



**GREEN
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FUND**

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20 February 2018

Consolidated Country and Entity Work Programmes – Addendum I: Compilation of Country Programmes completed by countries

Summary

This addendum provides a compilation of the 3 Country Programmes completed and vetted by Antigua and Barbuda, Zambia and Rwanda, as of 9 February 2018.

Antigua and Barbuda





GOVERNMENT OF ANTIGUA AND BARBUDA

Department of Environment
Ministry of Health and the Environment
#1 Victoria Park, Botanical Garden
P.O. Box W693
St. John's
Antigua, W.I.
Tel: (268) 462-6265
Fax: (268) 462-4625
Email: antiguaenvironmentdivision@gmail.com

13 June 2017

Mr. Howard Bamsey
Executive Director
Green Climate Fund (GCF)
Songdo, Incheon
South Korea

Re: Submission of Antigua and Barbuda's Country Programme to the Green Climate Fund

Dear Mr. Bamsey,

On behalf of the Government of Antigua and Barbuda, I am pleased to hereby transmit the Country Programme presenting national priorities and plans for GCF engagement.

The Country Programme is a living document that will be revised on an ongoing basis, including through the GCF portfolio reviews that will be facilitated by the National Designated Authority (NDA) in Antigua and Barbuda on an annual basis. The Country Programme is a public document that can be shared and used to showcase Antigua and Barbuda as an example for other countries and stakeholders.

We hope that it will be a useful tool for communicating national priorities and that it will facilitate access to climate financing to meet our Nationally Determined Contribution (NDC) goals under the UN Framework Convention on Climate Change.

Sincerely,

Ambassador Diann Black-Layne
Director
Department of Environment

Antigua and Barbuda

Antigua and Barbuda is a small island state in the Eastern Caribbean whose economy is heavily dependent on natural resources for economic activities. While historically an agricultural island under colonial rule from 1632 to 1981, Antigua and Barbuda's current economy is based on services, with tourism contributing approximately 70% of GDP. The twin island state is highly vulnerable to climate impacts, in particular coastal inundation, droughts, hurricanes, and increasing temperature. To respond to these challenges, the country has conducted vulnerability assessments and led goal-setting consultations, culminating in ambitious climate targets as well as innovative financing mechanisms for implementation. The national focal point for climate change, the Department of Environment (DOE) within the Ministry of Health and Environment, has coordinated these initiatives. The country's policies and institutional capacity building efforts are exemplified by the development of three National Communications on climate change, five years of consultations culminating with the passage of the Environmental Protection and Management Act of 2015, and the enactment of a National Energy Policy by the Ministry of Energy. These efforts have culminated in ambitious mitigation and adaptation targets in Antigua and Barbuda's Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC).

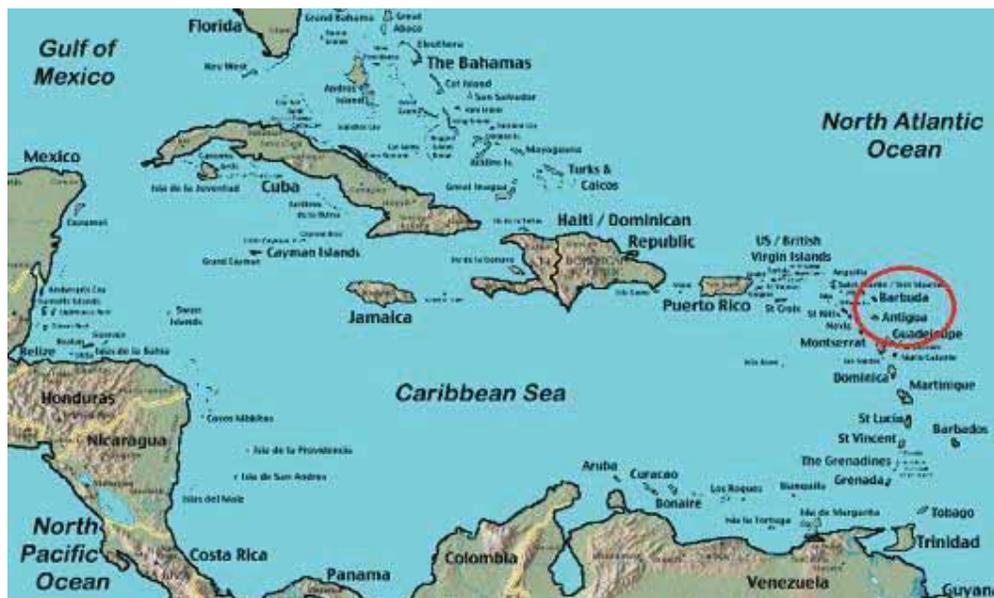


Figure 1. Geographical location of Antigua and Barbuda in the Eastern Caribbean

1. Country Profile

Geographical location	Eastern Caribbean
Land area	108 Sq Miles
Population	92,738
Types of climate	A moderately arid tropical climate with fairly constant northeast trade winds. The island has low precipitation levels due to its low topography, receiving on average

	990 mm per year of rainfall, with seasonal and annual variation
GHG emissions profile	Inventory year 2006: 1917.07 Gg of CO ₂ equivalent. 92% of carbon emissions was from Fuel Combustion in the Energy Sector and 7% from Land Use Change and Forestry. Other emissions inventory data has been compiled for CH ₄ , N ₂ O, NMVOC and HFCs.
Key emitter sectors	Electricity generation; Transportation; Deforestation
Key climate risks	Sea level rise; Extreme rainfall; Drought; Hurricanes; Increasing temperatures
Vulnerable sectors	Water; Health (heat and vector-borne stressors); Energy resilience; Coastal protection; Built environment (buildings and infrastructure); Financial services (insurance)
NDA/FP	Department of the Environment, with responsibilities jointly administered with the Ministry of Finance
National/Regional AEs	Caribbean Development Bank (CDB); CARICOM Climate Change Center
International AEs	UN Environment; European Investment Bank (EIB); KfW
Potential AEs nominated	Department of the Environment in Antigua and Barbuda; the Organization of the Eastern Caribbean States (OECS) Commission; and one Private Sector Entity in the OECS region

1.1 Climate change profile

Antigua and Barbuda is characterized by vulnerability to climate variability. Climate trends for which data is available and analyzed include temperature, rainfall, sea level rise and hurricanes. Results from the Hadley Centre PRECIS (Providing Regional Climates for Impact Studies) regional model have improved the availability of downscaled climate projections on a 25-km resolution for the Caribbean region. PRECIS model results for the Caribbean region project the following trends using SRES A2 (higher emissions) and B2 (lower emissions) scenarios:

- Increase in average surface temperature between 2.8 and 4.5°C by the end of the century
- Average annual rainfall is projected to decrease
- Rainfall variability is projected to increase, with more intense downpours as well as more extreme drought
- Coastal erosion due to storm surge and sea level rise
- Hurricane intensity is likely to increase; increases in hurricane frequency are uncertain

Higher Temperatures: Risks and Impacts on Public Health

Maximum and minimum temperatures have increased over the past 30 years in Antigua and Barbuda; trend analysis of average temperatures (1981 – 2013) by the Department of Meteorological Services indicates an increase of +0.6°C over the time period. Epidemiological research has linked dengue fever transmission to

temperature, where warmer temperatures can shorten incubation periods in mosquitos from 12 days at 30°C to only 7 days at 32 – 35°C. Decreasing mosquito incubation periods by 5 days can lead to a threefold higher transmission rate of dengue and other vector-borne illnesses. Recent epidemics of Chikungunya and the Zika virus in Latin America and the Caribbean underscore the risks of vector-borne illnesses.

In addition to increased risks of vector-borne epidemics, increases in minimum and maximum temperatures contribute to physical discomfort, mental and emotional stress, and are likely correlated with increases heat- and respiratory-related illnesses. Increases in temperature may result in heat stress-related deaths among vulnerable groups such as the elderly and children. In Antigua and Barbuda, only ten percent of homes have cooling through air conditioning. In consultations with communities, many schools and homes need air conditioning to cope with more extreme heat.

Rainfall Variability: Droughts and Floods

The major freshwater sources in Antigua and Barbuda are: i) surface water; ii) groundwater, and iii) desalinated seawater. During wet years, approximately 60-70% of Antigua's daily water supply is obtained through seawater desalination, and dependency on desalination can increase to 100% during drought periods. Desalination is energy intensive and costly; the extended 2016 drought is estimated to have cost the Government millions of dollars.

Drought impacts sanitation practices and recent changes in the epidemiology of leptospirosis – a potentially fatal bacterial disease that affects humans and animals – have been detected. According to the IPCC, leptospirosis is linked to factors in ambient temperature, changes in precipitation, and water availability.

Projections using the PRECIS regional climate model indicate that along with the risk of drying, there is an increase in the intensity of precipitation events over the Eastern Caribbean – including extreme rainfall separate from hurricanes and tropical storms. The impact of floods is already becoming a critical concern for Antigua and Barbuda.



Figure 2. Antigua and Barbuda's largest reservoir, Potworks Dam, in 2013 (above) and after two years of drought in 2016 (below). A community documentary on the impacts of drought is available here: <http://bit.ly/1YfVZ6F>

Storm Surge, Sea Level Rise and the Coastal Tourism Economy

As a coastal economy, one-meter sea level rise (SLR) would impact 10% of major tourism resorts, all seaports, and 2% of major road networks in Antigua and Barbuda. The fisheries sector sustains significant losses during hurricanes, and will be negatively impacted by ocean acidification, SLR, and increasing sea surface temperatures. The recent annual influx of *Sargassum* seaweed to Antigua and Barbuda's windward shores, which may be a result of climatic factors, has caused economic losses in the tourism and fisheries sectors.

Costly Impacts of Hurricanes

Hydro-meteorological hazards pose a great risk to Antigua and Barbuda, and historic disaster records demonstrate that hurricanes and tropical storms are the highest-cost hazards in terms of loss of life and economic losses in the shortest timeframe. Hurricane Luis (1995), one of the most devastating systems, resulted in a 17% decrease in tourist arrivals, left 7,000 people unemployed, 90% of buildings damaged or destroyed, and economic losses amounting to US \$128.35 million or 30.5% of GDP. It took three months to fully restore electricity, highlighting the need for resilient energy systems. In 2008, Hurricane Omar resulted in precipitation of 56.4 mm per hour at its peak, and flood water levels reached 4 to 12 feet in vulnerable communities.



Figure 3. Flooding in the outskirts of the capital of St. John's following the passage of Hurricane Omar in 2008.

Economic impacts of hurricanes and floods, and resultant costs of adaptation, are disproportionately costly to small island states. Climate models project that maximum wind speed of the strongest hurricanes is likely to increase between 5% (low scenario) and 15% (high scenario), which would increase loss of life and economic losses.

Priority Sectors for Adaptation and Mitigation

The key sectors for addressing vulnerability in Antigua and Barbuda are in the building sector (hotels, housing, businesses); wetlands, waterways and coastal ecosystems; potable water; and grid-interactive renewable energy systems. Cross-cutting areas include traditional livelihoods, in particular livelihoods for female headed households.

The key sectors for emissions are electricity, transportation, deforestation and land use change. The mitigation challenge for catalyzing mitigation interventions include legal and market structures for electricity, access to affordable financing, and access to appropriate low emission technology for island states. Antigua and Barbuda is also seeking to address the issue of sustainable consumption and production, targeting procurement practices as a tool for reducing emissions and building resilience through purchasing practices.

1.2 Development profile

Antigua and Barbuda currently relies heavily on the tourism sector as the main engine of growth. The strong performance of the industry and the closely related construction activity in previous years contributed to a

relatively high standard of living in the domestic economy. The economy of Antigua and Barbuda experienced average real growth of 6.82% during the period 2003 to 2007. However, the onset of the global financial crisis and recession in major source markets, contributed to a steep decline of 10.7% in Gross Domestic Product (GDP) in 2009 from growth of 1.5% in 2008, while growth has remained weak thereafter. Furthermore, unsustainable debt levels (96.3% of GDP in 2009), have stifled our ability to effectively respond to the crisis and to address competitiveness issues, while severe structural vulnerability and governance capacity have reduced our resilience.

There is an urgent need to re-invigorate growth in the domestic economy of Antigua and Barbuda and to place it on a more sustainable path in the medium to long-term trajectory. This is critical if the country is to recover lost ground with respect to social and economic development; maintain its high level of human development; and reduce poverty and vulnerability.

The Government of Antigua and Barbuda will target growth in real GDP of 5% over a sustained period, and a decline in unemployment towards full employment levels. Accelerating growth will require, among others, stabilizing the economy, including resolving challenges in the financial sector; expanding the fiscal space for pursuing growth strategy; developing alternative financing vehicles; improving the competitiveness of enterprises, in particular for key resources of water and energy; improving the organization of productive activity; and strengthening the capacity of the domestic private sector to play a greater role in absorbing labour in order to relieve employment pressure within the public sector. Strengthening the capacity of the domestic private sector will in turn better position the public sector to finance important public sector investments and to pursue its growth strategy, sustainable development indicators and ambitious adaptation and mitigation goals.

Domestic Credit Levels and the Ease of Doing Business

The World Bank ease of doing business ranking indicates that, for a small island, Antigua and Barbuda is maintaining adequate standards in most areas except in the areas of tax collection, and in access to capital. A private sector assessment conducted by the Inter-American Development Bank (IADB) in 2013 found that access to finance was a critical challenge to private sector development. The report determined that:

Given the important role played by finance in the development process, the country's poor ranking in terms of access to credit represents a significant risk to private sector development and growth ... Antigua and Barbuda has attempted to fill the credit void through the establishment of a national development bank, but the credit needs of the private sector significantly outstrip the available resources.

In addition, the difference between the interest rate charged by banks on loans and the interest rate paid by banks on savings deposits – the interest rate spread – is 8 percentage points in Antigua and Barbuda; one of the widest among its comparator group of countries globally, as reported by the IADB. Access to capital for climate change will therefore be a challenge and could drive up the already high cost of doing business unless new and additional sources of capital are made available to implement adaptation and mitigation.

Development Strategy

The Medium-Term Development Strategy (2016 to 2020) was prepared by the Ministry of Finance and Corporate Governance in September 2015 to outline progressive actions towards the vision of, "A harmonious, prosperous and modern Antigua and Barbuda founded on the principles of sustainability and inclusive growth; where equality

of opportunity, peace, and justice prevail for all citizens and residents.” The sustainable development plan strives to increase national wealth, support social systems, conserve a healthy natural environment cultural heritage, and enhance citizen security.

To improve the quality of life for all Antiguan and Barbudans, the Government is continuing an aggressive path of attracting foreign investments in the areas of tourism development, housing, and the service sectors. The Prime Minister’s 2017 Budget Speech called for renewed investments in critical infrastructure, including roads, schools, hospital and clinics.

The Government is seeking to manage risk in its new investments by using systematic approaches, including Environmental Management Systems ISO standards, developing a sustainable procurement policy for the public sector, reviewing the coastal zone management plan to consider the impacts of climate, reviewing the land use plan for wetlands and watersheds, and updating and implementation of the Building Code to include climate adaptation in built facilities.

In financial risk management, in addition to the traditional financial risks, there is an emerging need to address the issue of stranded assets caused by climate change. To address climate-related risks, the Government has operationalized the Sustainable Island Resource Framework Fund (SIRF Fund) as an important mechanism for channeling funds from different international and national sources that piloting and scale up innovative financing mechanisms that systematically manage risk.

Financial, Technology and Capacity Building Needs

Antigua and Barbuda requires international support from multilateral and bilateral sources, including through the Green Climate Fund (GCF), the Global Environment Facility (GEF), the Adaptation Fund, and other sources, for capacity building, climate finance and technology transfer to strengthen its current programs, policies and regulations; to develop and implement new initiatives; and to fully assess and address the impacts of climate change, as defined in the adaptation and mitigation targets.

Activities requiring support for implementation include inter alia:

- Y Support for the development and implementation of a Low-emission Climate Resilient Technology Strategy and Road Map that includes repurposing, decommissioning, and disposing of stranded assets;
- Y Comprehensive assessment of the cost of mitigation and the incremental cost of adaptation;
- Y Enhancing Measurement, Reporting and Verification (MRV) processes;
- Y Development of standardized baselines to assess and monitor the impacts of implementing INDC adaptation and mitigation initiatives;
- Y Support for data collection, storage and management; and
- Y Support for education, training, public awareness, public participation, public access to information, and international cooperation throughout implementation of the NDC targets.

1.3 Climate change policy response

Antigua and Barbuda has completed the following national initiatives under the UNFCCC:

- ./ Nationally Determined Contribution (NDC)
- ./ First, Second and Third National Communications

Antigua and Barbuda has applied for and/or secured funding to complete the following national initiatives:

- ./ Biennial Update Report (BUR)
- ./ National Adaptation Plan (NAP)

Box 1. Transformational Change – Our Definition

“Changes to the current systems of Governance and economic management to allow Antigua and Barbuda to **adapt** to the impacts of climate change **such that the economy and the people can withstand** a Category 5 hurricane, one meter of sea level rise, and a drought lasting over three years, while the **core economy is still functioning** at a capacity similar to that as if climate change were not occurring.”

Table 1: Summary of INDC/NDC targets		Estimated resources required USD \$
Conditional	<p>Adaptation:</p> <ol style="list-style-type: none"> By 2025, increase seawater desalination capacity by 50% above 2015 levels. By 2030, all buildings are improved and prepared for extreme climate events, including drought, flooding and hurricanes. By 2030, 100% of electricity demand in the water sector¹ and other essential services (including health, food storage and emergency services) will be met through off-grid renewable sources. By 2030, all waterways are protected to reduce the risks of flooding and health impacts. By 2030, an affordable insurance scheme is available for farmers, fishers, and residential and business owners to cope with losses resulting from climate variability. 	USD 450 – 670 million
	<p>Mitigation:</p> <ol style="list-style-type: none"> By 2020, establish efficiency standards for the importation of all vehicles and appliances. By 2020, finalize the technical studies with the intention to construct and operationalize a waste to energy (WTE) plant by 2025. By 2030, achieve an energy matrix with 50 MW of electricity from renewable sources both on and off-grid in the public and private sectors. By 2030, all remaining wetlands and watershed areas with carbon sequestration potential are protected as carbon sinks. 	USD 350 – 500 million
Unconditional	<ol style="list-style-type: none"> Enhance the established enabling legal, policy and institutional environment for a low carbon emission development pathway to achieve poverty reduction and sustainable development. By 2020, update the Building Code to meet projected impacts of climate change. 	USD 230 million

2. Country Agenda and GCF Engagement

The following section provides a summary of national plans and alignment with GCF operational modalities and investment criteria.

2.1 Institutional arrangements

Antigua and Barbuda is a member of the Organization of the Eastern Caribbean (OECES), a nine-full member grouping comprising Antigua and Barbuda, the Commonwealth of Dominica, Grenada, Montserrat, St Kitts and Nevis, St. Lucia and St Vincent and the Grenadines. The cumulative population of the OECES member states (not including the associate

members) is 620,000 people. The Revised Treaty of Basseterre Establishing and Organisation of Eastern Caribbean States Economic Union (the Revised Treaty) provides the legal framework for integration.

OECS Member States have pursued regional unity, solidarity and cooperation, including in climate change, environmental protection and sustainable development. The St. George's Declaration of Principles for Environmental Sustainability, adopted by Member States in April 2001, provides a regional framework response to climate change for the OECS. The OECS Council of Ministers for Environmental Sustainability (COMES) meets annually to implement the regional agenda, and in 2016 the Ministers established a Climate Change Working Group with representatives from each Member State. Antigua and Barbuda is an active member of this regional architecture to implement the climate priorities in the St. George's Declaration.

In Antigua and Barbuda, the national project management framework consists of two implementation/management units, and one coordination/oversight unit. The management entities are the Project Management Unit (PMU) and the Technical Advisory Committee (TAC), while the overseeing entity is the Project Management Committee (PMC). The institutional arrangements and outlined within the draft No-objection Procedure.

The Department of Environment has also been nominated by the Government of Antigua and Barbuda as Antigua and Barbuda's direct access National Implementing Entity (NIE).

National Designated Authority and No Objection Procedure

The Department of Environment (DOE) in the Ministry of Health and the Environment is responsible for the coordination and implementation of all multilateral environmental agreements (MEAs) including climate change, biodiversity, land degradation, among others. The DOE is also the focal point of the Adaptation Fund and the Global Environment Facility (GEF). The Government's strategy is to build capacity for MEAs in one agency to provide for enhanced accountability and coordination across agencies and stakeholders, and to accommodate Antigua and Barbuda's small island context that requires streamlining of institutional structures.

Antigua and Barbuda's National Designated Authority (NDA) to the Green Climate Fund is the DOE, and the Ministry of Finance serves as a co-signatory for the No Objection procedure for the GCF. The No Objection procedure was developed with Antigua and Barbuda's first Readiness grant, and was approved by the PMC in March 2017. In 2016, the Ministry of Foreign Affairs and the office of the Attorney General's Office prepared and completed the Privileges and Immunities (P&I) agreement with the GCF.

The DOE is the national coordinating agency with its roles and responsibilities established under the Environmental Protection and Management Act of 2015. The Ministry of Finance provides a role in the in ensuring that all financing risk for projects being implemented by Accredited Entities are known, have undergone comprehensive consultation, and the proposals are approved based on agreed criteria.

The Ministry of Foreign Affairs chairs the National Coordinating Mechanism (NCM), which provides a forum for the political coordination of the country's engagement with the Green Climate Fund. As such, Antigua and Barbuda's Ambassador for Climate Change presents annual reports to the Minister of Foreign Affairs.

Other agencies and stakeholders that assist the NDA to performs its responsibilities are the oversees Missions in New York and London, the Ministry of Public Work, the Antigua Public Utilities Authority, the private sector and the non-governmental organizations including the Marine Ecosystems Protected Areas Trust (MEPA Trust). The Department of Environment therefore coordinates the work of the NDA with established multi-stakeholder technical and oversight committees.

National Climate Change Engagements with other International Partners

The Department of Environment (DOE) is the national focal point for climate change, and has a responsibility for coordinating climate finance initiatives in Antigua and Barbuda. Climate change projects are developed to align and further the implementation of national policies, goals and strategies. The SIRD Fund is the designated national fund for climate change, and is the mechanism through which international climate finance catalyzes sustainable interventions and leverages national sources of financing to achieve transformational outcomes for the country (see Box 1).

The DOE is assisted in its climate coordination work by the consultative body of the Technical Advisory Committee and the oversight of the Project Management Committee, and the legally appointed National Coordinating mechanism (NCM). This system is designed for efficient programming of climate finance, technology transfer and capacity building.

Table 2. Relationships with existing Accredited Entities and relevant partners			
Entity/Partner Name	Area/s of focus	Engagement in country	Efforts to strengthen engagement
Organization of Eastern Caribbean States (OECS) Commission	Vulnerability; Adaptation; Sustainable Development	The OECS Commission is implementing a sub-regional GCCA project that is developing the climate change policy for Antigua and Barbuda. The Commission is the Secretariat for the OECS Climate Change Working Group.	Antigua and Barbuda has allocated USD 100,000 of its Readiness support for the OECS Commission to be accredited to the GCF.
UN Environment	Ecosystem Based Adaptation, Sustainable Procurement, enabling activities for the GEF.	There is no in-country presence for UNEP. UNEP however assists Antigua and Barbuda to program the country's GEF Portfolio.	The engagement with UNEP is very strong and will utilize funding from project development facility to assist the partnership to develop projects in the program.
CARICOM Climate Change Center (5Cs)	Renewable energy and adaptation.	There is no in country presence for 5Cs, however Antigua and Barbuda has participated in several regional projects being executed by the 5Cs.	Antigua and Barbuda plans to identify a project for the 5Cs to program on behalf of Antigua and Barbuda.
UNDP	Sustainable Financing, Environment and Social and gender. Protected areas Management.	The UNDP country office is in Barbados. Antigua and Barbuda has a long-standing and productive relationship with UNDP, which implemented the first full size GEF project with the DOE serving as Executing Entity.	The NDA plans to continue to build the relationship with UNDP.
Caribbean Development Bank (CDB)	Loans for RE and EE ongoing with Antigua and Barbuda.	The Bank is based in Barbados and has a significant loan portfolio with Antigua and Barbuda.	The Ministry of Finance intends to engage actively with the bank to further promote the Climate portfolio.

2.2 Roles and contributions of keystakeholders

Key Stakeholder Groups and Consultations

Antigua and Barbuda's national circumstances facilitate consultative engagement; as a small country, key stakeholders meet in person monthly via the Technical Advisory Committee (TAC). The TAC includes representatives from 17 key government agencies, 3 non-governmental organizations and one private sector coalition, and provides technical guidance, policy recommendations and support; facilitating communication, cooperation and coordination among relevant stakeholders and other projects. The TAC has been meeting monthly since 2014 and has been a key consultative body in the NDC formulation and designing Antigua and Barbuda's engagement with the Green Climate Fund.

Stakeholder engagement being conducted on a continuous sustained basis allows for insight into the social consequences of the project, an appropriate gauge on the expectations that stakeholders have of the project; identification and analysis of social, political, environmental, economic contexts in the target area; and the determination of their appropriate responses and strategies for mitigation of conflict.

Consultations on the country programme began with the development of the INDC in 2015. The process included reviewing and synthesizing consultation reports and household surveys from the CARIBSAVE climate change vulnerability assessment, TAC and PMC discussions, and two meetings of the Cabinet of Antigua and Barbuda. Special meetings with non-governmental organizations were held in community centers as well as jointly with Government stakeholders on specific projects identified in the country programme. In addition to multi-sector technical input, targeted stakeholder consultations on the national Climate Change Policy and Action Plan, which is currently under development with support from the Global Climate Change Alliance (GCCA), provided valuable input into the country programme.

While the government and civil society consultations delivered fruitful results, engagement with the private sector has not been as successful as that of the other stakeholders. The country programme, which includes the reimbursable grant program designed for the private sector, will require additional consultations. Antigua and Barbuda's second Readiness grant will deliver a scoping study and targeted consultations with the private sector.

(i) What are their expected roles in the implementation of the country programme?

Continuous stakeholder involvement throughout the project cycle is important to bringing about behavioural change in tandem with project interventions, and achieve the transformational goals of the country programme in line with GCF priorities. Stakeholders are expected to participate in project implementation, and technical and policy advice. Sectors of the projects will be implemented by the NGO Community. It is expected that the private sector will play a role in the sustainable procurement approach and make sustainable produced products available in their inventory.

(ii) Is there particular technical assistance, policy dialogue support, or other support that might enable national stakeholders to take processes forward? Is there a role that GCF support could play in this context?

Antigua and Barbuda's NDA and nominated NIE will be taking steps to include funding for the respective stakeholders in the Readiness program, to build capacity and facilitate the successful implementation of the country programme. To this end, Antigua and Barbuda's Readiness program includes support and capacity building for the multi-sectoral committees and partners that are core to the consultative process.

Table 3: Overview of consultation processes			
Stakeholder group	Date of consultation	Type or objective of consultation	Outcome
National stakeholder consultation	20 November 2014	Consultations on the National Vulnerability Analysis for Antigua and Barbuda: Vulnerability Impact and Adaptation Analysis in the Caribbean (VIAAC)	Validation of the National Vulnerability Impact and Adaptation Analysis for Antigua and Barbuda
National stakeholder consultation	25 February 2015	Climate change workshop under the Regional Gateway for Technology Transfer and Climate Change Action in Latin America and the Caribbean	Capacity building in climate change
Parliament of Antigua and Barbuda	March – April 2015	Parliamentary consultation and discussion on the Environmental Protection and Management Act	Passage of the EPMA (2015) in Parliament
Multi-sector Committee	26 August 2015	INDC stakeholder consultation workshop	Submission of the NDC
Cabinet of Antigua and Barbuda	23 Sept 2015	A high level presentation on Climate Change and the Paris Agreement	Approval of NDC targets
Multi-sector Committee	30 March 2016	Consultations under the first Readiness proposal on the implementation plan for project activities	Strategy for implementing Readiness capacity building support
Communities on the northwest coast of Antigua	June – August 2016	Door-to-door household surveys on climate vulnerabilities and their demand for concessional loans for adaptation	Market research paper on the demand for concessional loans for adaptation
Parliament of Antigua and Barbuda	September 2016	Ratification of the Paris Agreement	Ratification of the Paris Agreement
Key climate change stakeholders in all sectors	Decemerb 2016	Launch of the Special Climate Change Fund (SCCF) project in Antigua and Barbuda	Approval of the project implementation plan
Multi-sector Committee	7 February 2017	Review of Antigua and Barbuda's country programme to the GCF	Official submission of country programme
Cabinet of Antigua and Barbuda	21 March 2017	Presentation to Cabinet on the draft Regulations for the SIRF Fund and the Revolving Fund Programme for Adaptation	Cabinet noted the draft Regulations

2.3 Identification of country priorities for the GCF

Y Summarize national priorities derived from policies identified in Section 1.3

Adaptation:

- Water – Antigua and Barbuda needs to move towards 100% reverse Osmosis for the islands. Droughts are more frequent and lasting longer. There is also a need for additional on-site storage for community buildings such as schools and clinics;
- Resilient energy – already Antigua and Barbuda has about 25% redundancy at the national level. This will have to increase over the next 4 years;
- Resilience in buildings – the revised Building Codes for climate resilience will establish guidelines for

buildings that can withstand category 5 storms. The private homes and businesses will need access to financing at reasonable rates for this to take place. This is the key area of concern for Antigua and Barbuda;

- Protection of beaches and coastal areas; and
- Protection of watersheds and waterways to reduce flooding and control surge in the population of vectors

Mitigation:

- Energy – electricity and transportation sectors;
- Protection of last remaining forest and watershed areas;
- Energy Efficiency and Renewable Energy in Buildings; and
- Sustainable procurement policy to reduce the use of carbon intensive products.

Capacity Building:

- Land use zoning and local area planning; and
- Short- and long-term training in all areas of climate adaptation and mitigation.

Y Summarize the process of distilling these priorities into projects and programmes that are consistent with GCF policies.

Some questions to be addressed in defining these priorities:

- *Is there early alignment with GCF's fund level strategic impacts across mitigation and adaptation?*¹
- *Is there alignment with the investment criteria (impact potential, paradigm shift potential, sustainable development potential, needs of the recipient, country ownership and efficiency and effectiveness)?*²

Antigua and Barbuda's approach to achieving transformational change towards a low emission climate resilient development pathway is to understand the island's core vulnerabilities to climate change and sources of emissions; to develop a programme and pipeline of projects that will have the greatest impact on the ground, demonstrating innovative and sustainable financing mechanisms for long-term impact; to incorporate interventions into national law, standards, policies and regulations; and to implement projects that work collaboratively with all sectors – government, NGOs and the private sector – to maximize local buy-in and ownership.

Antigua and Barbuda's country programme is aligned with the eight investment priorities of the GCF, and the projects will achieve significant co-benefits. The programme will achieve impact potential by integrating adaptation into development processes, thereby avoiding lock-in of long-lived, climate-vulnerable infrastructure, in particular coastal infrastructure that is vulnerable to sea level rise.

Antigua and Barbuda's NDC mitigation analysis indicated a potential to reduce national emissions by 36% below Business as Usual by 2025:

¹The 8 GCF Fund level strategic impacts are listed on the GCF website, [here](#). Detailed information is provided in the mitigation and adaptation performance measurement framework, found [here](#).

²Initial guidelines on the investment criteria are provided in the GCF Investment Framework provided [here](#) with detailed activity-specific sub-criteria and indicative assessment factors further defined [here](#).

Scenario	GHG Emissions (Thousand tCO ₂ e)	
	2025	2030
BAU 1	955	1,161
BAU 2 (includes Adaptation)	973	1,178
Mitigation 1	866	1,033
Mitigation 2	644	786
Mitigation 3	619	737
Mitigation 4	607	711
Total GHG Reduction	348	450
% Reduction (compared to BAU)	36%	38%

Figure 4. Analysis of the mitigation potential of Antigua and Barbuda's NDC targets using the LEAP model (October 2015). The waste-to-energy facility NDC target will have a significant impact on emissions (Mitigation 2)

The interventions are designed to a suite of projects to achieve long-term impact, and to leverage Government co-financing and resources in the private sector, to achieve paradigm shift potential. The sustainable development potential of the country programme is reflected in the strategic targeting of vulnerable sectors such as the dual vulnerability of water and energy. Antigua and Barbuda's high debt-to-GDP ratio and constraints accessing capital, contrasted with the island's disproportionate vulnerability to climate change, underscore the needs of the recipient.

Having established a strong understanding of the project or programme at the endorsement phase, Antigua and Barbuda's NDA and Committees will be well positioned to continue to facilitate country ownership and stakeholder buy-in throughout project implementation.

Finally, mainstream the No Objection procedure and the consultative processes into established and proven decision-making processes of the GEF and Adaptation Fund and other national processes will support efficiency and effectiveness of GCF programming.

- *What are the benefits of GCF intervention relative to other financiers?*

Antigua and Barbuda is applying for the climate-relevant portion of funding for each of the projects. As a party to the Paris Agreement, Antigua and Barbuda is now applying to the Financial Mechanism of the Convention of which the GCF is an operating entity. The country understands that the GCF serves this Agreement and therefore the first steps in Antigua and Barbuda's request is meeting the contributions outlined within its NDC.

The country has some access to capital and only expects that the GCF would fund the sections of the projects that is caused by climate change.

- *Have all financing options been explored?*

Antigua and Barbuda is a highly indebted country with limited access to capital. Further, the country is a Party to the Paris Agreement and the GCF is the funding mechanism for this Agreement. Other options are being explored but the GCF is one of the first options since it is designated by the UNFCCC.

- *Are financing needs commensurate to the country's needs?*

The financing requested is consistent with the predicted and actual impacts of climate change in Antigua and Barbuda, as outlined in the climate section of this document, and financing is determined to be at the levels that can trigger

transformational change for Antigua and Barbuda as a small island state to achieve the objectives of the Paris Agreement in the national context. While the financial needs for adaptation in particular are significantly higher than the amount being requested, it has been determined that the proposed program will place the Country on a path to a more resilient and low emission economy.

- *Which options for leveraging the private sector have been assessed?*

The Sustainable Island Resource Framework Fund (SIRF Fund) is designed to leverage private sector financing at the household and small business level through a revolving reimbursable grant program to reach the private sector at the appropriate level. The private sector, in particular the tourism sector, will be engaged through consultations under the Readiness programme, and the NDA will facilitate private sector engagement with the regional and international AEs of the GCF with on-lending and blending accreditation.

Y Where possible an analysis of the methodology used in the prioritization process can be provided as an Annex to the Country Programme.

The country programme present projects that are designed to implement the adaptation and mitigation priorities submitted in the NDC in 2015. The NDC actions were prioritized leading up to the negotiations of the Paris Agreement.

Antigua and Barbuda's No Objection procedure is designed to embody the principle of country ownership and as such presents criteria for evaluating GCF proposals. These criteria have also been applied to the development of the country programme.

Criteria 1. The funding proposal is in conformity with Antigua and Barbuda's national priorities, strategies and plans.

- Is the funding proposal in compliance with national law and policy?
- Will the funding proposal advance national adaptation and/or mitigation targets?
- Will the funding proposal incur a debt burden by the Government of Antigua and Barbuda?

Criteria 2. The funding proposal complements, and does not duplicate, ongoing projects and programmes.

- Does the funding proposal duplicate an existing project or programme?
- Does the funding proposal complement and add value to an existing project or programme?

Criteria 3. Affected communities, relevant local civil society, public and/or private sector entities have been consulted and actively involved in planning and implementation.

- Have relevant stakeholders been consulted in the preparation of the funding proposal?
- Are there measures in place to manage any potentially significant negative impacts to relevant stakeholders?
- Has the funding proposal identified opportunities to build local capabilities and competencies?

2.4 Country Portfolio

Y Overview of the pipeline for projects and programmes, Project Preparation Facility requests, Readiness and accreditation.

The country program will rely on the partnering with Accredited Entities that can program the range of grants, reimbursable grants and loans. Antigua and Barbuda will accredit one national direct access entity, and this entity is expected to program about one third of the projects in the country programme. Antigua and Barbuda is in the process of identifying the appropriate AEs to be engaged, including AEs that are in the pipeline for accreditation.

The NDA/pending NIE will apply to the project preparation facility (PPF) for funding to develop the projects identified in the country programme. The implementation of the National Adaptation Plan (NAP) Readiness support is expected to generate the information for the ecosystem-based adaptation projects in the programme pipeline, and will complement the PPF application.

Y In the action plan below each project or proposal outline the next steps for taking it forward, along with the lead actor for taking the action forward and a timeline by which the action should be completed.

Table 4: Country projects/programmes pipeline				
Project Title	Description	Accredited Entity		Submission timeframe
Demonstrating Enhanced Direct Access in the public, private, and civil society sectors of Antigua and Barbuda, Dominica, and Grenada in the Eastern Caribbean (EDA)	The project will be implemented in three (3) countries within the Eastern Caribbean – Antigua and Barbuda, Dominica and Grenada. The overall goal of the project is to contribute to the achievement of the provisions enshrined in Article 24 of the Eastern Caribbean’s Revised Treaty of Basseterre governing environmental sustainability, namely addressing the causes and impacts of climate change, by piloting an integrated and collaborative approach to increasing adaptive capacity of vulnerable communities.	Department of Environment, Antigua and Barbuda (pending accreditation)		Re-submission in October 2017 (B.18)
Fund level strategic impacts	The objectives of the project are three-fold: (i) to demonstrate the benefits of enhanced direct access in the public, private and non-governmental sectors for supporting concrete action at the local level in selected Member States of the Eastern Caribbean, (ii) to achieve open, transparent and multi-stakeholder decision-making systems that allocate climate finance to vulnerable communities, and (iii) to increase the adaptive capacity of ecosystems and built infrastructure in vulnerable communities to the projected impacts of climate change.	Total financing: 23M		Status
6, 7 with cobenefits for 1 and 3		GCF: 20 M	Other: SCCF, Adaptation Fund	First draft submitted to the GCF in August 2016; Readiness support to develop the EDA project document was secured; the Department of Environment has applied for Accreditation (fast-track).
Action	Lead	Timeline		
Submission of revised funding proposal	National Implementing Entity (pending)	October 2017 (B.18)		

Project Title	Description	Accredited Entity		Submission timeframe
Resilience to Hurricanes, Floods and Droughts in the Building Sector	Physical infrastructure in Antigua and Barbuda must be adapted to the dynamic threats of water scarcity, heavy rainfall events, and more intense storms and hurricanes.	UN Environment		October 2017 (B.18)
Fund level strategic impacts:	The project will implement the NDC target, <i>By 2030, all buildings will be improved and prepared for extreme climate events, including drought, flooding and hurricanes.</i> The project will build the resilience of key Government and community buildings to Climate Change to support services in health, education and emergency response (police, fire stations, etc.).	Total financing:		Status
6, 7 with cobenefits for 1 and 3		GCF: \$35 M	Other: Government of Antigua and Barbuda (\$TBD)	Concept Note will be submitted to the GCF in June 2017. Full project proposal anticipated for B.18
Action		Lead		Timeline
Submit Concept Note to GCF		UN Environment		June 2017
Full funding proposal		UN Environment		October 2017 (B.18)

Project Title	Description	Accredited Entity		Submission timeframe
Transformational Adaptation Programme for Water in Antigua and Barbuda (TAP)	Antigua and Barbuda, already an arid island state, lie in a zone that is expected to receive 30 – 50% less rainfall in 2090 compared to late twentieth century rainfall norms. Surface water will be an increasingly unreliable source of potable freshwater in Antigua and Barbuda due to climate change impacts, with implications for both household storage and cisterns, and nationally with surface water catchments.	Selection in process		2019
Fund level strategic impacts:	The programme will achieve transformation of the water sector to cope with projected climate impacts through an integrated approach of increasing water storage, addressing distribution losses, improving surface catchment, wastewater treatment and recycling, and increasing desalination supply.	Total financing:		Status
6, 7 with cobenefits for 1 and 3		GCF: 50 M	Other: UN-HABITAT; Government of A&B; GEF	PPF application under development
Action		Lead		Timeline
Project Preparation Facility		National Implementing Entity (pending)		2017

Project Title	Description	Accredited Entity		Submission timeframe
St. John's as a model Sustainable City catalyzing a low-emission development pathway	A national sustainable land use framework was developed and approved by Cabinet in 2012, outline a sustainable spatial development strategy for the country (SIRMZP, 2012). This project will develop and implement a local area sustainable urban areas plan to transition Antigua and Barbuda's urban areas into low-carbon, resilient sustainable communities using sustainable procurement practices.	Selection in process		2019
Fund level strategic impacts:		Total financing:		Status
7 with co-benefits for 1, 3		GCF: 35 M	Other: UN-HABITAT; Government of A&B; GEF	Concept is being developed
Action	Lead	Timeline		
Project Preparation Facility application	National Implementing Entity (pending)	2017		

Project Title	Description	Accredited Entity		Submission timeframe
SIRF Fund Revolving for Adaptation	This project will build upon Adaptation Fund and GEF-approved projects that established the Adaptation Revolving Fund for Antigua and Barbuda's Sustainable Island Resource Framework Fund (SIRF Fund). The national Fund targets adaptation activities in the building sector and funds are provided to traditionally high-risk groups that are unable to access credit. Communities in Antigua and Barbuda use a "box hand" as a local microfinancing for persons who cannot get financing through traditional sources. The project will support low-income home and building owners, single-headed home (including female-headed homes), farmers and fishers.	Selection in process		2018
Fund level strategic impacts:		Total financing:		Status
6, 7 with cobenefits for 1 and 3		GCF: 10 M	Other: Government of Antigua and Barbuda 13M	The Revolving Fund is being piloted with funding from the GEF and the Adaptation Fund as well as the proposed GCF Enhance Direct Access program.
Action	Lead	Timeline		
Finalization of feasibility studies; Technical Feasibility Studies for Project focus.	National Implementing Entity (pending)	2017		

Project Title	Description	Accredited Entity		Submission timeframe
Protecting and Restoring Watersheds,	This project will reduce exposure to projected climate change impacts by implementing ecosystem-based adaptation to protect coastal	Selection in process		2018

Coastal Wetlands and Beaches for Ecosystem-based Adaptation and Sustainable Livelihoods	areas and wetlands for flood alleviation (restore buffer zones, physical setbacks) to reduce flood risk zones, restoring vegetative cover to reduce erosion, re-engineering waterways and restoring coastal areas as critical natural assets. Coastal wetlands will be protected as carbon sinks, and sustainable livelihood opportunities will be supported.		
Fund level strategic impacts:		Total financing:	Status
5, 8 with co-benefits for 4		GCF: 45 M	Other: Government of Antigua and Barbuda The DOE submitted the NAP readiness application for USD 3 M in January 2017
Action	Lead	Timeline	
NAP Readiness support for technical studies	National Implementing Entity with approval from the GCF	April 2017	
Full project proposal submission to the GCF	National Implementing Entity	2018	

Project Title	Description	Accredited Entity	Submission timeframe
Reducing Emissions through a Blue Economy: Establishing a Ridge to Reef Sustainable Management System for the Southwest Area of Antigua	In 2006, land use change and forestry contributed 7% of national emissions. Land use change can be mitigated through removal of GHG emissions by carbon sinks. The Environmental Act of 2015 establishes the legal backing such that, "Where the area is protected as a carbon sink it shall follow the principles developed by the UNFCCC." The project will implement the NDC target, <i>By 2030, all remaining wetlands and watershed areas with carbon sequestration potential will be protected as carbon sinks.</i> The demonstration area will be Antigua's southwest watershed and reef system. The goal is to reduce vulnerability of communities and businesses, by increasing the ability of the watersheds to handle extreme rainfall and reduce the incidences and impacts of coastal erosion, while increasing the resilience of the built environment simultaneously to cope with the multiple stressors of climate change.	Department of Environment, Antigua & Barbuda	2019
Fund level strategic impacts:		Total financing:	Status
5, 8 with co-benefits for 4		GCF: 10 M	Other: Government of A&B Baseline studies have been conducted
Action	Lead	Timeline	
NAP Readiness support to collect baseline data	Department of Environment	2017	
Concept and full proposal submission to the GCF	Accredited Entity	2018	

Project Title	Description	Accredited Entity		Submission timeframe
Reducing Emissions in the Transportation Sector	Reduction of GHG emissions from the transportation sector by urban planning, emissions standards in vehicles, and converting mass transit vehicles from fossil fuel to electric, using renewable energy sources. The project will establish an incentives framework for the private sector to transition to electric vehicles.	Selection in process		2018
Fund level strategic impacts:	The reimbursable grant component will be programmed as a revolving fund with the DOE operated SIRF Fund for the purchase of electric vehicles for public sector transportation. Grants will be programmed for the establishment of the infrastructure in public places and to prepare the policy and legal framework for the transition to sustainable transportation including public transportation for Schools, health, and Government sectors.	Total financing:		Status
1, 2 with co-benefits for 5, 7		<u>GCF:</u> 40 M	<u>Other:</u> Bilateral support; Government of Antigua and Barbuda	Antigua and Barbuda has received USD 625,000 through bilateral support to conduct financial, technical and EIA studies
Action	Lead	Timeline		
Financial, technical and environmental and social feasibility studies	National Implementing Entity with partner agencies	2017		
Concept and full proposal	AE to be identified	2018		

Project Title	Description	Accredited Entity		Submission timeframe
St. John's as a model Sustainable City catalyzing a low-emission development pathway	A national sustainable land use framework was developed and approved by Cabinet in 2012, outline a sustainable spatial development strategy for the country (SIRMZP, 2012). This project will develop and implement a local area sustainable urban areas plan to transition Antigua and Barbuda's urban areas into low-carbon, resilient sustainable communities using sustainable procurement practices.	Selection in process		2019
Fund level strategic impacts:		Total financing:		Status
7 with co-benefits for 1, 3		<u>GCF:</u> 35 M	<u>Other:</u> UN-HABITAT; Government of A&B; GEF	Concept is being developed
Action	Lead	Timeline		
Project Preparation Facility application	National Implementing Entity	2017		

Project Title	Description	Accredited Entity		Submission timeframe
Waste-to-Energy Facility for emissions reductions	The project will implement the NDC target to, <i>By 2020, finalize the technical studies with the intention to construct and operationalize a waste to energy (WTE) plant by 2025.</i>	Selection in process		2019
Fund level strategic impacts:	The project will finalize technical studies for an anaerobic digester/waste to energy (WTE) plant to process 80,000 tonnes/yr sorted municipal solid waste and 13,000 tonnes/yr organic waste from distillery; construct and operationalize the plant. Emissions savings from this project are estimated at 200,000 tonnes CO ₂ -e per year.	Total financing:		Status
1, 4 with co-benefits for 6		<u>GCF:</u> 50 M	<u>Other:</u>	Concept is being developed
Action		Lead	Timeline	
Project Preparation Facility application		National Implementing Entity	2017	

Project Title	Description	Accredited Entity		Submission timeframe
Designing a Climate Secure Future for Water in Antigua and Barbuda	Antigua and Barbuda is applying for funding to conduct the baseline studies for the water sector transformation programme.	National Implementing Entity (pending)		July 2017
Fund level strategic impacts	Antigua and Barbuda will augment the PPF request with support from the Government and other bilateral and multilateral sources.	Total financing:		Status
6, 7 with co-benefits for 1 and 3		<u>GCF:</u> 800,000	<u>Other:</u> Gov't of A&B	<i>PPF application under development</i>
Action		Lead	Timeline	
Application for PPF		NIE (pending)	July 2017	

Title	Description	Delivery Partner	Submission timeframe
<i>Realizing direct access climate financing in Antigua and Barbuda and the Eastern</i>	Antigua and Barbuda's second Readiness proposal will support the accreditation of a national direct access entity; support the further development and submission of the Enhanced Direct Access (EDA) funding proposal; host a sub-regional Structured Dialogue for the Organization of Eastern	<u>Department of Environment</u>	Initial submission in 2016.
		Total financing:	Status
		USD 620,250	Approved March 2017; currently under Implementation

<i>Caribbean (ATG-RS-002)</i>	Caribbean States (OECS); and conduct preliminary studies to inform project design.		
Action	Lead	Timeline	
Readiness (2) implementation	Department of Environment	March 2017 – 2018	

Table 6. Country Readiness programme pipeline			
Title	Description	Delivery Partner	Submission timeframe
<i>National Adaptation Planning in Antigua and Barbuda (NAP)</i>	The project consists of four outcomes: 1) Adaptation baselines via data collection and comprehensive climate change risk mapping. 2) Vulnerability Risk Assessment and Adaptation Plans for up to 3 Government agencies, 3 communities/NGOs and Private Sector entities using a learning by doing capacity building approach. 3) The National Adaptation Plan is developed and approved by Cabinet, and published in the Gazette. 4) A sustainable financing strategy is developed to facilitate NAP implementation via the SIRF Fund in the Government, community, and the Private Sector.	<u>Department of Environment</u>	Application submitted January 2017
		Total financing:	Status
		\$3 million	Application under review
Action	Lead	Timeline	
Revise and resubmit application	Department of Environment	June 2017	

Table 6. Country Readiness programme pipeline			
Title	Description	Delivery Partner	Submission timeframe
<i>Supporting financial institutions in Antigua and Barbuda and the Eastern Caribbean to access the GCF</i>	The NDA is partnering with UN Environment Finance Initiative to mobilize financial institutions to access the Green Climate Fund in Antigua and Barbuda and the Eastern Caribbean.	<u>United Nations Environment Programme</u>	August 2017
		Total financing:	Status
		\$600,000 over 30 months	Under development
Action	Lead	Timeline	
Issue No Objection letter	NDA	June 2017	
Submit Readiness proposal	UN Environment Programme	August 2017	

Table 7. Accreditation pipeline				
Entity Name	Type	Action	Lead	Timeline

Department of the Environment	Government of Antigua and Barbuda	<u>Continue to provide information to the GCF Secretariat and the Accreditation Panel</u>	Department of the Environment	<i>Submitted fast-track Accreditation application in 2016; anticipate accreditation in 2017.</i>
Organization of Eastern Caribbean States (OECS) Commission	Intergovernmental	<u>Submit nomination letter for Direct Access accreditation (March 2017)</u> <u>Facilitate a sub-regional Structured Dialogue for the Eastern Caribbean (April 2017)</u> <u>Develop a Regional Programme for the OECS</u>	OECS Commission	<i>Submit application for accreditation in 2017</i>

3. Monitoring and evaluation

Y How will new developments related to economic circumstances, new information on adaptation and mitigation, new information on changing viability or costs of various options inform updates in the country programme?

Y Please outline a practical schedule of periodic reviews/evaluations to effectively monitor progress and adjust course as necessary?

Y Specify which parameters of the country programme will likely require updates and what will be the frequency for updating the country programmes

The DOE has a fully staffed Data Management Unit (DMU) for monitoring and evaluation, which consists of permanent staff of the DOE as well as long- and short-term consultants. This unit monitors GHG emissions, land uses change and pollution. The Unit of the DOE will prepare a complete program for M&E plan for each project. The aim of the M&E framework is for reporting to the Cabinet, the TAC and the PMC; as well as to the GCF and ultimately to the stocktaking for the Paris Agreement. The M&E plan will ensure that the list of indicators for the program takes into consideration the requirements of the transparency commitments of the Paris Agreement, including financial commitments.

The DMU will use the M&E of the country program as an opportunity to track implementation towards the Sustainable Development Goals (SDGs). The DMU does not have the capacity to track financial indicators and therefore the program will hire the necessary consultants and project teams to assist in data gaps.

The DMU will track the program indicators as agreed in the Funded Activity Agreement (FAA) signed with the GCF, as well as the indicators to assist the Department of Environment with its annual Accreditation Entity reporting and its commitments within the Accreditation Master Agreement (AMA) with the GCF. Project risks including financial viability will be track throughout the implementation and evaluation phases of the project, and where possible will be streamlined into the national development indices.

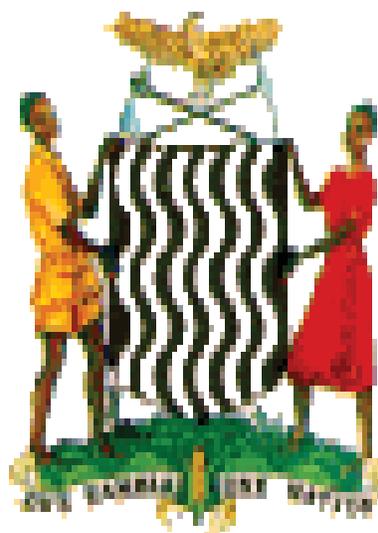
National reporting requirements include reporting to the Ministry of Finance and the Parliament on all Government expenditures. In addition, the M&E program requires monthly reports to the Ministry of Finance (both technical and financial); Quarterly reports to the GCF and/or AEs, annual technical reports, and biennial independent evaluations. There may be ad hoc reports that investigate specific technical and social factors, such as environment and social management systems. The projects and the beneficiaries must also produce Environmental Management Systems reports, including GHG, once the project is completed.



The current country program as presented here is a 5 to 7-year outlook, and the program will be adjusted as projects are developed and implemented. The change management process will be guided by the outputs of the program results framework. Changes in the program will undergo consultations similar to that of the initial development of the program.



Zambia





REPUBLIC OF ZAMBIA

MINISTRY OF NATIONAL DEVELOPMENT PLANNING

PO Box 30147
Lusaka -Zambia

NDA/6/7/1

16th March 2017

Mr. Howard Bomsey
Executive Director
Green Climate Fund (GCF)
Songdo. Incheon

SOUTH KOREA.

RE: SUBMISSION OF ZAMBIA'S COUNTRY PROGRAMME TEMPLATE

The above subject matter refers.

Please find attached a comprehensive template report outlining Zambia's Country Programme and GCF engagement. Please note that I am aware that the template will be accessible as a public document. I also am aware that the report may be used to showcase Zambia as an example for other countries and stakeholders.

1.

Cholo J. Chobala (Mr.)
National Focal Point Person
Permanent Secretary - DPA
MINISTRY OF DEVELOPMENT PLANNING



1. Country Profile

Geographical location	Southern Africa
Land area	752,614SQ KM
Population	15 Million
Types of climate	Tropical
GHG emissions profile	1.5%
Key emitter sectors	Mining
Key climate risks	Floods and drought
Vulnerable sectors	Agriculture and Infrastructure
NDA/FP	Mr. Chola Chabala
National/Regional AEs	DBSA, PTA
International AEs	UNEP, UNDP, KFW, World Bank,
Potential AEs nominated	Zambia National Commercial Bank (Zanaco), Development Bank of Zambia (DBZ) and Ministry of Finance

1.1 Climate change profile

Over the past 30-year temperature trends indicate a steady increase. This is projected to continue increasing in the future. Frequency of seasons with rainfall deficits has increased over the past 30 years especially over the southern and eastern half of Zambia.

The major Climate drivers over Zambia include Inter-Tropical Convergence Zone (ITCZ), Congo Air Boundary (CAB), and extra-tropical troughs. All these phenomena are significantly influenced by the El Nino and La Nina conditions. The impacts include frequent droughts, floods and high temperatures. Major sectors impacted include Agriculture, Water, Energy and Health. Rural populations practice rain fed agriculture and the all country is dependent on hydropower for all socio-economic sectors.

Climate change in Zambia will entail increased frequency and severity of droughts and floods (disasters) that will negatively retard economic growth as Zambia's economy is heavily natural resources, which are highly sensitive to changes in weather and climatic conditions. This will negatively impact hydropower and agriculture production hence derailing economic growth in all sectors.

Emission in Zambia majorly comes from mining and the Agriculture- Forestry-Landuse (AFOLU) sectors.



1.2 Development profile

Zambia's economic growth in the last five years has been robust and averaged above 5 percent. Economic growth has been aided by growth in the construction, agriculture, mining transport and communications, and the tourism sectors. Nonetheless, the persistent slowdown in the global economy, low commodity prices and some domestic challenges weighed down growth from a high of 7.6 percent in 2012 to 2.9 percent in 2015. Preliminary estimates indicate that growth in 2016 has shown some recovery to around 3.4 percent.

As regards to other macroeconomic fundamental, such inflation, exchange rate, and external sector position remain relatively positive in the last five years. Inflation for instance was contained within single digit levels averaging 8.7 percent between 2011-2014. Inflation however sharply increased in 2015 before returning to single digit level of 7.5 percent in 2016. In line with Government policy for an expansionary fiscal policy to support infrastructure development, the budget deficit urged upwards from 2.4 percent of GDP in 2011 to 9.4 percent of GDP in 2015 then fell to 5.7 in 2016.

Zambia's GNI per capita in the last five years averaged US3, 600. Zambia is among the countries in Sub Saharan African with relatively high GNI per capita. GDP per capita has been increasing in the last five years averaging about US1, 500. In 2016 GDP per capital has however, been projected to be lower (see table 1). Nonetheless the Human Development Index have remained almost at the same level over the last five years, this is despite some improvement in in selected indicators such as education and life expectancy.

Domestic credit levels in the last has been relatively high, however recorded a decline in 2016. This was on account tight monetary stance by government to curb inflationary pressures. As a result high lending rates were prohibitive for private sector financing.

Ease of Doing Business in Zambia averaged 90 from 2011 until 2016, highest of 98.00 in 2016 and a record low of 83.00 in 2013. Zambia is ranked 98 among 190 economies in the ease of doing business, and has deteriorated to 98 in 2016 from 84 in 2011. Notwithstanding, the deterioration in ease of doing business, foreign direct investment have increased over the last five years from 5.5% of GDP to 13.6% of GDP . This has been aided by favourable macroeconomic environment despite external shocks.

The overall head count poverty is 54.4 percent. Poverty in Zambia is mainly a rural phenomenon at above 70% compared to less than 30% in urban areas. The main economic activity in the rural areas is subsistence agriculture which mainly rain fed. The table below highlights the performance of key selected indicators.

	2011	2012	2013	2014	2015	2016*
Growth rate	5.6	7.6	5.1	4.7	2.9	3.4
GDP(K'Million)	114,033	131,274	151,331	167,053	183,381	213,139
GDP(US\$ Million)	23,458	24,349	29,586	27,146	21,250	20,673
GDP per capital (US\$)	1,624	1,803	1,883	1,738	1,096	1,298
GNI/capita PPP	3,384	3,630	3,640	3,734	3,660	3,600
HDI	0.565	0.576	0.580	0.586	0.586	0.586
Population growth rate	2.8	2.8	2.9	2.9	3.0	3.0
Domestic credit rate growth	30.2	38.8	14.22	14.1	20.9	(10.4)
FDI as % GDP	5.5	8.1	10.0	7.8	13.6	
Ease of doing business	84	90	83	91	94	98

*Projection



DEVELOPMENT PROSPECTS

a) Macro-economic and fiscal circumstances and poverty reduction strategies

The macroeconomic strategy in the medium to long term aims addressing domestic challenges such as vulnerability to external shocks and climate change effects. Key to this is achieving economic transformation for improved livelihood and creation of decent, gainful and productive employment especially for the youthful population. This will be underpinned by positive, sustained and resilient growth, and fiscal consolidation that supports macroeconomic stability, while improving the country's competitiveness.

The fundamental niche for Fiscal strategies is to ensure restoration, prudent and sustainable fiscus. The key strategies will be to restore budget credibility, transparency and ensure policy consistence. This will be underpinned by continued fiscal consolidation both on the revenue and expenditure side to provide supportive environment to unlock development bottlenecks and stimulate growth.

In an effort to reduce poverty government strategies anchored on the national development plan and the economic recovery plan. Key to this is the focus on the development of a sustainable, diversified and competitive agriculture sector where the majority of the poor are. Emphasis will be placed on crop diversification to encourage production high value cash crop that resilient to climate change and will be supported by the full migration to e-voucher system¹, development of irrigation schemes while scaling up sustainable utilization of wetlands and improve provision of extension services through ICT. Additionally scaling up livestock production through artificial insemination and animal disease control. Promotion of the fisheries sector will be cardinal to stimulate growth through, provision of fingerlings and its associated infrastructure and enhance fish feeding programs and storage.

b) Low emission and clean energy policies/strategies

The promotion of low carbon development pathways that mitigate greenhouse gas (GHG) emissions and promote climate-resiliency in the most vulnerable sectors of the economy is priority for Zambia. This is the reason several plans and policies such as National Climate Change policy emphasize integration of economic development programmes such as forestry, energy and agriculture with climate change as priority.

One of the ways in which Zambia is promoting green growth is through the use of environmentally friendly sources of energy such as hydroelectric, geothermal, solar, wind, biomass, and biofuels.

Environmentally related tax revenue is also another means to promote green growth. Environmentally related tax revenues are expressed in percentage of GDP. Environmentally related taxes include energy products for transport purposes (petrol and diesel) and for stationary purposes (fossil fuels and electricity); motor vehicles and transport (one-off import or sales

¹E-voucher provides beneficiaries a wider choice of inputs (rather than just maize seed and fertilizer) so as to promote production of other crops such as cassava, cashew nuts and edible oil seeds.



taxes, recurrent taxes on registration or road use and other transport taxes); waste management (final disposal, packaging and other waste-related product taxes); ozone-depleting substances and other taxes.

Zambia has also cooperated with various stakeholders such as the European Union and the United Nations to promote clean energy and green growth. The EU-UNDP Low Emission Capacity Building Programme (LECBP) was launched as part of a joint collaboration between the European Union (EU - European Commission and Member States) and the United National Development Programme (UNDP). Efforts are also focused on reducing the demand for charcoal by providing alternative fuel sources and fuel-efficient technologies like gel fuel and cook stoves

c) Infrastructure investment policies (e.g. related to urban development and transport)

Infrastructure serves a central delivery mechanism in achieving sustainable economic development and in the generation of quality social-economic development in the country. Infrastructure still remains a major challenge to growth, economic diversification and human development in Zambia. Further, Zambia is a land linked country centrally positioned between eight (8) neighbouring countries who are increasingly trading amongst each other to optimize economic benefits. Furthermore, major import and export trade corridors to facilitate economic integration among Southern Africa Development Community (SADC) and Common Market of Eastern and Southern Africa (COMESA) member countries pass through Zambia. As such, Infrastructure development, is one of the Government's priority areas, and is upheld in the National Development Plans and the National Vision 2030.

Transport infrastructure covers: roads and bridges, railways, airports and aerodromes and maritime and inland waterways. The state of transport infrastructure, however, remains inadequate to sustain and match the desired levels of growth due to weak structural and management capacity resulting in over commitments, high cost of construction and low investment. Government has embarked on a program to improve the infrastructure at all the international airports. This is being done in collaboration with private sector participation. The developments include the runways, terminals and auxiliary facilities in and around the airports such as hotels, shopping malls, Conference facilities etc.

The Government of Zambia embarked on the Link Zambia 8,000 project (Accelerated National Roads Construction Programme) saw the rehabilitation and construction of the road network. The aim was to construct an efficient road network and international highways linking Zambia to South Africa, Zimbabwe, Mozambique, Malawi, Tanzania, the Democratic Republic of Congo and Namibia.

d) Adaptation and risk management policies/strategies

Zambia has various policies that deal with adaptation and risk management, these include among others the national development plans, National Disaster Management Policy, the National Agricultural Policy and the National Irrigation Plan. Disaster risk management and Climate change adaptation are mainly implemented by different government agency established primarily for this purpose. The emphasis has been to have an integrated system for adaptation and risk management across the sectors.



1.3 Climate change policy response

In view of the climate change challenges that the country has been facing in the recent past, Zambia has developed various climate change-related policies, strategies, projects and programs in response to climate change impacts. These include: the National Policy on Environment (NPE, 2007); the National Climate Change Response Strategy (NCCRS, 2010); National Forestry Policy of 2014; National Energy Policy of 2008, The National Agriculture Policy of 2014 and Transport Policy of 2002; National Strategy for Reducing Emissions from Deforestation and Forest Degradation (REDD+, 2015); Second National Biodiversity Strategy and Action Plan (NBSAP2); the National Adaptation Plan of Action on Climate Change (NAPA, 2007); Technology Needs Assessment (TNA, 2013); Nationally Appropriate Mitigation Actions (NAMAs, 2014); Second National Communication (SNC, 2015). The National Climate Change Policy (2016) has also now been developed and launched.

These policies, strategies, programmes and projects are aligned with the Revised Sixth National Development Plan (RSDNP) and the Vision 2030 which promotes “A prosperous middle income country by 2030”, both of which support development of a low carbon and climate-resilient development pathway. In addition, Government ratified the Kyoto Protocol in 2006 among other things to facilitate implementation of the Clean Development Mechanism. The country is also in the process of developing its National Adaptation Plan (NAP) for long term adaptation planning and mainstreaming of climate change into national development planning process. Zambia also adopted a National Climate Change Policy in 2016 and submitted her INDC in 2015. The development of the Seventh National Development Plan (7NDP, 2017-2021) is also underway which will consider climate change issues

Table 1: Summary of INDC/NDC targets		Estimated resources required USD \$
Conditional	<p>Mitigation: Estimated total emission reduction of 38,000GgCO₂eq which translates to 47% (internationally supported efforts) against 2010 as a base year;</p> <p>Three programmes are targeted: sustainable forest management; linking sustainable agriculture; and renewable energy and enhancing energy efficiency</p> <p>Adaptation: Three programmes are targeted: strategic productive systems (agriculture, forests, wildlife and water); adaptation of strategic infrastructure and health systems; and enhanced capacity building, research, technology transfer and finance</p>	<p>Total USD 50 B across mitigation and adaptation.</p> <p>USD 35 billion: from external sources</p> <p>USD 15 B: from Domestic sources</p>

2. Country Agenda and GCF Engagement

2.1 Institutional arrangements

The National Planning Department under the Ministry of Development Planning is Zambia’s National Designated Authority (NDA). The NDA is operationalized through the NDA Project Office headed by a National Coordinator who reports to Director National Planning. The essence of establishing a project office was to establish an efficient and fairly independent office and



create balance between mainstreaming functions of the NDA into the Government but still provide the necessary identity and visibility of the NDA. In terms of operations, an NDA Technical Committee composed of all stakeholder institutions in climate change has been established. The main function of the Committee is to receive and assess project proposals to ensure they are within national priorities. Once, examined, the proposals are handed back to accredited entities and a letter of no objection is issued to the GCF if successful. In terms of financing, the NDA is partly financed through a capacity building grant agreement with the GCF. The Government of the Republic of Zambia finances the administrative costs. The personnel are seconded staff from Government as well as Private sector people.

In terms of the policy environment, Zambia now has a National Climate Change Policy. The golden rule in the policy is that an implementer should not be a coordinator. The policy spells at roles of coordination and implementation. Overall coordination is done by the Ministry of National Development Planning and coordination of implementation is done by the Ministry of Lands and Natural resources. Other institutions in charge of sectors such as agriculture, water, energy and the like play their respective roles in implementation.

Entity/Partner Name	Area/s of focus	Engagement in country	Efforts to strengthen engagement
UNDP	Agricultural livelihoods and food security	In-country presence. Annual work plan in consultation with Ministry of Agriculture and Meteorological Department. Base funding provided by UNDP partner with co-financing by government.	Mainstream GCF funding consideration into annual work plan.
World Bank	Livelihoods and community resilience	Program of Support to the Ministry of Development Planning	Restructuring and formalization of work plan and support to mainstream efforts in development planning process

3. Roles and contributions of key stakeholders

Stakeholder group	Date of consultation	Type or objective of consultation	Outcome
Cabinet	02/07/2017	Consideration of National Climate Change Policy	Approval of NCCP
Cabinet Office		Establishment of National Designated Authority (NDA)	National Planning Department nominated as NDA and Project Office established



Line Ministries		Pre-clearance of project proposals	Proposals tabled at NDA National Committee for approval
Private Sector/Banks		Adverts for expression of interest	Nomination as NIEs
United Nations/World Bank/ Other Partners		Accredited Entities	Submission of Proposals to the GCF
			Official submission of CP
GCF	On going	Capacity Building/Country Program Development/Readiness	Country Program approval

3.1 Identification of country priorities for the GCF

The Country's seventh plan is just being concluded and careful consideration has been given to mainstreaming climate change in the planning process. Ownership is instilled by giving the sectors to develop their own plans before consolidation. In terms of investment criteria, the NDA Committee criteria is select projects with high impact and are likely to have a high paradigm shift especially in areas of agriculture, livelihoods and early warning. The placement of the NDA in the National Planning Department which is also in charge of the SDG process has ensured sustainability in programs selected. GCF intervention has a number of advantages relative to other financiers. Firstly, not only is country ownership emphasized but it is practiced by having NDA's issue letters of no objection. This has ensured that proposals are driven by stakeholders at country level. Another advantage is the GCF use of country systems to engage countries. In terms of financing, Zambia uses the four tools that are also used by the GCF; loans, guarantees, equity and grants. Financing is both domestic and international. The national press and national meeting engagement have been used extensively to invite the private sector to the table. With the accreditation of NIEs which include a privately driven bank was deliberately done to encourage private sector engagement.

These policies, strategies, programmes and projects are aligned with the Revised Sixth National Development Plan (RSDNP) and the Vision 2030 which promotes "A prosperous middle income country by 2030", both of which support development of a low carbon and climate-resilient development pathway. The strategic focus of the plan include energy (mitigation), agriculture adaptation) and water (adaptation). The other sectors such as education, health (adaptation), skills development (crosscutting) and infrastructure development still remain key to Zambia's development. In the energy sector, the solar and hydro power projects will have a paradigm shift and potential for replication as they will double Zambia's power generation. The Batoka Gorge alone will be between 2000MW and 3000MW and the mini hydros are at 60MW combined. The other projects such as the Kalumbila development will revolutionalise the green-housing philosophy which will be demonstrated on an industrial scale to the Zambian construction sector, thereby triggering a potential building revolution that will be the required large-scale paradigm shift to changing Zambian construction standards. All the projects have a capacity building in the local industry which trigger knowledge and skills transfer through training programs and on-the-job training during the implementation.



3.2 Country Portfolio

Table 4: Country projects/programmes pipeline				
Project 1				
Project Title	Description	Accredited Entity		Submission timeframe
Strengthening Climate Resilience of Agricultural Livelihoods in Agro-ecological Zones I and II in Zambia	The project aims at (1) strengthening capacity of farmers to plan for climate risk (2) strengthening resilient agricultural production and diversification practices (for both food security and income generation), and (3) strengthening farmers' access to markets and commercialization of resilient agricultural commodities.	UNDP		March 2017
Fund level strategic impacts		Total financing:		Status
5, 6		GCF: \$47.0m	Other: \$1.7m	FP Received, First Review Completed.
Action		Lead	Timeline	
Strengthening the water component		AE	February 2017	
Second Review Session		GCF		
Project 2				
Project Title	Description	Accredited Entity		Submission timeframe
Zambia - Strengthening Hydro-meteorological and Climate Services	The project aims at (1) Enhanced climate and disaster resilience capacity through strengthening of hydromet services, end user services, early warning, knowledge and advisory services to link national systems with regional and global counterparts (2) Strengthen the National Meteorological and Hydrological Services (3) Enhanced resilience and climate adaptation capacity, improved delivery of weather, climate and hydrological services and weather-dependent sectors, including timely, reliable forecasts leading to increased climate and disaster resilience, through trans-boundary collaboration on drought, severe weather and flood warnings, leading to enhanced climate and disaster preparedness and readiness	World Bank		
Fund level strategic impacts:		Total financing:		Status
		GCF:	Other:	Concept Received
Action		Lead	Timeline	



Project 3			
Project Title	Description	Accredited Entity	Submission timeframe
Regional Liquidity Support Facility	The project aims at (1) Integrate the private sector in power production by encouraging Private Power Producers (PPPs) to partner with off takers like ZESCO, and (2) Facilitate a more sustainable financing approach by providing full cash collateral upon request of utilities and commercial banks	KfW	
Fund level strategic impacts		Total financing:	Status
		<u>GCF:</u>	<u>Other:</u>
Action		Lead	Timeline
Project 4			
Project Title	Description	Accredited Entity	Submission timeframe
An Adaptation Initiative for Bridging the Critical Power and Housing Deficit	The project aims at (1) delivery of climate friendly housing units and commercial buildings within Kalumbila township, northwestern Zambia, and (2) develop power generation comprising waste to energy for conversion to local landfill household refuse and solar for conversion of sunlight into electricity	None	
Fund level strategic impacts:		Total financing:	Status
		<u>GCF:</u> \$150m	<u>Other:</u> \$15.75m
Action		Lead	Timeline
Assign AE		NDA, GCF	
Project 5			
Project Title	Description	Accredited Entity	Submission timeframe
Livingstone Urban Water Supply, Sanitation and Energy Efficiency	Increase access to safe, adequate and reliable water supply and sanitation to Livingstone town while generating energy (biogas) from sludge	None	
Fund level strategic impacts:		Total financing:	Status
1,3,4,5,6,7,8		<u>GCF:</u> \$79m	<u>Other:</u> \$9.87m
Action		Lead	Timeline



Assign AE		NDA, GCF			
Project Title	Description	Accredited Entity		Submission timeframe	
Zambia Green Jobs Programme - Shift to low emission sustainable development pathways	The project aims at (1) Develop markets for sustainable buildings and affordable housing, renewable energy generation and access, water harvesting and small scale irrigation, and integrate waste management and recycling; (2) Facilitate policy research analysis and support for an enabling business environment; (3) Advance institutional strengthening and capacity development for the application of building standards, guidelines, codes and assessment tools (including rating systems for buildings, housing, technology and equipment); as well as the setup of a quality apprenticeship and technical vocational training system. (4) Bolster skills development, training and capacity building support for Small and Medium Enterprises to access finance and business development services they need and demand in order to grow and create jobs; as well as (5) Leverage transformative innovation, skills development and entrepreneurship with scalable demonstrations to foster public and commercial investments in sustainable buildings and affordable housing, renewable energy access and generation as well as integrated waste management	UNEP			
Fund level strategic impacts:		Total financing:		Status	
1,3,5,6,7		<u>GCF:</u> \$38.5m	<u>Other:</u> \$1.5m	CN reviewed by NDA	
Action	Lead	Timeline			
Develop FP	AE				
Project Title	Description	Accredited Entity		Submission timeframe	
Water, Food, Forestry and Jobs Programme	(1) Strengthened government and civil society institutions for the implementation of policy, regulatory and legal framework for water, forestry and energy sectors (2) Increased carbon sinks, water and food security, more and better jobs and livelihoods (3) Enhanced energy security, SME development and job creation in rural communities	UNEP, FAO			
Fund level strategic impacts:		Total financing:		Status	
1,4,5,6,8		<u>GCF:</u> \$46.8m	<u>Other:</u> \$3.2m	CN reviewed by NDA	



	(4) Increased SME awareness on reuse, recycling and usage of none wasteful extraction processes			
Action		Lead		Timeline
Develop FP		AE		
Project Title	Description	Accredited Entity		Submission timeframe
Zambia Mini Hydro Project	The project aims at developing five MiniHydro named (1) Kapamba Fall (2) Mumburuma Falls (3) Namundela Falls (4) Kalepela Falls and (5) Batoka. Their net head for the plants range from 16.2m–28m. Their designed discharge range from 8.82–59.2m ³ /s. They are designed to be run-off-river plants. The main works include development of weirs, diversion canals, intake forebays, penstocks, power houses, and switch yards.	None		
Fund level strategic impacts		Total financing:		Status
1		<u>GCF:</u>	<u>Other:</u>	CN being developed
Action		Lead		Timeline
Assign AE		NDA, GCF		

Table 5: Country Project Preparation pipeline				
Project Title	Description	Accredited Entity		Submission timeframe
Livingstone Urban Water Supply, Sanitation and Energy Efficiency		UNDP		
Fund level strategic impacts		Total financing:		Status
		<u>GCF:</u>	<u>Other:</u>	
Action		Lead		Timeline
CN Development to start		AE		

Table 6. Country Readiness programme pipeline			
Title	Description	Delivery Partner	Submission timeframe
			December 2017



Readiness for		Total financing:	Status
<p>NDA Strengthening and Strategic Frameworks</p>	<p>The proposed activities are establishing and strengthening Zambia's National Designated Authority, activity area 1, and reviewing strategic frameworks, including the preparations of the country programmes for national engagement with the Fund, building on existing strategies and plans, activity area 2. The National Designated Authority will hire experienced consultants with climate finance knowledge for advice and support in undertaking the following</p> <p>1) <i>Activity area 1:</i></p> <p>(a) Baseline survey on climate change issues: prepare a summary of all existing climate change projects and programmes, maintain an overview of adaptation and mitigation projects and programmes in the country, develop baseline knowledge so that resources from the Green Climate Fund are targeted at relevant projects and programmes in Zambia (b) National workshops: build the knowledge and capacity of the National Designated Authority staff to enable them assess projects and programmes for the Green Climate Fund to be in conformity with the country's national priorities, strategies and plans, and with the country's laws and regulations (c) Development of a website (d) Development of a monitoring, evaluation and reporting plan: monitor and evaluate in accordance with the Fund's guidelines (e) Translation of key operational procedures, and (f) production of television and radio: develop and support the execution of a programme that will provide a platform to disseminate information about the Green Climate Fund and share experiences at national, provincial and district levels.</p>	<p>\$300,000</p>	<p>\$60,000 disbursed, Implementation stage</p>



	<p>2) <i>Activity area 2:</i> (a) Review of strategies on climate change, and (b) Development of a Country Programme. These activities will be undertaken between 14th March 2016 and 31th December 2017 at USD300, 000</p>		
Action	Lead	Timeline	
Include the NAP result area to the readiness programme	NDA	June 2017	
Table 6. Country Readiness programme pipeline			
Title	Description	Delivery Partner	Submission timeframe
Readiness for NDA Strengthening and Strategic Frameworks	<p>The proposed activities are establishing and strengthening Zambia's National Designated Authority, activity area 1, and reviewing strategic frameworks, including the preparations of the country programmes for national engagement with the Fund, building on existing strategies and plans, activity area 2. The National Designated Authority will hire experienced consultants with climate finance knowledge for advice and support in undertaking the following</p> <p>1) <i>Activity area 1:</i> (a) Baseline survey on climate change issues: prepare a summary of all existing climate change projects and programmes, maintain an overview of adaptation and mitigation projects and programmes in the country, develop baseline knowledge so that resources from the Green Climate Fund are targeted at relevant projects and programmes in Zambia (b) National workshops: build the knowledge and capacity of the National Designated Authority staff to enable them assess projects and programmes for the Green Climate Fund to be in conformity with the country's national priorities, strategies and plans, and with the country's laws and regulations (c) Development of a website (d)</p>		December 2017
		Total financing: \$300,000	Status \$60,000 disbursed, Implementation stage



	<p>Development of a monitoring, evaluation and reporting plan: monitor and evaluate in accordance with the Fund's guidelines (e) Translation of key operational procedures, and (f) production of television and radio: develop and support the execution of a programme that will provide a platform to disseminate information about the Green Climate Fund and share experiences at national, provincial and district levels.</p> <p>2) <i>Activity area 2:</i> (a) Review of strategies on climate change, and (b) Development of a Country Programme.</p> <p>These activities will be undertaken between 14th March 2016 and 31th December 2017 at USD300,000</p>		
Action	Lead	Timeline	
Include the NAP result area to the readiness programme	NDA	June 2017	

Entity Name	Type	Action	Lead	Timeline
Ministry of Finance	Government	Start process of accreditation	Ministry of Finance	March
Development Bank of Zambia	Quasi-Government	Start process of accreditation	Development Bank of Zambia	March
Zambia National Commercial Bank	Quasi-Government	Start process of accreditation	Zambia National Commercial Bank	March

4. Monitoring and evaluation

To effectively monitor and evaluate the implementation of the National Policy on Climate Change, a comprehensive M&E framework will be developed. The framework will emphasize on regular progress monitoring and periodic in-depth



Country Programme
Date: 20th February, 2017

Republic of Zambia



evaluation to ensure that expected outputs, outcomes and impacts are achieved. The Ministry responsible for National Development Planning will provide overall oversight on Monitoring and Evaluation of Sectoral Plans and Programmes on climate change. The Ministry responsible for Environment and Natural Resources through the Department will facilitate the Monitoring and Evaluation of Climate Change implementation Plans and projects. The Policy will be reviewed periodically to take on board new and emerging issues related to climate change.

REPUBLIC OF RWANDA



09 FEB 2018
Kigali, on.....
N° ...0164.../DG/18

**RWANDA ENVIRONMENT
MANAGEMENT AUTHORITY (REMA)
P.O. BOX 7436 KIGALI**

**The Executive Director
Secretariat of Green Climate Fund
Songdo Business District
Incheon, Republic of Korea**

Dear Sir,

RE: Transmission of Rwanda Country Programme and Strategic Framework

The Republic of Rwanda has received a readiness and preparatory support from Green Climate Fund to enhance National Designated Authority (NDA). A part of the support funded development of a Country Programme and Strategic Framework for national engagement with the Fund.

I am pleased to share with the Fund secretariat, Rwanda Country Programme and Strategic Framework. The secretariat is free to share this document with the board and use it to serve the purpose of an effective engagement with Rwanda.

Sincerely,


**Coletta U. RUHAMYA
Director General**



Cc:

- Permanent Secretary, Ministry of Environment
 - Chief Executive Officer, FONERWA
- KIGALI**



REPUBLIC OF RWANDA

National Designated Authority (NDA)

For Green Climate Fund Engagement in Rwanda

Rwanda GCF Country Program and strategic framework

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Acronyms

AE	Accredited Entity
CO2	Carbon dioxide
CSOs	Civil Society Organisations
DP	Development Partner
EDPRS II	Economic Development and Poverty Reduction Strategy II 2013T2018
FONERWA	National Fund for Environment and Climate Change
GCF	Green Climate Fund
GDP	Gross Domestic Product
GGCR	Green Growth and Climate Resilience Strategy
GHG	Greenhouse Gases
GoR	Government of Rwanda
INDC	Intended Nationally Determined Contribution
MINAFFET	Ministère des Affaires Etrangères/Ministry of Foreign Affairs
MINECOFIN	Ministry of Economic Planning and Finance
MINIRENA	Ministry of Natural Resources
NAMA	Nationally Appropriate Mitigation Actions
NAPA	National Adaptation Program of Action
NCT	National Coordination Team
NDA	National Designated Authority
NIE	National Implementing Entity
NCT	National Coordination Team
PMF	Performance Measurement Framework
PSF	Private Sector Federation
RDB	Rwanda Development Board
REMA	Rwanda Environment Management Authority
RENGOF	Rwanda Environment NonTGovernment Organizations Forum
RF	Results Framework
SNC	Second National Communication
TAP	Technology Action Plans
tCO2e/person	Tonnes of CO2 equivalent per person
TNA	Technology Needs Assessment
UNFCCC	United National Framework Convention on Climate Change

Abstract

Strengthening of National Designated Authority to engage with Stakeholders and Developing a country programme and strategic framework are the two areas of readiness support for national engagement with the Green Climate Fund. The objective of this Country Program is to facilitate a process of engaging stakeholders to identify practical steps that will enable the implementation of priorities that can be supported by the GCF. This document presents Rwanda's priorities regarding green growth, climate change adaptation and mitigation as set out in various official documents, analyses those priorities against GCF investment criteria and proposes a prioritized list of short/medium term projects to be developed and submitted to the GCF, as well as an action plan for the next few months.

Introduction

This Country Program and strategic framework was developed as part of the Green Climate Fund (GCF) Readiness and Preparatory Support program. The key objective of the development of a Country Program is to facilitate a process of engaging stakeholders, and existing and prospective accredited entities to identify practical steps that will enable the implementation of priorities that can be supported by the GCF. This should assist in realizing a paradigm shift in the countries' efforts to achieve low emission and climate resilient development

Therefore, the proposed Country Program sets out national priorities and work plans for engagement with the fund. The Program is building upon ongoing climate change and development strategies in Rwanda, and was developed in a participatory manner, engaging a wide range of stakeholders in workshops and face to face meetings. The development of the program was supervised by the GCF National Coordination Team (NCT) that has been put in place as part of the GCF readiness process.

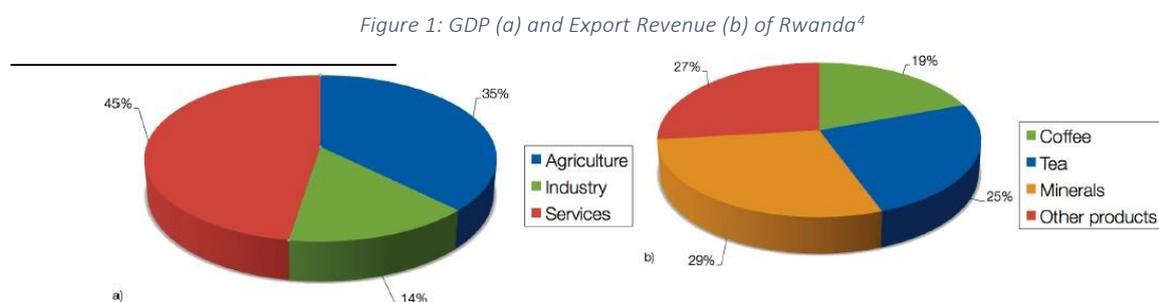
1. National sustainable development context and climate change response

1.1. National development circumstances and climate change responses

1.1.1. Macro-economic circumstances

Rwanda has seen significant economic development in recent years, with a Gross Domestic Product (GDP) growing at an average of over 8% annually over the last decade¹. The population of the country amounts to 10,515,973 people² and is growing at 2.8% per year, and per capita income has tripled from USD 211 in 2001 to USD 718 in 2014³.

The services sector represents 45% of the GDP, followed by the agriculture (35%) and the industry sectors (14%). In terms of export revenue, 29% come from the exportation of minerals, 25% from tea and 19% from coffee. The figure below illustrates the share of GDP and export revenue per sector.



¹ Government of Rwanda. *EDPRS II 2013B2018*

² Fourth Population and Housing Census 2012

³ 4th Integrated Household Living Conditions Survey (2013/14)

⁴ Source: Rwanda Development Board. Data is a mean of 2006T2009, and from 2009. Quoted in GGCR Strategy.

1.1.2. Development and economic strategies and key sectors/actors in the domestic context

In 2000, Rwanda developed its Vision 2020, revised in 2012, which sets out the objective to “transform our country into middle income nation in which Rwandans are healthier, educated and generally more prosperous. The Rwanda we seek is one that is united and competitive both regionally and globally”⁵. Vision 2020 is the Government leitmotiv and to achieve such development, Vision 2020 defines the 6 following pillars: (i) Good governance and a capable State; (ii) Human resource development and a knowledge based economy; (iii) A private sector lead economy; (iv) infrastructure development; (v) Productive and market oriented agriculture; and (vi) Regional and international economic integration.

In 2012, 26% of the original Vision 2020 goals were accomplished and 34% were on track for achievement; while 44.9% of Rwandans still lived below the poverty line. The revised 2012 version of the vision raised the GDP per capita target to USD 1,240 to place Rwanda amongst the lower middle income countries. It also increased the target to 70% for electricity access and highlighted the continuing need of improving agricultural productivity, human resources capacities and infrastructure development⁶.

While Vision 2020 is part of Rwanda’s overarching development strategy, the country also has a number of sectoral strategies, policies and plans that present a comprehensive vision and strategic framework for particular sectors. Such sectoral strategies take their overall orientation from nationwide planning documents and take into account all strategic, planning and budgeting issues that are relevant to each sector. Some of Rwanda’s key sectoral policies are presented in the table below.

Table i: Rwanda's key sectoral policies

Key Sector	Strategy
Agriculture	<ul style="list-style-type: none"> National Agriculture Policy Strategic Plan for the transformation of Agriculture (2013)
Energy	<ul style="list-style-type: none"> National Energy Policy (2014) Energy Sector Strategic Plan Draft Sustainable Energy for All (2015) Biomass Strategy
Transport	<ul style="list-style-type: none"> Public Transport Policy (2012) Transport Sector Strategic Plan for EDPRS2
Water and Sanitation	<ul style="list-style-type: none"> National Policy & Strategy for Water Supply and Sanitation Services (2010) Water and sanitation sector strategic plan (2012/14T2017/18)
Forestry	<ul style="list-style-type: none"> National Forest Policy (2010) Strategic Plan for the Forest Sector (2010)
Urbanization and Rural Settlement	<ul style="list-style-type: none"> Urbanisation and Rural Settlement Sector Strategic Plan (2012/13T17/18)
National Industrial Policy	<ul style="list-style-type: none"> National Industrial Policy and Private sector Development Strategy Tourism Policy Hides and Skins Policy
Environment and Natural Resources	<ul style="list-style-type: none"> Five Year Strategic Plan for the Environment and Natural Resources 2014T 2018

⁵ Government of Rwanda. 2012. *Vision 2020*.

⁶ Government of Rwanda. 2012. *Vision 2020*.

1.1.3. Poverty reduction strategy

The **Economic Development and Poverty Reduction Strategy II 2013-2018 (EDPRS II)** is a 5 year strategy for economic growth, poverty reduction and human development for achieving the goals of the Vision 2020. EDPRS II focuses on the four following thematic areas: (i) Economic transformation, (ii) Rural development, (iii) Productivity and youth employment, and (iv) Accountable governance. For successful implementation, the strategy specifies that the costs are to be distributed between several social sectors, namely: education, health, water and sanitation. Additional focus areas include agriculture, transport, information and communication technology, energy, housing, urban development, land use management and environment protection. The strategy complements and supplements Vision 2020 by identifying specific priorities per thematic areas, and provides a monitoring and evaluation matrix for both primary and secondary indicators. In alignment with Vision 2020, EDPRS II identifies the environment and climate change as critical cross cutting issues for national development.

1.1.4. National climate change and green growth strategy

Rwanda was one of the 9 first Least Developed Countries (LDC) to adopt a green growth strategy⁷. In 2011, Rwanda released its **Green Growth and Climate Resilience Strategy (GGCR)** which aims to strengthen the work being carried out in Rwanda, including through the long term strategic framework documents such as Vision 2020, EDPRS II, and various sectoral strategies. The GGCR includes the following Vision for 2050: “for Rwanda to be a developed climate resilient, low carbon economy by 2050”⁸. The GGCR is guided by the following principles, already stated in Vision 2020 and EDPRS: (i) Economic Growth and Poverty Reduction; (ii) Welfare and Wellness of all citizens in a growing population; (iii) Gender equality and equity; (iv) Sustainability of the Environment and Natural resources; and (v) Good Regional and Global Citizenship.

The vision for 2050 presented in the GGCR Strategy can be explained by three strategic objectives that are as follows:

- 1) To achieve energy security and a low carbon energy supply that supports the development of green industry and services and avoids deforestation;
- 2) To achieve sustainable land use and water resources management that results in food security, appropriate urban development and preservation of biodiversity and ecosystem services; and
- 3) To ensure social protection, improved health and disaster risk reduction that reduces vulnerability to climate change impacts.

The GGCR is one the key strategic framework documents to lead the country towards a sustainable and secure future, and prepare Rwanda to tackle the vulnerabilities and risks associated with climate change and its socio economic growth ambitions.

1.2. Snapshot of national initiatives under the UNFCCC

1.2.1. National Communication to the UNFCCC

As Party to the United Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, Rwanda submitted its Initial National Communication to the Convention in 2005, which considered 2002 as the year of reference. In 2012, the Second National Communication (SNC) was submitted, with 2005 as year of reference. Rwanda’s Third National Communication to the UNFCCC is currently

⁷ Global Carbon Atlas 2013

⁸ Republic of Rwanda. 2011. *Green Growth and Climate Resilience Strategy*

under preparation. The SNC proposes mitigation and adaptation options in all GCF's 8 results area that are, for mitigation, (i) Energy generation and access; (ii) transport, (iii) building cities, industries and appliances, (iv) forest and land use; and for adaptation: (v) health, food and water security; (vi) livelihoods of people and communities; (vii) Infrastructure and built environment; and (viii) ecosystem and ecosystem services.

1.2.2. National Adaptation Programme of Action (NAPA)

Rwanda submitted its NAPA in 2006. The programme proposes several adaptation priority options, in particular regarding agriculture, agro-meteorology and early warning systems, health infrastructures, water and forest management.

1.2.3. Technology Needs Assessment (TNA) and Technology Action Plans (TAP)

Rwanda completed its Technology Needs Assessment (TNA) in 2012. The TNA development process included institutional arrangements for TNA, extensive stakeholders' consultations, prioritization of sectors, barrier/market analysis and Technology Action Plans (TAP). The prioritized sectors in Rwanda's TNA are agriculture and energy.

1.2.4. Intended Nationally Determined Contributions (INDCs)

Rwanda submitted its INDC to the UNFCCC in September 2015 and participated in the development of the climate change agreement. While Rwanda's INDC sets climate change adaptation as a priority, its contribution includes both adaptation and mitigation options that present mutual benefits. The INDC is closely aligned and builds upon the GGCR Strategy.

1.2.5. Nationally Appropriate Mitigation Actions (NAMA)

Rwanda starting the NAMA process by establishing an institutional, legal and policy framework for NAMA in May 2014. In 2015, the government produced an assessment report of sectoral opportunities for the development of NAMAs in Rwanda. This report identifies NAMA opportunities in the 7 following priority sectors: agriculture, buildings, energy, industry, Land Use, Land Use Change and Forestry (LULUCF), transport, and waste. For each sector, a "business as usual" (BAU) baseline emission scenario and potential Greenhouse Gases (GHG) mitigation alternative emission scenario were identified. These alternative scenarios would be applicable for NAMA design and could attract international support to implement selected NAMAs, contributing to the sustainable development goals of the country.

1.3. Key data on climate change

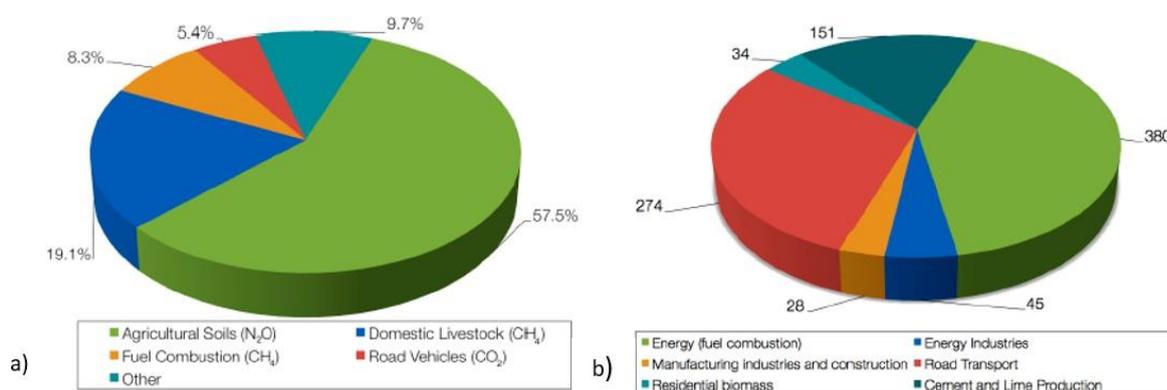
1.3.1. Sources of emissions

According to the GGCR Strategy, using the baseline GHG emissions from 2005 used in the preparation of the SNC, Rwanda has one of the lowest emissions per capita, which is estimated at 0.4 tCO₂e/person against a global average of 6.7 tCO₂e/person. Because of forest sequestration, Rwanda remains a net carbon sink.

For 2005, the total emissions were estimated at 5,010Gg CO₂ eq., mainly due to the agriculture and energy sectors. The GGCR identifies 4 key sources that contribute to 91% of all emissions:

agricultural soils (57%), enteric fermentation from domestic livestock (19%), fuel combustion for residential energy (8%), and road vehicles (5%). The figure below illustrates key sources of aggregated emissions of different GHG (a), and the CO₂ inventory for 2005 (b).

Figure 2: Rwanda's a) Key sources of GHG emissions sectors and b) Co2 inventory (in Gg) for 2005⁹



The SNC recognizes uncertainties remains in the GHG inventory due to inadequate representation, lack of basic data and application of emissions factors for different conditions.

1.3.2. Key vulnerabilities

Temperatures have increased by 1.4°C since 1970¹⁰ in Rwanda, and could go up to 2.0°C by 2030, which could result in proliferation of diseases, crop decline and reduced land availability, impacting food security and export earnings. Average annual rainfall could also increase by 5 to 10% by 2030 compared to 1970¹¹, leading to higher frequency of floods and storms and resulting in landslides, crop losses, health risks, and damage to infrastructure.

Rwanda's reliance on rain-fed agriculture for rural livelihoods and export (coffee and tea) make it highly vulnerable to climate change. In recent years, extreme weather events have increased in frequency and magnitude, which led to significant losses in some part of the country, including human lives¹². While floods and landslides are increasing in the high altitude Western and Northern Provinces, droughts make severe damages in the Eastern Province¹³. As a result, and given that Rwanda has the highest population density in Africa¹⁴, adaptation concerns are a priority for the country.

1.3.3. Key sectors where activities are underway

In order to better address its vulnerability to climate change, Rwanda has identified a number of adaptation and mitigation options in its GGCR strategy, which are also presented in the INDC. The key sectors where activities are planned or underway are as follows:

- Adaptation: Agriculture, Forestry, Tourism, Water, Land Use, Disaster Management and climate data:
 1. Restoring Yanze River and watershed through scaling up agroforestry technologies for resilience to climate change
 2. Integrated project of Ecosystem rehabilitation and green village promotion
 3. Mwogo watershed protection

⁹ Source: Government of Rwanda. 2011. GGCR.

¹⁰ Green Growth and Climate Resilience Strategy 2011

¹¹ IPCC Fifth Assessment Report 2013

¹² The assessment of economic impacts of the 2012 wet season flooding in Rwanda 2013

¹³ Rwanda baseline climate change vulnerability index 2015

¹⁴ World Bank Data 2015

4. Akanyaru watershed protection Project TGISAGARA
 5. Karongi District integrated greening village program
 6. Local partnership for rehabilitation of biodiversity and ecosystems in Nyabarongo watershed
 7. Congo Nile Ridge Foothills Integrated Environmental Management Project in Muhanga District
 8. Rainwater harvesting and reuse in Kamonyi District
 9. Rainwater harvesting project in high density areas of Nyarugenge, Gasabo, Kicukiro, Musanze, Nyabihu and Rubavu Districts
 10. The Water_Energy_Food_Security Nexus in the Akagera Watershed: Linking evidence collection, local action and stakeholder dialogue for sustainable development and climate change resilience
- Mitigation: Energy, Transport, Industry, Waste and Forestry.
 1. Sustainable Forest and Watershed Resources management in Nyagatare District
 2. National e-waste management strategy for Rwanda to support the establishment of sustainable recycling industries
 3. Sustainable forestry, agro-forestry and biomass energy management for climate resilience in Gatsibo District
 4. Zero Carbon Affordable Housing for Rwanda
 5. Clean and affordable electricity access for off-grid Rwanda communities using solar powered micro-grid.

1.3.4. Current status of spending on climate change

The costs of implementation of the GGCR strategy were originally estimated at USD 24.15 billion in the sector of water resource management, agriculture and energy up to 2030¹⁵. When the INDC was submitted in September 2015, the costing of remaining sectors had not been done yet.

As mentioned in the GCF Readiness Inception report, Rwanda has taken initiatives in recent years to mobilize and manage international climate finance. Institutions have been established for that purpose, in particular MINIRENA (Ministry of Natural Resources), REMA (Rwanda Environment Management Authority), and FONERWA (National Fund for Environment and Climate Change). In addition, the policy and strategic framework has been prepared adequately.

Thus, Rwanda has managed to mobilize international climate finance. For instance, FONERWA has so far received a roughly USD 43 million since June 2013 for capitalization from Government of Rwanda, DFID and KFW; mobilized capacity building financing worth roughly 6million dollar equivalent from UNDP, GCF and CDKN and attracted funding estimated at USD 33 million equivalent leveraged co-financing for FONERWA supported projects. 90% of FONERWA basket is dedicated to programmes/projects from public sector, private sector, and NGOs that seek to implement environment and climate actions. FONERWA has also helped MINIRENA in proposals development for the Adaptation Fund amounting to approximately USD 10M, and has prepared a successful Expression of Interest to the Pilot Program for Climate Resilience, which has the potential for financing to a tune of USD 50M. FONERWA is also finalising a project document under the LDCF/GEF for an amount of USD 8.5M. It is worth noting that CDKN is working with FONERWA on its resource

¹⁵ Report on Costing of Green Growth and Climate Resilience Strategy, cited in Government of Rwanda.2015. INDC.

mobilisation strategy. Rwanda is also participating in the UNTREDD readiness programme with a readiness preparation proposal including key priority programmes in the forest sector.

As far as the GCF is concerned, Rwanda has attracted USD 0.3M under the GCF Readiness Program to build the capacities of the National Designated Authority and develop the country’s country program and strategic framework. Rwanda has also proposed to the GCF a first program for funding, for which the GCF has approved USD1.5M as a program preparation grant (thus being the first country in the world to access the GCF Project Preparation facility).

1.4. Summary of national priorities in the context of GCF result areas

An analysis of the main strategic documents relating to climate change and green growth in Rwanda was conducted along GCF result areas for mitigation (Energy generation and access; Transport; building, cities, industries and appliances; Forests and land use) and adaptation (Health, food and water security; Livelihoods of people and communities; Infrastructure and built environment; Ecosystems and ecosystem services). This is presented in Annex 1. The documents analysed include:

- National Adaptation Program of Action (NAPA) (2006)
- Second National Communication to the UNFCCC (2012)
- Intended Nationally Determined Contribution (INDC) (2015)
- Green Growth and Climate Resilience – National Strategy for Climate Change and Low Carbon Development (2011)
- Technology Needs Assessment (TNA) and Technology Action Plans (TAP) (2012)
- East African Climate Change Policy
- Assessment of Sectorial Opportunities for the Development of Nationally Appropriate Mitigation Actions (NAMAs) in Rwanda (2015)

We can conclude from the analysis of the matrix in Annex I that the main priorities for climate finance funding by the GCF in Rwanda are the following:

Mitigation	<ul style="list-style-type: none"> ○ Renewable Energy ○ Energy efficiency ○ Efficient transport ○ Integrated waste management ○ Forest management
Adaptation	<ul style="list-style-type: none"> ○ Integrated water resource management ○ Disaster risk management, including meteorological capacities ○ Sustainable agricultural Intensification ○ Sustainable landTuse planning and management ○ Climate proof infrastructure
CrossT cutting	<ul style="list-style-type: none"> ○ Sustainable tourism development ○ Housing/green cities

2. Strategic framework for stakeholder engagement

2.1 Stakeholder engagement at readiness stage

The GCF Readiness programme aims at engaging a wide array of stakeholders in the definition of national priorities, the development of a pipeline of GCF programs/projects and the establishment of the necessary frameworks for Rwanda's engagement into the GCF. Therefore, the Readiness process enabled the organisation of workshops, face-to-face meetings and other consultations with many national and sub-national institutions, covering many different sectors, from the public sector, private sector and civil society organisations.

As part of the GCF readiness programme, an initial stakeholder mapping was conducted to identify and classify the main institutions likely to demonstrate a specific interest in GCF activities in Rwanda. Public institutions, private companies, CSOs and development partners have been engaged in the process through different means, as well as the general public. The communication strategy implemented during the Readiness phase played an important role in organising stakeholder engagement. The roles and contributions of key stakeholders to the readiness process is summarized in Table 2.

Table 2. Roles and contributions of key stakeholders

	How were they engaged in the programme development process?	What have been their inputs?	What are their expected roles in supporting implementation?
Line ministries and government agencies (including national development banks, central banks, and state owned enterprises)	Face to face meetings Workshops Coordination group	Inputs in prioritization of key sectors for future GCF funding Inputs and comments in the country program document	Will support development and implementation of GCF projects and programmes
Sub-national institutions, local government, and municipalities	Have been informed of the process.	Information meetings organised in each of the 4 provinces and Kigali city enabled to collect feedback from sub-national level stakeholders	Will support development and implementation of GCF projects and programmes at the local level.
Private sector (including financial institutions, micro, small, and medium enterprises, as well as established businesses and industries)	Face-to-face meetings Workshops Coordination group	Inputs in prioritization of key sectors for future GCF funding Inputs and comments in the country program document	Will propose projects/programmes and execute them through a chosen IE.

Civil society and community-based organisations	Face-to-face meetings Workshops Coordination group	Inputs in prioritization of key sectors for future GCF funding Inputs and comments in the country program document	Will propose projects/programmes and execute them through a chosen IE.
Accredited entities to the Fund active in the	MINIRENA is fully engaged in the GCF	Strong inputs in the design of the strategic	MINIRENA has got a project preparation grant

country	readiness process	Framework/procedures	already from GCF and is active in designing projects for submission to the GCF
International organisations and development partners	Invited to workshops Kept informed through emailing and FONERWA/REMA websites	Technical support and resources mobilization. No specific input	May play a role as regional/global NIE for big (infrastructure) projects

2.2 Stakeholder engagement in GCF delivery

Building on the stakeholder engagement process implemented during the readiness phase, a high level of engagement must remain during GCF delivery to ensure that GCF funds benefit to a variety of institutions from the public and private sector and civil society, from a variety of economic sectors (agriculture, water, urban development, energy, transport, etc.)

National Coordination Team (NCT)

To assist the NDA in discharging its oversight function, a National Coordination Team (NCT) was established. The NCT is composed of:

1. Ministry of Finance and Economic Planning (MINECOFIN)
2. Private Sector Federation (PSF)
3. Ministry of Natural Resources (MINIRENA)
4. Rwanda Environment Non-Government Organization Forum (RENGOF)
5. Rwanda Environment Management Authority (REMA)
6. FONERWA

The NCT contributed to the establishment of a country programme for GCF funding and supported the development of this strategic framework. During GCF delivery, the NCT will:

- (i) Technically assess proposed projects/programmes and propose recommendations for NDA consideration based on GCF six investment criteria and national project/programme selection criteria;
- (ii) Advise NDA on project/programme compliance with GCF and national selection criteria

To do so, the NCT will pursue the following main objectives:

- (i) Ensure the proposed project/programme compliance with national policies and programs;
- (ii) Ensure that local participation in the proposed project/programme is considered;
- (iii) Ensure that national priorities and country programme are respected in the project/programme design;
- (iv) Ensure that relevant stakeholders are engaged.

According to the agreed terms of reference for the NCT, it shall hold two sessions in each calendar year (June and December), and specific sessions may also take place on an ad hoc basis at any time over the year.

Sector working groups

The NDA secretariat in charge of GCF delivery shall make sure to present the status of GCF

programs/projects in Rwanda to relevant working groups such as:

- Sector Working Group meeting of the national priority sectors;
- Environment and Climate Change Thematic Working Group;
- Management of REMA (NDA) Etc.

Yearly GCF stakeholder workshop

In order to keep the main stakeholders at the same level of information on the GCF, it is proposed that the NDA organises a yearly stakeholder information workshop. Such workshop would be the opportunity:

- T To present an update on the GCF itself, status of project funding globally and any developments/issues of interest to Rwanda;
- T To present the status of GCF projects in Rwanda: projects funded, project proposed to the GCF for funding, national GCF projects pipeline, with an analysis of the main sectors covered and how in line with national priorities the situation is;
- T To present an update of accredited entities in the country;
- T To discuss any other issues regarding GCF processes in the country.

REMA newsletter and website

REMA newsletter and website remain an important tool for information dissemination. Regular GCF news shall be posted on line and disseminated through the newsletter, in order to keep the GCF 'alive' in people's mind and inform about any important issues, opportunities or events.

3. Identification of Green Climate Fund priorities for Rwanda

3.1. Initial list of priority mitigation, adaptation, and crosscutting concepts

As a first step, the list of priority sectors extracted from strategic documents (see section 1.4) has been confronted to the following six GCF investment criteria:

- ☐ Impact potential
- ☐ Paradigm shift potential
- ☐ Sustainable development potential
- ☐ Country Ownership
- ☐ Efficiency and Effectiveness
- ☐ Needs of the Recipient

The exercise was first realised during a stakeholder workshop in May 2016, inviting participants to inform the tables in annex 2. In addition to familiarize stakeholders with GCF investment criteria, this has given them the opportunity to express their ideas on several priority sectors.

From this table, we can establish an initial list of concepts that can potentially meet the GCF investment criteria, as shown in Table 3.

Table 3. Concepts for potential GCF funding identified by stakeholders during workshop 1, May 2016

Mitigation	
Renewable Energy (hydro, methane, solar, geothermal)	Hydropower: Nyabarongo II multipurpose dam (Hydropower generation 128 MW, irrigation, drinking water supply)
	Access to off-grid solar (off grid electrification using Solar Home Systems (SHS) to serve 500,000 households. <i>Current status 0.45 % while the target is 22% by 2018</i>)
	Methane: Methane to Electricity power. Potential 350 MW, current status 31.6MW
	Geothermal exploration
	One Acre Fund: Selling affordable solar lamps and home systems to replace the use of kerosene-burning lanterns
Energy efficiency (improved charcoal production; efficient cook stoves, light bulbs; New industrial technologies)	Improved charcoal production
	Promotion of improved cook stoves
	Light bulbs: LED lighting
	Promotion of Liquefied Petroleum Gas (LPG) fuel
Efficient transport (Regulation of emissions, Promotion of public transport – BRT, efficient freight)	Grid Electricity loss reduction
	Promotion of public transport
Waste management (Waste to Energy)	Bus Rapid Transit
	Biogas program (promotion of domestic and institutional biogas)
	Waste to energy at waste collection sites
Forest management (Restoration and	Integrated solid waste management in secondary cities
	Afforestation, reforestation and agroforestry programs

protection of natural forests, afforestation, agroforestry)	One Acre Fund: Planting millions of new trees by distributing high-impact inputs and trainings
Adaptation	
Integrated water resource	Watershed sustainable Protection;

management	Rainwater harvesting and storage;
Disaster risk management (agriculture, health and other sectors), including meteorological capacities	Crop insurance to help farmers to adapt to climate change; One Acre Fund: Providing farmers with a critical safety net of crop insurance against disruptive changes in climate
	Improved early warning system Reliable forecast, generation and easy access to weathers information;
Sustainable agricultural Intensification	One Acre Fund: Scaling up a proven suite of climate-smart approaches to improving farm yields and profits, including: <ul style="list-style-type: none"> o <u>Improved soil health</u>: Enabling farmers to increase the long7term productivity of their soil through practices such as composting and products such as lime and biochar o <u>Crop diversification & intercropping</u>: Training and supplying farm families with a robust mix of crop varieties, such as legumes, tubers, and diverse cereals, to improve resilience o <u>Optimized seed choice</u>: Equipping farm families with optimal seed varieties based on local climates, while continuing to test and roll out new varieties as a response to changing climates o <u>Modern agricultural training</u>: Delivering field7based trainings to each farmer on sustainable intensification techniques (such as fertilizer micro7dosing)throughout the season
Sustainable land-use planning and management	Climate resilient rural settlement programme to facilitate land consolidation
Climate proof infrastructure	Promoting resilient infrastructure (roads, energy, water supply)
Cross-cutting	
Sustainable tourism development (payment for ecosystem services, wildlife protection)	Strengthening law enforcement
Housing/green cities	Green neighbourhood (An integrated green neighbourhood)
	Supporting the Integration of Village greening Program

3.2. Prioritization of initial concepts for GCF funding in the near, medium and long term

Prioritization of initial concepts should be based on priorities for Rwanda on the one hand (translated into a list of “national approval conditions”), and GCF priorities on the other hand (strategic impacts and investment criteria):

- 2 National approval conditions consider the relevance of the proposed project/program versus the GGCRS and sector strategic plans, in particular the gaps¹⁶ that can be identified between the GGCRS priorities on the one hand and the projects/programs that have been/are being implemented in Rwanda. National approval conditions also consider stakeholder engagement.

¹⁶The *FONERWA portfolio analysis* currently under finalisation identifies those gaps and constitutes an interesting guideline in this regard.

- 2 GCF strategic impacts and investment criteria are defined on the GCF website. They form the main selection criteria for the GCF when approving proposals for funding.

Finally, prioritization of initial concepts for GCF funding should reflect on the practical requirements for turning concepts into reality. Some projects may require less up front work and may be brought to the Fund for consideration in the relatively near term, while others may take substantial work and effort. Following GCF guidance¹⁷, the NDA and stakeholders should consider the questions below:

- (i) Is there an accredited entity of the Fund who is already working to lead/develop the proposed project? Or would one need to be identified and possibly accredited?
- (ii) How clear is the understanding of the financing needs for the project? Have other similar projects/programs been supported in the country, and are there any relevant lessons? Will additional studies be needed to understanding financing needs/structures and execution arrangements? What other sources of finance might be accessed, and how?
- (iii) Who would be involved in the development of a project? When would they be able to engage in the program?
- (iv) If the project/program is the first of its kind in the given context, what factors might enable it to have traction in country, and are there any major implementation risks?
- (v) If the project/program is aimed at replicating or scaling up an established approach, what factors will be key to success, and are there major implementation risks?
- (vi) Are there policy or regulatory changes that might be required to realise the proposed program or intervention?

In this process, the **development of a pipeline of projects** based on standardised short concept notes responding to the different prioritization criteria would facilitate prioritization and monitoring of project proposal development. A project pipeline Excel file is proposed in Annex 3 as a management tool and a *Project presentation and analysis form* is proposed in Table 4 below. This table can be disseminated widely (e.g. as an online form), enabling any project proponent interested in GCF funding to send a concept proposal to the NDA. On this basis, the NDA can build the pipeline of programs/projects, rate the concept to prioritize most promising projects/programs, and use that rating as part of the noObjection procedure (see rating guidelines below the table).

Table 4. Project analysis form for project/Program rating and noObjection procedure

DATA SHEET	Information provided
Project Promoter:	
Type of entity:	
Name of specific project:	
National priorities matched (multiple choice allowed):	
GCF results area:	
Foreseen accredited entity/NIE:	
Project size category:	
Project life span (years):	
CoTfinancers:	

¹⁷ Initial draft guidance for the development of Country Programmes, GCF

Other partners:			
Brief description:			
Do you need support for project preparation? (Yes or No):			
<u>National Approval Conditions</u>	Info provided	Rating	Rating rule
<ul style="list-style-type: none"> Is the project/program proposal in line with GGCRS and relevant climate change policies in place? 			A
<ul style="list-style-type: none"> Does the project/program proposal link with the concerned sector(s) strategic plan(s)? 			A
<ul style="list-style-type: none"> To which of the following Rwanda GCF priorities is the project responding: MITTRenewable Energy MITTEnergy efficiency MITTEfficient transport MITTWaste management MITTForest management ADAPTIntegrated water resource mgt ADAPTDisaster risk management ADAPTSustainable agricultural Intensification ADAPTSustainable landTuse planning and mgt ADAPTClimate proof infrastructure CCUTTSustainable tourism development CCUTTHousing/green cities 			B
<ul style="list-style-type: none"> Has the project/proposal been discussed during a stakeholder consultation process in order to make sure that the project promoter, beneficiaries, policy makers and regulator have the same understanding? 			A
<ul style="list-style-type: none"> In case of regional/multiTcountry project/program, how much (in both US\$ and %) will be invested in Rwanda? 			A
TOTAL			/15
Does the project/proposal achieve one or more GCF strategic impacts?			
<ul style="list-style-type: none"> <u>Mitigation</u>: Energy generation and access; Transport; Forest and land use and buildingsT citiesTindustriesTappliances <u>Adaptation</u>: HealthTfood and water security; livelihoods of people and communities; ecosystems and ecosystem services, Infrastructure and built environment. 			B
Does the project comply with <u>GCF Investment criteria</u>?		Rating	Rating rule
<ul style="list-style-type: none"> <u>Impact potential</u>: Is the project contributing to the Fund’s objectives to shift towards lowT emission and climateTresilient sustainable development? 			C

<ul style="list-style-type: none"> • Paradigm shift potential: To which degree the proposed project can catalyse impact beyond a one-off project/program investment? How scalable and replicable is the project? How innovative and transformative is it? 			C
<ul style="list-style-type: none"> • Sustainable development potential: Will the proposed project/program deliver meaningful environmental, social, environmental and economic co-benefits? Does the project have a gender sensitive development impact? 			C
<ul style="list-style-type: none"> • Country Ownership: Do beneficiaries have ownership of the proposed project/program? Do they have capacity to implement a funded project? How well does the project/program fit within the beneficiary country's existing policies, climate strategies and institutions? 			C
<ul style="list-style-type: none"> • Efficiency and Effectiveness: Is the project reflecting value for money? Is the project financially and economically appropriate? For mitigation-specific project, how cost-effective is the project? How much co-financing will it bring? 			C
<ul style="list-style-type: none"> • Needs of the Recipient: How is the proposed project/program tackling vulnerability and financial needs of Rwanda? To what extent vulnerable groups, barriers to financing and level of exposure to climate risks within Rwanda? 			C
<i>Total</i>			/9
Other questions to be considered		Rating	Rating rule
<ul style="list-style-type: none"> • Is the proposed project/ program the first of its kind in the country? Or is it aimed at scaling up or replicating an existing concept? Who else has developed and financed similar projects and programs? Are there any relevant lessons from previous experience? 			D
<ul style="list-style-type: none"> • Are there policy or regulatory changes that might be required to realize the proposed program or intervention? 			
<ul style="list-style-type: none"> • Would this project/program require preparatory or feasibility studies before full funding and implementation? 			
<ul style="list-style-type: none"> • What would be the possible sources of funding for such assessments 			
<ul style="list-style-type: none"> • Why is the GCF a relevant source of funding for this project/ program 			
<ul style="list-style-type: none"> • Describe any capacity constraints, and policy and regulatory impediments to project/program implementation 			
<ul style="list-style-type: none"> • Track record of project/programme proponent in implementing this type of project/programme, in Rwanda, for this level of 			

budget			
• What is a reasonable timing for submission to the GCF of a full proposal			E
<i>Total</i>			/4
SUSTAINABLE DEVELOPMENT CRITERIA			
Economic Section		Rating	Rating rule
1. How many local staff will be employed at what level of the project/programme management?			D
2. Will your project enable technology transfer? Which technology and How?			
3. What are your local partners and how are they engaged in your project/programme?			
4. How will local financial institutional be involved?			
Social Section			
1. All forms of discrimination are avoided based on project/programme intervention area context. Present local authorities signed statement.			D
2. Cultural heritage and local knowledge are not damaged but used where possible.			
3. No child labor is happening under the project/programme implementation. Workers' rights will be respected.			
Environmental Section			
1. Greenhouse gas emission are avoided			D
2. Environmental standards and regulations has been undertaken where applicable (e.g : EIA, Environment Audit, etc...)			
3. No project/programme activity damages classified forests			
4. Land use does not give chance to soil degradation			
5. Waste water is treated before is released if applicable			
6. Conducted an EIA where necessary			
<i>Total</i>			/9
TOTAL MIN/MAX			/37
If total score under 25 (less than 70% quality), proposal/concept should be objected			

Note	Rating rule to apply
A	Rate 0T Not convincing 1T OK 2T Good 3T Excellent
B	0 item selected: rate 0 (exclusion of proposal) 1 item selected: rate 1 2 items selected: rate 2 More than 2 items selected: rate 3
C	Rate 0T Not convincing

	0.5T OK 1T Good
D	Provide an average rating on the quality of those sections all together: Rate 0T Not convincing 1T OK 2T Good 3T Excellent
E	>6 months: 0 3T6 months: 0.5 <3 months: 1

3.3.Synthesis of national priorities and timeline for execution

Consultation of stakeholders and meeting with NDA/FONERWA and NCT, has allowed to define 5 national prioritize in the short/medium for Rwanda on GCF funding. Other medium term and longer term priorities shall be defined as the pipeline of GCF projects builds up in the coming months.

To date, 6 (six) projects at different stages of development are in the pipeline:

- ☐ Sustainable forestry, agroforestry management and access clean energy in rural Rwanda
- ☐ Green City Pilot
- ☐ **Land Restoration and Conservation Project against Erosion and Floods Caused by Climate Change in Vulnerable Regions of Rwanda: First Large-Scale Smallholder Coffee Farm with Shade Tree Planting**
- ☐ Rural Green Economy and Climate Resilient Development Programme
- ☐ Improving the Resilience of Vulnerable Communities around Protected National Forests and Parks in Rwanda to Climate Change
- ☐ **Mainstreaming Climate Smart Planning and Implementation into Agricultural Development**

The table next page is an extract of the completed project pipeline Excel file that shows the details of the 5 priority projects for GCF funding in Rwanda.

	Name of specific project	Implementation arrangements including accredited entities	Public/Private entity	Mitigation/adaptation/crosscutting	GCF National priority(ies) (multiple selection possible)	GCF results area (multiple selection possible)	Ownership and paradigm shift potential, and the value that GCF funding will add	Project size category	Project life span (months)	Estimated implementation start date	Projected financing requirements (USD)	Funding from the GCF (e.g. instruments, possible levels/volumes) (USD)	Other potential sources of funding (e.g. private, social, etc.) (USD)	Concept note/Project preparation support needed?	Brief description (10 lines max)	Expected beneficiaries and impacts/ results
1	Sustainable forestry, agroforestry management and access clean energy in rural Rwanda	Accredited entity: MINIRENA Project will be executed by XXX	Public	Crosscutting	MIT\$Energy efficiency MIT\$Renewable Energy MIT\$Forest management ADAP\$Sustainable land\$use planning and management	MIT\$Energy access and power generation MIT\$Buildings, cities, industries and appliances MIT\$Forestry and land use ADAP\$Most vulnerable people and communities ADAP\$Health and well\$being, and food and water security ADAP\$Ecosystems and ecosystem services	GCF can play a crucial role in helping Rwanda to overcome financial limitations and achieve its goal of climate resilience low carbon development. The program will serve as a trigger and powerful lessons for rural transformation by allowing the rural poor to participate in economic interventions that have the potential for scaling up to expand opportunities for inclusive green growth	Small (10<xc<50)	60	01/01/2017	xx	xx	xx	yes. Needs project preparation grant	Rwanda needs GCF support to transition to climate resilient and rural green economy using Biomass Energy innovation to wean rural house holds from over dependence on fuel wood use which has adaptation and mitigation benefits of immense implication to climate change management.	Communities of Eastern Province of Rwanda
2	Rural Green Economy and Climate Resilient Development Programme	Accredited entity: MINIRENA Executing Entity: FONERWA	Public	Crosscutting	MIT\$Renewable Energy MIT\$Energy efficiency MIT\$Waste management MIT\$Forest management ADAP\$Integrated water resource management ADAP\$Sustainable land\$use planning and management ADAP\$Climate proof infrastructure CCUT\$Housing/green cities	MIT\$Energy access and power generation MIT\$Buildings, cities, industries and appliances MIT\$Forestry and land use ADAP\$Most vulnerable people and communities ADAP\$Health and well\$being, and food and water security ADAP\$Infrastructure and built environment ADAP\$Ecosystems and ecosystem services	The programme is proposed by Rwanda institutions and has a high potential to effectively scale up, replicate and sustain the results of the pilot interventions beyond programme completion due to its market\$based approaches and use of existing climate financing infrastructure. There is high potential to shift Rwanda to LCCR development pathway but this will require a substantial investment of resources. A GCF contribution is therefore crucial to build on the progress Rwanda has made so far on green growth and take this programme forward, and to catalyze private sector investment to deliver financially sustainable	Small (10<xc<50)	60	01/04/2016	88,191,381	69,484,181	FONREWA Acumen GGGI DFID Skat Consulting GIZ ICRAF Horizons	Project preparation grant of 1.5MUSD has been validated by the GCF. Feasibility studies going on.	The programme aims to pilot measures to increase the resilience of Gicumbi district to the expected impacts of climate change, establish small scale, low carbon, rural industries and create green jobs. The programme will focus on four key sectors that are critical to enabling Gicumbi to achieve its development targets and align with national green growth and climate resilient priorities: tea, forestry, construction and energy	Beneficiary: Communities and Civil Society, District Authorities, National Ministries, Private Sector The programme will enhance climate resilience among the rural poor and contribute to the Government's strategic goal of unlocking sustainable rural growth to increase incomes and reduce poverty
3	Land Restoration and Conservation Project against Erosion and Floods Caused by Climate Change in Vulnerable Regions of Rwanda: First Large Scale Smallholder Coffee Farm with Shade Tree Planting	Accredited entity: MINIRENA Executing Entity: The National Agricultural Export Development Board (NAEB) and AGRO Solution LTD. will operate the project in a PPP form.	Private	Adaptation	ADAP\$Sustainable agricultural Intensification ADAP\$Sustainable land\$use planning and management	ADAP\$Most vulnerable people and communities ADAP\$Health and well\$being, and food and water security ADAP\$Ecosystems and ecosystem services	The project has a strong demonstration effect, and will contribute to the adjustment and upgrading of local agricultural structure, build a coffee industry chain with ecological and environmentally beneficial agriculture, achieve transformation of traditional agriculture to modern agriculture, and reach its overall objectives	Small (10<xc<50)	60	01/01/2017	16,961,454	12,863,564	Unclear	Concept note ok but unclear whether preparation grant is requested	The project is the first large\$scale smallholder coffee farm with shade tree planting in Rwanda. The project will plant 5,000,000 coffee trees on 2000 Ha in 7 districts of 3 provinces of Rwanda,	30 Organizations of coffee growers will sign agreements with the project sponsor, which covers 10,000 families. The direct beneficiaries total almost 120,000, with 12, 000 new jobs created. The indirect beneficiaries are almost 2,000,000

4	Improving the Resilience of Vulnerable Communities around Protected National Forests and Parks in Rwanda to Climate Change	Accredited entity: MINIRENA Executing Entity: Rwanda Development Board	Public	CrossCutting	<p>MIT\$Forest management</p> <p>ADAP\$Integrated water resource management</p> <p>ADAP\$Disaster risk management</p> <p>ADAP\$Sustainable agricultural Intensification</p> <p>ADAP\$Sustainable land\$use planning and management</p> <p>CCUT\$Sustainable tourism development</p>	<p>MIT\$Forestry and land use</p> <p>ADAP\$Most vulnerable people and communities</p> <p>ADAP\$Health and well\$being, and food and water security</p> <p>ADAP\$Ecosystems and ecosystem services</p>	The project objectives are in line with the Rwanda's priorities for low\$emission and climate resilient development, including the following national policies, strategies and programmes The successful implementation of this project will enable the replication of the business models	Small (10<xs50)	48	01/01/2017	26,000,000	24,000,000	RDB: 2,000,000	Concept note ok but unclear whether preparation grant is requested	The project seeks to increase the resilience of vulnerable communities in districts surrounding protected forests and parks of Rwanda and reduce greenhouse gas (GHG) emissions through the following project components: (1) agroforestry; (2) ecotourism; (3) innovative water harvesting techniques; (4) climate information system; (5) building sustainable community enterprises (6) capacity building; (7) mainstreaming climate change into district plans and budgets; (8) undertake research on impact of climate change; and (9) development of a communication strategy.	Vulnerable communities surrounding protected forests and Parks in Rwanda
5	Green City Pilot	unclear	Public	CrossCutting	<p>MIT\$Renewable Energy</p> <p>MIT\$Energy efficiency</p> <p>MIT\$Waste management</p> <p>MIT\$Efficient transport</p> <p>ADAP\$Integrated water resource management</p> <p>ADAP\$Climate proof infrastructure</p> <p>CCUT\$Housing/green cities</p>	<p>MIT\$Energy access and power generation</p> <p>MIT\$Buildings, cities, industries and appliances</p> <p>MIT\$Forestry and land use</p> <p>ADAP\$Most vulnerable people and communities</p> <p>ADAP\$Health and well\$being, and food and water security</p> <p>ADAP\$Ecosystems and ecosystem services</p>	The linkage between Green City Pilot and Secondary Cities development in the EDPRS II are deliberately designed to inform the future trends for Rwanda's urbanization and therefore present vast opportunities for expansion and scale up. Rwanda needs GCF support to transition to climate resilient and green urbanization through support to Green City Pilot that will be the building block for national scale up poised to inspire regional expansion and point the way to the future of urbanization	Small (10<xs50)	60?	?	?	?	?	Concept note to be developed Project preparation funding is sought	The specific objective of GoR to promote urbanization for the future through Climate Resilient Green Cities, which includes: <ul style="list-style-type: none"> Designing and implementing low carbon and climate resilient strategic and technical action plans for Green City Development; Developing a Capacity Building Program and Investment Strategy for Green Urbanization; Facilitating knowledge sharing programs in order to enhance local capacity related to urbanization process. Developing a pipeline of bankable projects based on infrastructure investment strategies for the PGC. 	<ul style="list-style-type: none"> The program will have a significant reduction in tones of CO2 The program will provide economic and other household employment and income opportunities as a critical input towards inclusive growth The program will have social benefits and impacts such as avoided property destruction and death from flooding which currently is prevalent in most urban areas in Rwanda.
6	Mainstreaming Climate Smart Planning and Implementation into Agricultural Development	NIE: MINIRENA Executing entity: MINAGRI	Private	CrossCutting	<p>MIT\$Forest management</p> <p>ADAP\$Sustainable agricultural Intensification</p> <p>ADAP\$Sustainable land\$use planning and management</p> <p>MIT\$Forest management</p>	<p>MIT\$Forestry and land use</p> <p>ADAP\$Most vulnerable people and communities</p> <p>ADAP\$Health and well\$being, and food and water security</p> <p>ADAP\$Ecosystems and ecosystem services</p>	The use of a mainstreaming approach maximizes the potential for scale\$up, by moving away from stand\$alone activities and instead integrating climate smart activities into (agricultural) development itself. This ensures that climate resilient, low carbon activities flow through all sector policy and strategy, and then cascades down to all levels, delivering a paradigm shift.	Small (10<xs50)	60	June 2017	30,000,000	30,000,000	?	?	Project will focus on integrating climate change mitigation and adaptation into the next Strategic Plan for the Transformation of Agriculture (PSTA4), a medium\$term agriculture sector development plan, using the GCF finance to make incremental investments to deliver this integration.	MINAGRI and indirectly, small\$scale farmers across the country

In red is the information that needs to be confirmed to complete the table.

4. Action Plan

Table 5. Action Plan

Issues to consider	Concrete actions necessary to realise the priorities identified
Summary of key actors	<ul style="list-style-type: none"> • NDA: REMA • MINIRENA • FONERWA • MINECOFIN • Stakeholders through NCT <p>Resources for building the capacities of these key actors will need to be identified, so they are sufficiently acquainted to play their role fully.</p>
Summary of the priority investment opportunities	6 projects are currently in the pipeline. Others should complete the list for medium/long term funding
Project/Programme preparation support	Financial support to project preparation will be needed for most projects. Project promoters should first prepare and submit (through the chosen Accredited Entity) their concept note where specific support will be requested. Specific capacity building will be needed in order to make sure project promoters understand the needs and requirements of a GCF project proposal. Resources will need to be identified in this respect.
Policy, regulatory and institutional capacity challenges	<p>The main challenge to date is the institutional capacity of REMA, the NDA, whose teams are generally too busy to handle GCF country program implementation in good conditions.</p> <p>This challenge could be overcome with the contracting of a technical adviser to support the GCF engagement beyond the Readiness Support Program. A fee could also be requested by the NDA for every project requesting noObjection for covering NCT meetings costs.</p>
Monitoring and Evaluation capacity	REMA, as NDA, has experience in monitoring and evaluating its programs and projects. As detailed in the section below, it will develop a Performance Management Framework in order to monitor the Country Program implementation, and by extension the GCF interventions as a whole for the next 5 to 10 years. Support from an external expert should be considered in the next few months.
Accreditation	To date, only MINIRENA is accredited as an NIE. Beside international organisations accredited by the GCF and active in Rwanda, Rwanda may need an Enhanced Direct Access and a private sector NIE for lending and blending with GCF funds.
Readiness Needs	<p>As a result of the technical assistance provided, the country is mostly ready to propose, manage and implement GCF funding. Most important now is</p> <p>(i) to support project promoters from prioritized</p>

	<p>projects/programs in developing their full proposal and get GCF funding, working in close proximity with project promoters;</p> <p>(ii) to develop further the pipeline of projects/Programs by disseminating the proposed <i>Project presentation and analysis form</i>;</p> <p>(iii) to ensure regular meetings of the NCT and with a wider group of stakeholders as proposed in the <i>Stakeholder engagement</i> section of this Country Program.</p> <p>(iv) Further, an online platform for submitting request for noR objection letter with the required supporting documents to the NDA could be developed</p>
<p>Risks</p>	<p>The main risk stands in the funding of GCF engagement activities when Readiness Support ends. Additional readiness support may be requested to the GCF in this respect.</p> <p>Another risk may be coming from international organisations proposing to involve Rwanda in multiRcountry projects/programs to be funded by the GCF. Whereas such projects/programs may constitute an opportunity for the country, the Government of Rwanda has very little control on what they will actually do once funding has been released by the GCF. Hence the need to look at those project proposals very closely before releasing a noR objection letter. In this respect, specific procedures have been developed in the <i>Letter of No? objection Procedures</i>. In order to keep control on this, the NDA may want to have a discussion or meeting with the GCF to address the issue.</p>

5. Monitoring and evaluation

As presented in the *Initial draft guidance for the development of Country Programmes*, the country programme is a living strategy that will need to be adapted and updated to reflect new developments, implementation progress, or challenges that may manifest. Monitoring the programme's advancement shall consider the following questions:

Table 6. Questions to consider for the M&E framework

Theme	Questions to consider
Stakeholders' engagement in developing projects and initiatives	<ul style="list-style-type: none"> Level of engagement of accredited entities Level of progress in each programming area Need for action (consider other results areas? Adapt implementation arrangements?)
Country programme adaptation and updates	<ul style="list-style-type: none"> GCF new developments impacting the country program Changes in national context impacting the country program Role of stakeholders in monitoring and updating the country programme Actions and responsibilities to be reflected in the country programme
Progress reports	<ul style="list-style-type: none"> Need for regular monitoring/progress reports on GCF engagement in Rwanda

Monitoring the implementation of Rwanda's GCF Country programme, and by extension monitoring Rwanda's engagement into the GCF, requires clearly established objectives, outcomes and outputs to be then monitored against several indicators. Expected results are defined with a Results Framework (RF) and then a Performance monitoring framework (PMF) will need to be developed to describe the indicators to be used, set targets, responsible bodies for informing the indicator, and timeline.

The GCF is a major climate finance funding source that has been identified in Rwanda's National Strategy for Climate Change and Low Carbon Development (GGCR) in October 2011 as an important future contributor to the implementation of green growth programs. Proposing a GCF Results Framework for Rwanda defining the main objective, outcomes and outputs expected from engagement with the GCF, can also help structure the approach to GCF funding. Driven by the overall GCF results framework¹⁸ (see Annex 4), a draft Results Framework (RF) for Rwanda's engagement with the GCF could be as follows:

¹⁸ Initial Results Management Framework of the Fund (Progress Report), GCF/B.06/04, 9 February 2014; Further Development of the Initial Results Management Framework, GCF/B.08/07, 06 October 2014

Table 7. Rwanda's GCF Results Framework

<p>Rwanda's objective with the GCF:</p> <p>Implement and achieve vision 2020, EDPRS¹⁹ and GGCR to transform Rwanda into a middle income green economy</p>	
<p>Desired outcomes of engagement with GCF:</p>	<p>Proposed outputs</p>
<p><u>Outcome 1:</u></p> <p>Rwanda achieves a paradigm shift to lowRemission sustainable development pathways in most emitting sectors as per INDC</p>	<ul style="list-style-type: none"> • Major structuring green growth programs are implemented • Institutional and regulatory systems for lowRemission planning and development are developed • Number of small, medium and large lowR emission power suppliers increased • Lower energy intensity of buildings, cities, industries, and appliances • Use of lowRcarbon transport enhanced • Management of land or forest areas contributing to emissions reductions improved
<p><u>Outcome 2:</u></p> <p>Rwanda achieves a paradigm shift to ClimateR resilient sustainable development in most vulnerable sectors, as per INDC</p>	<ul style="list-style-type: none"> • Institutional and regulatory systems for climateRresponsive planning and development strengthened • Generation and use of climate information in decisionRmaking increased • Adaptive capacity increased and exposure to climate risks reduced in all sectors of the economy • Awareness of climate threats and riskR reduction processes strengthened

On this basis, the NDA will prepare a Performance Management framework allowing due monitoring of GCF implementation in Rwanda. Assistance from a specialised consultant may be considered.

¹⁹ EDPRSII and subsequent EDPRS

Annex 1 - Summary of national priorities in the context of GCF result areas

GREEN CLIMATE FUND RESULTS AREAS								
Priorities Identified in National Strategies	Mitigation				Adaptation			
	Energy generation and access	Transport	Buildings, cities, industries, and appliances	Forests and land use	Health, food and water security	Livelihoods of people and communities	Infrastructure and built environment	Ecosystems and ecosystem services
<u>NAPA (2006)</u>					<ul style="list-style-type: none"> • Agriculture and animal husbandry • Hydro agro meteorological early warning system 	<ul style="list-style-type: none"> • Income generating activities • Agriculture 		<ul style="list-style-type: none"> • Alternative energy sources to firewood • Integrated water resources management (IWRM)

<p>2nd National Communication</p>	<ul style="list-style-type: none"> Alternative energy (HH, transport); improve EE (hydro, methane, improved charcoal production) 	<ul style="list-style-type: none"> Transport (Regulation of emissions, Promotion of public transport) 	<ul style="list-style-type: none"> Appliances (light bulbs) Energy source and consumption (use of Lake Kivu methane gas) New industrial technologies 	<ul style="list-style-type: none"> Improved stoves and furnaces Restoration and protection of natural forests Alternative energy sources Afforestation (bamboo & tree plantations), agroforestry 	<ul style="list-style-type: none"> Strengthening a friendly political, legislative and institutional framework in the management and protection of water resources Sustainable management of water resources Establishing an emergency plan to the fight against drought Health (health insurance, meteo) 	<ul style="list-style-type: none"> Agriculture Agro meteorology 	<ul style="list-style-type: none"> Health infrastructure 	<ul style="list-style-type: none"> Water Forest management
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					<p>warning)</p> <ul style="list-style-type: none"> Ref to MDG 1: Eradicate extreme poverty and hunger (in EDPRS) 			
INDC (2015)	<ul style="list-style-type: none"> Low carbon energy mix (hydro+solar) Sustainable Small Scale energy installation Energy efficiency and demand side management 	<ul style="list-style-type: none"> Efficient resilient transport system 	<ul style="list-style-type: none"> Green industry and private sector development (EE) Waste: Implementation of Low carbon urban systems 	<ul style="list-style-type: none"> Sustainable Forestry, Agro forestry and Biomass Energy 	<ul style="list-style-type: none"> Disaster Risk Management Climate data and projections 	<ul style="list-style-type: none"> Sustainable intensification of agriculture Agricultural diversity in local and export markets Integrated approach to Sustainable Land Use Planning and Management 		<ul style="list-style-type: none"> Forestry: Sustainable Forestry, Agroforestry and Biomass Energy Tourism: Ecotourism, Conservation and Payment for Ecosystem Services Promotion in Protected Areas Integrated Water Resource Management and Planning
Green Growth and Climate Resilience – National Strategy for Climate Change and Low Carbon Development (2011)	<p>Programme of action:</p> <ul style="list-style-type: none"> Low carbon energy mix powering the national grid Sustainable Smallscale Energy Installations in Rural Areas <p>Big wins:</p> <ul style="list-style-type: none"> Geothermal power 	<p>Programme of action:</p> <ul style="list-style-type: none"> Efficient resilient transport system 	<p>Programme of action:</p> <ul style="list-style-type: none"> Green Industry and Private Sector Development Climate compatible mining Low carbon urban systems 	<p>Programme of action:</p> <ul style="list-style-type: none"> Sustainable Forestry, Agroforestry and Biomass Energy <p>Big wins</p> <ul style="list-style-type: none"> Integrated soil fertility management 	<p>Programme of action:</p> <ul style="list-style-type: none"> Disaster Management and Disease Prevention Climate Data and Projections <p>Big wins</p> <ul style="list-style-type: none"> Centre for Climate Knowledge for Development 	<p>Programme of action:</p> <ul style="list-style-type: none"> Sustainable Intensification of small scale farming Agricultural diversity in local and exports markets <p>Big wins</p> <ul style="list-style-type: none"> Agroforestry 	<p>Big wins</p> <ul style="list-style-type: none"> Irrigation infrastructure Robust Road network 	<p>Programme of action:</p> <ul style="list-style-type: none"> Integrated water resources management and planning Integrated approach to sustainable land use planning and management Ecotourism, Conservation and Payment for Ecosystem Services Promotion in Protected Areas

	generation		Big wins <ul style="list-style-type: none">High density walkable cities					
TNA & TAP (2012)	<ul style="list-style-type: none">Technology for CC mitigation in the energy sector					<ul style="list-style-type: none">Technology for CCA in the agriculture sector		
Assessment of Sectoral Opportunities for the Development of Nationally Appropriate Mitigation Actions (NAMAs) in Rwanda (2015)	<ul style="list-style-type: none">On-grid renewables (large hydro + solar PV)Off-grid renewables (solar PV mini grid)	<ul style="list-style-type: none">Efficient Integrated Freight Transport System (EIFTS)Bus Rapid Transit System for Kigali	<ul style="list-style-type: none">Waste (landfill gas utilisation + waste to energy)Energy for householdsGreen CitiesIntegrated Sustainable Rural DevelopmentEnergy Efficiency in Tea/Coffee productionGreen/Eco Industrial Park	<ul style="list-style-type: none">Improved management of ForestsNew Forest plantationSustainable charcoal value chainScaled up one cow per poor family programImproved fertilizer sector				
East African Climate	<ul style="list-style-type: none">Availability and accessibility	<ul style="list-style-type: none">Reduced GHG transport:	<ul style="list-style-type: none">Waste management.	<ul style="list-style-type: none">Forestry global services in mitigation	<ul style="list-style-type: none">Agriculture and Food Security (Crop,	<ul style="list-style-type: none">Land Use and Soil ProtectionTourism	<ul style="list-style-type: none">Climate proof infrastructure	<ul style="list-style-type: none">Water Resources (improve water conservation,

<u>Change Policy</u>	of sustainable energy			<ul style="list-style-type: none"> Sustainable agricultural practices, SLM 	Livestock and Fisheries) <ul style="list-style-type: none"> Human Health Human settlements Disaster risk management 	resilience <ul style="list-style-type: none"> Renewable energy 	re	efficiency) <ul style="list-style-type: none"> Wildlife (ecosystem-based adaptation) Coastal and Marine Ecosystems Sustainable management of forestry and wetlands
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Annex 2. Priority sectors and GCF investment criteria – consultation from first stakeholder workshop

		Green Climate Fund Investment Criteria							
	National Priorities	Name and detail specific program/project, if any	Impact potential	Paradigm shift potential	Sustainable development potential	Country Ownership	Efficiency and Effectiveness	Needs of the Recipient	Order of Priority
			Potential of the programme/project to contribute to the achievement of the Fund's objectives and result areas	Degree to which the proposed activity can catalyse impact beyond a one-off project or programme investment	Wider benefits and priorities	Beneficiary country ownership of and capacity to implement a funded project or programme (policies, climate strategies and institutions)	Economic and, if appropriate, financial soundness of the programme/project	Vulnerability and financing needs of the beneficiary country and population	
M	Renewable Energy (hydro, methane, solar, geothermal)	<p>Hydropower: Nyabarongo II multipurpose dam 4Hydropower generation 128 MW</p>	<p>4Reduced emissions through increased low4 emission energy access and power generation</p> <p>U Increased number of small, medium and large low4emission power suppliers</p>	Accelerates economic growth	<p>U Energy security (sufficient, affordable, reliable)</p> <p>U Industrial sustainable development</p> <p>Job creation</p> <p>4 Supply clean potable water to downstream urban areas of Kigali and Bugesera</p>	<p>4Vision 2020</p> <p>4EDPRS II</p> <p>4Green Growth and Climate Resilience Strategy,</p> <p>4Nationally Determined Contributions 4</p> <p>Energy Strategic Plan,</p> <p>4Energy policy,</p>	<p>4Use of contractors through competitive bidding,</p> <p>4Best use of inputs (human resources, funds, equipment and materials)</p>	<p>+Vulnerability: Rwanda relies on imported fuels; it needs to phase out thermal power generation.</p> <p>4 Limited financial capacity</p>	1

					<i>U Irrigation of agricultural land and Prevention of floods and supply of a</i>				
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				constant flow of water along the river bed			
	<p>Solar:</p> <ul style="list-style-type: none"> •Access to off4grid solar energy (off grid electrification using Solar Home Systems (SHS) to serve 500,000 households) •current status 0.45 % while the target is 22% by 2018 	<p>4Reduced emissions through increased low4 emission energy access and power generation</p> <p>U Increased number of small, medium and large low4emission power suppliers</p>	Rapid Rural development and Accelerates economic growth	<p>U Energy security (sufficient, affordable, reliable)</p> <p>U Industrial sustainable development</p> <p>U Job creation</p>	<p>4Vision 2020</p> <p>4EDPRS II</p> <p>4Green Growth and Climate Resilience Strategy,</p> <p>4Nationally Determined Contributions 4 Energy Strategic Plan,</p> <p>4Energy policy,</p> <p>4Off4grid Strategy</p>	<p>4Use of contractors through competitive bidding,</p> <p>4Best use of inputs (human resources, funds, equipment and materials)</p>	<p>+Vulnerability:</p> <p>Rwanda relies on imported fuels; it needs to phase out thermal power generation.</p> <p>4 Limited financial capacity</p>
	<p>Methane: Methane gas to power.</p> <ul style="list-style-type: none"> •Potential 350 MW, • current status 31.6MW 	<p>4Reduced emissions through increased low4 emission energy access and power generation</p> <p>U Increased number of small, medium and large low4emission power suppliers</p>	Accelerates economic growth	<p>4Energy security (sufficient, affordable, reliable)</p> <p>4Industrial development</p> <p>4Job creation</p>	<p>Vision 2020</p> <p>4EDPRS II</p> <p>4Green Growth and Climate Resilience Strategy,</p> <p>4Nationally Determined Contributions 4 Energy Strategic Plan,</p> <p>4Energy policy,</p>	<p>4Use of contractors through competitive bidding,</p> <p>4Best use of inputs (human resources, funds, equipment and materials)</p>	<p>+Vulnerability:</p> <p>Rwanda relies on imported fuels; it needs to phase out thermal power generation.</p> <p>4 Limited financial capacity</p>
	Geothermal exploration	<p>4Reduced emissions through increased low4 emission energy access and power generation</p> <p>U Increased number of small, medium and large low4emission power suppliers</p>	Accelerates economic growth	<p>U Energy security (sufficient, affordable, reliable)</p> <p>U Industrial development</p> <p>4Job creation</p>	<p>Vision 2020</p> <p>4EDPRS II</p> <p>4Green Growth and Climate Resilience Strategy,</p> <p>4Nationally Determined Contributions 4 Energy Strategic Plan,</p> <p>4Energy policy</p>	<p>4Use of contractors through competitive bidding,</p> <p>4Best use of inputs (human resources, funds, equipment and materials)</p>	<p>+Vulnerability:</p> <p>Rwanda relies on imported fuels; it needs to phase out thermal power generation.</p> <p>4 Limited financial capacity</p>

	<ul style="list-style-type: none"> • Overall program name: <i>Building Africa's largest climate-smart smallholder farmer network (One Acre Fund)</i> • Relevant initiative: Selling affordable solar lamps and home systems to replace the use of kerosene-burning lanterns 	<ul style="list-style-type: none"> • Solar products reduce costs for families while preventing carbon emissions, primarily by reducing usage of kerosene. We expect to sell 750,000 solar lamps and home systems in Rwanda between 2017-2022, which will cumulatively mitigate 170,000 total tons of CO₂ while generating \$23 million in new income through cost savings or new profits [e.g. by charging neighbours to use solar lamps' phone-charging capability]. 	<ul style="list-style-type: none"> • Market-building: Our clients form a critical mass of customers in rural East Africa. Our scaled interventions can stimulate both supply and demand, driving the private sector to create new farmer-focused solutions that also benefit large-scale smallholder populations. We have already done this with solar tech, and are currently among the top 5 largest solar distributors by volume in Africa. • Knowledge creation & dissemination: We are continuously field-testing new solar products and configurations, as well as conducting rigorous M&E on the impact of current products, creating a unique knowledge base of rural solar applicability that we disseminate widely. 	<ul style="list-style-type: none"> • Solar-specific: These 750,000 solar products will generate over 25m new evening study hours per year for school-age children in client families. They will also enable hundreds of thousands of families to improve household air quality by decreasing kerosene usage by up to 100%. • General contribution to program outcomes: The new income our clients generate through solar products enables them to fill their food deficit, and invest remaining profits productively – on average they spend 33% on childhood education and 31% on new business activities, for example, enabling many additional economic and social benefits. Solar-enabled reductions in carbon emissions also lead to many additional environmental benefits. 	<ul style="list-style-type: none"> • One Acre Fund has a very strong relationship with the Rwandan government, evident through our successful large-scale collaborations with the Ministry of Agriculture and the Rwanda Agriculture Board – such as our partnership to improve the curricula and training materials of its nationwide extension network. As part of this relationship, we are working to ensure clear alignment between our climate-smart interventions and national climate priorities, especially Rwanda's overall goal of a "developed, climate-resilient, low-carbon economy by 2050" (per RW's 2011 <i>Green Growth & Climate Resilience Strategy</i>). 	<ul style="list-style-type: none"> • The primary goal of this program is to massively increase the scale and impact of One Acre Fund's existing climate-smart model. We already have extensive infrastructure in Rwanda, built through nine years of operations, and have achieved a high degree of cost-efficiency: in 2015, 70% of field costs were covered by farmer loan repayments, requiring outside subsidization of only 30% for our core operations. In our entire proposal to GCF, including all related costs and revenues in Rwanda and other One Acre Fund countries of operation, we estimate an average cost of \$8.09 per ton of carbon emissions mitigated. 	<ul style="list-style-type: none"> • The target beneficiaries of this proposal – smallholder farmers – represent a large and extremely vulnerable population affected by climate change. Living in rural areas, their level of access to infrastructure and markets is very low; they require climate-focused products and services that no other actors are supplying at scale. • Their dual barriers of physical isolation and market access have caused a market gap of distribution – proven climate interventions exist, and are in demand, but remain out of reach to rural farmers. One Acre Fund fills this gap by ensuring that every element of our climate-smart model, including solar products, is fully accessible through delivery, financing, and comprehensive
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							trainings.	
Energy efficiency (improved charcoal production; efficient cook stoves, light bulbs; New industrial technologies)	<ul style="list-style-type: none"> U Light bulbs: LED lighting project U Grid Electricity loss reduction project U Promotion of Improved cook stoves U Promotion of Liquefied Petroleum Gas (LPG) fuel 	<p>U Increased number of small, medium and large low₄emission power suppliers</p> <p>4Reduced emissions through increased low₄ emission energy access and power generation</p> <p>Reduced emissions from land use, deforestation, forest degradation, and through sustainable forest management and conservation and enhancement of forest carbon stocks</p>	Rapid Rural development and Accelerates economic growth	<ul style="list-style-type: none"> U Energy security (sufficient, affordable, reliable) U Industrial development 4Job creation 	<p>Vision 2020</p> <ul style="list-style-type: none"> 4EDPRS II 4Green Growth and Climate Resilience Strategy, 4Nationally Determined Contributions, 4Energy Strategic Plan, 4Energy policy 	<ul style="list-style-type: none"> 4Use of local contractors through competitive bidding, 4Best use of inputs (human resources, funds, equipment and materials) 	<p>+Vulnerability:</p> <p>Rwanda relies on imported fuels; it needs to phase out thermal power generation.</p> <ul style="list-style-type: none"> 4 Limited financial capacity 	2

	<ul style="list-style-type: none"> • Overall program name: <i>Building Africa's largest climate-smart smallholder farmer network (One Acre Fund)</i> • Relevant initiative: Selling affordable cook stoves that require far less firewood than traditional stoves 	<ul style="list-style-type: none"> • Improved cook stoves reduce family expenses while preventing carbon emissions, by producing more heat with less wood fuel. <p>We expect to sell 200,000 cook stoves in Rwanda between 2017 and 2022, which will cumulatively mitigate over 1m total tons of CO₂ while generating \$9.5 million in new income through cost savings.</p>	<ul style="list-style-type: none"> • Market/building: See above. Note that our stove program is much younger than our solar program, and we are still scaling up distribution, but we intend to become one of Africa's largest distributors of improved cook stoves to rural areas over the next 6-10 years. <p>Knowledge creation & dissemination: See above. We take this same approach in all core product areas.</p>	<ul style="list-style-type: none"> • Stove-specific: These stove sales will enable 200,000 families to improve household air quality by decreasing wood fuel usage by up to 50%. <p>General contribution to program outcomes: See above. Cook stove impacts also contribute to larger economic, social, and environmental benefits for our clients.</p>	See above	See above	See above	
<i>Efficient transport</i> (Regulation of emissions, Promotion of public transport – BRT, efficient freight)	<ul style="list-style-type: none"> • <i>Promotion of public transport</i> • <i>Bus Rapid Transit</i> 							4
<i>Waste management</i> (Waste to Energy)	<p>U <i>Biogas program:</i></p> <ul style="list-style-type: none"> • <i>Promotion of Domestic Biogas</i> • <i>Promotion of Institutional Biogas</i> <p>U <i>Waste to energy at waste collection sites</i></p>	<p>4<i>Reduced emissions from land use, deforestation, forest degradation, and through sustainable forest management and conservation and enhancement of forest carbon stocks</i></p>	<p><i>Accelerates rural development and economic growth</i></p>	<p>U <i>Energy security (sufficient, affordable, reliable)</i></p> <p>U <i>Industrial development</i></p> <p>4<i>Job creation</i></p>	<p><i>Vision 2020</i></p> <p>4<i>EDPRS II</i></p> <p>4<i>Green Growth and Climate Resilience Strategy,</i></p> <p>4<i>Nationally Determined Contributions</i></p> <p>4<i>Energy Strategic Plan,</i></p> <p>4<i>Energy policy,</i></p>	<p>4<i>Use of local contractors through competitive bidding,</i></p> <p>4<i>Best use of inputs (human resources, funds, equipment and materials)</i></p>	<p>+Vulnerability:</p> <p><i>Rwanda relies on imported fuels; it needs to phase out thermal power generation.</i></p> <p>4 <i>Limited financial capacity</i></p>	3

			<i>4Reduced emissions through increased low4 emission energy access</i>						
	<ul style="list-style-type: none"> INTEGRATED SOLID WASTE MANAGEMENT IN SECONDARY CITIES 	<p><i>Promotion of public health through reduction of disease vectors and proper solid waste management practices that are environmentally friendly and protect the health of people. Sensitize and train the local population on matters regarding the urban environmental protection and public health issues</i></p>	<p><i>Beyond the set objectives, the project will help in improving the lifestyle of the community economically through revenue collections, The produced compost will be used to enrich the soil with the required nutrients which will promote the agriculture thus providing food security to the community</i></p>	<p><i>The project is based on demand driven, participatory and cost sharing approaches of the project by beneficiaries and therefore the sustainability The institutional arrangement is also set in a way to optimize the involvement of decentralized entities, which is also a factor of ownership and capacity building for the sustainability The project is expected to be accepted by beneficiaries due to a number of positive environmental and health benefits through proper solid waste management practices such proper waste collection and</i></p>	<p><i>The country ownership is exhibited through the policies and strategies that have been developed with the purpose of protecting environment and economic development of the people such as: Strategy for Climate change and law carbon Development,Economic Development and Poverty Development Strategy (EDPRS 2)</i></p>	<p><i>The project has outputs and their output indicators which will be monitored. The logical framework has already been elaborated and should be a guiding tool to deliver outputs. It is for this reasons the project will be managed by Rwanda Housing Authority Staff and in addition of a few to be hired to follow up day to day project activities. M&E plan should be implemented and to provide quarterly reports of progress activities</i></p>	<p><i>Revenues, skills and self-esteem of women and vulnerable men involved in pre-collection activities, collection, transportation, composting and land filling of solid waste is improved</i></p>		

					<p>transportation, proper disposal, which will help in controlling odours, disease vectors among others, The project will also contribute to economic empowerment through revenue collections, compost production which will be solid and also help in improving agriculture activities, With respect to gender equality the project will impact on socio economic improvements through creation of jobs and this will ensure the sustainability of the project</p>				
<p>Forest management (Restoration and protection of natural forests, afforestation, agroforestry)</p>	<ul style="list-style-type: none"> Afforestation, reforestation and agroforestry programs 								3
	<ul style="list-style-type: none"> Overall program name: Building Africa's largest climate4smart smallholder farmer network (one4acre fund) Relevant initiative: Planting millions of new trees by distributing high impact 	<ul style="list-style-type: none"> Planting trees generates physical assets while sequestering carbon and 	<ul style="list-style-type: none"> Market building: See above. High quality, fast growing tree seeds and seedlings are not 	<ul style="list-style-type: none"> These 6.5m trees would yield the many environmental and social benefits that accompany 	See above	<ul style="list-style-type: none"> See above 	<ul style="list-style-type: none"> See above 		

		inputs and trainings	improving soil health; trees also contribute to soil health, particularly by preventing erosion and desertification. We expect to enable our clients to plant 6.5m <i>Grevillea</i> trees in RW between 2017 and 2022, which will cumulatively mitigate 100,000 total tons of CO ₂ while generating \$30 million in new income.	widely available in the rural areas we serve; we see this as a significant opportunity to help create a new market for a financially and environmentally impactful product. Knowledge creation & dissemination: See above. We take this same approach in all core product areas.	the halt of deforestation and the commencement of reforestation. General contribution to program outcomes: See above. Agroforestry impacts also contribute to larger economic, social, and environmental benefits for our clients.				
ADAPTATION	Integrated water resource management	<ul style="list-style-type: none"> Watershed sustainable Protection ; Rainwater harvesting and storage; 							
	Disaster risk management (agriculture, health and other sectors), including meteorological capacities	<ul style="list-style-type: none"> Crop insurance to help farmers to adapt to climate change; Improved early warning system Reliable forecast, generation and easy access to weathers information; 							
		<ul style="list-style-type: none"> Overall program name: <i>Building Africa's largest climate-smart smallholder farmer network (One Acre Fund)</i> Relevant initiative: Providing farmers with a critical safety net of crop insurance against disruptive changes in climate 	<ul style="list-style-type: none"> Crop insurance ensures cash payouts to farmers in the event of poor weather or crop disease. One Acre Fund acts as a trusted intermediary, establishing group policies on behalf of clients 	<ul style="list-style-type: none"> Our clients form a critical mass of customers in rural East Africa. Our scaled interventions can stimulate both supply and demand, driving the private sector to create new farmer-focused solutions that also 	<ul style="list-style-type: none"> Insurance-specific: One Acre Fund's crop insurance product protects clients against massive loss. With this safety net, clients are more able to think, act, and invest <u>proactively</u> to prepare for their future, rather 	<ul style="list-style-type: none"> One Acre Fund has a very strong relationship the Rwandan government, evident through our successful large-scale collaborations with the Ministry of Agriculture and the Rwanda Agriculture Board, 	<ul style="list-style-type: none"> The primary goal of this overall program is to massively increase the scale and impact of One Acre Fund's existing climate-smart model. We already have extensive infrastructure in Rwanda, built 	<ul style="list-style-type: none"> One Acre Fund's clients are entirely reliant on the environment for their livelihood, as each season's harvest determines how much food and income they will have in the following year. Yet their crop yields 	

		<p>that pay out when rainfall or yields fall outside historical norms, and then administering these funds to farmers based on our detailed field data.</p> <p>By 2022, we expect to cover more than 400,000 Rwandan farm families (encompassing over 2m total family members) each year through crop insurance.</p>	<p>benefit largescale smallholder populations. Crop insurance represents a successful case study of this phenomenon. We are Africa's largest purchaser of crop insurance on behalf of smallholder farmers in Africa, and without us, it is unlikely that any market for smallholder insurance would have developed. In the first several years of working with our insurance provider, we made up more than 80% of their business. Now there is a marketplace of several different providers, whose competition drives up quality and drives down prices for farmers across East Africa.</p>	<p>than <u>defensively</u> to protect their present. Further, this product acts as an umbrella over all the other elements and benefits of our model, preventing a single anomalous season from destroying the results of many years of hard work.</p> <p>General contribution to program outcomes: The new income our clients protect or generate through crop insurance helps them to fill their food deficit and invest remaining profits productively – see below for a breakdown of spending trends.</p>	<p>as well as productive working relationships at every level of local and national government.</p> <p>As part of this relationship, we are working to ensure clear alignment between our climate-smart interventions and national climate priorities, especially Rwanda's overall goal of a "developed, climate-resilient, low-carbon economy by 2050" (per RW's 2011 <i>Green Growth & Climate Resilience Strategy</i>).</p>	<p>through nine years of operations, and have achieved a high degree of cost-efficiency: in 2015, 70% of field costs were covered by farmer loan repayments, requiring outside subsidization of only 30% for our core operations.</p> <p>In our entire proposal to GCF, including all related costs and revenues in RW and other One Acre Fund countries of operation, we estimate an average cost of \$8.09 per ton of carbon emissions mitigated.</p>	<p>are extremely sensitive to even minor changes in rainfall or temperature.</p> <ul style="list-style-type: none"> • Research suggests that each day of climate-related 'moisture stress' during critical parts of the growing season results in a 7% loss in harvested yield, and that every 1°C increase in average temperature above 25°C results in a 10% decrease in yields. By 2050, average temperatures across Sub-Saharan Africa are predicted to increase by 1.5 to 3°C. <p>The vast majority of smallholders in Africa are left fully exposed to this risk, both in the short and long term. Our crop insurance provides a critical hedge against massive risk for all RW clients.</p> 	
<i>Sustainable agricultural Intensification</i>	<ul style="list-style-type: none"> • Overall program name: <i>Building Africa's largest climate-smart smallholder farmer network (One Acre Fund)</i> • Relevant initiative: Scaling up a proven suite of climate-smart approaches to improving farm yields and profits, including: 	<ul style="list-style-type: none"> • Sustainable intensification enables farmers to increase their farm yields and income in a way that does not harm their 	<ul style="list-style-type: none"> • Propagation through partnerships: One Acre Fund will explore targeted opportunities to build on our existing successful 	<ul style="list-style-type: none"> • Sustainable ag intensification is by the far the largest driver of our economic impact on farmers. As discussed at left, 	<ul style="list-style-type: none"> • See above 	<ul style="list-style-type: none"> • See above 	<ul style="list-style-type: none"> • The target beneficiaries of this proposal – smallholder farmers – represent a large and extremely vulnerable 	

		<ul style="list-style-type: none"> o <u>Improved soil health</u>: Enabling farmers to increase the long-term productivity of their soil through practices such as composting and products such as lime and biochar o <u>Crop diversification & intercropping</u>: Training and supplying farm families with a robust mix of crop varieties, such as legumes, tubers, and diverse cereals, to improve resilience o <u>Optimized seed choice</u>: Equipping farm families with optimal seed varieties based on local climates, while continuing to test and roll out new varieties as a response to changing climates o <u>Modern agricultural training</u>: Delivering field-based trainings to each farmer on sustainable intensification techniques (such as fertilizer micro-dosing) throughout the season 	<p>environment, while building the long-term productivity of their land.</p> <ul style="list-style-type: none"> • Improving yields can be achieved in one of two ways: increasing the productivity of existing farmland or clearing more wilderness to farm. Enabling the former for our Rwanda clients will cumulatively prevent the equivalent of 180,000 hectares of land, and accordingly prevent 800,000 tons of carbon emissions, by 2022. • By offering this full suite of climate-smart interventions, One Acre Fund increases our average RW client's yearly farm income by around \$43 – a gain of roughly 50% – for a projected total of \$18m in new farm income <u>each year</u> by 2022. 	<p>collaborations with Rwanda's Ministry of Agriculture and Animal Resources in pursuit of propagating these key interventions beyond our core program – for example, by incorporating further climate-smart trainings into our Farmer Promoter training curriculum, which could in turn reach farmers in every village nationwide.</p> <ul style="list-style-type: none"> • Knowledge creation & dissemination: We are continuously field-testing new products and services, as well as conducting rigorous M&E on the impact of current interventions, creating a unique knowledge base of smallholder learnings and best practices that we disseminate widely through staff dedicated to agricultural research and policy. 	<p>on average, our core program enables clients to increase their income by 50% or higher.</p> <ul style="list-style-type: none"> • The wide-reaching benefits of this income boost is evident in the spending trends of our clients: after filling their hunger deficit, farm families invest their new income productively, on average spending 33% on childhood education, 31% on new business activities, 12% of new income on more nutritious food, 6% on health care, and 18% on general wellbeing (including household improvements, clothing, etc.). This represents a massive improvement in quality of life for rural smallholders, and an achievable path forward out of poverty. 			<p>population affected by climate change. Living in rural areas, their level of access to infrastructure and markets is very low; they require climate-focused products and services that no other actors are supplying at scale.</p> <ul style="list-style-type: none"> • Their dual barriers of physical isolation and market access have caused a market gap of distribution – proven climate interventions exist, and are in demand, but remain out of reach to rural farmers. • One Acre Fund fills this gap by ensuring that every element of our climate-smart model is fully accessible through delivery, financing, and comprehensive trainings. 	
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	Sustainable land use planning and management	<ul style="list-style-type: none"> Climate resilient rural settlement programme to facilitate land consolidation 							
	Climate proof infrastructure	<ul style="list-style-type: none"> Promoting resilient infrastructure (roads, energy, water supply) 							
CROSS-CUTTING ACTIVITIES	Sustainable tourism development (payment for ecosystem services, wildlife protection)	<ul style="list-style-type: none"> Strengthening law enforcement 							
	Housing/green cities	<ul style="list-style-type: none"> Green neighbourhood. (An integrated green neighbourhood) 	<p>1. reduced emissions through increased low emissions, energy access and power generation & energy saving</p> <p>M2 M7 M8 M9 A2 A3 A4 A5 A6 A7 A8</p>	<p>¶Pilot project</p> <p>¶Negotiation with the government to avail land to horizon</p> <p>¶Expanding development in near future</p>	<p>¶social benefits</p> <p>¶economic benefits</p> <p>¶security benefits</p>	Green growth climate strategy (EDPRS2)	<p>1. Job creation</p> <p>Cost reduction</p>	<p>1. Environmental impact</p> <p>2. accessibility houses to nationals</p> <p>shortage of house</p>	1
		Supporting the Integration of Village greening Program	<p>To support the integration of environment and climate change issues in greenings</p> <p>Lively hood support will be market oriented and targeted towards viable,</p>	<p>Beyond the set objectives, the project will help in improving the lifestyle of the community economically.</p> <p>Rainwater harvesting systems will be installed,</p>	<p>Rwanda Housing Authority will ensure that the project activities will be handed over to Districts themselves since they are the main stakeholders of the project. Rwanda</p>	<p>This is in line with the Rwandan vision 2020,</p> <p>The National policy 2015, EDPRS2 and GGCRS.</p> <p>The project aligns with the Government of</p>	<p>The project has four outputs and their output indicators, which will be monitored. The logical framework has already elaborated and should be a guiding tool to deliver outputs. It is</p>	<p>Most Districts in Northern, western, southern and Eastern provinces had a population living in scattered and high risk zones that was resettled in Planned Village Settlement sites as a way of protecting</p>	

		<p><i>climate resilient income generating activities.</i></p> <p><i>Reliance on wood will be reduced, green jobs will be created and agriculture activities will increase. The project is expected to transfer green technologies to around 300 households and provide lively hood support to some of poorest households in two districts.</i></p> <p><i>The soil erosion control measures will have positive impact on household in targeted green village areas.</i></p>	<p><i>therefore the volume of rainwater storage will be increased, and the surface runoff and risks to floods will also reduce.</i></p> <p><i>Number of green jobs created: It is no doubt that the project will create new green jobs (either temporarily or permanent) during its implementation. This will also contribute to improve livelihood and reduce poverty. The project is not only limited to job creation but also to capacity building and technology/ knowledge transfer among others</i></p>	<p><i>Housing Authority will also put in place Community Management Committees before the project ends for regular followups.</i></p> <p><i>Also, through sensitisation the beneficiaries will acquire skills and knowledge that will help them to keep activities going on since beneficiaries will have ownership.</i></p> <p><i>Technical team from Rwanda Housing Authority will put mechanisms to assist and support beneficiaries' on the completed activities.</i></p> <p><i>The project is expected to be accepted by beneficiaries due to a number of positive environmental benefits such as runoff control, improved access to</i></p>	<p><i>Rwanda's policy objectives and the environmental implications of the country's Visions and programmes heading the country's progress towards achieving the targets and implementing plans of actions of the environmental protection, rural development, and sanitary issues, soil erosion issues that support and promote human wellbeing of all Rwandans.</i></p>	<p><i>for this reasons Rwanda Housing Authority Staff will manage the project and in addition a few to be hired to follow up day to day project activities. M&E plan should be implemented and to provide quarterly reports of progress activities</i></p>	<p><i>the population from climate hazards. The sites are currently habitable with a very big number of households but still, exposed to climatic hazards such as soil erosion, too much use of biomass, lack of green jobs for vulnerable women and youth to support their livelihoods, lack of rain water harvesting tanks, lack of planted trees for greening the village, limited community empowerment to climate resilience adaption. The project will make interventions 10 Villages in 10 most vulnerable districts.</i></p>	
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					<p><i>water for domestic uses and economic activities</i></p> <p><i>The project is based on demand driven, participatory and cost sharing approaches which ensure the ownership of the project by beneficiaries and therefore the sustainability.</i></p> <p><i>The institutional arrangement is also set in a way to optimize the involvement of decentralized entities, which is also a factor of ownership and capacity building for the sustainability.</i></p> <p><i>Target communities have shown ownership from the beginning of project design by providing their inputs on problem analysis, they face and proposed solution to overcome those</i></p>				
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					<p><i>problems. The involvement of direct beneficiaries and their commitment in maintenance of biogas digesters and planted trees will also ensure sustainability. To work under cooperative rather than working individually will be another aspect of ensuring the sustainability. To put in place maintenance workshop (in the budget?) to repair damaged asset is also perfect to ensure sustainability.</i></p>				
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Annex 3. Proposed management tool for GCF Projects/Programmes pipeline



GCF_Projects_Pipeline_Dec2016.xlsx

Annex 4. GCF results framework²⁰

MITIGATION expected results	
<i>Paradigm.shift Objective</i>	Shift to lowPemission sustainable development pathways
<i>Fund.level Impacts</i>	1.0 Reduced emissions through increased lowPemission energy access and power generation 2.0 Reduced emissions through increased access to lowPemission transport 3.0 Reduced emissions from buildings, cities, industries and appliances 4.0 Reduced emissions from land use, deforestation, forest degradation, and through sustainable forest management and conservation and enhancement of forest carbon stocks
<i>Project/Programme Outcomes</i>	5.0 Strengthened institutional and regulatory systems for lowPemission planning and development 6.0 Increased number of small, medium and large lowPemission power suppliers 7.0 Lower energy intensity of buildings, cities, industries, and appliances 8.0 Increased use of lowPcarbon transport 9.0 Improved management of land or forest areas contributing to emissions reductions
ADAPTATION expected results	
<i>Paradigm.shift Objective</i>	Increased climatePresilient sustainable development
<i>Fund.level Impacts</i>	1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions 2.0 Increased resilience of health and wellPbeing, and food and water security

²⁰ Initial Results Management Framework of the Fund (Progress Report), GCF/B.06/04, 9 February 2014; Further Development of the Initial Results Management Framework, GCF/B.08/07, 06 October 2014

	<p>3.0 Increased resilience of infrastructure and the built environment to climate change</p> <p>4.0 Improved resilience of ecosystems and ecosystem services</p>
<i>Project/Programme Outcomes</i>	<p>5.0 Strengthened institutional and regulatory systems for climate responsive planning and development</p> <p>6.0 Increased generation and use of climate information in decision making</p> <p>7.0 Strengthened adaptive capacity and reduced exposure to climate risks</p> <p>8.0 Strengthened awareness of climate threats and risk reduction processes</p>