



Environment Quality Authority

The Role of Technology Road Map in Leveraging Access to the Green Climate Fund

Foreword

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Acronyms

ADB	Asian Development Bank
AE	Accredited Entity
AFAWA	Affirmative Finance Action for Women in Africa
AFD	Agence Francaise de Development
CN	Concept Note
DAE	Direct Access Entity
EE	Energy Efficiency
EEs	Executing Entities
EQA	Environment Quality Authority
FAO	Food and Agriculture Organization
F/S	Feasibility Study
GCF	Green Climate Fund
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IFAD	International Fund for Agricultural Development
KfW	Kreditanstalt für Wiederaufbau
LDC	Least Developed Countries
MMDE	Ministry of Mahaweli Development and Environment of Sri Lanka
MUFG	Mitsubishi UFJ Financial Group
NDA	National Designated Authority
PSF	Private Sector Facility
SDG	Sustainable Development Goals
SIDS	Small Island Developing States
SME	Small and Medium Enterprises
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WBG	World Bank Group
WFP	World Food Programme

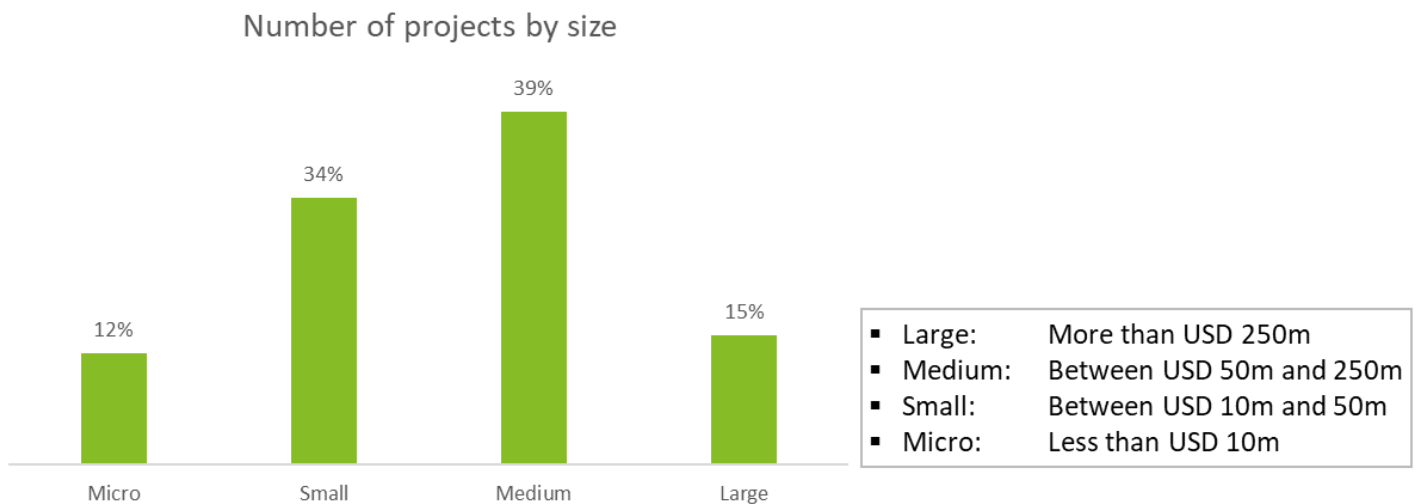
1. Introduction to the GCF

1.1. Overview of the GCF

The Green Climate Fund (GCF), serving as an operating entity of the United Nations Framework Convention on Climate Change (UNFCCC) Financial Mechanism, is a new global fund created to support the efforts of developing countries to respond to the challenge of climate change. GCF helps developing countries limit or reduce their greenhouse gas (GHG) emissions and adapt to climate change impacts. It seeks to promote a paradigm shift to low-emission and climate-resilient development, taking into account the needs of nations that are particularly vulnerable to climate change impacts.

It was set up by the 194 countries who are parties to the UNFCCC in 2010, as part of the Convention's financial mechanism (as of 2019, the UNFCCC has 197 parties, including Palestine). It aims to deliver equal amounts of funding to mitigation and adaptation, while being guided by the Convention's principles and provisions.

When the Paris Agreement was reached in 2015, the Green Climate Fund was given an important role in serving the agreement and supporting the goal of keeping global temperature change below 2 degrees Celsius. As of November 2019, GCF approved 124 projects with a total value of USD 20.6 billion, which sizes vary between less than USD 10 million and more than USD 250 million. Details of the current portfolio by project size is provided below.

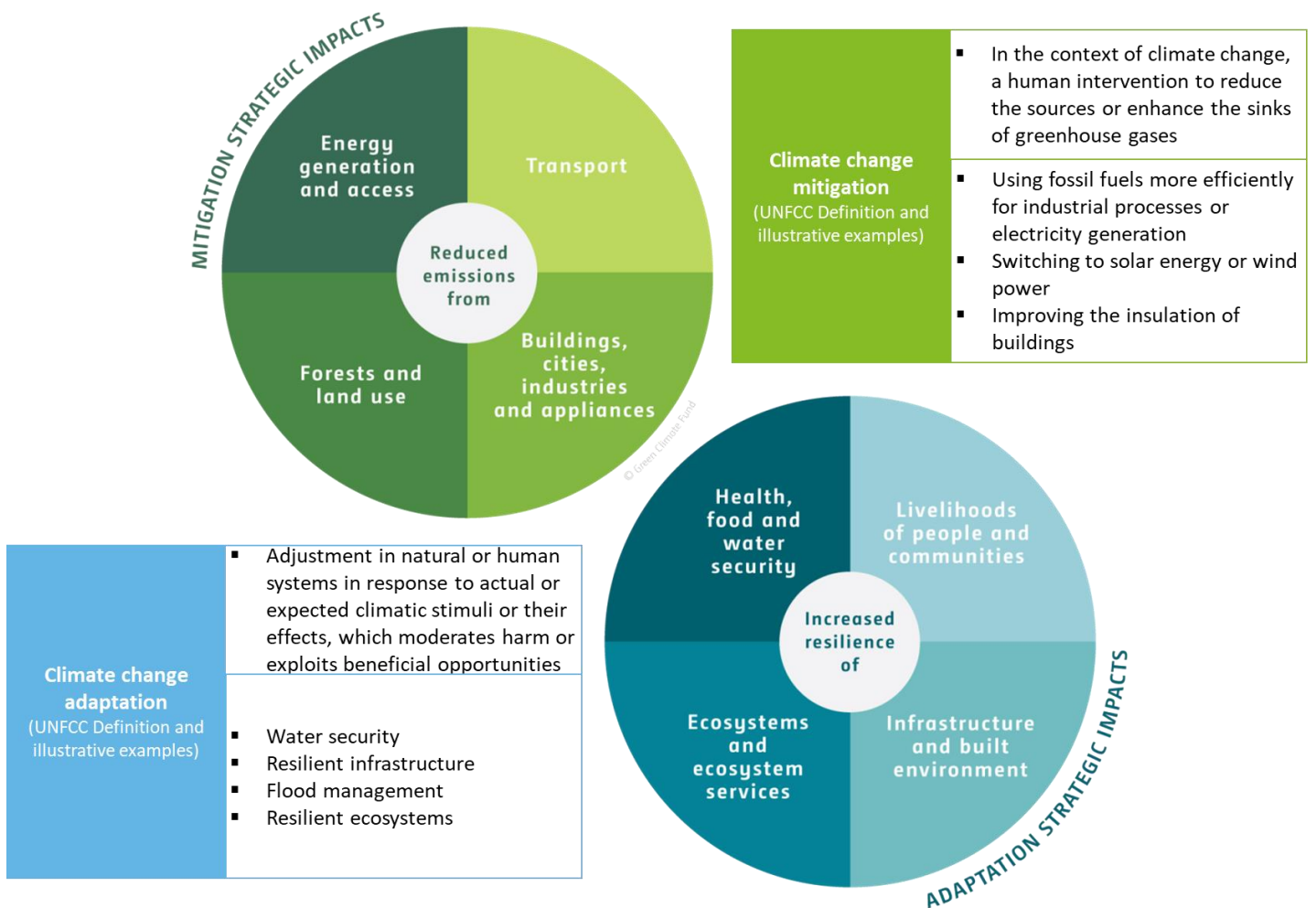


The Fund pays particular attention to the needs of societies that are highly vulnerable to the effects of climate change, in particular Least Developed Countries (LDCs), Small Island Developing States (SIDS), and African States.

GCF aims to catalyze a flow of climate finance to invest in low-emission and climate-resilient development, driving a paradigm shift in the global response to climate change.

1.2. Impact areas

GCF's investments are aimed at achieving maximum impact in the developing world, supporting paradigm shifts in both mitigation and adaptation. The Fund aims for a 50:50 balance between mitigation and adaptation investments over time.



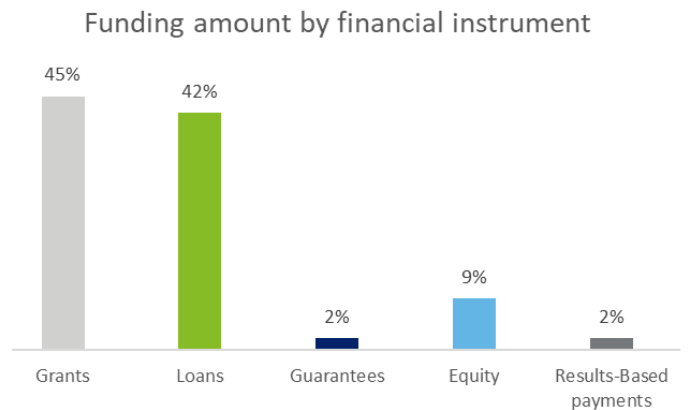
Source: Adapted from <https://www.greenclimate.fund/how-we-work/tools/infographics>

1.3. Financial instruments

GCF aims to use public investment to stimulate private finance. To achieve maximum impact, GCF seeks to catalyze funds, multiplying the effect of its initial financing by opening markets to new investments.

GCF is unique in its ability to engage directly with both the public and private sectors in transformational climate-sensitive investments. GCF engages directly with the private sector through its Private Sector Facility (PSF, see box below). As part of its financing framework, it has the capacity to bear significant climate-related risk, allowing it to leverage and crowd in additional financing.

It offers a wide range of financial products including grants, concessional loans, equity, and guarantees. This enables it to match project needs and adapt to specific investment contexts, including using its funding to overcome market barriers for private finance.



Private Sector Facility (PSF) and the role of the private sector in climate finance

Private sector participation and investments is crucial in order to combat climate change. The role of the private sector is fundamental in the mobilization of climate finance, as well as in the transformation of global investment habits.

In order to scale up GCF's activities and support this challenge, GCF has set up the Private Sector Facility (PSF) to fund and mobilize private sector actors, including institutional investors, and leverage GCF's funds to encourage corporates to co-invest with the Fund.

The PSF can be accessed through Accredited Entities (more information on accessing the GCF through AEs in section 1.4).

For more information on PSF, visit:

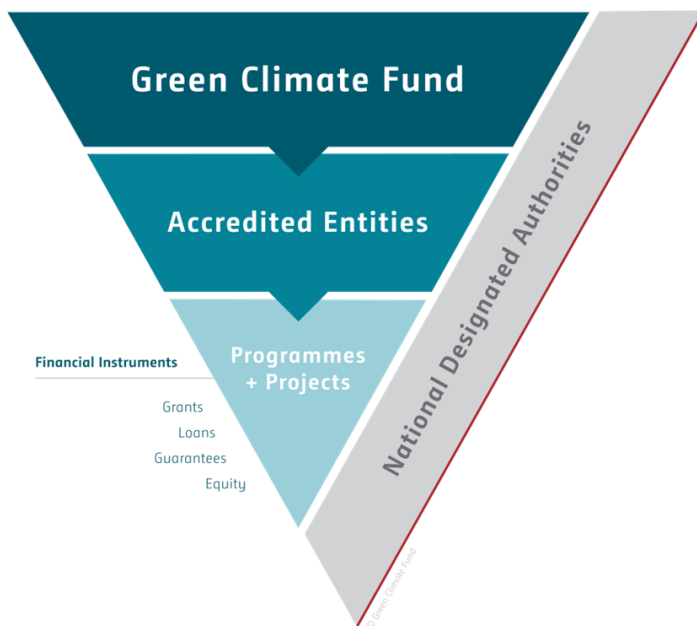
<https://www.greenclimate.fund/what-we-do/private-sector-facility>

1.4. Accessing the GCF

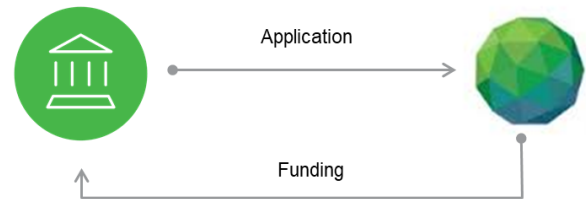
The Green Climate Fund works through a wide range of **Accredited Entities** to channel its resources to projects and programmes. Such entities have different characteristics. They can be private or public, non-governmental, sub-national, national, regional or international, as long as they meet the standards of the Fund.

Accredited Entities carry out a range of activities that usually include the development of funding proposals and the management and monitoring of projects and programmes. Countries may access GCF resources through multiple entities simultaneously.

GCF Architecture



Accredited Entity



Accredited Entities

- ✓ Organizations with capacities in driving climate action
- ✓ Private, public, non-governmental, sub-national, national, regional or international bodies
- ✓ Accredited Entities are responsible to bring clear, detailed and actionable climate change projects or programmes to present to the GCF

GCF recognizes the need to ensure that developing country partners exercise ownership of climate change funding and integrate it within their own national action plans. Developing countries appoint a **National Designated Authority (NDA)** that acts as the interface between their government and GCF, and must approve all GCF project activities within the country. This country-driven approach ensures GCF's activities operate in harmony with national priorities.

The National Designated Authority in Palestine

In Palestine, the National Designated Authority is the Environment Quality Authority (EQA).

For further information, contact: info@environment.pna.ps

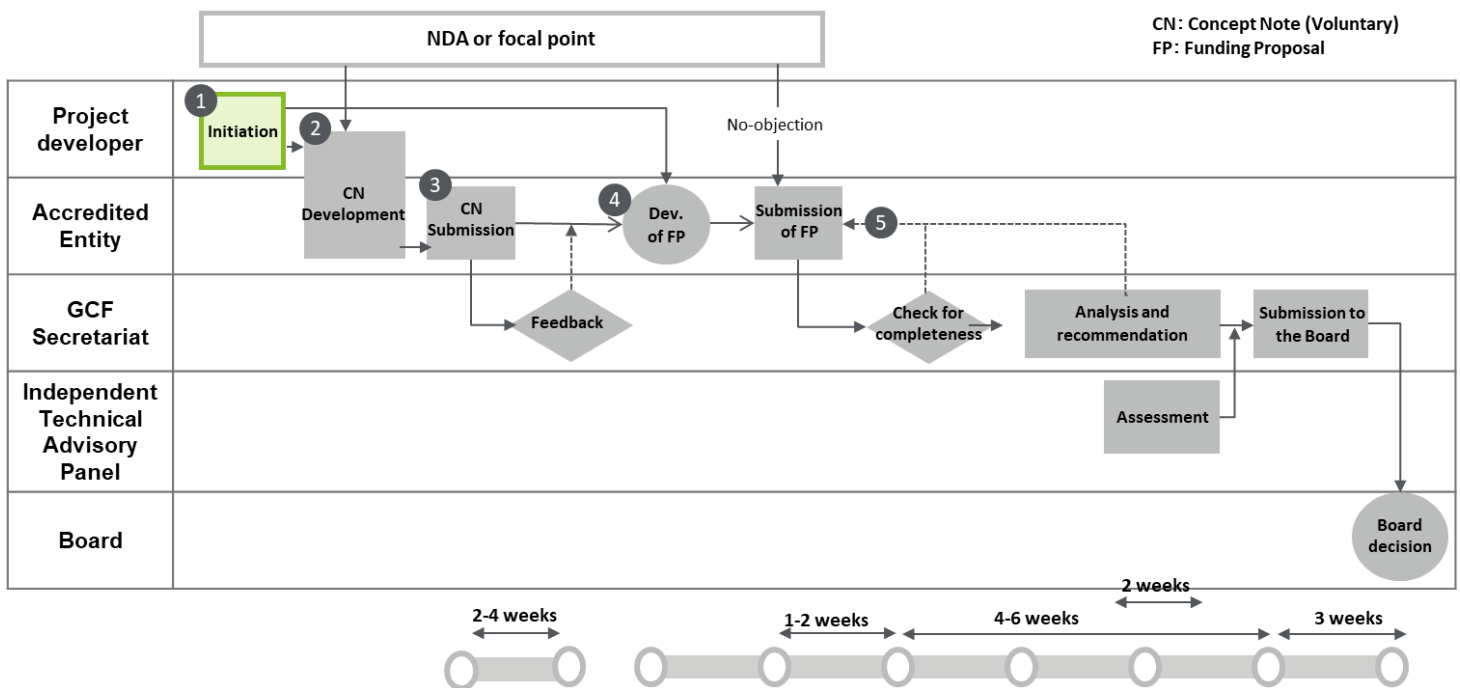
1.5. Proposal development and approval process

GCF does not implement project directly, but through Accredited Entities, which are at the center of the proposal development cycle and of the discussions with the Fund.

Private sector organizations may get involved during proposal development. Most often, the private sector may bring project ideas and initiate the project development process to the NDA and Accredited Entities.

Project developers and **technology providers** may therefore be directly involved in the design of the project and provide inputs on what would be needed to further encourage low-carbon technologies to take-off.

Financial institutions may also be involved at an early stage and at initiation, by identifying new markets or needs for their customers which require the development of innovative financial instruments.



2. Leveraging the technology roadmap to access GCF financing

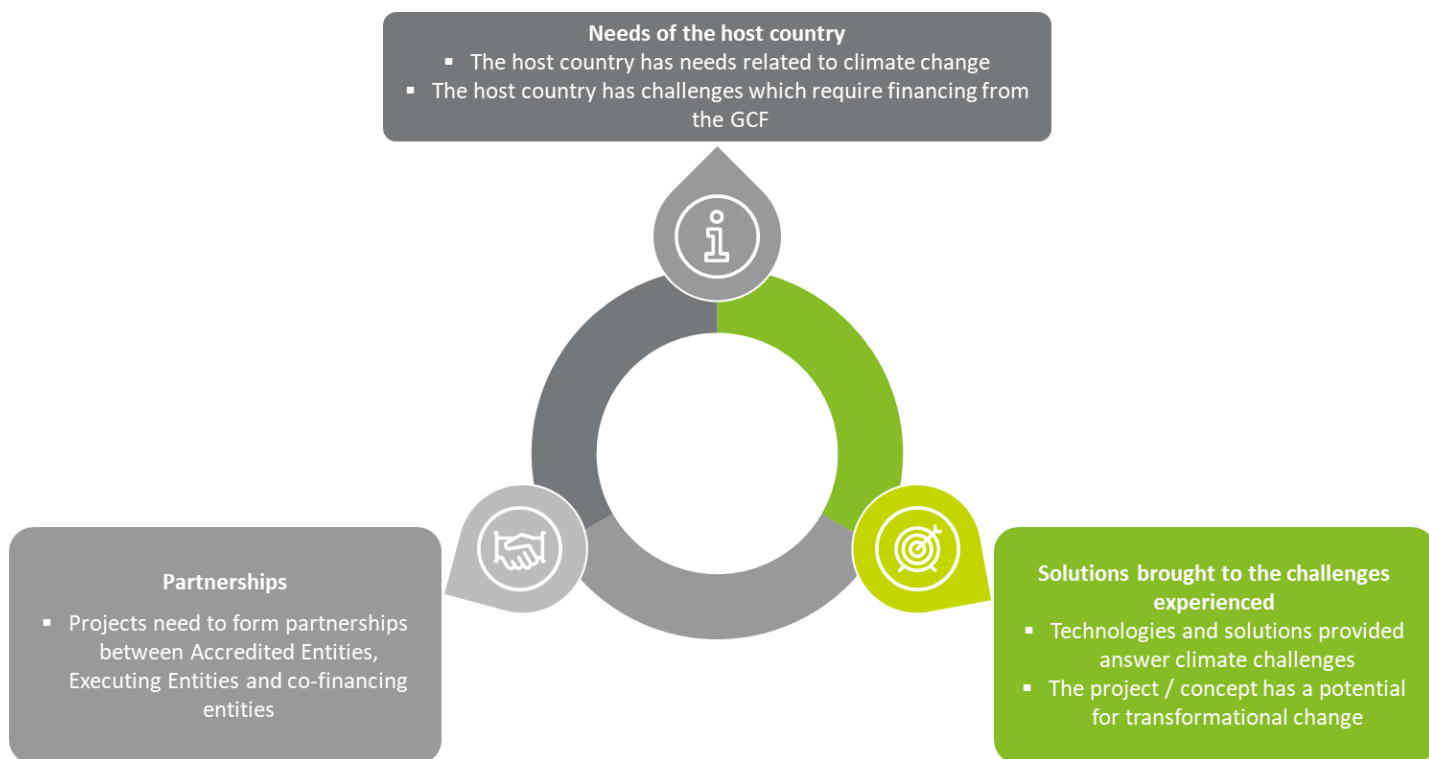
This chapter will focus on how the private sector can access GCF financing and how to leverage the technology roadmap developed as part of the GCF readiness support programme for Palestine to develop concepts for GCF financing.

The Technology Roadmap

“The Technology Roadmap for the Implementation of Climate Action Plans in Palestine offers solutions to remove barriers and risks for the implementation of prioritized technologies in Palestine across sectors.”

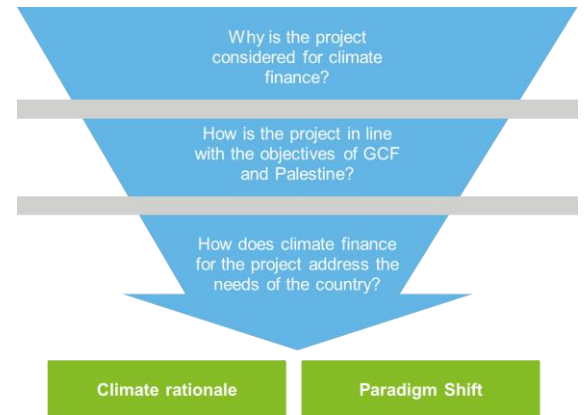
For further information, contact: info@environment.pna.ps

This chapter will therefore emphasize on the important points to consider when initiating a GCF project, while also providing more information on how to leverage the technology roadmap. The main points developed in the chapter are summarized in the figure below.





2.1. Understanding country needs in the context of the climate rationale and paradigm shift

The first step in initiating a project with GCF is to understand climate challenges and to make sure that GCF financing is crucial to the project implementation and success. It is also important to emphasize that the solutions and technologies proposed as part of the concept / project are sustainable and will provide transformational change to the country.



Defining important concepts

Climate Rationale		Ensures that the linkages between climate impacts and project activities are clearly justified
Paradigm Shift		In the context of climate finance, paradigm shift refers to the transformational impact of a project or activity, compared to Business As Usual




An example of how GCF approved projects / programs address these is provided below.

Enhancing climate resilience of the water sector in Bahrain	
Climate Rationale	The Kingdom of Bahrain is severely threatened by climate change . The country's water sector is in particular facing threats from: i) rising temperatures causing increases in water demand across all sectors; ii) sea level rise causing saline intrusion into aquifers; and iii) rising temperatures and greater intensity of rainfall causing reduced rates of aquifer recharge. In combination, these threats are likely to reduce Bahrain's freshwater resources by at least 50 to 100 million m3 of water per year in the short-term.
Innovation and transformational change	Innovative solutions need to be adopted by the Bahraini public, the private sector and government to manage the expected reduction in water resources from climate change in a manner that is not only climate-resilient, but also socially, environmentally and financially sustainable . To develop, promote and implement such solutions, the project will facilitate transformational change within Bahrain's water sector by building technical and institutional capacity to monitor and model climate change impacts on water resources, mainstreaming climate resilience into sectoral water management planning, developing new policy and legislative frameworks (including water tariff reforms), and designing new financial instruments.
Interventions	<ul style="list-style-type: none"> ➤ Development of an enabling environment for water demand management ➤ Investment in improved technologies: <ul style="list-style-type: none"> ➤ Scale up water saving devices and techniques ➤ Scale up greywater collection and recycling

2.2. Leveraging the roadmap to identify country needs and potential solutions

Most of the elements required to populate a concept note are available within the technology roadmap. Additionally, the technology roadmap has a number of additional reports which content can be leveraged to develop projects, project concepts and project proposals.

Leveraging the technology roadmap and additional reports

Needs of the host country	 <ul style="list-style-type: none">• Technology roadmap: The parts related to status of the sector and barriers overview provide initial analysis on the needs of Palestine for each sector• Key barrier report: Provides extensive analysis related to the barriers and challenges experienced by Palestine for each sector and technology• Policy assessment report: Provides extensive analysis of the current policy environment and identified gaps in introducing the prioritized technologies
Solutions	 <ul style="list-style-type: none">• Technology roadmap: The parts related the technologies overview provide background on the technologies prioritized by Palestine• De-risking report: Provides extensive analysis on the solutions required to introduce the technologies• Case studies report: Provides experiences, lessons learned and success stories of introducing the technologies in other countries• Gender mainstreaming report: Provides recommendations on mainstreaming gender-responsiveness in implementing the technologies
Climate rationale	 <ul style="list-style-type: none">• Technology roadmap: The parts related the sector overview provide background on climate justifications for the introduction of the technology• Nationally Determined Contributions (NDCs), National Adaptation Plan (NAP), Initial National Communication Report (INCR): Provide extensive analysis on the climate vulnerabilities in Palestine

The technology roadmap can also be leveraged to develop concept notes, such as detailed in the following pages.

GCF concept note

Section A	Project summary
Section B1	Context and baseline
Section B2	Programme description (including objectives)

Relevant sections in the Technology Roadmap

All sections	The project summary leverages information from all other sections of the CN
Status of the sector	The concept note can build on the first section by technology
Technologies overview	Can provide additional background as to why the technology is required in Palestine
Barriers overview	Can provide additional background as to why the GCF's support is required
Objectives and goals	Provides an overview of the goals of the sector
Implementation plan	Provides a detailed outlook of the activities required. Should be supplemented by the logical results framework

GCF concept note

Section B3	Expected project results aligned with the GCF investment criteria
Section B4	Engagement among the National Designated Authority, Accredited Entity, and/or other relevant stakeholders

Relevant sections in the Technology Roadmap

Expected impact	Provides an overview of the expected impact and sustainable development potential. Needs to be supplemented.
Implementation plan	Provides initial guidance on the paradigm shift and sustainable development potential
Barriers overview	Provides initial guidance on the needs of recipients
Status of the sector	Provides initial guidance on country ownership
Institutional arrangement	Provides initial guidance and shows which stakeholders should be engaged with for project initiation.

GCF concept note

Section C1	Financing by components
Section C2	Justification of GCF funding request
Section C3	Sustainability and replicability of the project (exit strategy)

Relevant sections in the Technology Roadmap

Logical framework	Provides costing by component
Assumption sheet	Provides the sources for all costing components
Potential financing	Provides initial guidance on the financing strategy and justification as to why external financing is required
Barriers overview	Provides initial guidance on financial barriers
Potential financing	Provides initial guidance on the financing strategy and on how to encourage sustainability
Barriers overview	Provides initial guidance on the barriers that would be addressed through the project, therefore addressing sustainability

Concept note template

The concept note template is available on the GCF homepage:

<https://www.greenclimate.fund/gcf101/funding-projects/project-funding>

2.3. Investment criteria

Concept notes and funding proposals need to be developed based on a set of investment criteria, detailed below.

	Investment criteria	Expected details
01	<p>Impact potential Potential of the programme/project to contribute to the achievement of the Fund's objectives and result areas</p>	<ul style="list-style-type: none"> ▪ Mitigation: how much emissions will be reduced? ▪ Adaptation: how much beneficiaries are saved from losses due to impact of extreme climate-related disasters?
02	<p>Paradigm shift potential Degree to which the proposed activity can catalyze impact beyond a one-off project or programme investment</p>	<ul style="list-style-type: none"> ▪ How can the project catalyze impact beyond a one-off investment? ▪ Theory of change
03	<p>Efficiency and Effectiveness Economic and, if appropriate, financial soundness of the programme/project, and for mitigation-specific programmes/projects, cost-effectiveness and co-financing</p>	<ul style="list-style-type: none"> ▪ Cost-effectiveness: how much impact (tCO₂e) per US dollar as a result? ▪ How much co-financing is mobilized? ▪ How does the project apply and build on best practices?
04	<p>Sustainable development Wider benefits and priorities, including environmental, social, and economic co-benefits as well as gender-sensitive development impact</p>	<ul style="list-style-type: none"> ▪ In addition to mitigation/adaptation impacts, what are the co-benefits in terms of economic, social, environmental and gender empowerment? ▪ How does the project contribute to achieving the SDGs?
05	<p>Needs of recipients Beneficiary country ownership of and capacity to implement a funded project or programme (policies, climate strategies and institutions)</p>	<ul style="list-style-type: none"> ▪ What are the country's financial, economic, social and institutional needs and barriers to accessing domestic (public), private and other international sources of climate-related finance? ▪ How will the project address the needs and barriers?
06	<p>Country ownership Vulnerability and financing needs of the beneficiary country and population in the targeted group, and barriers to other sources of funding</p>	<ul style="list-style-type: none"> ▪ How does the project align with nationally determined contributions (NDC), relevant national plans, and/or enabling policy and institutional frameworks? ▪ How will the funding contribute to achieving development goals and climate change policies? ▪ Were relevant stakeholders engaged and consulted during the development of the project?

The evaluation of a concept against each criterion is done while taking into account specifics related to the country and region, as well as the challenges experienced by the country and sector targeted by the project.

2.4. Financial instruments and structures

The GCF provides financing depending on the objectives of the projects as well as its contents. GCF will seek the right level of concessionality, **so as not to displace investments that would otherwise have occurred**, including for private sector investment, and will **avoid crowding out commercial financing**.

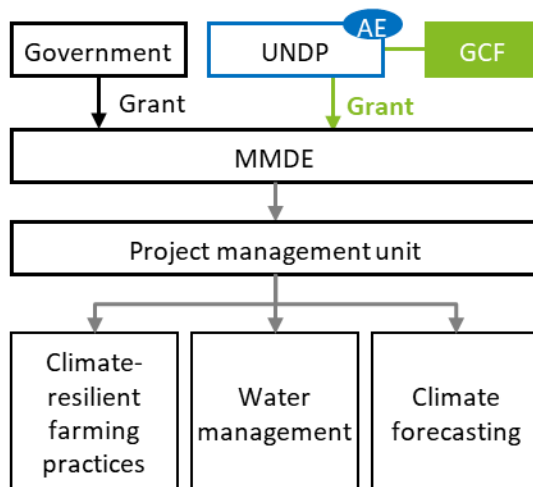
It is therefore important to use the relevant instruments during the design of the project. The GCF provides grants, loans, equity, guarantees and result-based payments.

Grants

Grants are mainly used for technical assistance purposes, such as the development of regulations or the introduction of new and innovative technologies. They tend to be more used for public sector projects and adaptation related projects.

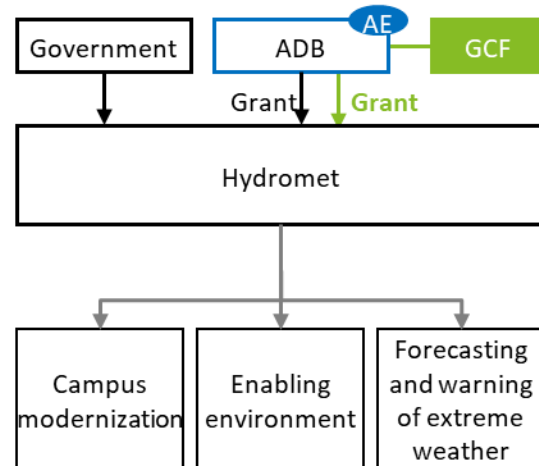
Example

FP016: Strengthening the resilience of smallholder farmers in the Dry Zone to climate variability and extreme events through an integrated approach to water management



Example

FP075: Institutional Development of the State Agency for Hydrometeorology of Tajikistan

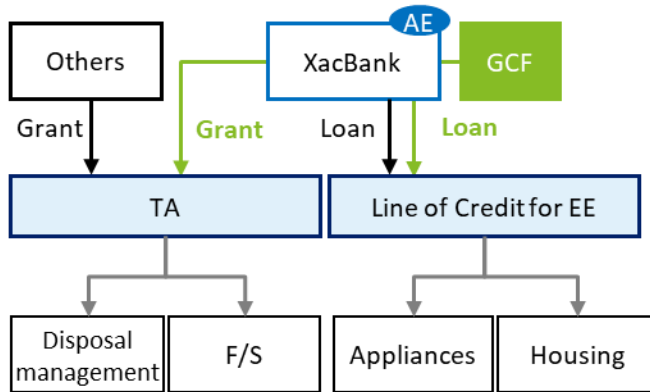


Loans

Loans at different levels of concessionality may be provided depending on the context and stakeholders involved in the project.

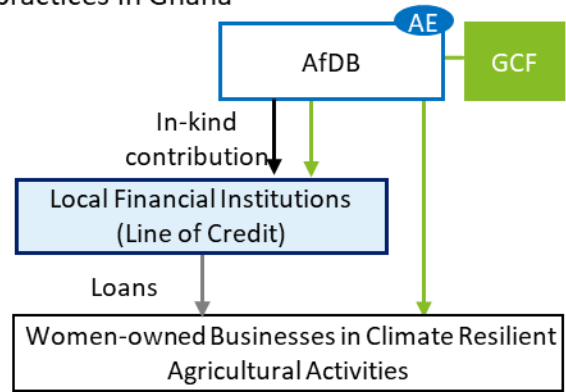
Example

SAP004: Energy Efficient Consumption Loan Programme



Example

FP114 : Program on Affirmative Finance Action for Women in Africa (AFAWA): Financing climate resilient agricultural practices in Ghana

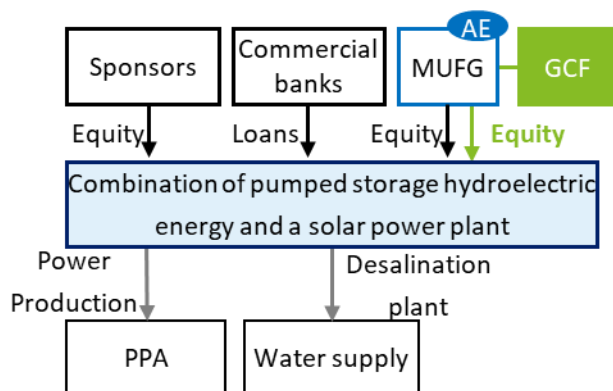


Equity

While the GCF provides less financing through equity compared with other instruments, it is leveraged to support investments in funds and private sector led projects.

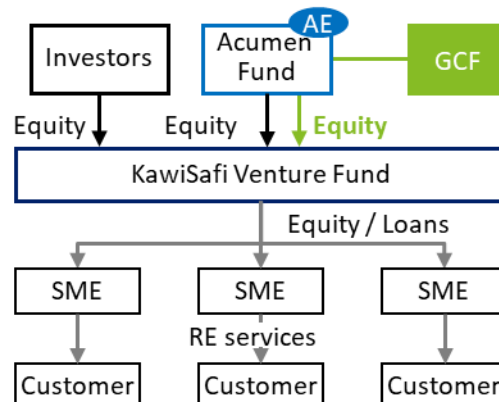
Example

FP115 : Espejo de Tarapacá



Example

FP005 : KawiSafi Ventures Fund in East Africa

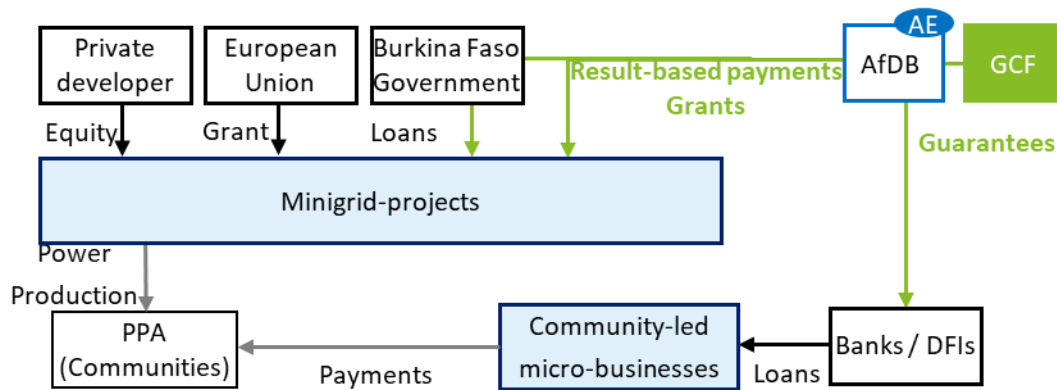


Guarantees

Guarantees currently represent less than 1 percent of the financing provided by the GCF. However, it is usually used to leveraged private sector investments by reducing specific risks. It may be used in combination of other instruments

Example

FP093 : Yeleen Rural Electrification Project in Burkina Faso



3. Identifying the relevant partners in the Palestinian context

Identifying partners is a crucial step for the development of a project under GCF financing. The first step is to identify the Accredited Entity which may be interested in the project. Other relevant stakeholders including Executing Entities (EEs) and Co-financing institutions.

Stakeholders and partners

Accredited Entities



Executing Entities



Co-financing institutions



Role and responsibilities



- An entity that is accredited by the GCF Board. GCF mobilizes its financing through Accredited Entities (AEs)
- They may also be in charge of project development and implementation



- May execute and implement a funded activity or part of an activity



- Co-financing institutions may provide additional financing to the resources provided by the GCF

3.1. Accredited Entities

The Green Climate Fund works through a wide range of Accredited Entities to channel its resources to projects and programmes. Such entities have different characteristics. They can be private or public, non-governmental, sub-national, national, regional or international, as long as they meet the standards of the Fund. Accredited Entities carry out a range of activities that usually include the development of funding proposals and the management and monitoring of projects and programmes.

There are three types of Accredited Entities under the accreditation framework of the GCF:

1. International access: United Nations agencies, multilateral development banks, international financial institutions and regional institutions, which have global reach
2. Direct access entities (National): subnational and national implementing entities, nominated by countries. They can implement projects in the country of nomination only.
3. Direct access entities (Regional): regional implementing entities, nominated by countries. They can implement projects in the country of nomination only.

The table below details the Accredited Entities to the GCF as of October 2019.

Type of AEs		Details / Examples	Number
International Access Entity		Organizations of the United Nations (UNDP, UNEP, etc.), MDBs, international financial organizations, etc, Examples: UNDP, FAO, UNEP, AFD, GIZ, IFC / WBG, MUFG, Macquarie	37 (42%)
Direct Access Entity (DAE)	National	National public or para-public organizations Examples: XacBank (Mongolia), NABARD (India)	38 (43%)
	Regional	Organizations covering several countries Examples: Acumen, SPREP, Attijariwafa Bank	13 (15%)

There are currently no direct access entities in Palestine. This means that for projects to be implemented in Palestine, stakeholders have currently to rely on International Access Entities. Some of the Accredited Entities with which Palestine can partner and which are currently active in the country include the following:

Accredited Entity	Area of focus	Engagement in Palestine
Agence Francaise de Development (AFD)	<ul style="list-style-type: none"> ▪ Urban development ▪ Water sanitation ▪ Public transport ▪ Energy efficiency ▪ Renewable energy 	Yes

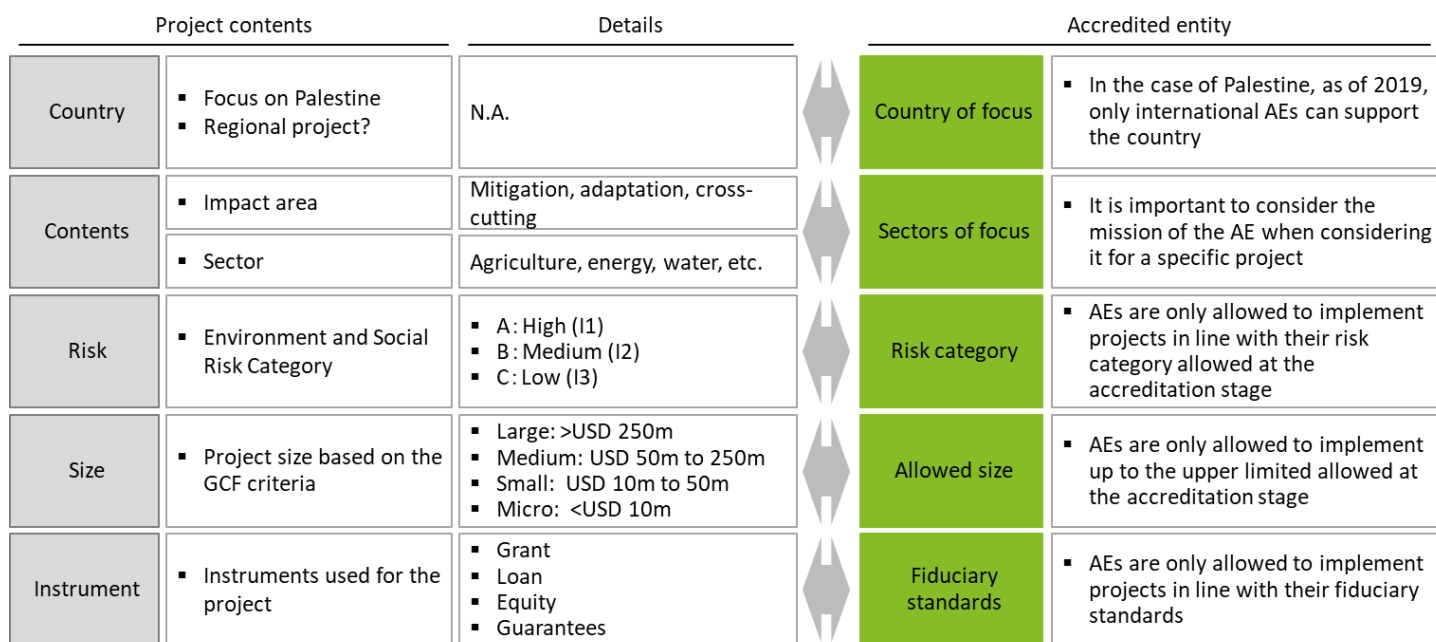
	<ul style="list-style-type: none"> ▪ Blue Economy 	
Food and Agriculture Organization (FAO)	<ul style="list-style-type: none"> ▪ Resilient agriculture ▪ Climate smart agriculture ▪ Food Security 	Yes
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	<ul style="list-style-type: none"> ▪ Energy efficiency ▪ Renewable energy ▪ Climate change adaptation 	Yes
International Fund for Agricultural Development (IFAD)	<ul style="list-style-type: none"> ▪ Food security ▪ Resilient agriculture 	Yes
World Bank Group (WBG)	<ul style="list-style-type: none"> ▪ Private sector development ▪ Urban development ▪ Energy 	Yes
Kreditanstalt für Wiederaufbau (KfW)	<ul style="list-style-type: none"> ▪ Energy efficiency ▪ Renewable energy ▪ Climate change adaptation 	Yes
United Nations Development Programme (UNDP)	<ul style="list-style-type: none"> ▪ Resilient livelihoods ▪ Climate change adaptation ▪ Energy efficiency ▪ Water management 	Yes
United Nations Environment Programme (UNEP)	<ul style="list-style-type: none"> ▪ Climate change adaptation 	Yes
World Food Programme (WFP)	<ul style="list-style-type: none"> ▪ Resilient agriculture ▪ Food Security 	Yes

The above list remains illustrative and further guidance, available below, is required in order to identify the most relevant Accredited Entity, especially in the context of a project aiming at engaging the private sector.

3.2. Pointers to identifying the right Accredited Entities

As developed in the previous section, the selection of a relevant AE for project development and implementation is crucial for project design. Stakeholders may consider a number of criteria in order to identify the most relevant AE, such as the country of focus, the sectors of focus and the accreditation details (risk category, allowed project size and fiduciary standards).

A detailed analysis of the relationship between the project contents and the selection of an AE is available in the figure below.



The information required is available publicly on the GCF website.¹

¹ <https://www.greenclimate.fund/how-we-work/tools/entity-directory>

3.3. Other stakeholders (NDA, executing entity and co-financing sources)

Other stakeholders may also be relevant for the project proponents. For example, it is important to approach the NDA, and to identify the executing entity for the activities of the project.

The National Designated Authority in Palestine

In Palestine, the NDA is the Environment Quality Authority. It is the focal point for the GCF and makes sure that projects submitted to the GCF are consistent with the country's objectives and country programme submitted to the GCF.

For further information, contact: info@environment.pna.ps

Approach to identifying Executing Entities (EEs)

- Selecting an EE requires close coordination with the Accredited Entity (AEs), as some AEs may prefer become the EE for their own projects.
- When this is not the case, public agencies may also become EE for a specific project. This is more often the case for public sector projects.
- In other cases, private sector organizations, NGOs and CSOs may also become EEs. Concrete examples are provided below.
 - Atcama Solar S.A., a private sector EE for FP017: Climate Action and Solar Energy Development Programme in the Tarapacá Region in Chile
 - Tata Cleantech Capital Limited, a private sector EE for FP081: Line of Credit for Solar rooftop segment for Commercial, Industrial and Residential Housing sectors

Approach co-financing

- One of the guiding principles of the Fund is leveraging of other financing, including public and private financing, seeking to maximize leverage in the case of private financing. **This means that co-financing is an important criteria** for the review of projects under the GCF.
- In a number of projects, AEs provide co-financing themselves, often in the form of loans or equity, and grants when they have the capacity.
- In projects targeting the private sector, co-financing may be leveraged from private developers, funds, sponsors and local financial institutions.

For more details, kindly refer to: “The Operational Manual for the National Designated Authority of State of Palestine to Green Climate Fund”.