, Decision 3/CP.17/ Annex (2), 52.
[184] FCCC/CP/2011/9/Add/, Decision 3/CP.17/ Annex (2), 52.
[185] FCCC/CP/2011/9/Add/, Decision 3/CP.17/ Annex (2), 52.
[186] Decision B.01-13/06
[187] GCF/B.04/07

Decision B.04/08 on the business model outlined the PSF framework, stating that it would "operate efficiently and effectively under the guidance and authority of the Board as an integral component of the Fund". This decision also established the PSAG to make "*recommendations on the Fund-wide engagement with the private sector and modalities to that end*". The PSAG was originally set up with two developing country Board members, two developed country Board members, up to four private sector representatives from developing countries, up to four private sector representatives from developed countries, and up to two civil society representatives.

Decision B.05/05 further developed the composition of the PSAG, which also reiterated paragraphs 41 and 43 of the GI. The terms of reference of the PSAG, including its incorporation as a panel of the Board, was adopted in decision B.05/13. At its February 2014 meeting, the Board considered document GCF/B.06/02 on the "Initial modalities for the operation of the Fund's mitigation and adaptation windows and Private Sector Facility".[188] Through decisions B.06/04, B.07/08 and B.09/09, the Board further developed the necessary arrangements for the PSF, including the access modalities for its operationalization. Since the establishment of the independent Secretariat of the GCF, the PSF has operated according to its original modalities. As yet, the Board has not adopted a clear private sector strategy. For example, GCF/B.23/12/Add.01 reviewed the initial modalities of the PSF and lamented that:

> *The private sector strategy is instrumental to GCF to consistently and coherently pursue its efforts to engage private sector actors in climate actions in developing countries. By implementing the strategy, PSF will support the removal of current barriers hampering the most impactful investments of significant private capital into climate actions in developing countries. Specifically, the strategy will address: barriers to private sector investment in adaptation and mitigation activities; support for formulation of key policy reforms that will support the flow of finance; affordability of technologies and solutions using flexible financial instruments; a lack of awareness, insufficient capacity and market failures to mobilize private capital and expertise at scale in accordance with national plans and priorities.*

The private sector strategy's completion and adoption are slated for the 2020–2023 programming period.[189] While the PSF has been operating under the initial modalities, additional windows have been created as key access instruments for private sector engagement with the Fund.

First, in decision B.13/22, the GCF Board approved the MSME pilot RFP. [190] The Board allocated up to USD 200 million for this programme, with the aim of designating at least USD 100 million for developing countries particularly vulnerable to the adverse impacts of climate change. The MSME window has been open to projects and programmes supporting MSMEs that fit national climate priorities and the eight GCF key result areas. Following the call for proposals in August 2016, the Board has approved three funding proposals under the MSME pilot programme – FP028, FP048 and FP114 – with the GCF providing USD 20 million to each project. A second tranche of the pilot programme may be announced in the future.

Second, in decision B.16/03, the GCF Board approved the MFS pilot window allocating up to USD 500 million for innovative, high-impact projects and programmes. The MFS window aimed to unlock private sector finance in developing countries. The call for proposals received 350 total

[188] GCF/B.07/08
[189] Document B.27/21
190 Available at https://www.greenclimate.fund/sites/default/files/decision/b13/decision-b13-22-b13-a2.pdf

submissions from more than 70 countries. A limited distribution decision was adopted for MFS.[191] Only three projects have been funded to date: FP115, FP128 and SAP013.

The fourth meeting of the Board (B.04) established the PSAG, but the group's role is currently uncertain. Decision B.19.08, which focuses on enabling private sector involvement in LDCs and SIDS:

> *Requests the Secretariat to develop modalities, based on the recommendations from the Private Sector Advisory Group, to support activities to enable domestic and international private sector actors to engage in GCF activities in least developed countries and small island developing States, for consideration by the Board at its twentieth meeting.*

It is unclear if the recommendations of the PSAG have been implemented, as is the extent to which the group is currently operational.

At B.27, the Board adopted the USP for the Fund, which sets the broad direction for both climate and organizational results. The USP aims to

- Strengthen country ownership of programming
- Foster a paradigm shifting portfolio
- Catalyze the private sector at scale
- Improve access to the Fund's resources

Support for countries to catalyze private sector investment will play a crucial role going forward, and will allow NDAs to move beyond the mere engagement of private sector entities. For example, the USP aims to use readiness resources to target opportunities to increase local understanding of climate risks for the private sector and explore innovative investment opportunities for climate-oriented local financial systems and innovative blended finance. Moreover, the USP aims to use readiness support to mobilize the private sector in adaptation finance through the adaptation planning process, and raise private sector awareness of climate impacts and vulnerability on business models and supply chains.[192]

In implementing its long-term strategic vision over the 2020–2023 programming period, the USP highlights how the GCF will seek to meet or exceed its IRM outcomes, build its comparative advantages and risk appetite, and achieve the strategic objectives of delivering "significantly increased portfolio level mobilization achieved through the GCF contributions to private sector projects under the PSF, relative to the IRM".[193]

For the 2020–2023 programming period, key actions in this area of the GCF business model will include:

- Identifying and increasing private sector engagement potential across results areas.
- Structuring to mobilize private sector resources at scale: GCF will assess the current portfolio in 2021 to effectively evaluate the existing structure's capacity and whether it is delivering through its current financial instruments. This exercise will support the identification of strategic investment partners and build an understanding of how partners can work through the flexible instruments and structuring of GCF, to create de-risking vehicles and use blended finance to catalyze new private investment.
- Enhancing the private sector's role in adaptation: the GCF will consider PSAG recommendations on engaging the private sector in adaptation action by supporting adequate

[191] B.16/03 "Private Sector Facility: potential approaches to mobilizing funding at scale".
[192] GCF/B.26/05.
[193] The Updated Strategic Plan highlights how the IRM private sector co-financing ratio was 1:3.

enabling environments, deploying blended finance to test innovative business models for climate resilient products and services and promoting the use of climate data to inform private sector decision-making. The PSAG will be engaged to support this work.

- Executing a private sector outreach plan: the Secretariat will develop a private sector outreach plan to implement the private sector strategy, including targeted engagement with the domestic private sector, communications and the GCF Private Investment for Climate Conference.
- Staged development of the PSF modalities: successful execution of the private sector strategy will require a staged development of modalities, starting with an accreditation strategy and readiness for private sector engagement. In 2021, the GCF will undertake the Board work plan review of PSF modalities and further evaluate options for additional PSF modalities.

The adoption of the USP dovetails with a renewed emphasis by the Secretariat to innovate and scale up climate finance.[194] This emphasis includes a focus in the following areas:

- To develop new valuation mechanisms to accelerate asset re-pricing
- To develop dedicated low-carbon climate-resilient financial products
- To deepen blended finance for climate change
- To realize the full potential of domestic financial institutions to finance the green transition
- Innovative financing instruments based on global solidarity

[194] Bayat-Renoux,F., de Coninck, H., Glemarec, Y., Hourcade, J. Kilapar, R., Revi.A. (2020). Maintaining climate ambition in the era of COVID-19, Green Climate Fund Working Paper No.3, Songdo, South Korea.

Annex 5. Approach and methods

The evaluation team has adopted a mixed-methods approach involving both quantitative and qualitative data collection and analysis. Team members adapted their approach to meet the exigencies of the COVID-19 pandemic and its effects on the Secretariat and countries working with the GCF.

The collection of information, data and opinions has been guided by, but not limited to, the evaluation matrix (see Annex 8). By triangulating, verifying and validating data, the team identified whether one or more sources confirmed its data to ensure appropriate use in the analysis (either as a broad statement or a statement about a particular case for a programme, country or stakeholder). The team has sought to triangulate the information and evidence taken from different sources and has considered different perspectives. These sources have included desk reviews and reviews of previous studies by the IEU and other institutions, and interviews with the GCF's network of stakeholder entities, informed observers and key informants. We now elaborate further on the key methods we have used in this evaluation.

1. Desk review

The team has conducted an extensive review of documentation on adaptation from different sources and that was produced for various purposes. One set of documents has been those produced for and by the Board, particularly decision papers and those coming from the UNFCCC/COP regarding guidance to the Fund. Another key set of documents and data on the evaluation topics come from the IEU and other independent evaluation organizations.

Documents from the Secretariat (and the Board) have been reviewed, particularly guidelines and standards on processes and procedures. Finally, the team has dug into documents at the project level, from the documents presented to the Board for project approval to technical documents produced by the project developer, and documents used to monitor project progress, particularly APRs. There has been explicit cross-learning with the IEU team that worked on the SIDS evaluation.

2. Interviews and surveys

The team conducted the evaluation using a highly participatory process and extensive consultation programme. This has been crucial, given the Fund's extensive network and its importance to many stakeholders. Annex 7 provides an overview of the stakeholders consulted. The aim of these consultations has been: (i) to collect perceptions, experiences and lessons on the past, current and future performance of the Fund (and any evolution in Fund operations) regarding its support of adaptation; and (ii) to provide a way to validate and triangulate the data collected, as well as the initial and final findings, conclusions and recommendations.

The team navigated the current COVID-19 pandemic situation by collecting information from individuals through phone interviews and online meetings via Teams, Zoom, Skype, BlueJeans and further applications. The team liaised strategically with stakeholders, according to stakeholder availability and accessibility. Also, evaluation team members used two short online surveys to reach out and target specific Fund constituencies (e.g. AEs and NDAs) and shed further light on a series of questions that emerged through the evaluation process. We have also maintained a constant consultation process with key members of the GCF Secretariat to consult on and validate key findings, and towards the end of the process, to discuss and validate recommendations. This consultation process has not interfered with the evaluation's independent nature. It will facilitate the

processes of feedback and reflection while socializing the emerging findings to enhance ownership of the report.

3. DATA ANALYSIS

Data analysis has been a key element for the evaluation, with findings and recommendations backed by data, whether quantitative or qualitative. Part of the evaluation team has focused specifically on data analysis. Key data sources for analysis have included: (i) the IEU DataLab, complemented and verified by the data monitored by the Secretariat; and (ii) trustworthy external data sources. The data team has conducted a series of analyses around the six following areas to inform the relevant report chapters.

- **Climate adaptation finance:** a quantitative review of adaptation finance flows was performed from a demand and supply perspective to provide an analytical background to the second chapter of the report (the GCF's role in climate adaptation) and inform an assessment of complementarity and coherence. On the demand side, it highlighted the adaptation finance gap and how this is distributed across actors. On the supply side, the analysis mapped the current adaptation finance space, its main actors and focus areas, and identified where the GCF's competitive advantage is in such a space. This analysis's key data sources included the UNFCCC Biennial Assessments of Annex 1 countries, OECD-DAC data alongside recent reports by UNEP, and the Climate Policy Initiative.
- **Country readiness:** this research element is key for the report's Chapter IV, Chapter V and Chapter VI, and for informing the "country ownership and needs" evaluation criteria. The data team has aimed to gain a comprehensive picture of the current state of adaptation policies and has sought to identify key aspects of the RPSP NAP programme and adaptation project portfolio. It has included understanding if and how adaptation planning support meets country needs and supports the prioritization of interventions by countries, thus potentially contributing to a paradigm shift. The team has assessed what adaptation plans different countries have developed, and focused on data from the UNFCCC NAPs and the adaptation element within NDCs. The team has also assessed a high-level overview of other adaptation planning. Key data sources for this analysis have been the NAP and NDC data sets of the IEU. The ND-Gain index has also been used in this context to map countries based on their readiness levels in addition to country vulnerability and adaptative capacity. In doing so, the team has used the ND-GAIN vulnerability-readiness matrix with IEU data on the GCF portfolio as a starting point for the analysis.
- **Performance of the GCF:** To inform Chapter IV, Chapter V, Chapter VI and Chapter VII and the evaluation criteria "efficiency and effectiveness", the data team has undertaken a quantitative review of the adaptation portfolio. In particular, the team has assessed how the different funding modalities are able (or not) to deliver on the mandate of the Fund and the expectations of stakeholders. The evaluation team has assessed the extent to which projects are scalable, engage the private sector and contribute to a paradigm shift. The portfolio analysis has also provided the data necessary to analyze the efficiency of the project cycle.
- **Pipeline:** Chapter IV, Chapter V, Chapter VI and Chapter VII have been informed by pipeline data, which has allowed an assessment of efficiency and effectiveness. A particular focus has been on rejected projects and those that have remained in the pipeline for a significant amount of time, to identify the major reasons and key hurdles for project approval. This analysis has relied on data sets available at the IEU.

- **Results and impact:** The analysis of projects' (expected) results and impact has informed Chapter VIII and the evaluation criteria "impact potential". The chapter has analyzed the results of GCF projects in four ways. First, based on the expected type and scale of impact from the 107 projects, which are part of the adaptation and cross-cutting portfolio determined by the data extracted from funding proposals (result areas, impacts, co-benefits and numbers of beneficiaries). Second, an assessment of who GCF beneficiaries are, by looking at the characteristics of recipients of GCF project interventions. Third, a review of the actual results achieved to date, based on data extracted from the APRs. Fourth and finally, the chapter presents some data on the procurement and implementation challenges encountered by AEs and as they move to implementation. The key data sources for this analysis have included selected IEU data sets (APRs, impact potential).

4. COUNTRY CASE STUDIES

For this evaluation, we completed country engagements (The Gambia, Uganda, Tajikistan, Guatemala, Morocco and Namibia), from which we wrote complete studies for the first four countries. The information and analysis from these engagements have complemented, validated and triangulated the data and information gathered from countries by other methods. During the country case studies, the activities included conducting in-country data collection and meeting key stakeholders such as the NDA, in-country representatives from AEs and executing agencies, project developers and other stakeholders from civil society and the private sector. Team members completed these country case studies using virtual meetings and group discussions.

The engagements on Morocco and Namibia resulted in shorter country deep-dive reports which have relied on both documentary and interview data. We have also completed a country deep-dive report on Uganda by contacting district officials in locations where the project is restoring wetlands, and where other components are being implemented. These deep-dive studies serve to inform a broader sample of project clusters by showing in concrete terms to what extent and the degree to which select GCF-financed projects contribute to meeting a country's adaptation needs. Overall, the country engagements have provided invaluable, tangible insights and practical project case examples for the evaluation. They have allowed the team to gather information and validate the evidence with stakeholders and, in one case, some of the beneficiaries.

It is important to highlight the sampling approach used for these country engagements. The evaluation team undertook a systematic selection of country engagements to have a purposive and strategic sample. The team strove to select countries that were most likely to yield insights into the larger research questions the evaluation is exploring. The purpose of the country engagement was not to evaluate the GCF country portfolio or experience but to gather data that lends insight into the larger evaluation questions being addressed, and to get a more in-depth and grounded understanding of the country's experience.

The evaluation team used the following sampling criteria to select the countries:

- Geographies: in selecting countries, ensure a balanced representation according to the current GCF portfolio's geographic distribution.
- GCF priority countries: select countries that are preferably GCF priority countries: African States, LDCs and SIDS. The sample can have a higher representation of countries from these regions than in the current portfolio as they are GCF priorities.

- APR availability: select countries with available projects that have at least one APR between them, which signals actual project implementation and provides the evaluation team with a basis in terms of project data.
- Project types: select countries implementing at least one adaptation project and, preferably, at least one cross-cutting project.
- Project focus: select countries with projects under implementation in different GCF result areas and sectors (e.g. agriculture, infrastructure, transport, insurance).
- Public/private: select countries with private, public and mixed-sector investments, emphasizing countries with private sector adaptation and cross-cutting projects.
- Funding modalities: select countries with projects supported through various financial modalities including grants, loans and equity.
- Accredited entities: select countries with a diverse range of AEs (emphasis on countries with DAEs).

The sample is based on a wide range of criteria and included a focus on countries that had not been selected in the recent evaluations of the IEU. The SIDS, even though extremely relevant in the adaptation context, are therefore not represented in the sample. Most of these countries are in receipt of a readiness grant. Table A - 2 below provides key statistics on the sample. The choice of Morocco for a country deep-dive was due to the challenges in engaging key stakeholders in Madagascar and Ghana.

Table A - 2. Sample countries for the virtual country case studies

COUNTRY	STATUS	# PROJECTS	# ADAPTATION	# CROSS-CUTTING	# APRS
Tajikistan	Preferred	5	4	1	2
Guatemala	Preferred	3	2	1	0
The Gambia	Preferred	1	1	1	1
(Madagascar)	Alternative	3	1	2	1
Namibia	Alternative	6	4	2	4
Uganda	Alternative	3	2	1	2
(Ghana)	Alternative	2	1	1	0

Source: Asfaw, S., M. De Bruijn, R. Kim, B. Lee, M. Markrich, P. Mwandri, M. Prowse, J. Puri and G. Uvarova (2020). Independent Evaluation of the Adaptation Portfolio of the Green Climate Fund. Independent Evaluation Unit, Green Climate Fund, Songdo, South Korea.

Annex 6. Intervention heat map of GCF results-based financing (nominal USD millions)

Table A - 3. Intervention heat map of GCF results-based payments

Interventions \ Outcomes/outputs		Beneficiaries						Service providers					Investor/system-wide							S
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	
Supply	Grand challenge																			
	Impact bond																			
	Payment for environmental services					2.0	7.7										5.7		502.4	
	Advance market commitment																			
	Pay-for-performance																			
Hybrid	Pull mechanism																			
	Voucher					1.8														
Demand	Conditional cash transfer					6.4	1.6												0.8	
Other																				

Source: Alldredge et al. (2021).
Note: Column titles indicated below:

Beneficiary level
- A Awareness of goods and services
- B Acceptability of goods and services
- C Access to goods and services
- D Consumption of goods and services
- E Final outcomes: Sector-specific
- F Final outcomes: Socioeconomic

Service provider level
- G Management/investment in capital, marketing and operations
- H Innovation/supply of goods and services
- I Quality of goods and services
- J Other output changes
- K Enterprise-level outcomes

Investor/system-wide level
- L Investment risk
- M Financial or economic return on investment
- N Total aid amount
- O Aid effectiveness
- P Market creation or expansion
- Q Policy change or reform
- R Other investor or systemic outcomes

S Unintended consequences

Annex 7. List of interviewees and advisory panel

This annex includes a list of all stakeholders interviewed for this evaluation and who agreed to be listed in an annex of the evaluation report. It also includes the affiliations of the advisory panel.

Country case study missions and deep dives

Name	Affiliation	Country
Alieu Secka	Gambia Chamber of Commerce and Industry (GCCI)	The Gambia
Almamy Camara	United Nations Development Programme (UNDP)	The Gambia
Babou Sowe	Youth Action For Food Self Sufficiency and Education	The Gambia
Babucar Sengore	Youth Action For Food Self Sufficiency and Education	The Gambia
Bai Madi Ceesay	Ministry of Finance	The Gambia
Bubacarr Z. Jallow	Ministry of Environment, Climate Change and Natural Resources (MECCNAR)	The Gambia
Bubu Pateh Jallow	LDC Climate Change	The Gambia
Daniel Pouakouyou	United Nations Environment Programme (UNEP)	The Gambia
Fatoumatta Sanyang	United Nations Development Programme (UNDP)	The Gambia
Francis Mendy	Ministry of Agriculture	The Gambia
Habib Abubakar	African Development Bank	The Gambia
James Monday	Africa Infrastructure Fund	The Gambia
Malanding Jaiteh	Ministry of Environment, Climate Change and Natural Resources (MECCNAR)	The Gambia
Nget Sambou	Food and Agriculture Organization (FAO)	The Gambia
Omar Gaye	Gambian Agency For The Management of Public Works (Gamworks)	The Gambia
Alejandro Estrada	Ministry of Environment and Natural Resources (MARN)	Guatemala
Alejandro Santos	Rainforest Alliance	Guatemala
Antonio Guoron	*Instituto Nacional de Bosques*	Guatemala
David Morales	Food and Agriculture Organization (FAO)	Guatemala
Diego Jincer	*Universidad del Valle*	Guatemala
Ernesto Moscoso	*Instituto Nacional de Bosques*	Guatemala
Gabriela M Fuentes	*Universidad del Valle*	Guatemala
Jackeline Palomo	*Universidad del Valle*	Guatemala
Jorge Omar Samayoa	Inter-American Development Bank (IADB)	Guatemala
Juan Carlos Diaz	Ministry of Environment and Natural Resources (MARN)	Guatemala
Julia Walescka Xuya Estrada	*Instituto Nacional de Sismología, Vulcanología, Meteorología e Hidrología* (INSIVUMEH)	Guatemala

NAME	AFFILIATION	COUNTRY
Lesly Herrera	Central American Bank for Economic Integration (CABEI)	Guatemala
Merle Fernandez	*Consejo Nacional de Areas Protegidas* (CONAP)	Guatemala
Micol Mulon	World Food Programme (WFP)	Guatemala
Miguel Martinez	Food and Agriculture Organization (FAO)	Guatemala
Monica Barilla	*Consejo Nacional de Areas Protegidas* (CONAP)	Guatemala
Ogden Rodas	Food and Agriculture Organization (FAO)	Guatemala
Oscar Rojas	Rainforest Alliance	Guatemala
Pia Hernandez	International Union for Conservation of Nature (IUCN)	Guatemala
Rita Mishaan	*Secretaría de Planificación y Programación de la Presidencia* (SEGEPLAN)	Guatemala
Rudy Mendez	Ministry of Environment and Natural Resources (MARN)	Guatemala
Trevor Estrada	Central American Bank for Economic Integration (CABEI)	Guatemala
Ursula Parrilla	International Union for Conservation of Nature (IUCN)	Guatemala
Vanesa Franco	Ministry of Environment and Natural Resources (MARN)	Guatemala
Willson Wyller Morales	*Instituto Nacional de Sismología, Vulcanología, Meteorología e Hidrología* (INSIVUMEH)	Guatemala
Yvonne Ramirez	*Fundación para la Conservación de los Recursos Naturales y Ambiente en Guatemala* (FCG)	Guatemala
Samir Ibrahim	SunCulture	Kenya
Andriamalala Tsitohaina Hajatiana	*Ministère de l'Eau, de l'Assainissement et de l'Hygiène* (MEAH)	Madagascar
Lovakanto Ravelomanana	Ministry of Environment, Ecology, Sea and Forests	Madagascar
Robert Merritt	Conservation International Foundation	Madagascar
Sahondra Rajoelina	Conservation International Madagascar	Madagascar
Zo Lalaina Rakotobe	Conservation International Madagascar	Madagascar
Aktofel Amalungu	Environmental Investment Fund (EIF)	Namibia
Benedict Libanda	Environmental Investment Fund (EIF)	Namibia
Karl Aribeb	Environmental Investment Fund Namibia	Namibia
Maano Nepembe	Development Bank of Namibia	Namibia
Mkwetu Mweutota	Environmental Investment Fund (EIF)	Namibia
Muhammed Sayed	Development Bank of Southern Africa	Namibia
Olympus Manthata	Development Bank of Southern Africa	Namibia
Petrus Muteyauli	Ministry of Environment and Tourism	Namibia
Christian Grassini	World Food Programme (WFP)	Tajikistan

NAME	AFFILIATION	COUNTRY
Jamshed Rahmonberdiev	European Bank for Reconstruction and Development (EBRD)	Tajikistan
Kateryna Stelmakh	*Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ)	Tajikistan
Khamza Abdurakhimov	World Food Programme (WFP)	Tajikistan
Murodov Turakul	Committee for Environmental Protection under the Government of the Republic of Tajikistan	Tajikistan
Muzaffar Shodmonov	Hydromet	Tajikistan
Nathan Rive	Asian Development Bank	Tajikistan
Roziya Kirgizbekova	*Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ)	Tajikistan
Sheralizoda Bahodur	Committee for Environmental Protection under the Government of the Republic of Tajikistan	Tajikistan
Yuri Skochilov	Tajik Climate Change Network	Tajikistan
Agaba George	Kanungu District Local Government	Uganda
Andrew Masaba	Ministry of Finance, Planning and Economic Development	Uganda
Baguma Naboth	Mitooma District Local Government	Uganda
Ben Larroquette	United Nations Development Programme (UNDP)	Uganda
Bob Natifu	Ministry of Water and Environment	Uganda
Daniel Omodo	United Nations Development Programme (UNDP)	Uganda
Dennis Asiimwe	Global Green Growth Institute (GGGI)	Uganda
Doreen Ankunda	Ministry of Finance, Planning and Economic Development	Uganda
Godfrey Mujuni	Ministry of Water and Environment	Uganda
Jascinta Nalwoga	United Nations Development Programme (UNDP)	Uganda
Jimmy Brian Toko	United Nations Development Programme (UNDP)	Uganda
Joseph Malinga	Ministry of Water and Environment	Uganda
Kijali Kamwanda	Budaka District Local Government	Uganda
Maris Wanyera	Ministry of Finance, Planning and Economic Development	Uganda
Okurut David	Kibuku District Local Government	Uganda
Oluka David Okwi	Bukeadea District Local Government	Uganda
Onesimus Muhwezi	United Nations Development Programme (UNDP)	Uganda
Paul Mafabi	Ministry of Water and Environment	Uganda
Polly Mugisha	United Nations Development Programme (UNDP)	Uganda
Samuka Muhamed	Pallisa District Local Government	Uganda
Sarah Mujabi	United Nations Development Programme (UNDP)	Uganda

Name	Affiliation	Country
Tamer El-Raghy	Acumen - ARAF	Uganda
Tonny Ojok	World Vision Uganda	Uganda
Vincent Barugahare	Ministry of Water and Environment	Uganda

GCF Secretariat

Name	Position	Division
Clifford Polycarp	Deputy Director and Head of Programming	DCP
Fumihiko Tominaga	Adaptation Planning Associate Professional	DCP
Orville Grey	Adaptation Planning Specialist	DCP
Pa Ousman Jarju	Director	DCP
Ania Maria Wanda Grobicki	Deputy Director	DEA
Oyun Sanjaasuren	Director	DEA
German Velasquez	Director	DMA
Joseph Intsiful	Senior Climate Information and Early Warning Systems Specialist	DMA
Veronica Marquez	Ecosystems Management Senior Specialist	DMA
George Zedginidze	Head of Knowledge and Change Management	OED
Selina Wrighter	Head of Policy and Strategy	OED
Yannick Glemarec	Executive Director	OED
Emerson Resende	Climate Policy Specialist	OGA
Juan Pablo Hoffmaister	Multilateral Governance Manager	OGA
Aiko Ward	Data Management Specialist	OPM
Folasade Ayonrinde	Portfolio Management Specialist	OPM
Johann Elysee	Senior Quality Assurance and Monitoring and Evaluation Specialist	OPM
Lilian Macharia	Head of Portfolio Management	OPM
Linus Ikpyo Hong	Portfolio Analyst	OPM
Rahul Teku Vaswani	Portfolio Management Specialist – Readiness	OPM
Vladislav Arnaoudov	Climate Change Monitoring and Evaluation Specialist	OPM
Mitch Carpen	Head of Risk Management and Compliance	ORMC
Youjin Jung	Investment Risk Associate Professional	ORMC
Adeyemi Sandra Freitas	Senior Private Sector Climate Specialist	PSF
Andreas Lunding	Climate Markets Manager	PSF

Name	Position	Division
Kate Eunyoung Chang	Associate Professional	PSF
Rajeev Mahajan	Project Finance Manager	PSF
Sergio Pombo	Head of Private Equity Funds	PSF
Thomas Bishop	Climate Investment Officer	PSF
Tony Clamp	Director	PSF

GCF Board

Name	Position	Representation
Cyril Rousseau	Deputy Chief Executive of *Agence France Trésor*	Former developed country parties
Jeremiah Garwo Sokan	National Coordinator, National Climate Change Secretariat Environmental Protection Agency (Liberia)	Developing country parties from Least Developed Countries
Lars Roth	Deputy Director, Division for Climate, Energy and Environment, Ministry for Foreign Affairs (Sweden)	Developed country parties
Richard Muyungi	Director, Vice President's Office (United Republic of Tanzania)	Developing country parties from the African States
Ronald Jumeau	Ambassador, United Nations, Ministry of Foreign Affairs (Seychelles)	Developing country parties from Small Island Developing States
Stefan Schwager	Head International Climate and Biodiversity Finance, International Affairs Division, Federal Office of the Environment (Switzerland)	Developed country parties
Wael Abdoul-Magd	Ambassador, Ministry of Foreign Affairs (Egypt)	Developing country parties from the African States

External experts

Name	Position	Affiliation
Anna Creed	Head of Standards & Chair of Adaptation and Resilience Expert Group (AREG)	Climate Bonds Initiative
Chizuru Aoki	Lead Environmental Specialist for the GEF Programming Unit and Manager of the CBIT Trust Fund	Global Environment Facility
Daan Robben	Policy Officer; Advisory Council Member	Both ENDS; GCFWatch
Eileen Mairena Cunningham	Active Observer for CSOs – Developing countries constituency	Center for the Autonomy and Development of Indigenous Peoples

NAME	POSITION	AFFILIATION
Erika Lennon	Active Observer for CSOs – Developed countries constituency	Center for International Environmental Law
Jason Spensley	Senior Climate Change Specialist	Global Environment Facility
Mikko Ollikainen	Fund Manager	Adaptation Fund
Nathan Subramaniam	Director, Sector and Project Division	Independent Evaluation Department, Asian Development Bank
Pieter Pauw	Researcher	Frankfurt School of Finance and Management
Saleemul Huq	Director	International Centre for Climate Change and Development (ICCCAD) in Bangladesh
Timo Leiter	Research Student	London School of Economics

ADVISORY PANEL

This list shows the affiliations of the advisory panel. These are not interviewees.

NAME	POSITION	AFFILIATION
Christina Chan	Director, Climate Resilience Practice	World Resources Institute
Kevin M. Adams	Research Fellow	Stockholm Environment Institute
Nishi Krishnan	Climate Finance Associate, Climate Resilience Practice	World Resources Institute
Raju Pandit Chettri	Director	Prakriti Resources Centre, Kathmandu, Nepal
Uma Lele	President Elect	International Association of Agricultural Economists (IAAE)
Youssef Nassef	Director, Adaptation	United Nations Framework Convention on Climate Change (UNFCC)

Annex 8. EVALUATION MATRIX

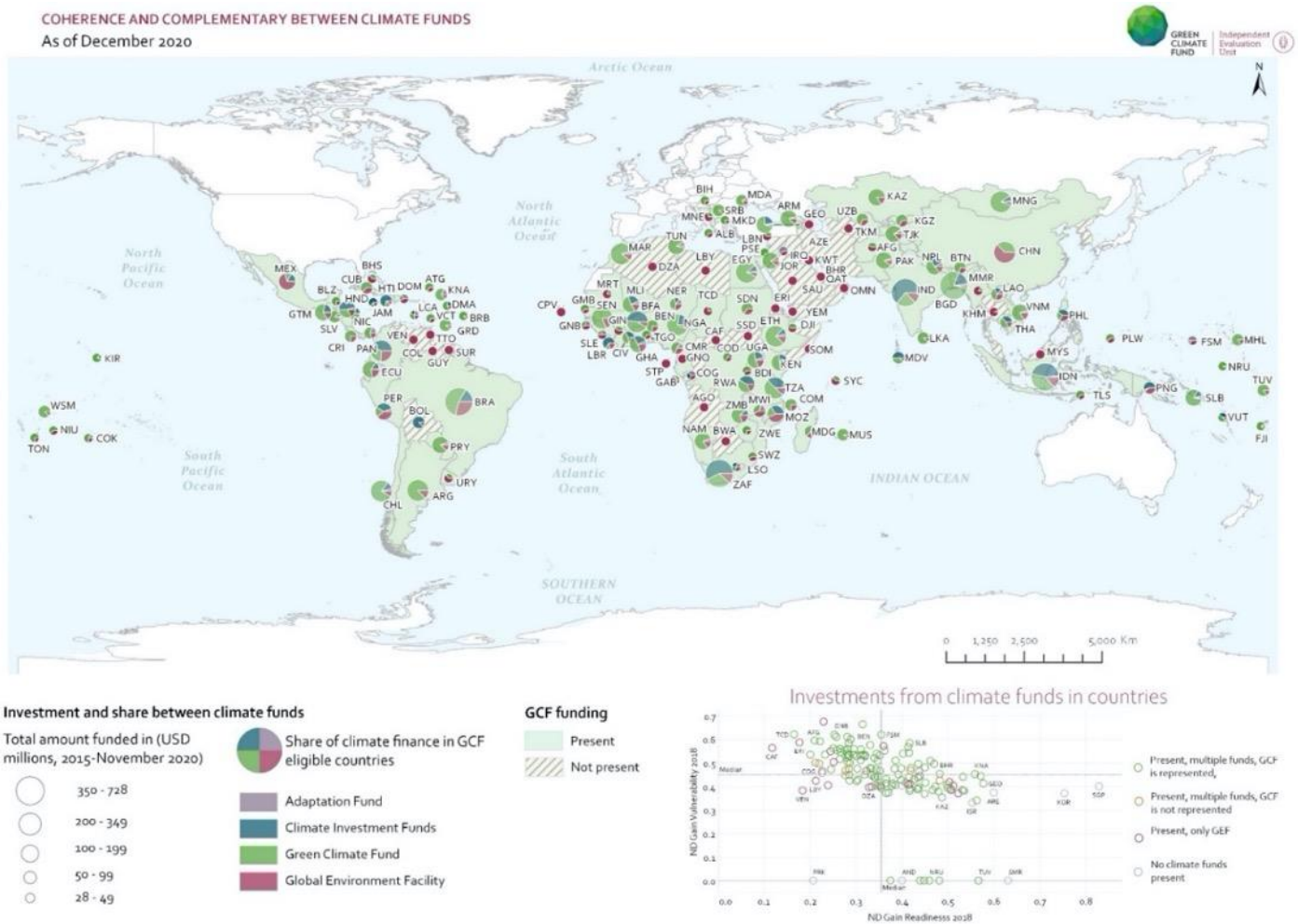
The evaluation matrix is available in the approach paper.

Annex 9. ADDITIONAL DATA

This annex presents additional data that support the findings in the main report. This annex is subject to revisions in future reprints.

A. CHAPTER III

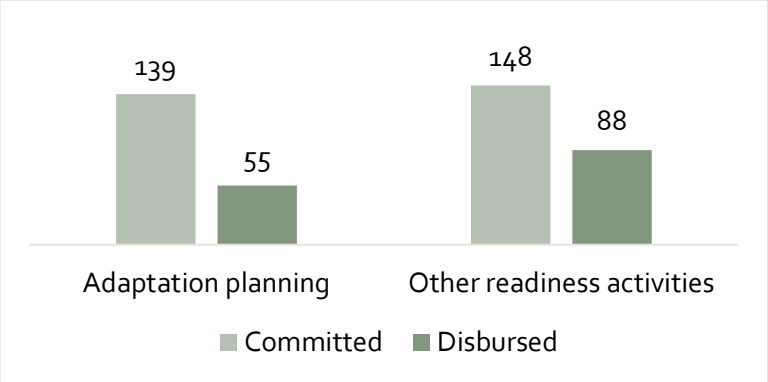
Figure A - 1. Coherence and complementarity between climate funds



Source: Respective funds' own data, as of 22 December 2020.

B. CHAPTER IV

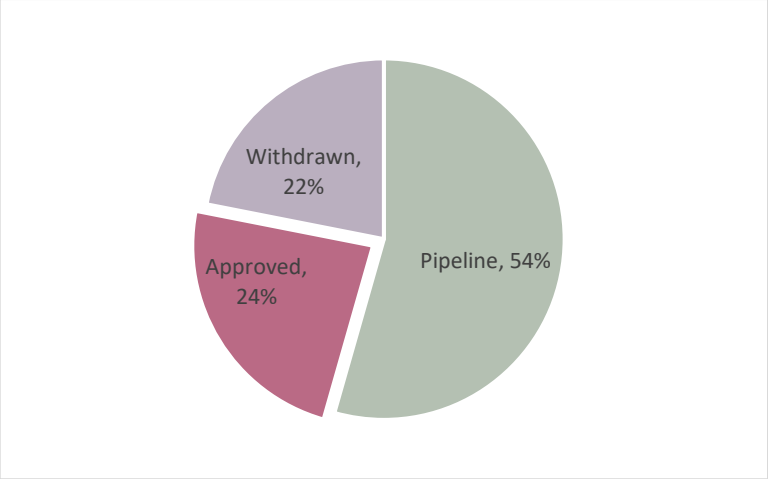
Figure A - 2. Disbursement status of RPSP grants (USD million)



Source: GCF RPSP data, as of 13 November 2020.
Note: Some 40 per cent of the committed finance to adaptation planning (USD 55 million) has been disbursed to date.

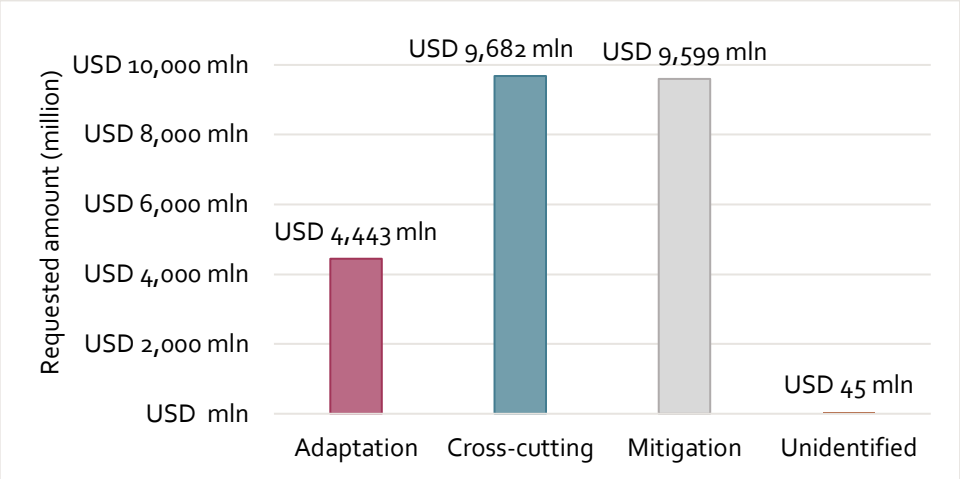
C. CHAPTER V

Figure A - 3. Status of the GCF adaptation portfolio, including pipeline



Source: GCF IPMS data, as of 13 November 2020.

Figure A - 4. Requested amount in USD million by theme from all projects in the pipeline

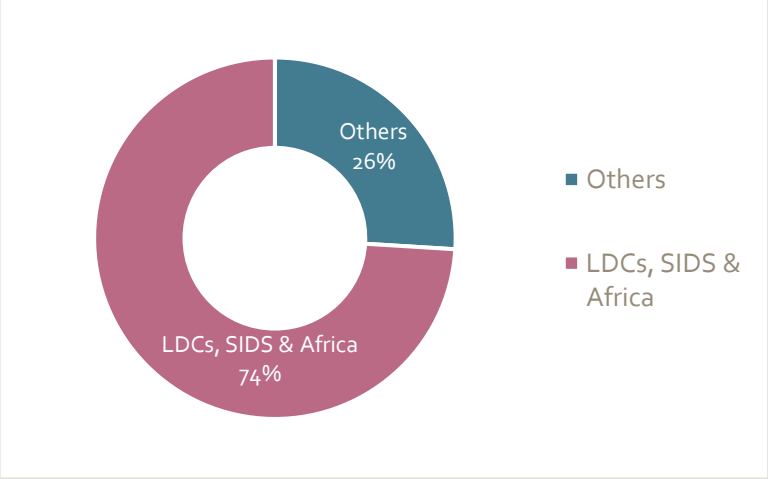


Source: GCF IPMS data, as of 13 November 2020.
Note: USD 4,443 million is being requested for adaptation projects (half of mitigation).

Figure A - 5. Number of projects in the pipeline per type of AE

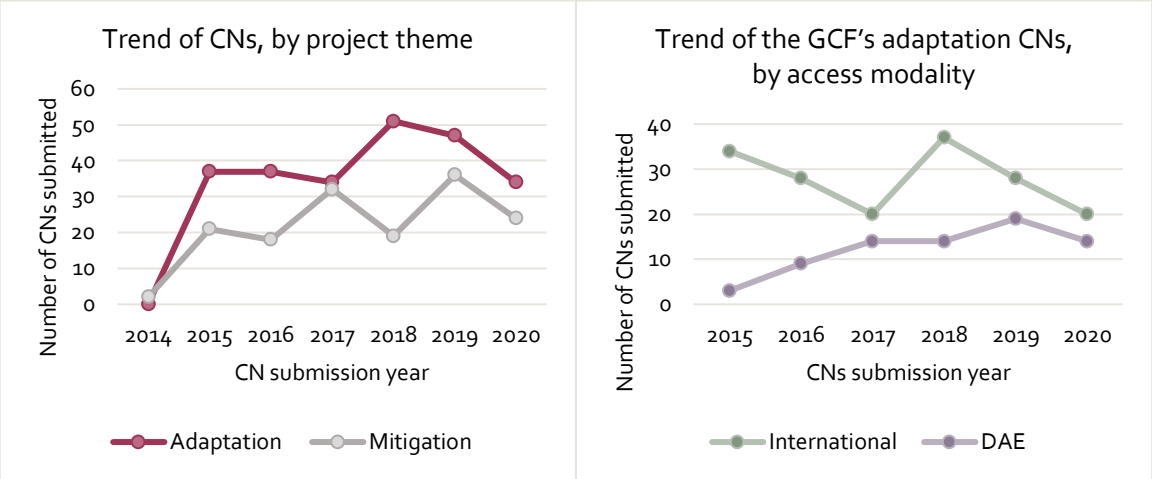
Source: GCF IPMS data, as of 13 November 2020.

Figure A - 6. Adaptation pipeline projects by vulnerability category



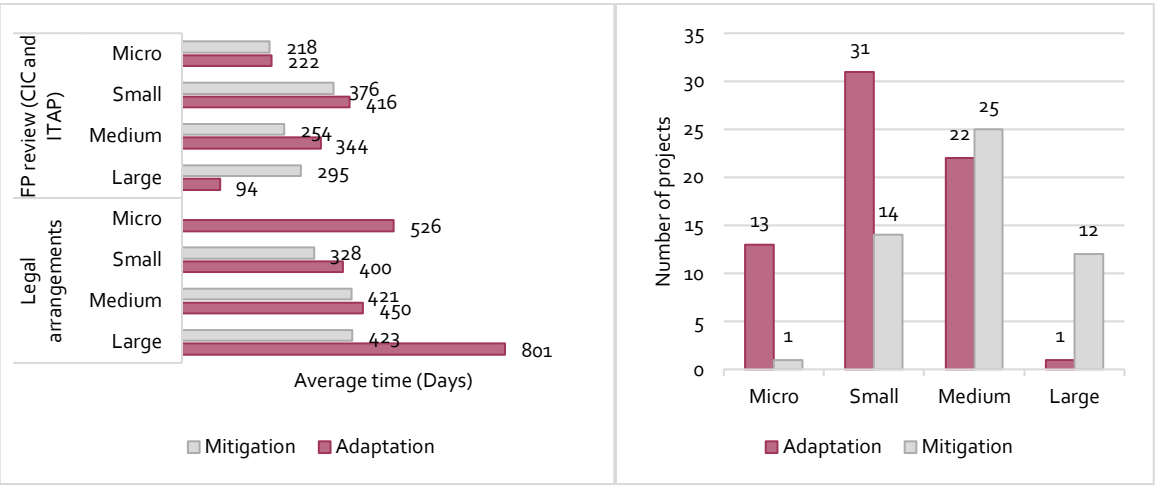
Source: GCF IPMS data, as of 13 November 2020.
Note: The focus on vulnerable groups remains strong in adaptation.

Figure A - 7. Number of concept notes submitted over time



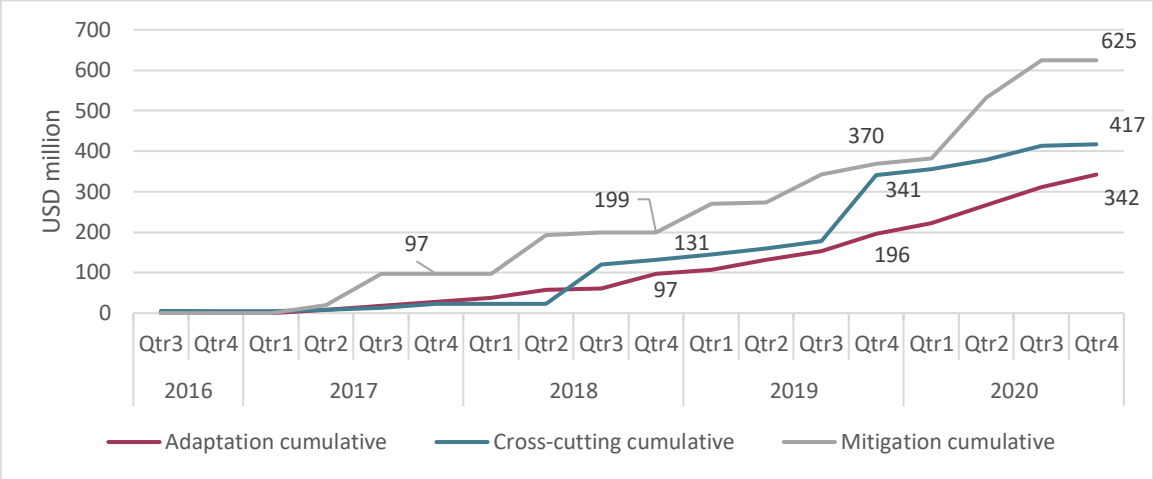
Source: GCF IPMS data, as of 13 November 2020.
Note: The overall number of CNs submitted has been decreasing since 2018, both in adaptation and mitigation. The number of adaptation CNs submitted by DAEs has been increasing over time.

Figure A - 8. Average time taken in project pipeline (left) and number of projects (right) by project size



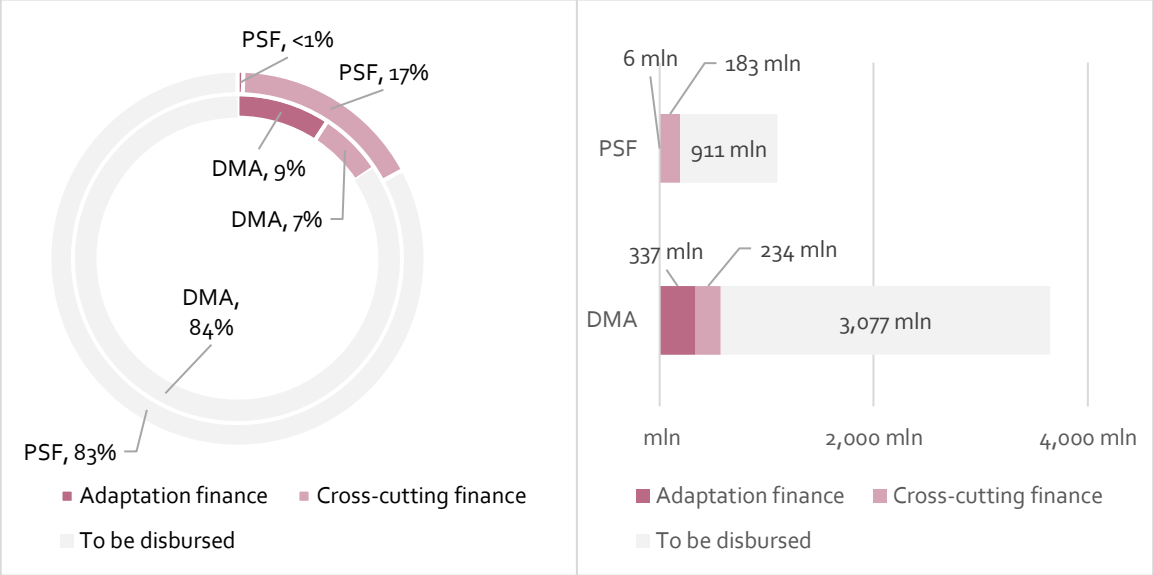
Source: GCF IPMS data, as of 13 November 2020.
Note: Independent of their size, adaptation projects take a longer time to pass both funding proposal review and FAA.

Figure A - 9. Disbursement over time (by project theme)



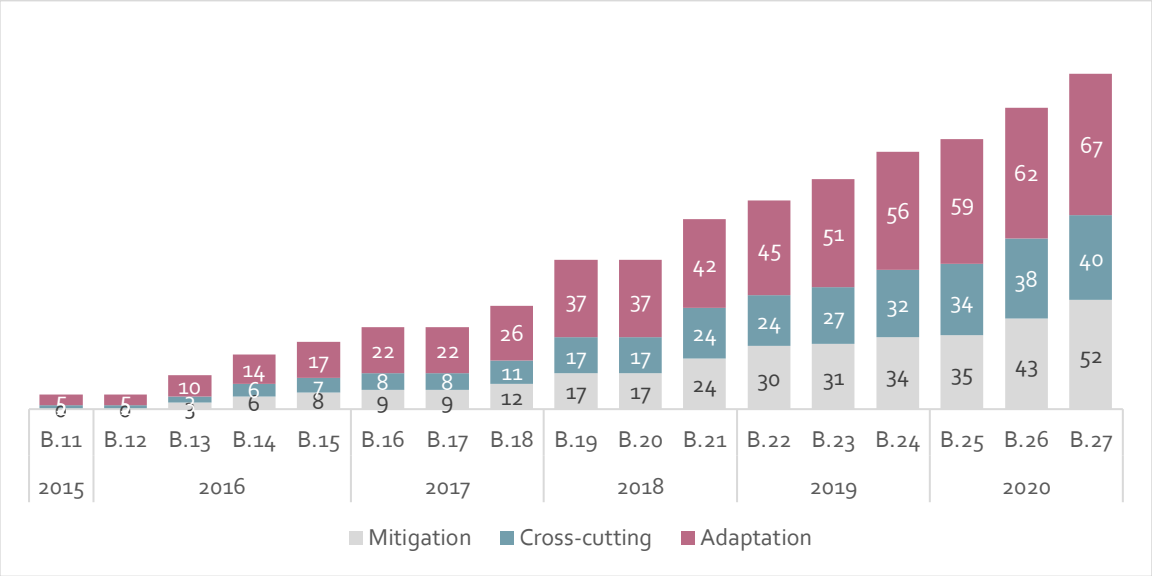
Source: GCF IPMS data, as of 13 November 2020.
Notes: Ninety-one projects in the GCF portfolio received at least one disbursement.
Since B.26, some finance has been disbursed for adaptation but not for mitigation.
The amount of adaptation finance on the ground is consistently lagging behind mitigation and adaptation.

Figure A - 10. Disbursement status by division in percentage (left) and in USD (right)



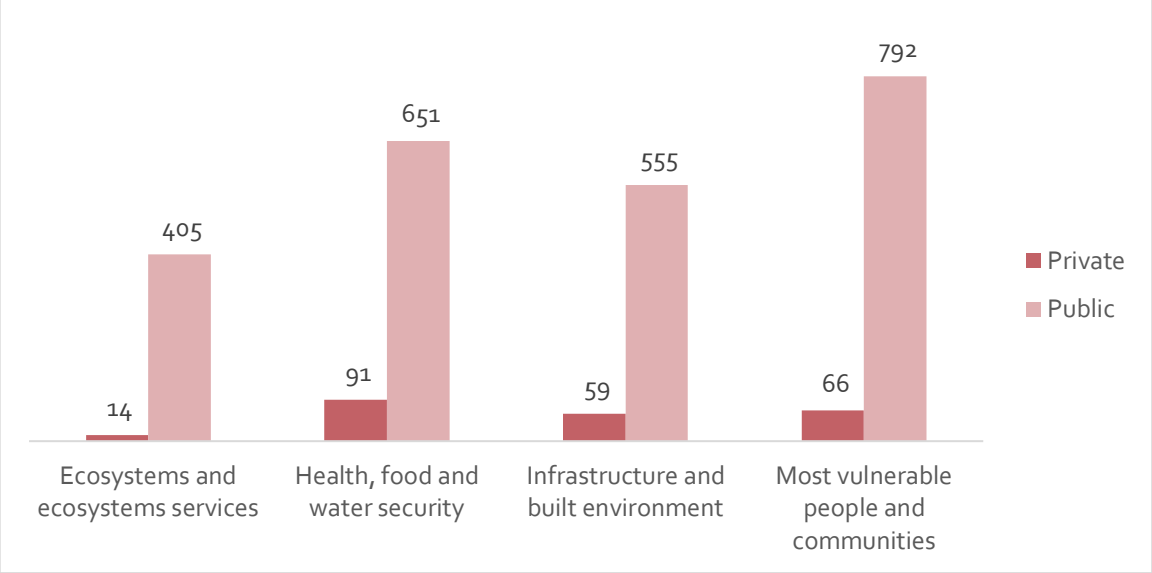
Source: GCF Tableau server data, as of 13 November 2020.

Figure A - 11. Number of projects per theme



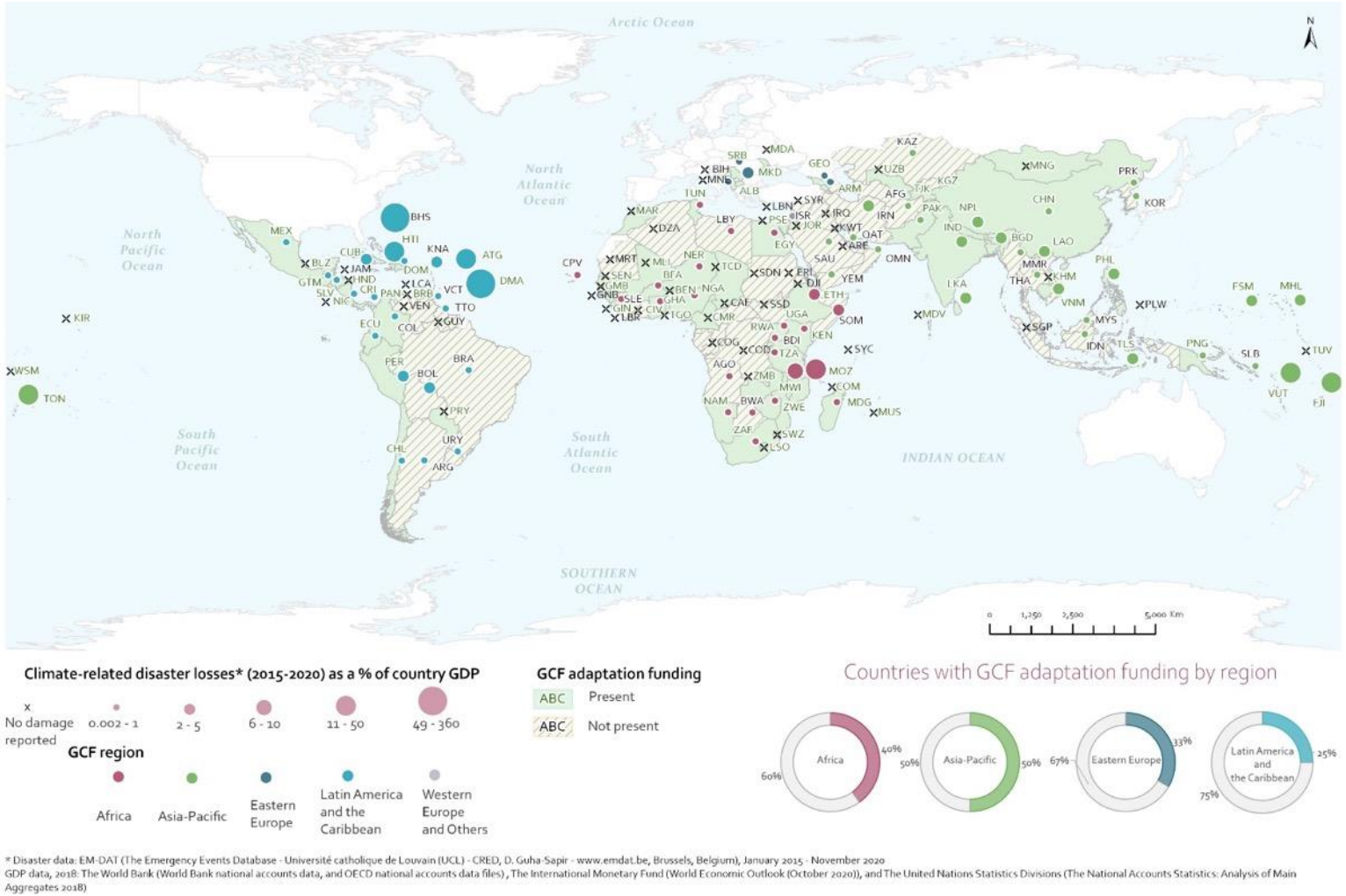
Source: GCF IPMS data, as of 13 November 2020.

Figure A - 12. GCF adaptation finance by division and result area (USD million)



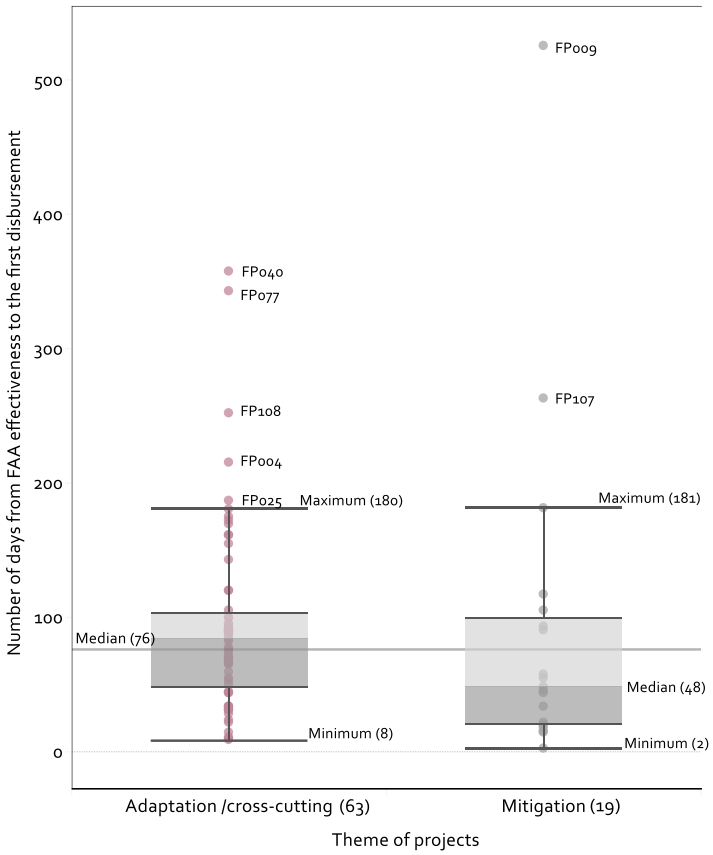
Source: GCF Tableau server data, as of 13 November 2020.
Note: "Private" represents PSF, and "Public" DMA.

Figure A - 13. Losses from climate-related disasters (as percentage of country GDP) and GCF adaptation funding



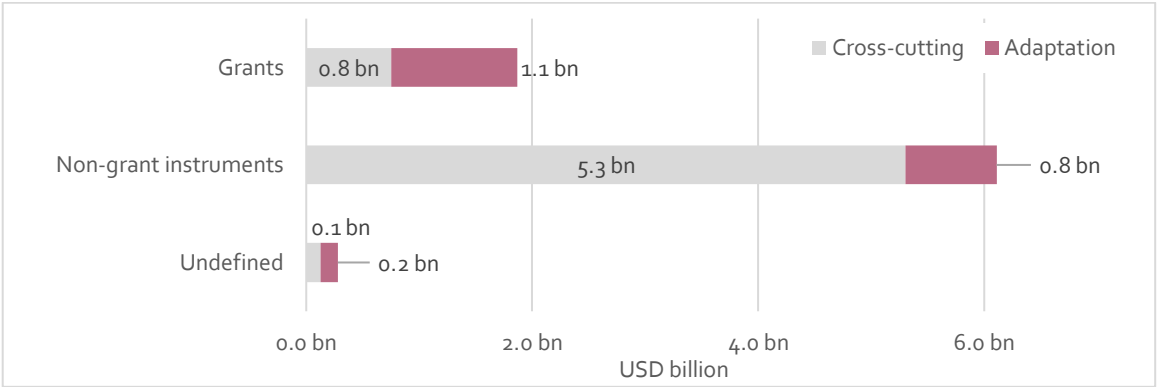
Source: Disaster data: EM-DAT (The Emergency Events Database – *Université catholique de Louvain* – CRED, D. Guha-Sapir – see www.emdat.be, Brussels, Belgium), January 2015 – November 2020; GCF data: World Bank, IMF, United Nations Statistics Divisions; GCF Tableau server data, as of 13 November 2020.

Figure A - 14. Number of days for projects to go from FAA effectiveness to receiving their first disbursement



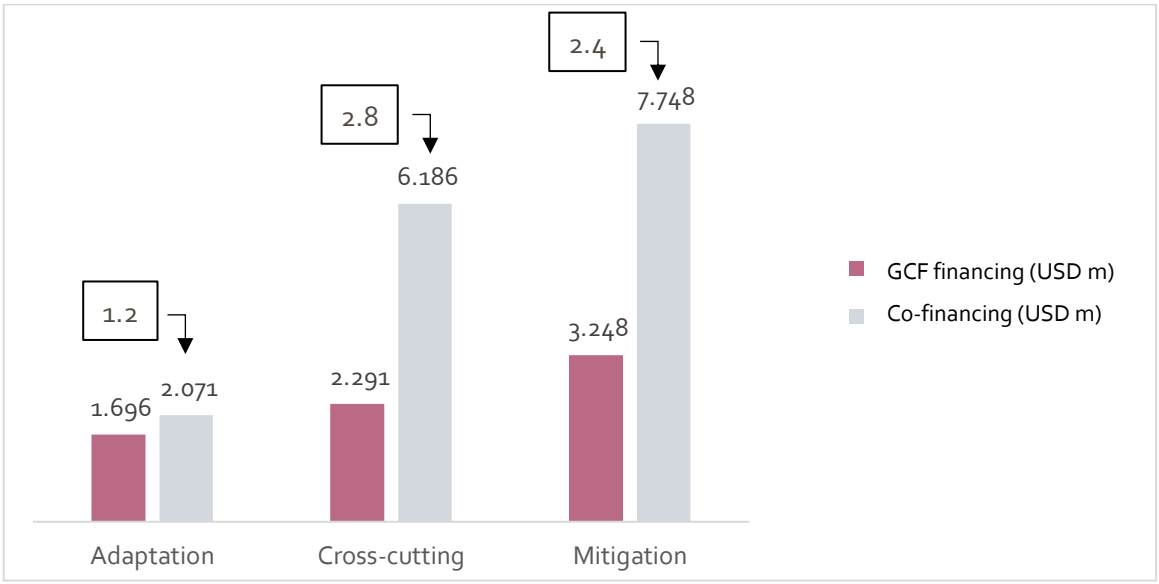
Source: GCF IPMS data, as of 13 November 2020.
Notes: Number of projects that received a disbursement = 82 (63 + 19).
Total number of active projects = 143.
Number of FAAs that received a disbursement = 86.

Figure A - 15. Co-finance: financial instrument types (adaptation and cross-cutting projects)



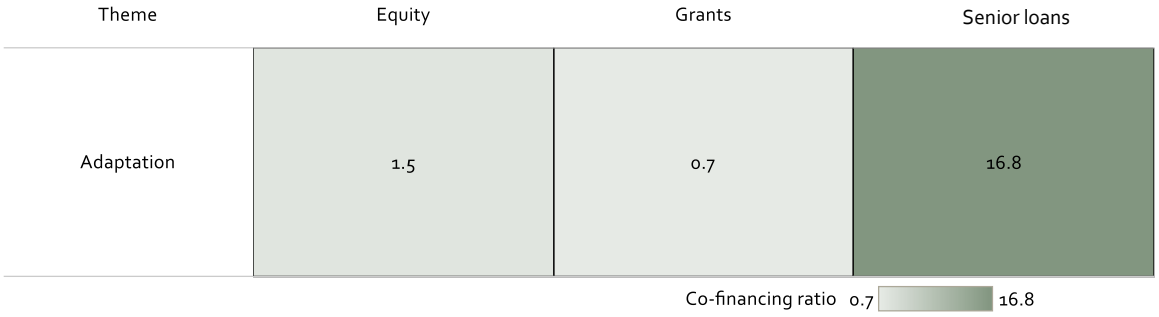
Source: GCF Tableau server data, as of 13 November 2020.

Figure A - 16. Co-financing ratio per project theme



Source: GCF Tableau server data, as of 13 November 2020.

Figure A - 17. Co-financing ratio by financial instruments for pure adaptation projects



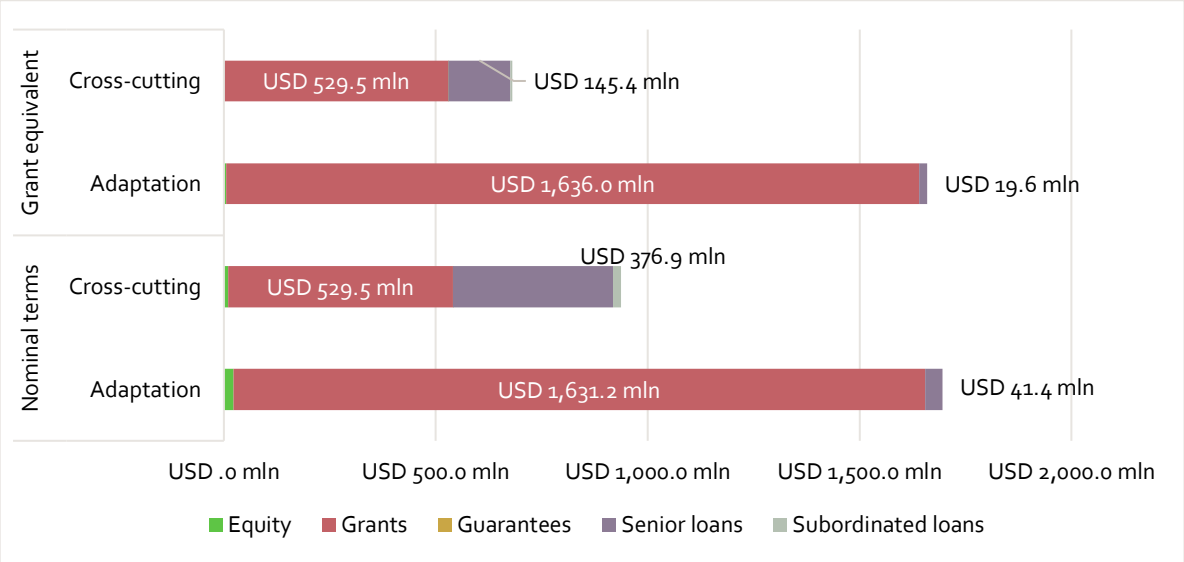
Source: GCF Tableau server data, as of 13 November 2020.
Notes: Total of 67 pure adaptation projects with GCF financing
Accredited entities do not report result area allocation for co-finance, thus the figure excludes finance committed to cross-cutting projects.

Table A - 4. Summary table of financial instruments that are co-financing investments in pure adaptation projects

Financial instrument	Theme	Number of projects with co-financing	Co-Financing (USD M)
In-kind	Adaptation	13	79
Subordinated loans	Adaptation	2	4
Undefined	Adaptation	3	154

Source: GCF Tableau server data, as of 13 November 2020.
Notes: Total of 67 pure adaptation projects with co-financing. AEs do not report result area allocation for co-finance, thus this graphic excludes cross-cutting projects.

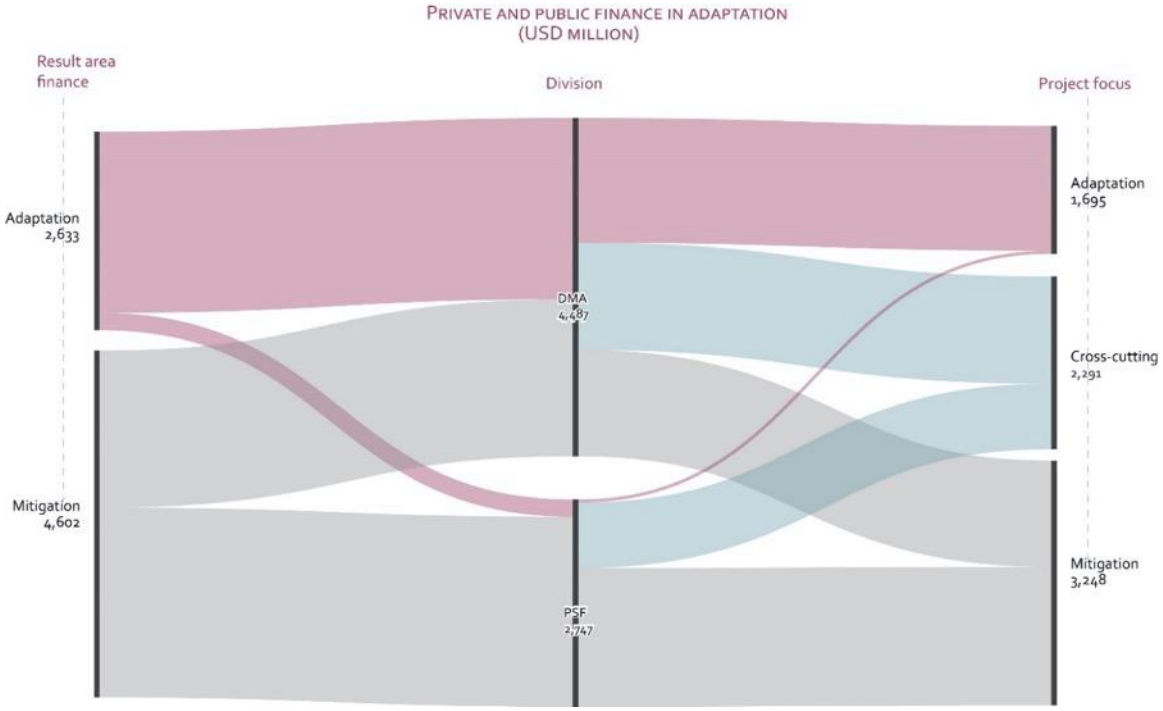
Figure A - 18. Financial instruments (nominal and grant equivalent terms) in GCF investments (USD)



Source: GCF Tableau server data, as of 13 November 2020.
Note: For "pure" adaptation projects, most of the adaptation financing is in grants, whereas only 58 per cent of adaptation financing is in grants for cross-cutting projects.

D. CHAPTER VI

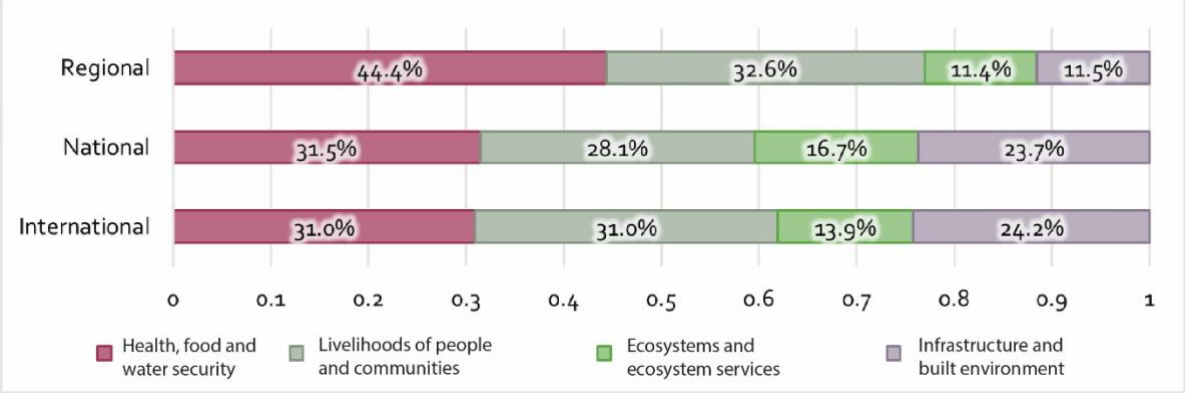
Figure A - 19. DMA and PSF finance in adaptation



Source: GCF Tableau server data, as of 13 November 2020.

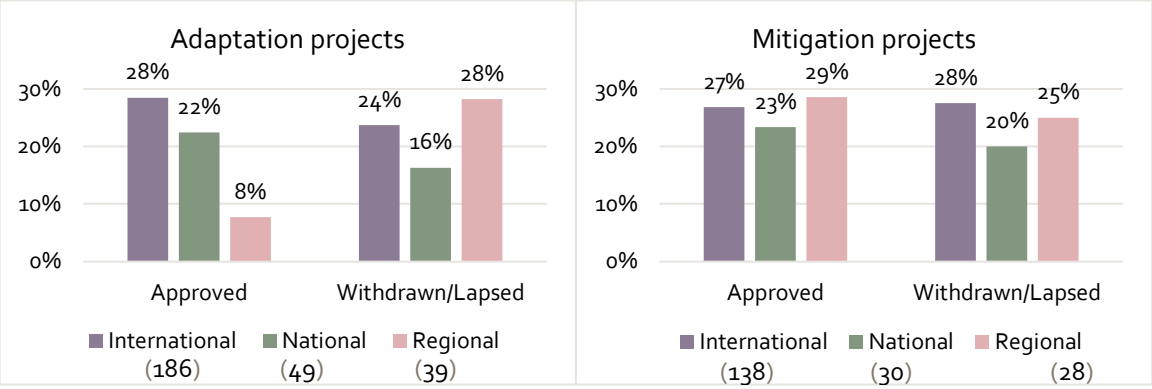
E. CHAPTER VII

Figure A - 20. Project funding by adaptation result area and entity modality



Source: GCF Tableau server data, as of 13 November 2020.

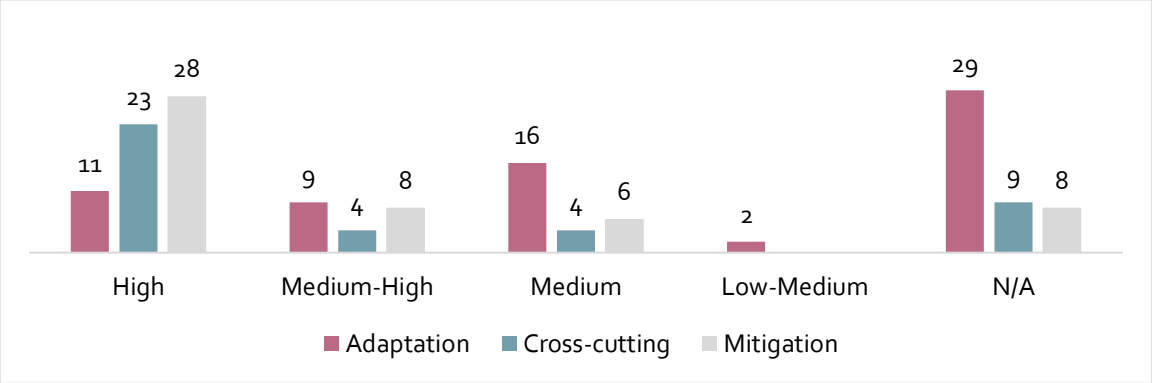
Figure A - 21. Percentage of projects per project status and entity modality



Source: GCF IPMS data, as of 13 November 2020.
Note: Percentages are calculated from the total projects for an AE modality within a theme (e.g. 8 per cent of 39 regional AE adaptation projects were approved).

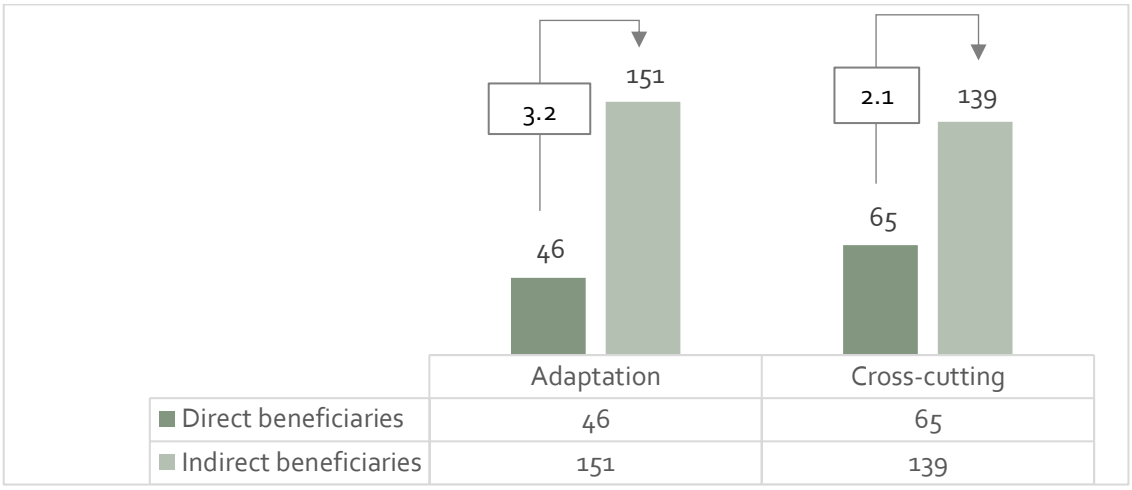
F. CHAPTER VIII

Figure A - 22. Secretariat's assessments on impact potential investment criteria



Source: GCF FPs and Secretariat's assessments, extracted by the IEU DataLab, as of 13 November 2020.
Note: Almost half of the current adaptation projects have not been assessed on investment criteria, including impact potential.

Figure A - 23. Expected number of beneficiaries (million people)



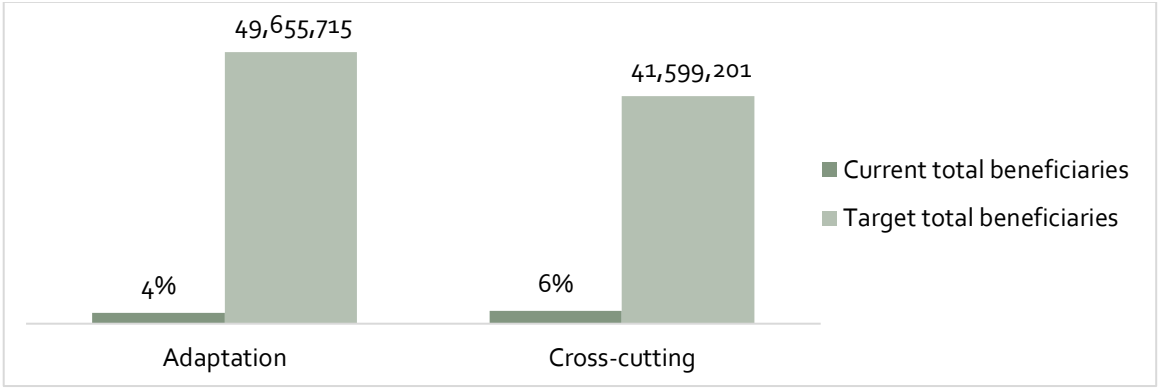
Source: GCF FPs, extracted by the IEU DataLab, as of 13 November 2020.
Note: Every single direct beneficiary of a pure GCF adaptation project supports more than three indirect beneficiaries.

Table A - 5. Beneficiaries per project theme

	Adaptation	Cross-cutting	Total
Direct number of beneficiaries (million people)	46	65	111
Indirect number of beneficiaries (million people)	151	139	290
Committed GCF finance (USD m)	1,696	938	2,633
Total committed finance (USD m)	3,766	2,780	6,546
Beneficiaries/GCF adaptation finance (#/ USD m)	~116,000	~218,000	~152,000
Beneficiaries/total adaptation finance (#/ USD m)	~52,000	~74,000	~61,000

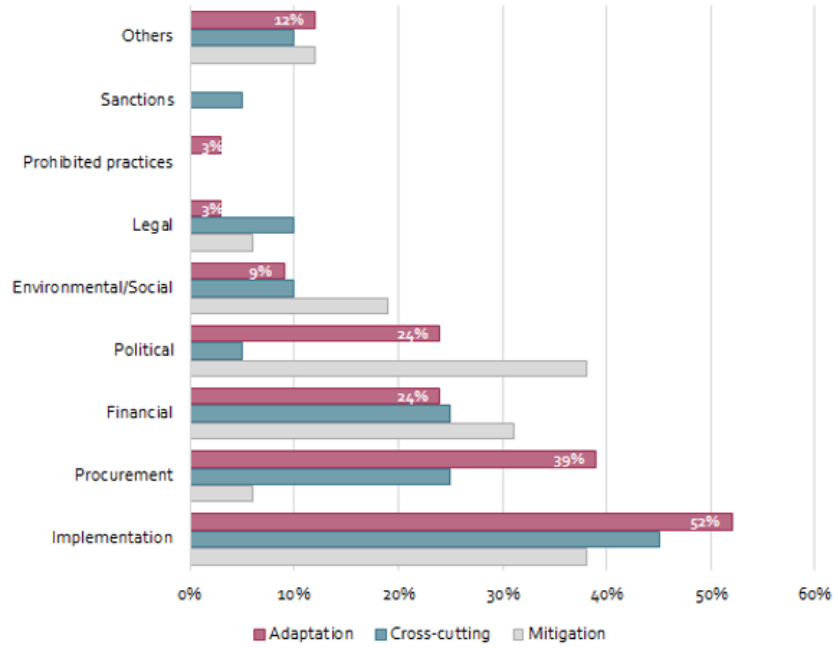
Source: GCF FPs, extracted by the IEU DataLab, as of 13 November 2020.

Figure A - 24. Number of beneficiaries reached against related projects' target (53 projects with APR in 2020)



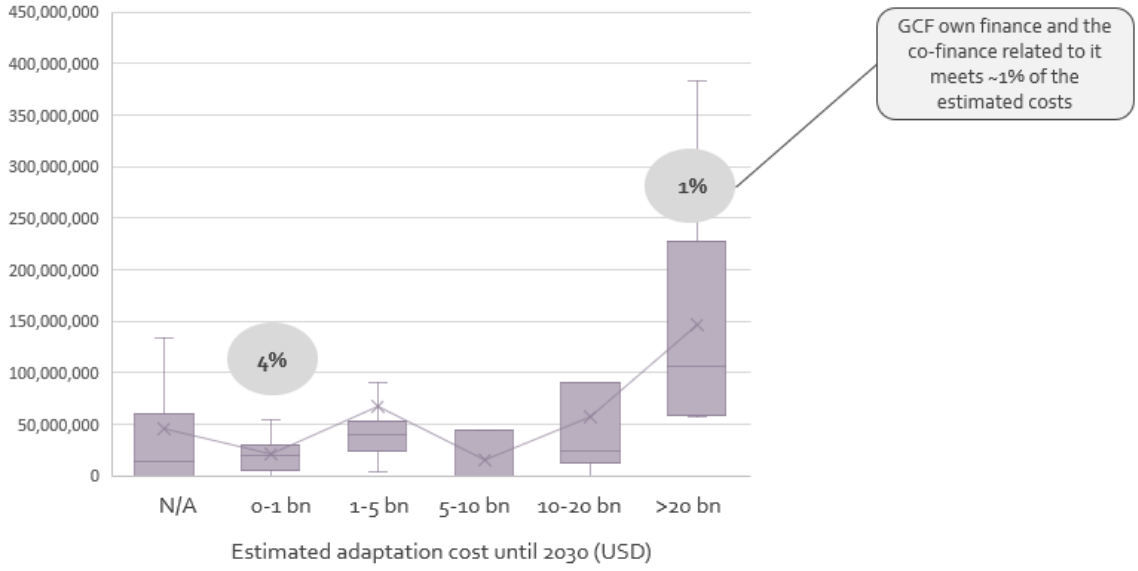
Source: GCF FPs and APRs, extracted by the IEU DataLab, as of 13 November 2020.
Note: At an aggregate level, the 53 projects have reached 5 per cent of their total target beneficiaries. This corresponds to 1 per cent of the total beneficiaries.

Figure A - 25. Implementation challenges as reported in 2019 APRs



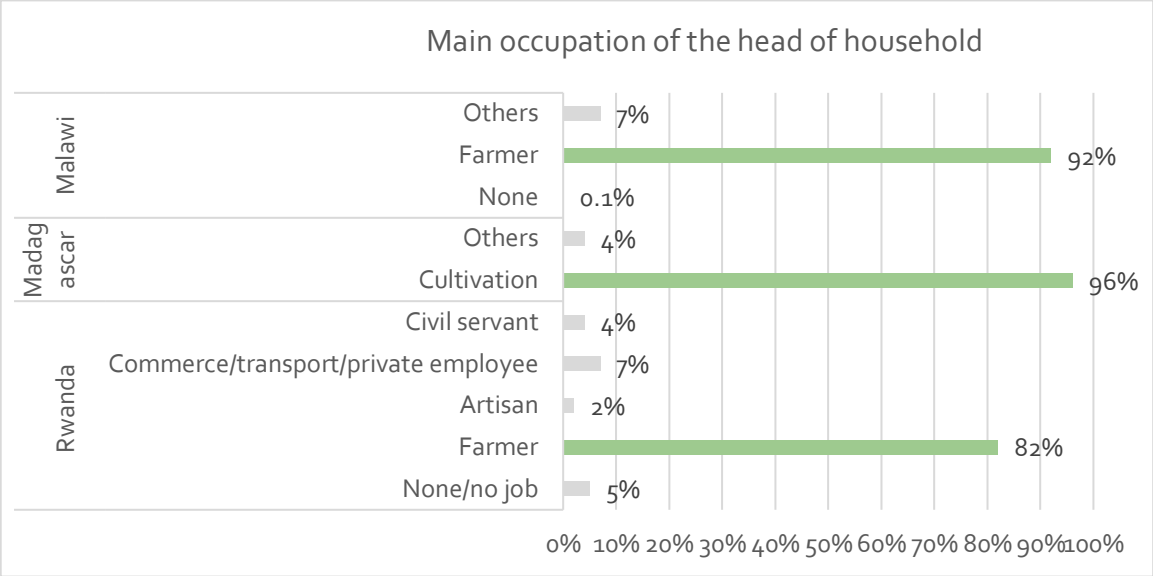
Source: GCF APRs, extracted by the IEU DataLab, as of 13 November 2020.
Note: Adaptation projects experience challenges with implementation and procurement the most.

Figure A - 26. Total finance per country – per category of country needs

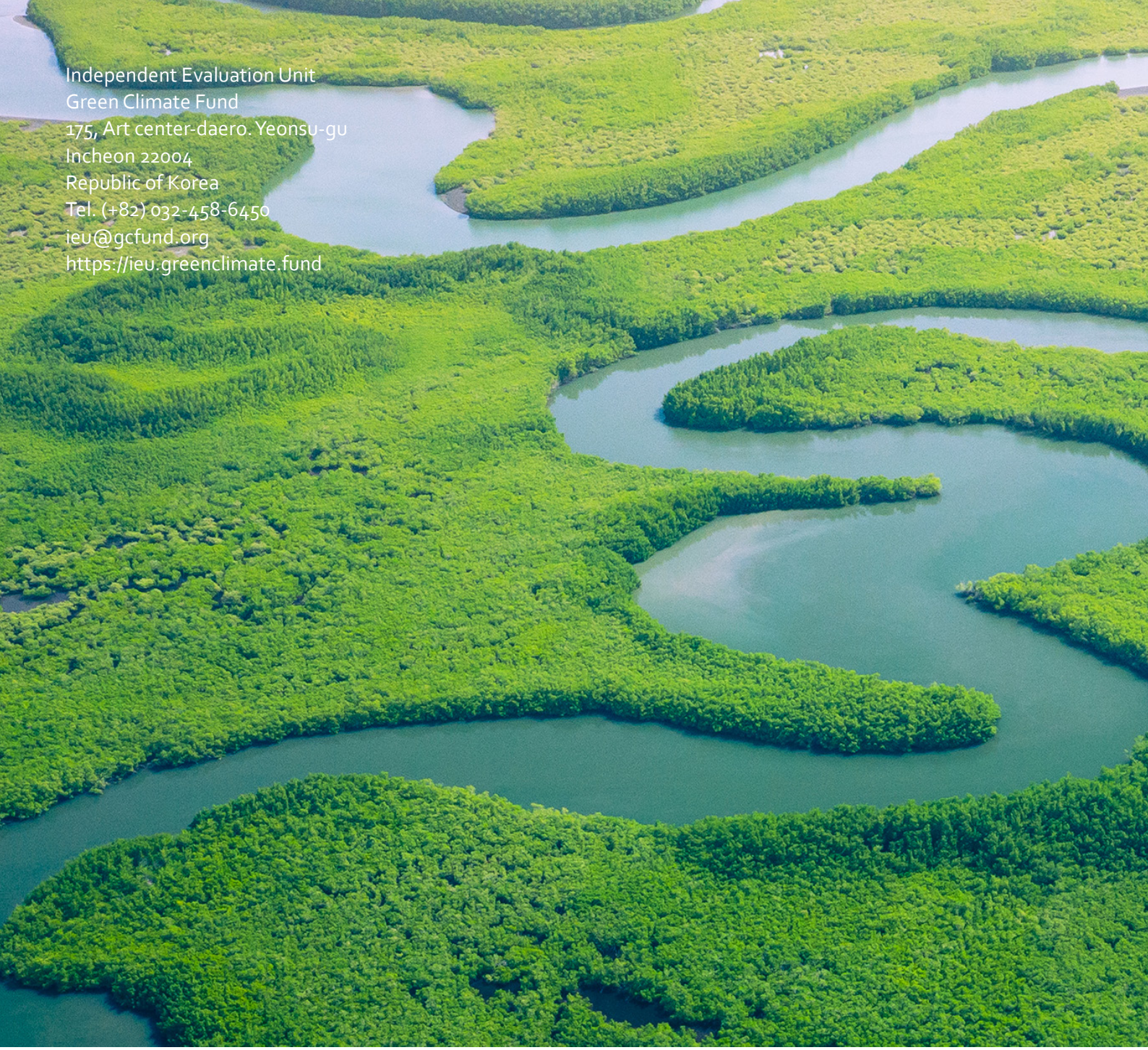


Source: NDC Explorer; GCF FPs, extracted by the IEU DataLab, as of 13 November 2020.
Note: The GCF can provide and mobilize only 1 per cent of country needs.

Figure A - 27. LORTA socioeconomic background of target population: Occupation



Source: GCF IEU LORTA data, collected by the IEU DataLab, as of 13 November 2020.



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