



REQUEST FOR CEO ENDORSEMENT
PROJECT TYPE: Full-sized Project
TYPE OF TRUST FUND: LDCF

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1 PART 1: PROJECT INFORMATION

Project Title: Increasing the adaptive capacity of vulnerable Rwandan communities to adapt to the adverse effects of climate change: Livelihood diversification and investment in rural infrastructures			
Country:	Rwanda	GEF Project ID:	5495
GEF Agency:	AfDB	GEF Agency Project ID:	
Other Executing Partner:	FONERWA, MININFRA	Submission Date:	November 30, 2015
GEF Focal Area:	Climate change	Project Duration (Months)	48
Name of Parent Program	N/A	Agency Fee (\$):	838,351

A. FOCAL AREA STRATEGY FRAMEWORK

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Co-Financing (\$)
CCA-1	Outcome 1.1 Vulnerability of physical assets and natural systems reduced.	Six markets (2 per District) upgraded with allocation by gender and age Four post-harvest infrastructures built and operational	LDCF	4,150,000	24,685,000
	Outcome 1.2 Livelihoods and sources of income of vulnerable populations diversified	110,000 households to participate in market-oriented enterprises	LDCF	3,100,000	17,000,000
CCA-2	Outcome 2.1 Increased awareness of climate change impacts, vulnerability and adaptation.	Six main knowledge products acceptable for international publishing standards and information evidently being used in training Four training for engineers trained and utilising guidelines on climate risks	LDCF	1,254,749	2,937,000
	Outcome 2.3 Institutional and technical capacities and human skills strengthened to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures	Four trainings for district administrations and communities to coordinate and support climate-resilient development planning at the local level	LDCF	320,000	764,000
Total project costs				8,824,749	45,386,000

B. PROJECT FRAMEWORK

Project Objective: Increasing the adaptive capacity of vulnerable Rwandan communities to adverse effect of climate change through livelihood diversification and investment in rural infrastructure						
Project Component	Grant	Expected Outcomes	Expected Outputs	Trust Fund	Grant Amount (\$)	Co-Fin (\$)
Component 1: Enhanced and diversified climate resilient rural livelihoods	Inv	<p>Outcome 1.1: Diversified, strengthened and climate resilient rural livelihood opportunities for vulnerable women and men.</p> <p>Indicators: <i>At least 50% of HH connected to electricity have increased income by 50% over the project period</i></p> <p><i>At least 50% of HH has increased knowledge and understanding of livelihood opportunities (KAP Survey)</i></p> <p><i>At least nine value chains studied and market links established</i></p> <p><i>At least 30% of women and youth are involved in off-farm enterprises and increased income of at least 50%</i></p>	<p>1.1.1. 110,000 HH with enhanced, understanding and awareness of livelihood opportunities resulting from electrification.</p> <p>1.1.2: At least 110,000 HH with increased capacity to participate in market-oriented enterprises</p> <p>1.1.3: Nine value chain development creating and linking demand to supply</p> <p>1.1.4: 30% of women and 20% of youth involved in off-farm enterprises and increased income of at least 50%</p>	LDCF	3,000,000	16,000,000
Component 2 Strengthening awareness and ownership of adaptation and climate risk reduction processes	TA	<p>2.1 Community driven adaptation and reduced vulnerability to climate change</p> <p>Indicator: <i>50% of communities have on knowledge and understanding of the social dimensions of vulnerability and resilience to climate change conducted</i></p> <p><i>50% of communities are awareness campaigns on climate change impacts and promotion of gender-responsive climate adaptation conducted</i></p> <p><i>At least three districts include climate-resilient in development planning</i></p> <p><i>At least six community based planning, implementation and monitoring adaptation programmes implemented</i></p>	<p>2.1.1: Eight learning by doing on knowledge and understanding of the social dimensions of vulnerability and resilience to climate change conducted</p> <p>2.1.2: Eight (2 per year) awareness campaigns on climate change impacts and promotion of gender-responsive climate adaptation conducted</p> <p>2.1.3: Four learning and documenting for district administrations and communities on coordination and support on climate-resilient development planning at the local level conducted.</p> <p>2.1.4: Six community based planning, implementation and monitoring adaptation programmes implemented.</p>	LDCF	1,154,749	2,151,000

Component 3 Climate resilient small-scale rural infrastructure	Inv	<p>Outcome 3.1: Increased resilience of small scale rural infrastructure to climate change</p> <p>Indicators: <i>No of rural markets upgraded with at least 30% of space allocated to women and 20% to youth</i></p> <p><i>No of small-scale rural infrastructure built and/or rehabilitated to a specification that takes into account anticipated climate risks.</i></p> <p><i>% of engineers utilizing climate risks guidelines for rural infrastructure</i></p>	<p>3.1.1: 1 market built to a specification that takes into account anticipated climate risks</p> <p>3.1.2: Six markets upgraded and 30% of space allocated to women and 20% to youth</p> <p>3.1.3: Four trainings for District engineers and local contractors on climate risks on the design and construction of small-scale rural infrastructure conducted and modules developed for polytechnic</p>	LDCF	4,000,000	21,685,000	
Component 4: Monitoring and Evaluation	TA	<p>Outcome 4.1: M&E management and lessons learnt are captured and appropriately disseminated</p> <p>Indicators: <i>A clear monitoring results framework developed and implemented</i></p> <p><i>At least six knowledge adaptation products developed documented and disseminated</i></p> <p><i>Timely, 10 sixmonthly reports and MTE, TE carried out and reported.</i></p> <p><i>At least two adaptation practitioners' events attended and evidence of incorporating lessons into the project</i></p>	<p>4.1.1: Six knowledge adaptation products (CCA lessons learnt, methodology used, training modules, etc) developed documented and disseminated.</p> <p>4.1.2: Two adaptation practitioners' events attended and evidence of incorporating lessons into the project</p> <p>4.1.3: Timely, 10 six-monthly reports and MTE, TE carried out and reported 4.1.3: Timely, 10 six-monthly reports and MTE, TE carried out and reported</p>	LDCF	250,000	264,000	
Sub-Total						8,404,749	40,100,000
Project management Cost						420,000	5,286,000
Total project costs						8,824,749	45,386,000

C. SOURCES OF CONFIRMED CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
National Government	FONERWA	Cash	3,932,000
GEF Agency	AfDB	Loan	23,471,000
GEF Agency	AfDB	Grant	17,983,000
Total Co-financing			45,386,000

D. GEF RESOURCES REQUESTED BY AGENCY, FOCAL AREAS AND COUNTRY

GEF Agency	Type of Trust Funds	Focal Area	Country Name/ Global	(in \$)		
				Project amount (a)	Agency Fee (b)	Total c=a+b
AfDB	LDCF	Climate Change	Rwanda	8,824,789	838,351	9,663,100
Total Grant Resources				8,824,789	838,351	9,663,100

E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Grant Amount (\$)	Co-financing (\$)	Project Total (\$)
National/Local Consultants	875,000	950,000	1,770,000
Total	875,000	950,000	1,770,000

F. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? NO.

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF

The main project design for the project has not changed, but several integral parts of the way the project is designed and expected to be implemented have been modified:

Implementation Strategy

The implementation strategy has shifted from using Technical Assistance (TA) to using Government of Rwanda staff from various relevant ministries departments and agencies (MDA). This was necessitated by realisation during the project development stage that the Government of Rwanda has put in place a number of strategies to ensure that the technical capacity has been significantly improved since the PIF stage. For example, FONERWA has financed a number of climate change projects from Window 1 (Conservation & Sustainable Natural Resources Management) and Window 3 – (Environment & Climate Change Mainstreaming) some examples are summarized in Table 1 This project intends to use MDAs through Letters of Agreements (LOA) to conduct a number of capacity building activities. This strategy will not only enhance the MDA’s staff capacity but also provided the much needed sustainability after the life of the project.

Table 1: A sample of FONERWA funded projects within the participating Districts

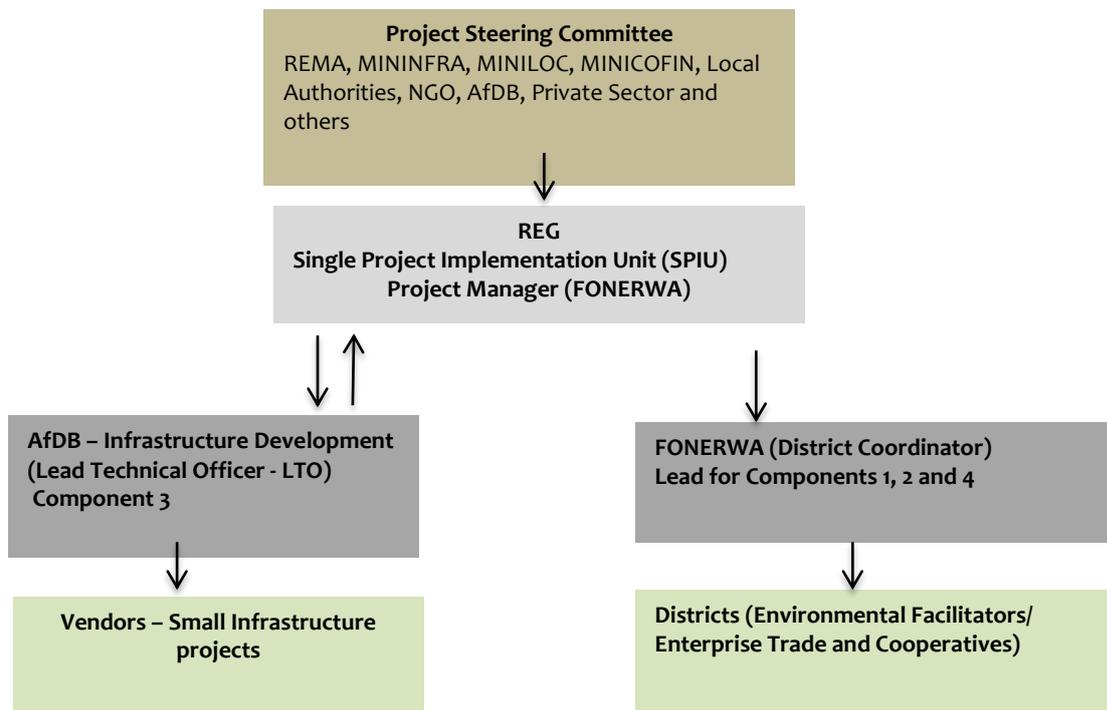
Project	Local Implementing Organization	Are of Implementation
Integrated Project for Ecosystem Rehabilitation and Green Village Promotion (PERGP),	Nyamasheke District	Nyamasheke District
Vulnerable ecosystem recovery programme towards climate change resilience	REMA	National Project, including Rusizi District
Karongi Ditsrict integrated greening village program	Karongi District	Karongi District

Source: FONERWA Website.

Implementation Arrangements

Implementation arrangements have also been modified. The Government of Rwanda endorsed the use of Single Project Implementation Unit (SPIU) in 2012. The AfDB will be the GEF Agency responsible for the supervision and provision of technical guidance during the implementation of the project. The SPIU model will be followed to implement this project, utilizing the existing SPIU in Rwanda Energy Group (REG) created for the SEAP project. (Figure 1). Under the SPIU model, there is an advantage of using existing staff for project implementation. However, FONERWA will hire a District Coordinator to coordinate implementation of activities at district level.

Figure 1: Organogram for project implementation.



The overall client for the project is the Government of Rwanda under the Ministry of Environment and Natural Resources (MINIRENA) with the National Fund for Environment and Climate Change (FONERWA) as the lead executing agency. FONERWA will be the center of the project's work and operations. The project will be implemented through strategic partnerships with the Ministry of Infrastructure (MININFRA), Ministry of Finance and Economic Planning (MINICOFIN), and other national, district and local institutions over a period of four years. An inception period will be used to refine the project institutional arrangements after conducting a rapid baseline assessment so as to bring on board other relevant stakeholders for implementation.

Execution of community level capacity building

The design of capacity building at community level has also evolved. Given the unique nature of climate change adaptation activities, the project will utilise a learning by doing approach. Tools like Participatory Learning Planning and Action (PLPA) will be used to facilitate both learning and provide flexible planning for new activities.

The project will also place a strong emphasis on documentation especially on lessons at community level. The project will utilise the writeshop approach to ensure that communities have opportunities to share their lessons in a participatory, stratified and elaborate manner.

Project implementation period

The last change in the design of the project is the project implementation period. The project will be implemented in 4 fiscal years (48 months). The use of REG SPIU, the finalisation of the baseline project in 2017 and need for lessons to inform phase two of the baseline project necessitated the rapid implementation of the project in four year, instead of the five-year period as originally agreed. The SPIU already has systems, structures and information on the ground, which will allow for faster implementation. The project focuses more on infrastructure and will have a quicker absorption rate.

A.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc. – No change

N/A

A.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities.

This section has not been modified from PIF, however more information has been provided and presented in section 1.6 of the Project Document and summarized below.

The project is in line with the GEF CCA objective 1 (Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change). The project is expected to contribute towards outcome 1.1 (Vulnerability of physical assets and natural systems reduced) and 1.2 (Livelihoods and sources of income of vulnerable populations diversified) of this objective

The project will also contribute to objective CCA-2 (increasing adaptive capacity to climate change) where Outcome 2.3 of strengthened awareness and ownership of adaptation and climate risk reduction processes at local level is expected to contribute.

The proposed interventions are fully consistent with the LDCF Programming Strategy, the main objective of which is to address the most urgent and immediate adaptation needs of LDCs. The project, which directly responds to the top priorities identified in the Rwandan NAPA, seeks to reduce climate related impacts affecting livelihood vulnerability in flood-prone communities through enhancing and diversifying rural livelihood opportunities and investing in rural improved rural infrastructure. Since rainfall variability, floods and landslides present the most significant climatic hazards in Rwanda, the project will address the most pressing development needs of food and livelihood security of vulnerable communities. In addition, the project activities are in line with LDCF project eligibility criteria, such as participatory approaches, supporting a “learning-by-doing” approach, multi-disciplinary, and gender equality. The project will serve as a catalyst to leverage additional resources, and efforts have been made to maximize co-financing from other sources (GEF/C.24/12, paragraph 25). The contribution of the project to both GEF and LDCF are indicated in **Table 1** below.

Table 1: Project contribution to GEF Indicators and outcomes

GEF Focal Area Objectives	GEF Indicators/Outcomes	Project Contribution
	Outcome 1.1 Vulnerability of physical	1 market initially developed and 6

CCA-1 Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change	assets and natural systems reduced	upgraded and strengthened as part of climate proofing against floods and strong winds
	Outcome 1.2 Livelihoods and sources of income of vulnerable populations diversified	At least 110,000 HH benefit from livelihood options for at least 30% women and 20% youth.
CCA-2. Strengthen institutional and technical capacities for effective climate change Adaptation	Outcome 2.1: Increased awareness of climate change impacts, vulnerability and adaptation	At least 50% of targeted households are aware of climate change impacts, vulnerability and adaptation options
	Outcome 2.4 Institutional and technical capacities and human skills strengthened to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures	50% of targeted HH trained to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures

A.3 The GEF Agency's comparative advantage:

N/A – No change

A.4. The baseline project and the problem that it seeks to address:

The implementation process of the project in proposed districts will ensure that the LDCF investments build on all other related investments in the project area (and national level), ensuring that it does not duplicate efforts or waste resources. It will be coordinated with the national level initiatives undertaken by other development partners, including the 2 GEF financed projects through other agencies.

At the national level, there are two on-going UNEP/GEF projects with an explicit focus on climate change adaptation. These are; (1) Reducing Vulnerability to Climate Change by Establishing Early Warning and Disaster Preparedness Systems / Support for Integrated Watershed Management in Flood Prone Areas being executed by the REMA and aims to reduce the vulnerability of communities in the Gishwati forest and the associated Congo-Nile watershed area to climate change impacts and the (2) Landscape Approach to Forest Restoration and Conservation (LAFREC) which aims to introduce and implement landscape restoration management plans and develop risk and vulnerability assessments for 4 districts around the Gishwati forest area. The project includes support infrastructure measures and the restoration of marshlands and river basins along with improved Water management practices. There is also provision for the support of alternative energy sources and the adoption of sustainable and alternative agricultural practices and livelihoods including Climate resilient agricultural and livestock practices in the target areas.

In addition to these on-going projects, there are two pipeline projects under review by UNEP/GEF and the Adaptation Fund. These are (a) Building resilience of communities living in degraded forests, savannahs and wetlands of Rwanda through an ecosystem management approach and (b) Reducing Vulnerability to Climate Change in North West Rwanda through community based adaptation which t aims to increase the adaptive capacity of natural systems and rural communities living in exposed areas of North Western Rwanda to climate change impacts. Finally, in addition to the key baseline project, there are several ongoing government programs that are pertinent to the LDCF project. These include: the VUP and resettlement programme and the Rural Sector Support Programme and the Land Water Husbandry Project

both implemented through MINAGRI. Where possible, the LDCF project will build upon the existing activities of these programmes and introduce climate resilience aspects in these efforts.

Rwanda has a high risk of climatic and hydrological hazards (droughts, storms, floods and associated landslides). Analysis of rainfall trends indicate that rainy seasons are tending to become shorter and with higher intensity. This tendency has led to decreases in agricultural production and events such as droughts in traditional dry areas and floods or landslides in areas experiencing heavy rains. Heavy rains have been observed in the northern and western provinces. Heavy rains cause floods, washouts, and inundation of low-lying areas. For example, in the eastern region of the country rain deficits are common. Observations between 1961 and 2005 showed that the period between 1991 and 2000 has been the driest since 1961. These observations showed a marked deficit in 1992, 1993, 1996, 1999 and 2000 with rainfall excesses in 1998 and 2001 (MINITERE 2006)¹.

Current and future climate-related risks to Rwanda and key areas of vulnerability have been analyzed in the country's National Communication to the United Nations Framework Convention on Climate Change (UNFCCC), the National Adaptation Programme of Action (NAPA) and The National Strategy on Climate Change and Low Carbon Development for Rwanda. The impacts of climate change on various sectors are briefly discussed below.

Vulnerability of the Agricultural Sector: Rwanda's national communication notes a shift in growing seasons (September-November) and (March-May). The short dry season (mid-December - mid-February) seems to disappear as indicated by the continuity of rain until the first ten days of May. This causes the delay of the March-May season. The shift confuses farmers on planting dates. As a result, they cultivate late with the risk of an early onset of the dry season, before the harvest. Consequently, lower yields, intensification of crop diseases, and reduction of irrigation water has been observed.

This situation is exacerbated by heavy reliance of many livelihoods on rain-fed agriculture. Over 80% of people living in Northern and Western parts of Rwanda are largely dependent on agriculture. Erosion of fertile soils from the hills results in reduced agricultural productivity while floods lead to crop losses. In Bugarama, Rusizi district, too much water due to floods destroys rice fields.

Water resources vulnerability: Intense rains lead to upstream erosion and consequent flooding of lowland areas. Bare hill-sides have low absorption and retention capacity, depriving soils of water necessary for post-rains period. This has consequent impacts of reducing crop productivity. Floods increase sedimentation of water courses and silt up the lakes. Major flood events in the recent past have occurred in 1997, 2006, 2007, 2008, 2009 and 2012. As recent as April 2015², heavy rains caused flooding and landslides in Nyamasheke and Rubavu districts of Rwanda's Western Province. The Red Cross Society estimated that 3,425 (685 households) had been displaced and were being accommodated by nearby communities after their homes were damaged. Some 206 hectares of crops were also inundated and water supply and sanitation infrastructures floods thereby increasing the risk of water and airborne diseases.

¹ MINITERE (2006). National Adaptation Programmes of Action (NAPA) To Climate Change. Ministry Of Lands, Environment, Forestry, Water and Mines (MINITERE), Kigali.

² <http://reliefweb.int/disaster/fl-2015-000042-rwa>

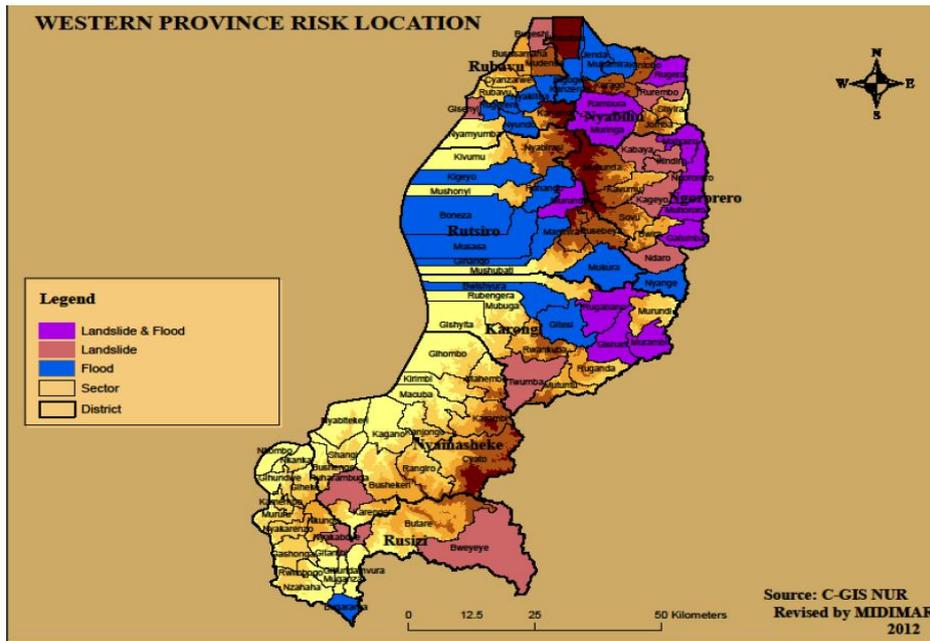


Figure 2: Western Province Risk Location

Socio-economic vulnerability: Rwanda’s population density estimated at 416 persons per square kilometer as of 2012 (RoR 2012) and projected at 445 persons per square kilometre^{2 (3)} in 2015 according to National Institute of Statistics of Rwanda make it particularly vulnerable to the adverse effects of climate change and climate variability. Landslides cause destruction of structures including homes, buildings, roads and bridges while floods cause displacements of populations.

High rates of poverty amongst a population that heavily relies on agricultural primary production means that people have few livelihood alternatives when they incur agricultural losses. Similarly, this population has fewer reserve assets that they can turn to when agricultural production becomes unreliable. According to the National Institute of Statistics of Rwanda, as of 2010/2011 assessment on evolution of poverty, the Western Province ranked 2nd poorest, with poverty rates of 48.4% against a national average of 44.9% (NISR 2013). This makes the Province far more susceptible to livelihood disruptions such as those related to floods and landslides.

It is a national priority to transform Rwanda’s mainly agrarian economy into a middle-income country (per capita income of about US\$ 1240 by 2020, from US\$ 658 in 2012). The majority of approximately 9.1 million people living in Rwanda’s rural areas practice agriculture as a source of livelihood. Increasing population coupled with increasing demand for cultivable land poses a threat to livelihoods as land size holdings get smaller and productivity decreases. With an additional threat of climate change impacts, rural livelihoods will have to diversify, either vertically or horizontally. Vertical diversification involves investment in value chain development on one production line in order to increase the marginal returns on production. Horizontal diversification on the other hand, entails intensification or addition of new alternatives to livelihood support. Both aim to reduce risk of business as usual livelihood support options.

³ <http://www.statistics.gov.rw/>

The African Development Bank is implementing the *Scaling Up Energy Access Project* with the objectives of improving access to electricity. The on-going rollout of electricity is a key opportunity for livelihood diversification. In many instances, energy, especially electricity is a key input in facilitating vertical diversification of agricultural and non-agricultural value chains. The proposed Global Environment Facility – Least Developed Countries Fund (GEF-LCDF) is one case that seeks to take the opportunity of electrification to support livelihood diversification as an adaptation to climate change. The proposed LDCF project will reduce the vulnerability of current economic development and livelihoods in the three districts, through three interrelated approaches:

1. diversifying and strengthening climate resilient rural livelihood opportunities for vulnerable women and men; The project will enhance market oriented livelihoods which are more resilient to climate change.
2. strengthening awareness and ownership of adaptation and climate risk reduction processes. The rural population in Rwanda is undertaking some adaptation measure as the effects of climate change increases. The component will work with communities to strengthen the existing models of adaptation and create awareness for wider adaptation.
3. increasing resilience of small scale rural infrastructure to climate change. The Government of Rwanda has taken advantage of the *Scaling Up Energy Access* to build market infrastructure in the target districts. However these districts are threatened by climate related soil degradation, drought, floods and landslides which trigger numerous consequent impacts including, damage to buildings and infrastructure such as water supply systems, drainages, roads and bridges. Irrigation infrastructure (canals) are threatened by erosion from sediment delivery and floods. The LDCF component will build capacity of engineers on proper designs of bridges, drainage, roads, etc., to facilitate climate proof of the current and future infrastructure. It will also be used to rehabilitate drainages, equip market buildings with water harvesting techniques, ensure green lighting equipment such as Low Emitting Diode (LEDs) lights are being used.

Other investments that may reduce the vulnerability of the beneficiaries.

The Government of Rwanda has put in place a number of strategies, which are aimed at increasing resilience and reducing vulnerability to climate change especially for most affected communities in rural areas. These include;

Green Growth and Climate Resilience, National Strategy for Climate Change and Low Carbon Development: This Strategy aims to guide the process of mainstreaming climate resilience and low carbon development into key sectors of the economy. The strategy has a list of planned actions that will make a significant impact on adaptation; mitigation and economic development have been identified. These include; Irrigation infrastructure; Robust road network; Centre for Climate Knowledge for Development; and Agro-forestry.

National Adaptation Programs of Action (NAPA) to Climate Change: NAPA was developed for a number of reasons, including the evaluation of present vulnerabilities to climate change, considering the socio-economic aspects and land use that exacerbate these vulnerabilities; identification of the most vulnerable groups of population, regions and sectors; and determination of priority adaptation options, among others. The NAPA articulates Rwanda's strategy to reduce vulnerability to climate change and provides a technical basis for decision makers to prioritize action areas. The plan identifies six priority areas for immediate adaptation action. Of these six the following are related to the project; promotion of non-

agricultural income generating activities and development of energy sources alternative to firewood.

FONERWA: FONERWA contributes to sustainable wealth creation and poverty reduction in Rwanda, through sustainable management of natural resources, climate resilient and green economic growth through sustainable financing mechanism and support to districts on implementation of climate change projects.

In order to achieve its objective of contributing towards sustainable wealth creation and poverty reduction in Rwanda, through sustainable management of natural resources, climate resilient and green economic growth, FONERWA's has financed a number of climate change projects from Window 1 (Conservation & Sustainable Natural Resources Management) and Window 3 – (Environment & Climate Change Mainstreaming) some examples are summarized in Table 2

Table 2: A sample of FONERWA funded projects within the participating Districts

Project	Local Implementing Organization	Area of Implementation
Ecosystem rehabilitation and green village promotion	Nyamasheke District	Nyamasheke District
Vulnerable ecosystem recovery programme towards climate change resilience	REMA	National Project
Karongi District integrated greening village program	Karongi District	Karongi District

Source: FONERWA Website.

Despite all these efforts, the threats and barriers to climate change adaption still exist and have been expanded to reflect the current situation on the ground. These are as described below;

Barriers to the achievement of Rwanda's long-term vision

Despite the impressive investments in environment, energy and climate change as described in the baseline section above, there are three critical barriers that make it difficult for the partners to establish successful systems and achieve the vision of diversification of livelihood options from agriculture based economy. These are: Insufficient institutional and individual capacity to support climate change adaptation within the infrastructure development in rural areas; Inadequate on-the ground demonstration of ways to climate proof development investments; and Lack of knowledge and awareness on climate change adaption options.

Barrier I: Lack of diversified rural livelihoods

Over 80% of population living in Rwanda's rural areas practice agriculture as a source of livelihood. Increasing population coupled increasing demand for cultivable land poses a threat to livelihoods as land size holdings get smaller and productivity decreases. Lack of diversified livelihood is facing additional threat of climate change impacts. Rural livelihoods will have to diversify, either vertically or horizontally. Vertical diversification involves investment in value chain development on one production line in order to increase the marginal returns on production. Horizontal diversification on the other hand, entails intensification or addition of new alternatives to livelihood support. Both strategies are aimed at reducing the risk of business as usual livelihood support options. A good example is EDPRS-II plans to support irrigation to cushion Rwanda's growing population from food insecurity. The Strategy regards irrigation as a panacea to not only the demand to raise agricultural yields but also prolonging growing periods in areas with dry

seasons. Within the project area, all the three District Development plans have indicated diversification from agriculture-based economy.

Barrier 2: Lack of ownership of adaptation and climate risk reduction

The Government of Rwanda is aware that urgent action is needed to address the threats posed by climate change to the country's population. Rwanda's Vision 2020 states that development should be achieved through better adaptation to, and mitigation against, climate change, with a focus on resilience building for Rwandese citizens. Other climate change related policies (Rwanda Environmental and Climate change policy; National strategy on Climate change and low Carbon) all emphasise on the creation of environment for the development of a country-wide, coordinated and harmonized approach to climate change management, to guide actions that reduce community and ecosystem vulnerability through adaptation and mitigation.

However, there are no proven techniques, tools and methods (or examples) of how the communities can practically climate proof baseline programs, thereby protecting the development gains from further climate risk. This is primarily because the district councils have very limited finance, which compounds the capacity deficit. Like other Least Developed Countries (LDCs), Rwanda has high adaptation costs relative to GDP. Adaptation costs are especially high, because of the geography of the country and its dependence on small-scale rain-fed agriculture, with >80% smallholders in the country with an average landholding of less than 0.28 ha per household. This limits the interest of households to invest in land development, farm mechanization and climate smart agriculture.

Barrier 3: Vulnerable small-scale rural infrastructure

Rural infrastructure development is one of the pillars for Rwanda's vision 2020. There are a number of infrastructure programmes rolled out in rural areas. As indicated in the NAPA, one of the negative effects of climate change caused by high precipitation is destruction of infrastructures especially in low zones. This is a major barrier in ensuring access to services and markets for goods and services. The project will work with Districts to ensure climate proofing for all infrastructure by increasing capacity of District engineers and local contractors in climate risk designs and construction.

Barrier 4: Technological barriers

Lack of appropriate equipment, tools and techniques may constrain adaptation (i.e. diversification). Although some adaptations may be technologically possible, they may be constrained by economic and cultural barriers. Technological barriers may also lead to inaccurate information due to, for example, limitations in modeling the climate system or lack of accurate weather forecasts. Insufficient information and knowledge on the impacts of climate change may continue to hinder adaptation.

The modified results are presented below.

As indicated in the PIF, the project outcomes, outputs and activities have been further described to ensure that they respond to the barriers described above. The modified results are presented below.

Project Goal, Objective

The project aims to maximize the impact of an on-going AfDB funded project – *Rwanda Scaling-up Energy Access Project* (also called the Baseline Project - which provides infrastructure to generate and distribute electricity for households and public institutions by creating and expanding opportunities for local populations to pursue non-agricultural electricity dependent income generating activities. The goal of the project is to take advantage

of reliable energy provided by the baseline electricity project in order to (i) reduce dependence on traditional agricultural activities (ii) add value to agriculture value chains and (iii) build resilience into rural infrastructure

Project objective: The objective of project is to facilitate diversification of livelihoods away from traditional agricultural activities so as to most efficiently utilise the new infrastructure created by an electricity rollout programme, and consequently increase resilience to the negative impacts of climate change. Specifically, the project has two main objectives; (i) to facilitate diversification of livelihoods away from traditional agricultural activities so as to most efficiently utilise the new infrastructure created by an electricity rollout programme, and consequently; and (ii) to increase local communities' resilience and to adapt to the negative impacts of climate change.

Component 1: Enhanced and diversified climate resilient rural livelihoods

This component will support the transition of target households from unsustainable, low-income agriculture based into economically viable and market oriented livelihoods in rural areas that are connected to the electricity-grid by the AfDB baseline project. In doing so the component will be addressing the CCA-1 *Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change*. The action will endeavour to *diversify livelihoods and sources of income of vulnerable populations*. The project will support the development of decentralized village-based agriculture processing centers. Processing agricultural products reduces post-harvest losses due to insufficient storage or cold-chain facilities, particularly with high value and perishable fruits and vegetable crops. This will reduce the exploitation of marginal lands and unsustainable farming practices and generates much needed economic growth in rural areas and increase the resilience of local communities to the impacts of climate change. However, in order to achieve the diversification, the community must be made aware of the possibilities that exist. This component will enhance, the understanding and create awareness of livelihood opportunities resulting from electrification. This will be in line with CCA 2 on increased awareness of climate change impacts, vulnerability and adaptation.

The project will support both women and men farmers in the targeted areas to diversify and improve livelihood opportunities in non-farm sectors such as agro-processing, agricultural supply chains, eco-tourism and handicrafts. In order to get into market oriented enterprises, the project through MINICOM, will assist farmers in the selection and training on particular enterprises in addition to the ones selected during the project development phase.

Using the cooperatives as entry points the project will provide information and support value addition in agricultural value chains through processing and packaging to supply the market demand of a growing population with processed food items, much of which is currently imported from regional and international suppliers.

The approach will be to promote off-farm livelihoods and agricultural value chain development through vocational training, support for enterprise development, improved access to credit schemes, and employment generation. The improved access to credit schemes, will exploit synergies with Vision 2020 Umurenge Programme (VUP). The initial process will involve communities identifying alternative livelihood opportunities in a participatory process with project staff and other key stakeholders. In addition, the project will also target the 38% rural population that has been resettled under the Government’s Resettlement Programme for ease of rolling out essential public services (electricity, water, education etc.) for livelihood restoration means apart from agriculture. At least nine diversified, strengthened and climate resilient rural livelihood opportunities for vulnerable women and men developed

Umurenge SACCOs

(VUP provides access to savings and credit for enhanced livelihoods through the Umurenge Savings and Credit Cooperatives (Umurenge SACCOs) in each sector). Loans taken under VUP Financial Services are invested in enterprises that generate net income for borrowers. It also encourages the development of "appropriate" skills, handicraft, or social service activities with direct financial support for landless households with no members qualifying for public works or credit packages

Text box 1: Umurenge SACCOs.

Four outputs have been planned in order to achieve this component. These are as indicated in **Table 5** described below;

Table 3: Component 1 outputs and activities

Component 1: Enhanced and diversified climate resilient rural livelihoods (USD 3,000,000)		
Outcome	Output	Activity
Outcome 1.1: At least 9 diversified, strengthened and climate resilient rural livelihood opportunities for vulnerable women and men developed	Output 1.1.1 110,000 HH enhanced, understanding and awareness of livelihood opportunities resulting from electrification	Baseline survey including KAP
		Development of awareness materials
		Community Awareness Programmes developed
	Output 1.1.2: At least 110,000 HH with increased capacity to participate in market-oriented enterprises	MINICOM to determine baseline capacity (Capacity needs Assessment)
		Community learning by doing and documentation
		Facilitate study tour to working enterprises
	Output 1.1.3 Nine value chain development and creating linkage and demand to supply	Nyamasheke District - Fruit processing plant; Animal feeds production plant; Pork processing unit
Karongi District – Ecotourism; Banana value chain; Briquette making		
Rusizi District – Briquette making; Fruit value chain promotion		
Output 1.4.1: Increased economic opportunities for women and youth	Facilitate Youth Fund and Gender Monitoring Office (GMO) of MIGEPROF – Ministry of Gender & Family Promotion	

Output 1.1.1 110,000 HH with enhanced, understanding and awareness of livelihood opportunities resulting from electrification.

The project will facilitate a baseline survey, to map out existing climate change adaptation projects and understand the Knowledge Attitude Practice (KAP) during the inception phase. The findings will enhance synergy on existing projects, inform awareness materials developed and design of awareness programmes. The project will take opportunity of World International days (World Environment day; World Wetland day, etc.) to create awareness to a wide range of stakeholder.

Output 1.1.2: At least 110,000 HH with increased capacity to participate in market-oriented enterprises. Almost 80% of the population in the three districts depend on subsistence agriculture as the main livelihood. The project will facilitate MINICOM to undertake a baseline (Capacity needs Assessment on specific enterprises) and provide capacity on the identified gaps. Through MINICOM the project will facilitate training of cooperatives on viable enterprises. The project will also facilitate study tours both within and in neighbouring countries to enable beneficiaries to learn from viable and profitable enterprises.

Output 1.1.3 Nine value chain development and creating linkage and demand to supply During the programme development phase, each of the three districts presented preliminary off-farm enterprises (Table 3).

Table 4: Priorities provided by community groups as possible livelihood alternatives

District	Priority 1	Priority 2	Priority 3
Karongi	Eco- tourism	Banana value chain	Briquette making
Nyamasheke	Fruit processing plant	Animal feeds production plant	Pigs processing unit
Rusizi	Briquette making from waste products	Construction of a modern fruit market	Fruits value chain promotion

The project will work with stakeholders to identify viable and profitable livelihoods opportunities resulting from electrification. A rapid assessment will be conducted in each District to ensure that all ideas were captured during the stakeholder meeting. Other activities under this output will include; study tours to viable enterprises within the country, development and implementation of a sensitization programme and initiating of an awards scheme. The project will facilitate the development of the identified enterprises. Efforts will be made to work closely with the private sector. This will ensure available market options and future sustainability.

Output 1.1.4: 30% of women and 20% of youth involved in off-farm enterprises and increased income of at least 50%

To ensure that women and youth benefit from the project, the project will put affirmative action with clear quotas for women and youth during the formation of groups for each enterprise. The project will facilitate existing institutions like Youth Fund and Gender Monitoring Office (GMO) of MIGEPROF – Ministry of Gender & Family Promotion to ensure the affirmative action is realised during the life of the project and beyond. The project will also establish access to financial support for women and youth.

Component 2: Strengthening awareness and ownership of adaptation and climate risk reduction processes

This will contribute towards CCA 2 on *increased awareness of climate change impacts, vulnerability and adaptation*. The focus will be on building institutional capacity and awareness raising for communities. This is also in line with - *Institutional and technical capacities and human skills strengthened to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures*.

Given the low levels of economic and technological sophistication in the three districts and over reliance in agricultural as the main economic activity, the ideal situation would be to adopt alternative productive systems that would be implemented in a Community Based Adaptation (CBA) context, which is more effective in enabling climate vulnerable people to plan for and

adapt to the impacts of climate change. Enhancing capacities for planning, coordinating and implementing climate change activities at the local level are critical to guarantee effective climate adaptation. The Government of Rwanda (FONERWA) has existing institutions that implement climate change initiatives. During the project development stage, no training needs assessment was conducted, however, during the stakeholders’ forum, training needs for specific activities were listed. Based on the list, a number of activities have been prioritised.

This component will work with existing institutions and strengthen their capacity on climate adaptation and awareness raising and how to ensure that adaptation efforts are gender-responsive. To achieve this four main outputs have been earmarked. The main outcomes and activities for this component are summarized in **Table 4**.

Table 4: Component 2 outputs and activities

Component 2: Strengthening awareness and ownership of adaptation and climate risk reduction (USD 1,154,749)		
Outcome	Output	Activity
Outcome 2.1: At least 3 District planning committees and Communities with improved capacity on driven adaptation and reduced vulnerability to climate change	Output 2.1.1: Eight trainings on knowledge and understanding of the social dimensions of vulnerability and resilience to climate change conducted	Training needs Assessment
		Development of awareness materials
		Community training PLPA/CVCA vulnerability
	Output 2.1.2: Eight (2 per year) awareness campaigns on climate change impacts and promotion of gender-responsive climate adaptation conducted	Awareness campaigns
		Workshop – Adaptation activities
	Output 2.1.3: Four trainings for district administrations and communities on coordination and support on climate-resilient development planning at the local level conducted.	Facilitate MINIRENA/REMA and MINILOC to support greening of DDPs
	Output 2.1.4: Six community based planning, implementation and monitoring adaptation programmes implemented.	Training –Participatory M&E
Development of M&E tools		
Facilitate communities to carry out planning and monitoring		

Output 2.1.1: Eight trainings on knowledge and understanding of the social dimensions of vulnerability and resilience to climate change conducted

A training needs assessment will be carried out during the project inception report to ascertain the list of training needs provided during the project development stage. Using the cooperatives as the entry point, the project will use the PLPA (Participatory Learning Planning and Action) to capture the social dimensions of vulnerability and resilience to climate change in a participatory manner. The PLPA process will also establish the current knowledge attitude and practices as a baseline (KAP Survey). Using the results from the two processes, the project

will then design training programmes and develop both print, voice and electronic public awareness materials on social dimensions of vulnerability and resilience to climate change.

Output 2.1.2: Eight (2 per year) awareness campaigns on climate change impacts and promotion of gender-responsive climate adaptation conducted

The project will ensure that the adaptation efforts are gender and age responsive and consider the specific needs of men, women and youth as well as the gendered inequalities that may exacerbate the impacts of climate change for poor women in particular, or prevent women from benefitting from adaptation interventions.

The project will achieve this by identifying gender and age dimensions of vulnerability to climate change as well as analyzing and addressing gender and age inequalities, risks and opportunities in the context of the planned responses to climate change and promoting gender-aware responses to climate change.

The project will work with men and women and boys and girls to promote equal access to decision-making processes in adaptation planning by making the capacity building processes transparent and accessible. The project will also train women and youth organizations to take part in and lead these processes.

Output 2.1.3 Four trainings for district administrations and communities on coordination and support on climate-resilient development planning at the local level conducted.

The Government of Rwanda through FONARWA has provided funds for REMA and MINILOC for greening the District Development Plans. The project will build on this effort through targeted capacity building towards key staff in the local authority at District, Sector and Cell levels and promote a climate extension service. The capacity building model goes beyond the traditional class room style training but emphasis on practical engagement of District/communities in learning by doing (field based trouble shooting sessions) including robust participatory lessons learning and reporting exercises that allow the practioners to share experiences on climate actions. At the District level this will include: Agronomist Officers, Environment Officers and interns, Infrastructure Officers, Lands Officers, Forestry Officers, Extension Officers and RAB CIP Officers. Agronomist Officers in each sector and Integrated Development Programme (IDP) Officers at the cell level will also be included.

Output 2.1.4: Six community based planning, implementation and monitoring adaptation programmes implemented.

This output will use co-operatives as an entry point to strengthen the capacity of vulnerable communities to plan and implement adaptation interventions recognizing that these processes must be founded on men and women farmers' knowledge and experiences. Using training materials manuals and materials produced by the Adaptation Fund project, the project will progressively build capacity of communities to plan, implement and monitor adaptation programmes.

Component 3: Climate resilient small-scale rural infrastructure

The *Scaling Up Energy Access* project has spurred the construction and upgrading of market related infrastructure in the target districts. However these districts are threatened by climate related environment degradation such as soil erosion, floods, landslides and some cases drought, which trigger numerous consequent impacts such as damage to crops and livestock, buildings and infrastructure such as water supply systems, drainages, roads and bridges. Irrigation infrastructure (canals) are threatened by erosion from sediment delivery and floods.

This component will focus on investing in upgrading rural infrastructure, such as drainages and roads, building canals and investing in post-harvest storage facilities that are connected to the electricity-grid by the AfDB baseline project. Building and upgrading market centres that are connected to the electricity-grid by the AfDB baseline project is envisaged as being one of the key interventions of the project under this component. The LDCF component will build capacity of engineers on proper designs of bridges, drainage, roads, etc., to facilitate climate proof of the current and future infrastructure. It will also be used to rehabilitate drainages, equip market buildings with water harvesting techniques, and ensure green lighting equipment such as Low Emitting Diode (LEDs) lights are being used.

LDCF funding will go towards ensuring that the current role out of electricity, is coupled with designs and specifications that takes into account anticipated climate risks to building such as flooding due to blocked drainages and upgrades storage facilities for perishable commodities like fruits and vegetables. This will mitigate communities against selling their products at throw away prices and incurring losses, thus making them more vulnerable to climate change. Building of new climate smart storage facilities in selected areas within the three districts will enhance communities adaptive capacity as they will be able to store their produce for a longer duration, cushioning from both losses and poor prices.

By upgrading post harvest facilities and markets the project will be providing communities with alternative off farm income generating activities. This is in line with Government of Rwanda PRSP II and the Districts Development plans of diversification from on farm activities. This is because agriculture is not only vulnerable climate change but also has limitation in provision of households needs. In addition, existing storage and post-harvest facilities are inadequate for coping with extreme weather events which results in reduced food reserves and poor quality of harvested crops. This diversification will contribute towards CCA1 - *Livelihoods and sources of income of vulnerable populations diversified*.

The project, under this component will also climate proof the small infrastructures and ensure future infrastructure include climate change adaptation aspects by training district engineers, contractors and architectures on green designs whose aim is to climate proof infrastructure in the region. For example, the designs will ensure that drainages are built which do not blocked by sediments during flooding, bridges are elevated to levels that accommodate high water volumes caused by flash floods or high erratic rainfall. Buildings are fitted with water harvesting facilities and roofs are strengthened against windy rainfall. Such measures will climate proof constructions and ensure that infrastructure is not destroyed thus ensuring goods flowing into the market as normal. This will contribute to CCA 1 on GEF indicator Outcome 1.1 - *Vulnerability of physical assets and natural systems reduced*.

In order to achieve the results of this component, a number of outputs and indicative activities are summarized as **Table 5**.

Table 5: Component 3 outputs and activities

Component 3: Climate resilient small-scale rural infrastructure (USD 4,000,000)		
Outcome	Output	Activity
Outcome 3.1: Increased resilience to climate change of six small scale rural infrastructure in three Districts	Output 3.1.1: Infrastructure audit and building of 1 climate proofed market	Consultant –Infrastructure audit to ensure climate proofed designs and green buildings
		Small scale infrastructure - Karongi
		Small scale infrastructure - Nyamasheke
		Small scale infrastructure - Rusizi
		Rehabilitation/Upgrade markets-Karongi -

	Output 3.1.2: Six markets upgraded and 30% of space allocated to women and 20% to youth	Rehabilitation/Upgrade markets- Nyamasheke -
		Rehabilitation/Upgrademarkets - Rusizi
		Construct New Market Rusizi
		Meeting– Market committees
	Output 3.1.3: Four trainings for District engineers and local contractors on climate risks on the design and construction of small-scale rural infrastructure conducted and modules developed for polytechnic	Training –Engineers and Procurement
		Consultant - Training Modules development
		Training – TOT on Modules for IPRC
		Support trainees to deliver modules
		Consultant – Guidelines development
		Consultant – Checklist development
		Working with Integrated Polytechnic Regional Centre (IPRC), develop training modules for Training of Trainers
		Develop a checklist for construction, supervision and audit to ensure future compliance of future infrastructure with the new climate-proofed design standards

Output 3.1.1: Infrastructure Audit and building of 1 market

The main activity under this output is carrying out an infrastructure audit. The audit will list the number and type of structures, which require climate proofing. Using communities and other stakeholders, selected number of infrastructure will be identified for upgrading. The upgraded structures will act as models for future designs and building.

Output 3.1.2: Six markets upgraded and 30% of space allocated to women and 20% to youth

During a stakeholder workshop conducted as part of project development, one market was identified for construction in Rusizi. The project will carry out a rapid assessment of the existing markets, work with key stakeholders and identify at least six markets for rehabilitation/upgrading of existing markets in other Districts. To ensure that women and youth benefit from these rural investments, the project will work with sectors allocation committee to ensure that 30% and 20% of women and youth are allocated spaces.

Output 3.1.3: Four trainings for District engineers and local contractors on climate risks on the design and construction of small-scale rural infrastructure conducted and modules developed for polytechnic

The project will build capacity of district engineers and procurement officers on factoring of climate risks in the design and construction of small-scale rural infrastructure. This will be achieved by first, developing of training modules and conduct a TOT for IPRC (Main college where rural engineers are trained). The project will also develop guidelines for engineers and procurement officer on inclusion of climate risks in tender documents. A checklist for construction, supervision and audit will also be developed and capacity built for the main users.

2.2.4 Component 4: Monitoring and Evaluation

The project will make use of internationally recognized results-based monitoring and evaluation frameworks during the implementation of the entire project. FONERWA as the implementing agency will be responsible for the monitoring. This will be in collaboration with the AfDB's country office in Rwanda and the SPIU. The project will also document all problems and lessons encountered during the project's implementation as a way of knowledge management. This will ensure that successes are replicated while hindrances would be avoided early for similar future projects or even other current projects. The component will look at

knowledge management and dissemination, monitoring (both internal and external). The project will put special emphasis on community level monitoring and learning. In order to achieve the results of this component, a number of outputs and indicative activities are summarized as **Table 6**.

Table 6: Component 4 outputs and activities

Component 4: Knowledge, Monitoring and Evaluation (USD 250,000)		
Outcome	Output	Activity
Outcome 4: M&E management and lessons learnt are captured and appropriately disseminated	Output 4.1.1: Six knowledge adaptation products (CCA lessons learnt, methodology used, training modules, etc.) developed documented and disseminated.	Establish a knowledge management strategy
		Document knowledge adaptation products and lessons learnt (Writesops)
		Dissemination of lessons – electronic, paper and workshops
	Output 4.1.2: Two adaptation practitioners’ events attended and evidence of incorporating lessons into the project	Project team participation and presentation of knowledge products from the projects in various forums
		Facilitate seminars and workshops
	Output 4.1.3: Timely, Project Implementation Reviews and MTE, TE carried out and reported	Develop a project M&E framework
		Produce monitoring reports per component and as annual project reports
		Mid Term Project Evaluation
		End of Project Evaluation
		Monitoring Travel - Joint monitoring and staff

Output 4.1.1: Six knowledge adaptation products (CCA lessons learnt, methodology used, training modules, etc.) developed documented and disseminated.

This output will focus on Knowledge Management and Dissemination: Knowledge sharing is central to climate compatible development and plays a key role in ensuring stakeholder participation at all levels. Knowledge production is often considered a shared experience between national level policy makers, scientists and local community members.

The associated knowledge dissemination framework will include communities as generators of knowledge and promote peer-to-peer and lateral knowledge sharing across all stakeholders in the climate change domain in Rwanda with specific focus on the project areas. To promote both dissemination and interaction on a wider scale, mass and social media will be used to facilitate broad knowledge sharing across significant portions of the communities that are and will likely continue to be affected by climate change in the project areas. To achieve this, various knowledge dissemination products will be developed such as; (i) Web and paper based information booklets/brochures (ii) Posters (ii) Radio/television broadcasts (iv) Videos, animations, still images and Policy briefs, etc. Information contained in the above knowledge dissemination products will be generated from climate change relevant information available from national, regional and global sources, including the differential impacts of climate change across genders, classes, ages, abilities and ethnic groups.

Output 4.1.2: Two adaptation practitioners' events attended and evidence of incorporating lessons into the project

The project will facilitate participation of various stakeholders in practitioners' events. Proceedings from climate change seminars, stakeholder workshops, focus group discussions, progress reports and other climate change relevant information and knowledge products. The knowledge dissemination products will target both grassroot level and policy level stakeholders to bridge the gap between top-level (policy makers) and bottom-level (portion of stakeholders most affected) stakeholders. The project will also facilitate participation of various stakeholders in practitioners' events. Proceedings from climate change seminars, stakeholder workshops, focus group discussions, progress reports and other climate change relevant information and knowledge products.

Output 4.1.3: Timely, Project Implementation Reviews and MTE, TE carried out and reported
The project will ensure that monitoring of the project is conducted and reported at various levels; including internal, external and at community levels (participatory M&E). At the beginning of the project, a project M&E framework will be developed together with a robust IMS (Information Management Systems). The system will allow real time data input and analysis from internal and community evaluation.

Internal monitoring: Internal monitoring will serve the purpose of ensuring that the proposed Knowledge management and monitoring & evaluation (M&E) framework is adhered to using appropriate means and approaches. Monitoring and evaluation personnel from REMA, MINIRENA, FONERWA, and the Bank's Country Office team will be in charge of the internal monitoring and evaluation of the project. The proposed monitoring parameters, frequency and time schedule should be followed to the later to ensure effective implementation of proposed intervention measures. All experts involved in the project; climate change adaptation and vulnerability expert, financial, procurement, & M&E expert, rural infrastructure expert, and social development expert are expected to make at least two monitoring visits yearly per project activity to observe pre-project situation, middle of activity and end of project status. Progress reports will be prepared for each visit by each expert with collaboration with the implementing agency (ies) to give finer details of the project at the time of evaluation. The progress reports will be submitted to the implementing agencies REMA, MINIRENA, FONERWA, and the Bank's Country Office Team.

Participatory M&E: Participatory Monitoring, Evaluation, Reflection and Learning (PMERL) formulated and information gathered used in adaptive management and shared widely: The project will facilitate the design and use of a Participatory Monitoring, Evaluation, Reflection and Learning for Community-based Adaptation plans. As described in the CoBRA (UNDP, 2013 and PMERL Manual (by CARE International), the formulation and implementation of this system will enhance participation of the communities in learning about the effectiveness of the adaptation measures and the continuous modification of those measures as the circumstances change, to continually improve their efficacy. Under this output, the project staff will monitor the climate / environment / development indicators on yearly basis, and prepare annual plans based on these indicators and also facilitate the publication of annual district report which at present is not produced by any district in Rwanda.

External monitoring: External monitoring will be executed by an independent monitoring expert who will review the progress reports prepared by the internal monitoring process vis a vis the actual situation on the ground. The external monitoring expert will evaluate reports, data, work and other activities related to implementation of the project with the aim of ensuring that the proposed intervention measures are implemented as planned in the Knowledge

management and monitoring & evaluation (M&E) framework. The independent monitoring expert will submit progress reports to the AfDB/GoR/GEF and will be contracted by AfDB/GoR/GEF.

A. 5. Incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) financing and the associated global environmental benefits (GEF Trust Fund) to be delivered by the project:

The AfDB baseline project provides improved and reliable access to electricity for households and public institutions but it does not work with the local communities in order to ensure the diversification of livelihoods that will help them to be more resilient to the effects of climate change. The proposed project is additional by providing the needed resources that will maximize the impact of the baseline project at the communities level by opening up opportunities for them to pursue other electricity dependent income generating activities apart from farming.

Due to the vulnerability of the project area to suffer from the adverse impacts of climate change, the heightened awareness of climate threats and participation in adaptation planning will also enhance the capacity of local communities to adapt to climate change in future. This LDCF project will reduce the dependency on agriculture and diversify livelihoods and hence will increase the capacity of the target communities to withstand adverse situations due non-reliance on agriculture.

The project will invest in construction and rehabilitation of markets. Currently, the markets are prone to climate change threats especially flooding. The project will rehabilitate the old markets to make them climate smart. In addition new markets will be designed and constructed to take into account availability of electricity and climate proofing designs. The improvement of the market infrastructure will reduce the vulnerability of the target population and their livelihoods in the face of climate change through provision of storage facilities and access to markets throughout the year.

By expanding economic opportunities for vulnerable communities, the project will increase the incomes of households further strengthening the ability of local communities to cope with extreme weather events. The project will also secure and enhance agricultural output (and hence increase food security) through improved post-harvest facilities.

The project will address the problems of poverty, environmental degradation and climate-led disasters in the project area and will serve as a model for scaling up in neighbouring districts facing similar problems. The project will ensure that diversification of agriculture provides resilience of local economies and livelihoods and form the basis of community based adaptation plans. Assisting the district environment teams to mainstream climate risk considerations in the district development plans will further contribute to the target of mainstreaming sustainable development principles in national development policies.

A.6 RISKS, INCLUDING CLIMATE CHANGE, POTENTIAL SOCIAL AND ENVIRONMENTAL RISKS THAT MIGHT PREVENT THE PROJECT OBJECTIVES FROM BEING ACHIEVED, AND MEASURES THAT ADDRESS THESE RISKS:

RISK MANAGEMENT

An identification and ranking of risks has been conducted as well as identification of mitigation measures. Overall, the risks are not exceptionally high and should be manageable. Risks, their ranking and mitigation measures are presented in **Table 7**.

Table 7: Risk and mitigation factors

Description	Ranking	Mitigation measures
Low awareness and acceptance of the need to tackle climate change among key practitioners limits the support for action on climate change within key sectors.	LOW	Project will engage with co-operatives during the design phase as they have been found to play an important role in creating awareness and advocating for changes in behavior and practices locally The Project undertook a detailed stakeholder analysis during the design phase and proposed the develop and effective advocacy strategy.
District administrations lack the resources and capacity to engage fully with the project and integrate project outputs with development plans.	LOW	Inclusion of project deliverables in the District Performance Contract where possible will also help to ensure project activities become integrated and sustainable with ongoing development at the local level. Project implementation will be supported with a competent team of professionals that are dedicated full time to the project.
Climatic conditions (destructive rains and unpredictable seasons) hamper project interventions (planting etc.).	MEDIUM	The project will build in flexibility in terms of resource disbursement to enable communities to adequately time the project interventions if necessary.
Limited capacity of partner organizations to deliver project outputs.	LOW	The project will carry out capacity assessments of community institutions (co-operatives etc.) during the design phase before finalizing the implementation arrangements and incorporate capacity building where necessary.
Failure to create ownership of the project at the local level to project interventions.	LOW	Project design team will involve the key stakeholders in problem identification, project design, implementation and phase out activities to create ownership at the community level and build in sustainability
Delays in the disbursement of funds and Institutional inefficiencies (lengthy approval processes etc.) delay the resulting in delayed recruitment of project staff and hence project implementation	LOW	Government and AfDB will work closely to ensure optimum conditions for timely disbursement of funds.
High costs and insufficient supply of electricity impedes livelihood diversification (Rwanda is expensive compared to other countries in the region at \$0.24/kwh compared to Kenya's \$0.15/ kWh, Uganda's \$0.17/kwh, and Tanzania's \$0.05/kwh (EDPRS 2, 2013).	MEDIUM	Project will invest in a range of livelihood opportunities with varying power requirements so as to maximize on existing and planned electrification programs.
Failure to adopt a holistic approach necessary for this type of project due to a lack of expertise within the project team or lead agency.	LOW	Project team will be multi-disciplinary. Project will include provision for out-sourcing to competent third parties (NGOs, CSOs, specialized technical service providers, consultancy firms etc.) where necessary
Lack of co-ordination with other climate change projects in Rwanda	LOW	Project will review lessons from other projects during the design phase. Project will be

Description	Ranking	Mitigation measures
limits the capacity of implementing agency to learn from and build on the experiences of related projects.		coordinated through an SPIU, Thematic Working groups and Joint Sector Reviews. Project will benefit from significant climate related knowledge and coordination experience and successes from FONERWA

A.7. COORDINATION WITH OTHER RELEVANT GEF FINANCED INITIATIVES: - NO CHANGE

B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:

B.1 Describe how the stakeholders will be engaged in project implementation.

The preparation of this project was guided by a comprehensive and extensive participatory process involving all stakeholders, including local communities, a multidisciplinary approach (professionals from different sectors participated); and a complementary approach, building upon existing plans and programmes, including national action plans and national sectoral policies.

Climate vulnerability and capacity assessment: Through use of climate vulnerability and capacity assessment methodology, the analysis provided the understanding of the implications of climate change for the lives and livelihoods of households at risk living in the Northern and Western provinces of Rwanda. Local knowledge and scientific data was combined to provide an in-depth socio-economic analysis as well as capture people’s understanding about climate risks and possible adaptation strategies. The analysis will also provided a framework for dialogue within communities as well as between communities and other stakeholders. The assessment identified investment opportunities and capacity building gaps for local institutions and communities.

Gender analysis: To assure that alternative adaptation options meet equality and equity criteria, with special attention given to women and youth, a gender impacts assessment methodology was used to complement the climate vulnerability and capacity assessment. This assessment reviewed the impact of alternative adaptation options on women and men as well as on gender relations in the project area.

Stakeholder analysis: The stakeholder analysis was conducted as part of vulnerability and adaptation opportunities analysis. The analysis provided insights into and understanding of the interactions between the project and its stakeholders and identified and prioritized stakeholders who have an impact on project success so as to assure their support as well as manage their expectations. Table 3 provides a summary of the key stakeholder of the project.

The PIF presented a list of stakeholders. However, during the project development phase, stakeholder analysis was carried out using Stakeholder Circle methodology (Bourne and Walker 2005). The process involved a review of documents (such as District Development Plans), individual interviews and focus group discussions. The findings from these activities produced a preliminary list (**Table 8**), however, there is need for further engagement for a comprehensive stakeholder analysis, such as a stakeholder analysis workshop during the inception of the project.

Table 8: Key stakeholders of the project

Stakeholder	Interest in CCA	Degree of Interest	Level of influence	Participation in project implementation
Communities	Livelihood improvement and resilience	HIGH	LOW	-Most of the project activities will take place at the community level -Active participation and engagement of villagers in the project design will be integral to the success of the project
Farmers' cooperatives	Improving irrigation to enhance agricultural productivity.	HIGH	MEDIUM	Collaborate with farmer cooperatives and associations
FONERWA	The vehicle in Rwanda through which environment and climate change finance is channeled, programmed, disbursed and monitored.	HIGH	HIGH	It is expected to support the disbursement and monitoring of the project funds
Local NGOs	Serve as project partners in supporting communities to adapt to climate change and diversify their livelihoods	MEDIUM	LOW	Civil society organisations will participate in provision of lessons learnt and through LOA, implement some of the activities.
Rwanda Environment Management Authority (REMA):	Mandated to facilitate coordination and oversight of the implementation of national environmental policy and the subsequent legislation	HIGH	HIGH	a source of knowledge and expertise on climate change and has a number of climate change projects under its SPIU and has been instrumental in mainstreaming climate change into key Government policies and programmes FONERWA is expected to execute the project through the SPIU.
Energy, Water and Sanitation Authority (EWSA)	Responsible for the provision of sufficient, safe, reliable, efficient, cost-effective and environmentally appropriate energy, Water and Sanitation services to households and to all economic sectors on a sustainable basis	LOW	LOW	It will implement the baseline project and is expected to liaise closely with the proposed project during the design phase.
Private Sector Federation (PSF):	Promotes and represents the interests of the Rwandan business community	LOW	LOW	help the project identify important value chains and facilitate vertical linkages between private companies and project beneficiaries.
MINICOM	a mandate to support private sector growth and SME development	MEDIUM	LOW	support all private sector interventions of the project
Private companies		LOW	LOW	key actors in creating a demand for and supporting the supply of new products and services generated in areas connected to the grid by the baseline project.
MINALOC	Responsible for the VUP and the resettlement programme	LOW	LOW	support the integration of livelihood interventions with these key Government programmes

NAWOCO:	An organ of the Ministry of Gender and Family Promotion	MEDIUM	MEDIUM	-Encouraging women to participate in the development of the country -Support advocacy and capacity building around gender-responsive climate adaptation -Project will utilize NAWOCO's extensive network of women's councils -Advise the project on how to ensure gender equality in delivering its outputs
National Youth Council	Part of the Ministry of Youth, Sports and Culture NYC advocates for youths, trains them in leadership, economic development and social mobilization	LOW	LOW	It is expected that the NYC will support advocacy and capacity building of project interventions targeted towards the youth.
RNRA	Mandated to manage and develop the Rwanda's natural resources including water	LOW	LOW	RNRA will be responsible for water infrastructure improvements such as construction of storage reservoirs, drainage canals etc.
MINRENA	Rwanda's environmental policy-making and regulatory institution MINRENA also serves as the GEF Operational Focal Point	HIGH	HIGH	It is expected that MINRENA will play an important role in providing strategic advice to the project design.
MININFRA	is responsible for the sustainable development of infrastructure including transport networks, power and water supply. It is expected to support the rural infrastructure interventions	HIGH	HIGH	Development of climate risk guidelines and modules for engineers and procurement officers.
Gender Monitoring Office	The GMO is responsible for the monitoring and evaluation of compliance with national gender indicators. It also serves as a reference point on matters relating to gender equality and equity in national development. GMO is expected to advise on how to monitor the gender dimension of the project.	LOW	LOW	-Provide and validate gender indicators -Assist the project to achieve 30% and 20% women and youth respectively -Provide gender training

B.2 Socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF)

The project will address the problems of poverty, environmental degradation and climate-led disasters in the project area and will serve as a model for scaling up in neighbouring districts facing similar problems. The project will ensure that diversification of agriculture provides resilience of local economies and livelihoods and form the basis of community based adaptation plans. Assisting the district environment teams to mainstream climate risk considerations in the district development plans will further contribute to the target of mainstreaming sustainable development principles in national development policies.

The project will develop and demonstrate practical enterprises, tools, technologies and capacities for non-agricultural income generating activities, through community centred adaptation program, focusing heavily on promotion of utilisation of electricity. These interventions will collectively lead towards environmental sustainability and reduce vulnerability of livelihoods to climate risks and increase household welfare (including incomes) of local communities.

At the micro level, the project is expected to benefit approximately 110,000 HH, working directly on in directly through cooperatives. The proposed projects in each district are expected to provide incomes to individual members. It is estimated that women make about 60% of the beneficiaries since women lead most smallholder farming activities. Youth will also benefits directly from this project as they have proposed a number of projects. In addition, the project will actively empower women and other excluded groups, particularly those at high risk of suffering from the effects of climate change vulnerabilities. This will be achieved through social mobilization utilizing Women Self Help Groups (SHGs) and other such community based structures. These groups will benefit particularly from skill development (education/training), access to financial resources and markets for sustainably produced/harvested products

The benefits and impacts are summarized under each component in the **table 9** below;

Table 9: Project Benefits and Impacts

Component	Benefits and Impacts
Component 1: Enhanced and diversified climate resilient rural livelihoods	<p>Benefits:</p> <ul style="list-style-type: none"> • Increased economic benefits for entire community arising from economically viable and market-oriented activities, with unique opportunities for women and youth, particularly in the value addition (such as agro-processing, eco-tourism and handicrafts); • Engagement in alternative livelihood activities (off-farm) • Livelihoods will now be able to sustain the needs of individual households (economic benefits will be sufficient to cater for basic needs) <p>Impacts:</p> <ul style="list-style-type: none"> • Improved purchasing power in households (including vulnerable households); • inclusion of all members of the society, including vulnerable persons, in economic activities; <p>increased access to social infrastructure and amenities</p>
Component 2: Strengthening awareness and ownership of	<p>Benefits:</p> <ul style="list-style-type: none"> • The characteristics of cooperatives, which consist of almost all members of a community, will serve as an efficient entry point for strengthening of awareness

Component	Benefits and Impacts
adaptation and climate risk reduction processes	<ul style="list-style-type: none"> • Better understanding within the community of the link between existing socio-economic activities and the need for improved adaptation and climate risk reduction processes; • Gender and age responsive adaptation and climate risk reduction activities will be undertaken by all within the community; • Adaptation and climate risk reduction activities incorporated into socio-economic activities <p>Impacts:</p> <ul style="list-style-type: none"> • Adaptation and climate risk reduction processes embedded in socio-economic activities; <p>Ownership of these processes by community members, irrespective of gender or age, through the cooperatives, increases their application and use</p>
Component 3: Climate resilient small-scale rural infrastructure	<p>Benefits:</p> <ul style="list-style-type: none"> • Livelihood opportunities not disrupted by climate-related risks; • Stability of livelihood activities, leading to improved living standards <p>Impacts:</p> <ul style="list-style-type: none"> • Livelihood activities continue despite climate change and associated risks; <p>Improved standard of living</p>

The project will introduce measures to expand economic opportunities for women and youth and promote their participation in the labour force as this will reduce poverty, foster faster growth and increase resilience. To address specific gender inequalities that impede women’s participation in enterprise development and the jobs market, the project will identify gaps in gender equality by consulting with men and women and developing skills and strategies to address these gaps. The project will specifically target vulnerable male youths (aged 15 to 21 years) from unstable family backgrounds for vocational training and other support needed to enable them to get productive employment and reduce youth disaffection and delinquency

B.3.Explain how cost-effectiveness is reflected in the project design:

The project has been designed to be highly cost effective in three main ways; (i) use of local institutions like local polytechnic for provision of training and Government of Rwanda seconded staff in implementation of activities; (ii) use of local knowledge for capacity building on climate change adaptation and (iii) upgrading small scale infrastructure instead of constructing new ones. The project is additional to the baseline project by providing the needed resources that will maximize the impact of the baseline project in the communities by opening up opportunities for them to pursue other electricity dependent income generating activities apart from farming. Due to the proneness of the project area to adverse impacts of climate change, the heightened awareness of climate threats and participation in adaptation planning will also enhance the capacity of local communities to adapt to climate change in future.

Use of local knowledge for capacity building: The projects model of transfer of technical capacity to the community will eventually reduce the government involvement to an advisory role thus making the project cost effective. This is unlike the business-as-usual scenario in which knowledge and technical capacity is limited to a few public and private sector players.

The project aims to increase the benefits from off-farm through diversification of enterprises and products and the equitable sharing of these benefits. The alternative livelihoods proposed offer some solutions for

generating suitable revenues that are sustainable. The project will use the Public Private Partnership model will be used, with project facilitating a feasibility studies and linkages for all enterprises and value chains. The project puts emphasis on the inclusion of women in the implementation of these economic activities to reduce vulnerability to environmental risk such as droughts and floods.

Use of existing Institutions: The projects implementation arrangement is modelled along the SPIU model, which uses existing staff for implementation and monitoring. This reduced project costs and ensures sustainability. The project is also designed to use existing institutions, like cooperatives where the community is already organised and have some equipment for value addition and TVETs which have long term experience and infrastructure for capacity building

Projects innovative aspects, sustainability, and potential for scaling up.

The outcomes of this project are designed to strengthen the foundational capacities required to continue implementing adaptation measures and for the ongoing replication of adaptation strategies countrywide. This project is therefore, expected to make a lasting contribution not only to the sustainability of all adaptation projects in the country but also to broader EDPRS II objectives. The participatory approach will root ownership of the project interventions firmly in the local communities. By engaging communities in the design and implementation of the project and creating local employment and enterprise development schemes, the project will empower and build capacity of local people to continue adapting to climate change risks. Adaptation plans will be incorporated into District Performance Contracts to institutionalize and sustain community interventions.

Scaling up will be an integral part of the project planning process. During the design phase, key actors will be identified as those who will have to be convinced of the value of the planned concept and approach. These will include the actors who are important for scaling up such as key ministries (MININFRA, MINALOC, and MINICOM etc.), local authorities, NGOs as well as the private sector. The strategy is to involve them in planning, implementation and evaluation processes at an early stage and build a working relationship with them. Getting their support will be crucial in ensuring the interventions have the necessary political backing for scaling up (including incorporating the concept into their own sector programmes or policies). During the design phase, the project will develop an effective communications strategy and invest specifically in disseminating information and in awareness programmes to ensure that major stakeholders and population groups are informed, convinced and involved. This will include the production of briefing notes for policy makers to create a positive environment for scaling up utilizing websites, site visits, and the print and radio media to broadly advertise project results and foster replication and scaling up of successful interventions, provide updates on the progress and project activities, disseminate case studies and comments from the project participants, and communicate lessons learned from project activities. To make the project even more sustainable, partnerships with the private sector will have to be fostered to ensure continuity, for example, by encouraging a close exchange between businesses and vocational training centers.

G. DESCRIBE THE BUDGETED M & E PLAN:

Project Oversight: The PSC, FONERWA and AfDB will carry out Project oversight. Project oversight will be facilitated by: (i) documenting project transactions and results through traceability of related documents throughout the implementation of the project; (ii) ensuring that the project is implemented within the planned activities applying established standards and guidelines; (iii) continuous identification and monitoring of project risks and risk mitigation strategies; and (iv) ensuring project

outputs are produced in accordance with the project results framework. At any time during project execution, underperforming components may be required to undergo additional assessments, implementation changes to improve performance or be halted until remedies have been identified and implemented.

Project revisions: The following types of revisions may be made to this project document with no-objection from the PSC and the approval of AfDB GEF Coordination Unit in consultation with the LTO, SPIU and BH:

- Minor revisions that do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of inputs already agreed to or by cost increases due to inflation. These minor amendments are changes in the project design or implementation that could include, *inter alia*, changes in the specification of project outputs that do not have significant impact on the project objectives or scope, changes in the work plan or specific implementation targets or dates, renaming of implementing entities.
- Revisions in, or addition of, any of the annexes of the project document.
- Mandatory annual revisions which, re-phase the delivery of agreed project outputs or take into account expenditure flexibility.

All minor revisions shall be reported in the annual Project Implementation Reviews (PIRs) submitted by AfDB to the GEF Secretariat and Evaluation Office.

Monitoring Responsibilities: Monitoring and evaluation (M&E) of progress in achieving project results and objectives will be done based on the targets and results indicators established in the project results framework and annual work plans and budgets. M&E activities will follow AfDB and GEF monitoring and evaluation policies and guidelines. The M&E plan will be reviewed and updated, as necessary, during the project inception phase. This will involve: (i) review of the project's results framework; (ii) refining of outcome indicators; (iii) identification of missing baseline information and actions to be taken to collect the information; and (iv) clarification of M&E roles and responsibilities of project stakeholders. The project's M&E system will be established within the first 6 months of project implementation.

The day-to-day monitoring of the project implementation will be the responsibility of the SPIU led by the Project Manager and driven by the preparation and implementation of annual work plans and budgets (AWP/B) and six-monthly project progress reports (PPRs). The preparation of the AWP/B and six-monthly PPRs will represent the product of a unified planning process between main project partners. As tools for results-based-management (RBM), the AWP/B will define activities proposed for the coming project year and provide the necessary details on output targets to be achieved, and the PPRs will report on the achievement of the output and outcome targets. An annual project progress review and planning meeting should be organized by the SPIU with the participation of representatives from key executing partners prior to the Project Steering Committee Meeting. The AWP/B will be submitted to AfDB and to the PSC for approval. The AWP/B will be developed in such a way that it is always linked to the project's Results Framework to ensure the achievement of outputs and outcomes.

Indicators and information sources: To monitor project outputs and outcomes including contributions to global environmental benefits, specific indicators have been developed in the Results Framework

(see Annex 1). Output target indicators will be monitored on a six-monthly basis and outcome target indicators will be monitored on an annual basis if possible or as part of the mid-term and final evaluations.

Reports and their schedule

The specific reports that will be prepared under the M&E program are the: project inception report; Annual Work Plan and Budget (AWP/B); Project Progress Reports (PPRs); annual project implementation review (PIR); technical reports; co-financing reports; and a terminal report. In addition, GEF tracking tools for CCA will be updated after the baseline and completed by the project team at mid-term and final evaluation.

Project Inception Report: After GEF approval of the project and signature of the AfDB/Government Cooperative Programme (GCP) Agreement, the project will initiate with a six-month inception period. An inception workshop will be held and immediately after the workshop, the Project Manager will prepare a project inception report in consultation with the AfDB LTO and other project partners. The report will include a narrative on the institutional roles and responsibilities and coordinating action of project partners, progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. It will also include a detailed First Year Annual Work Plan and Budget (AWP/B) and supervision plan with all monitoring and supervision requirements. The draft report will be circulated to AfDB and the Project Steering Committee for review and comments before its finalization. The report should be cleared by the AfDB BH (AfDB Rwanda) in consultation with the LTO, FONERWA and the AfDB GEF Coordination Unit and uploaded in FPMIS by the BH.

Annual Work Plan and Budget (AWP/B): The National Project Coordinator will submit to the AfDB Budget Holder an Annual Work Plan and Budget for clearance. The AWP/B, divided into monthly timeframes, should include detailed activities to be implemented and outputs (targets and milestones for output indicators) to be achieved during the year. A detailed project budget for the activities to be implemented during the year should also be included together with all monitoring and supervision activities required during the year. The draft AWP/B is circulated to and reviewed by the AfDB Project Task Force (LTO, LTU, GEF Coordination Unit and others), the Project Coordinator incorporates eventual comments and the final AWP/B is sent to the PSC for approval. The AfDB Budget Holder will upload the final AWP/B in FPMIS.

Project Progress Reports: One month before the end of each project year, the Project Manager will prepare an annual Project Progress Report (PPR). The report will contain the following: (i) an account of actual implementation of project activities compared to those scheduled in the AWP/B; (ii) an account of the achievement of outputs and progress towards achieving project objectives and outcomes (based on the indicators contained in the results framework); (iii) identification of any problems and constraints (technical, human, financial, etc.) encountered in project implementation and the reasons for these constraints; (iv) clear recommendations for corrective actions in addressing key problems resulting in lack of progress in achieving results; (v) lessons learned; and (vi) a revised work plan for the final six months of the project year. The report will also include an estimate of co-financing received from all co-financing partners.

The Project Manager will submit the PPR to AfDB no later than one month after the end of each reporting period (31 December). The draft PPR will be reviewed and cleared by AfDB (BH and LTO).

The LTO will submit the PPR to the GEF Coordination Unit for final clearance. The BH will circulate the final cleared PPR to the PSC.

Project Implementation Review: The LTO supported by the AfDB LTU, with inputs from the Project Manager will prepare an annual Project Implementation Review (PIR) covering the period July (the previous year) through June (current year). The PIR will be submitted to the GEF Coordination in TCI for review and approval no later than 15 July. The GEF Coordination Unit will submit the final report to the GEF Secretariat and Evaluation Office as part of the Annual Monitoring Review report of the AfDB-GEF portfolio.

Technical Reports: Technical reports will be prepared and share project outcomes and lessons learned. The drafts of any technical reports must be submitted by the Project Manager to the AfDB Budget Holder in Rwanda who will share it with the LTO for review and clearance, prior to finalization and publication. Copies of the technical reports will be distributed to the Project Steering Committee and other project partners as appropriate. These will be posted on the AfDB FPMIS by the LTO.

Co-financing Reports: The Project Manager will be responsible for collecting the required information and reporting on in-kind and cash co-financing provided by all co-financing partners. The National Project Coordinator will provide the information in a timely manner and will transmit such information to AfDB. The co-financing reports should be completed as part of the semi-annual PPRs and annual PIRs.

GEF-5 Tracking Tools: Following the GEF policies and procedures, the tracking tools for Climate Change Adaptation on CCA-1 and CCA-2 will be submitted at three moments: (i) with the project document at CEO endorsement; (ii) at project mid-term evaluation; and (iii) at final evaluation. The Project Manager is responsible for completing these reports with support from the LTO at mid-term and final evaluation.

Terminal Report: Within two months before project completion, the Project Manager will submit to AfDB a draft Terminal Report, including a list of outputs detailing the activities taken under the Project, “lessons learned” and any recommendations to improve the efficiency of similar activities in the future. This report will specifically include the findings of the final evaluation as described above.

Monitoring and evaluation plan summary

Monitoring of project progress will be against indicators identified in the project results framework. These indicators will be further refined, as necessary, in consultation with project stakeholders during the project inception phase. This process of further collaborative refinement of project indicators will facilitate greater stakeholder engagement with the project and support broader monitoring and reporting of project achievements and challenges. The monitoring and evaluation plan is summarized as Table 10 below.

Table 10: The monitoring and evaluation plan

Type of monitoring and evaluation activity	Responsible parties	Time frame	Budget (USD)
Inception Workshop	National Project Coordinator leads the organization, in close consultation with FONERWA and AfDB.	Within first two months of project inception	10,000
Inception report	National Project Coordinator with inputs from project partners. Cleared by AfDB and the Project Steering Committee.	Immediately after the project inception workshop	None
Design and implementation of monitoring and evaluation system	National Project Coordinator with support from the Chief Technical Adviser (CTA) and the AfDB Lead Technical Officer	Within the first six months after the project inception	10,000
Field-based impact monitoring	National Project Coordinator with support from other project partners	Continually	50,000
Supervision missions	AfDB LTO/LTU and AfDB Rwanda	Annual or as required.	50,000
Project progress reports (PPRs)	National Project Coordinator. Submitted to AfDB Rwanda (Budget Holder). Finalized reports submitted to the AFDB GEF Unit by the LTO, and to the PSC by the National Project Coordinator.	Six- monthly	None
Project Implementation Review (PIR)	AfDB LTO with inputs from the National Project Coordinator and AfDB Budget Holder. Submitted by the AFDB GEF Coordination Unit to the GEF Secretariat. Final report also submitted to the PSC and the GEF Operational Focal Point by the National Project Coordinator.	Annually	30,000
PSC meetings	National Project Coordinator, PSC Chair, AfDB Budget Holder	At least once a year	50,000
Technical reports	National Project Coordinator, Consultants, AfDB	As appropriate	Component budgets
Mid- term evaluation	External Consultant, AfDB independent evaluation unit in consultation with the project team and other partners	At mid-point of project implementation	40,000
Final evaluation	External Consultant, AfDB independent evaluation unit in consultation with the project team and other partners	At the end of project implementation	50,000
Project completion Report (PCR)	Project Coordinator	At least one month before end of project	None

Type of monitoring and evaluation activity	Responsible parties	Time frame	Budget (USD)
NPC, CTA and project admin assistance estimate total cost for all M&E activities			60,000
TOTAL			350,000

COMMUNICATIONS AND VISIBILITY

The project will develop a communication strategy that will provide framework for information flow and feedback to all key stakeholders. Communication activities will focus on outputs, outcomes and good practices from the project. Various communication, awareness raising, dissemination and visibility tools (press releases, seminars and workshops, newsletters, videos presenting success stories, publications, and production of visibility items) will efficiently be used. The communication/visibility plan and activities will be aligned with the GEF communication and visibility policy (www.thegef.org/gef/policies_guidelines/communication_visibility), and AfDB's corporate communication strategy with input from the FONERWA and other partner institutions implementing the project. All publications will bear the logos of the Government of Rwanda, AfDB and GEF. All information generated by the project will be uploaded in open source platforms in accordance with AfDB and the Government of Rwanda policy of right to information

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT AND GEF AGENCY

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT (Please attach the [Operational Focal Point endorsement letter](#) with this form.

Name	Position	Ministry	Date
Dr. Rose Mukankomeje	GEF Operational Focal Point	(REMA) RWANDA ENVIRONMENT MANAGEMENT AUTHORITY	06/05/2013

B. GEF AGENCY CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Mahamat Assouyouiti, AFDB		19/12/2013	RICHARD, HUMPHREY NDWIGA	+216 71101641	H.NDWIGA-RICHARD@AFDB.ORG

ANNEX A: PROJECT RESULTS FRAMEWORK

Results Chain	Performance Indicators			Means of verification	Risks/Mitigation Measures
	Indicator	Baseline	Target		
	(Including CSI)				
Outcome 1: Diversified, strengthened and climate resilient rural livelihood opportunities for vulnerable women and men.	% reduction in post-harvest losses from improved and greened infrastructure	35%	10%	Project monitoring systems, Reports from district monitoring teams, MINIAGRI, Project Joint monitoring reports, mid and end of project reviews	<p>Risk: People may fail to use the technologies correctly, despite the knowledge the advantages to be accrued from adopting.,</p> <p>Mitigation Measures: Continuous awareness targeting communities to embrace the correct use of post harvest management technologies.</p> <p>Linkages to the private sector; careful use of the grants/credits to finance purchasing of energy efficient technologies.</p>
	% increase in knowledge of livelihood opportunities	None	80% of communities aware of alternative livelihood options	Project monitoring systems, district reports, Joint monitoring reports, mid and end of project reviews	
	% increase in economic enterprises for youth and women	0%	Over 30% of women and 50% of youth have increased income form new enterprises	Project monitoring systems, district reports, Joint monitoring reports, mid and end of project reviews	
Outcome 2: Community driven adaptation and reduced vulnerability to climate change	% increase of HH with knowledge on vulnerability and resilience to climate change and gender responsiveness	10%	80 % of HH with knowledge	Project monitoring systems, district reports KAP survey Report	<p>Risk: That the current political support for mainstreaming climate change considerations into the development processes, especially in order to secure current development gains of the baseline programs continues</p> <p>Mitigation Measures: Timely implementation of the Training, implementation of activities and timely generation of lessons</p>
	Number of community groups with capacity to plan, implement and monitor adaptation programmes	0	At least 15 community groups with capacity	Project monitoring systems, district reports Community action plans	
	District level development plans and policies updated with climate risk management provisions.	0	4 District level programs, development plans and/or policies updated with climate risk management provisions	Project monitoring systems, district reports	

Results Chain	Performance Indicators			Means of verification	Risks/Mitigation Measures
	Indicator	Baseline	Target		
	(Including CSI)				
Outcome 3: Increased resilience of small scale rural infrastructure to climate change	No of rural markets upgraded with at least 30% of space allocated to women and 20% to youth	0	At least 6 markets (2 per District) upgraded with allocation by gender and age	Project monitoring systems, district reports Allocation minutes Designs reports	Risk: Unwillingness of engineers to embrace new guidelines and designs. Mitigation Measures: Timely implementation of the Training, implementation of activities and timely generation of lessons.
	No of small-scale rural infrastructure built and/or rehabilitated to a specification that takes into account anticipated climate risks.	0	At least 9 post harvest infrastructures built and operational	Project monitoring systems, district reports	
	% of engineers utilising climate risks guidelines for rural infrastructure	0	At least 50% of engineers trained and utilising guidelines	Project monitoring systems, district reports,	
Outcome 4: M&E management and lessons learnt are captured and appropriately disseminated	Community involvement in monitoring vulnerability	0	Set of indicators for monitoring community vulnerability agreed and being actively used	Community monitoring reports; Project monitoring systems, district reports, PMERL reports	Risk: That the current political and social support demonstrated by politicians, technical staff and communities for mainstreaming climate change considerations into the development processes, especially in order to secure current development gains of the baseline programs continues Mitigation Measures: That the project can identify and secure the services of a consultant with technical expertise, interest, availability and willingness to work with communities and the government in an participatory monitoring
	Quality knowledge products available, shared and being used	0	At least 6 main knowledge products acceptable for international publishing standards and information evidently being used in training,	Project monitoring reports, PIRs, publications	

Output-level indicators

Results Chain	Performance Indicators			Means of verification
	Indicator	Baseline	Target	
	(including CSI)			
Component 1: Enhanced and diversified climate resilient rural livelihoods				
Output 1.1.1 110,000 HH with enhanced, understanding and awareness of livelihood opportunities resulting from electrification	% increase in knowledge of livelihood opportunities	0	50% of HH	(KAP Survey)
Output 1.1.2: At least 110,000 people with increased capacity to participate in market-oriented enterprises	% increased income by 50% for over the project period for target beneficiaries	0	50% of Targeted beneficiaries	NISR
Output 1.1.3 Nine value chain development and creating linkage and demand to supply	No of value chain studies	0	9	Value chain study reports
Output 1.4.1: 30% of women and 20% of youth involved in off-farm enterprises and increased income of at least 50%	% of women and youth involved in off-farm enterprises	0	30% women and 20% youth	NISR
Component 2: Strengthening awareness and ownership of adaptation and climate risk reduction processes				
Output 2.1.1: Eight trainings on knowledge and understanding of the social dimensions of vulnerability and resilience to climate change conducted	% of communities with knowledge and understanding of the social dimensions of vulnerability and resilience to climate change	0%	80%	Baseline Report, KAP report
Output 2.1.2: Eight (2 per year) awareness campaigns on climate change impacts and promotion of gender-responsive climate adaptation conducted	No. of awareness campaigns on climate change impacts and promotion of gender-responsive climate adaptation conducted	0	8	Campaign reports
Output 2.1.3 Four trainings for district administrations and communities on coordination and support on climate-resilient development planning at the local level conducted.	No of trainings	0	4	Training Reports
Output 2.1.4: Six community based planning, implementation and monitoring adaptation programmes implemented.	No. of community based planning, implementation and monitoring adaptation programmes implemented	0	6	Community based programmes
Component 3: Climate resilient small-scale rural infrastructure				
Output 3.1.1: 1 market built to a specification that takes into account anticipated climate risks	No of market built to a specification that takes into account anticipated climate risks	0	1	Occupation certificate
Output 3.1.2: Six markets upgraded and 30% of space allocated to women and 20% to youth	No of markets upgraded % of space allocated to women and to youth	0 0%	6 30% women 20% youth	Occupation certificate NISR
Output 3.1.3: Four trainings for District engineers and local contractors on climate risks on the design and	% of District engineers and local contractors include climate risks on their	0%	50% of engineers	Infrastructure designs

construction of small-scale rural infrastructure conducted and modules developed for polytechnic	design and construction of small-scale rural infrastructure			
	At least one training module developed for polytechnic	0	1 training module	Trainig module
Component 4: Knowledge, Monitoring and Evaluation				
Output 4.1.1: Six knowledge adaptation products (CCA lessons learnt, methodology used, training modules, etc) developed documented and disseminated.	No.of knowledge adaptation products developed documented and disseminated	0	6	Knowledge products
Output 4.1.2: Two adaptation practitioners' events attended and evidence of incorporating lessons into the project	No. of adaptation practitioners' events attended and evidence of inoporating lessons into the project	0	2	Event Reports
Output 4.1.3: Timely, Project Implementation Reviews and MTE, TE carried out and reported	No.of PIR and MTE, TE carried out and reported.	0	4 PIR 1MTE 1 TE	PIR Reports MTE Report TE Report

ANNEX B: RESPONSES TO PROJECT REVIEWS

AfDB Responses to GEFSec and STAP reviews ---30th August 2015

Germany welcomes the proposed project and its objective to contribute to increasing the adaptive capacity of Rwandan communities. Livelihood diversification and investment in rural infrastructures are certainly a good opportunity for achieving the objective. Germany would like to highlight the good conceptualization of Component 2, in which the proposed activities are well aligned with existing planning activities and structures and reach different sectors. However, Germany recommends describing in more detail some of the proposed activities and how they lead to the expected outcomes.

AfDB response: The activities in component two have been described in the project document and summarised in this document. For each outcome, outputs activities and tasks have been described in details and show the link to the expected outcome.

Under Component 1 the Expected Outcome 1 supposes to improve knowledge, understanding and awareness of livelihood opportunities resulting from electrification. The component however, does not describe how the knowledge is generated, or who explicitly should gain or use the knowledge. Germany recommends including a description of how the proposed activities lead to this expected outcome. In addition, Germany recommends describing the markets that should be supplied with goods from the additional livelihood sources and how they can be reached (Expected Outcome 3 in Component 1).

AfDB response:

During the project development stage, efforts were made to expand on the outcomes. The activities in outcome 1 of component 1 have been described in the project document and summarised in this document. For each outcome, outputs activities and tasks have been described in details and show the link to the expected outcome. The project will work with stakeholders to identify viable and profitable livelihoods opportunities resulting from electrification. A rapid assessment will be conducted in each District to ensure that all ideas were captured during the stakeholder meeting. Other activities under this output will include; study tours to viable enterprises within the country, development and implementation of a sensitization programme and initiating of an awards scheme.

Under outcome 3 in component 1, the project will increased investment in value chain development creating and linking demand to supply by first selecting a list of value chains and conducting detailed value chain analysis. The analysis will provide recommendations for improvement at various stages of the chain, including markets at various levels; local markets, national markets including regional (EAC and COMESA) and international markets

Germany recommends a further explanation of how Component 3 aims at achieving all three described Expected Outcomes, as a description of the activities is completely missing, i.e. how small-scale infrastructure is selected for being built and/or rehabilitated, how the project wants to achieve the sustainable use of such infrastructure including maintaining them, or how district engineers are selected and trained.

AfDB response:

During the project development stage, effort was made to ensure that explanation for each outcome has been expanded and include list of activities and task. These are summarized as follows;

Output 3.1: Increased investment in small-scale rural infrastructure designed, built and/or rehabilitated to a specification that takes into account anticipated climate risks.

The main activity under this output is carrying out an infrastructure audit. The audit will list the number and type of structures which require climate proofing. Using communities and other stakeholders, selected number of infrastructure will be identified for upgrading.

Output 3.2: Rural markets upgraded with at least 30% of space allocated to women and 20% to youth

During the a stakeholder workshop conducted as part of project development, one market was identified for construction in Rusizi. The project will carry out a rapid assessment of the existing markets, work with key stakeholders and identifies at least six markets for rehabilitation/upgrading of existing markets in other Districts. To ensure that women and youth benefit from these rural investments, the project will work with sectors allocation committee to ensure that 30% and 20% of women and youth are allocated spaces.

Output 3.3: Increased capacity of District engineers and local contractors to factor in climate risks to the design and construction of small-scale rural infrastructure

The project will build capacity of district engineers and procurement officers on factoring of climate risks in the design and construction of small-scale rural infrastructure. This will be done by first developing of training modules and conduct a TOT for IPRC (Main Polytechnic where rural engineers are trained). The project will also develop guidelines for engineers and procurement officer on inclusion of climate risks in tender documents. A checklist for construction, supervision and audit will also be developed and capacity built for the main users.

The high cost of electricity in Rwanda at \$0.24 per kWh might be a challenge to implementing the activity. In light of a majority of target households living on less than \$2 a day, a large part of the target population might not be able to afford enough electricity. Germany kindly asks to specify in more detail the strategies of making electricity affordable for the poor, and how high the “varying power requirements” of new livelihood opportunities might be.

AfDB response:

The Government of Rwanda is working on lowering the electricity tariffs. The high energy costs are attributed to the country's dependency on expensive thermal resources, in particular diesel and heavy fuel oils, which account for approximately 40 per cent of the country's 110MW installed energy capacity, while it imports 14.5MW. Hydropower accounts for 59 per cent and methane gas one per cent.

The Government of Rwanda expects an additional 65.5MW to be generated after the completion of ongoing projects, which include Nyabarongo I MHPP (28MW), Kivuwatt -Gas (25MW), Giciye MHPP (4 MW), and the IPP Solar PV power plant. The Government has also set a national target to increase the country's electricity access to 70 per cent by 2017. It plans to increase installed capacity to 1,160MW by 2017 according to estimates by AfDB. This requires a total investment of approximately \$4.2 billion from 2013-2017 with an annual investment of \$845 million.

The current cost of energy in Rwanda, estimated at \$0.22 per kilowatt-hour (KWh), is higher than that in the other East African countries, where it is \$0.08 to \$0.10, according to World Bank figures. In May 2012, EWSA introduced “time of use” tariffs for industries to force them to operate off-peak to lower their energy costs. Under the “time of use” regime energy costs for industries operating between the peak hours of 5 pm and 11 pm increased by 33 per cent, from the then prevailing rate Rwf105 (\$0.17) / kWh excluding VAT to Rwf140/kWh excluding VAT.

Also in the interest of a low-carbon development path, Germany kindly asks for clarification on the extent of renewable energy and decentralized rural electricity supply in the baseline project. Community-owned power generators could also create further livelihood opportunities in the medium term.

The baseline project intends to connect to connect 25,438 households and priority institutions (179 schools, 29 health centers and 25 sector administration offices on national grid. This indicates that not all households will be connected. However, working as groups and within cooperatives will increase income for communities who might invest in decentralized rural electricity supply

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS⁴

N/A

A. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

PPG Grant Approved at PIF:			
Project Preparation Activities Implemented	GEF/LDCF/NPIF Amount (\$)		
	Budgeted Amount	Amount Spent to date	Amount Committed
Inception / Stakeholder Workshop and Beneficiary Consultation Meetings	40,000	20,000	40,000
Consultancy preparation contract	100,000	85,000	100,000
Risk vulnerability assessment (site visit and survey)	15,000	15,000	15,000
Validation workshop	30,000	25,000	30,000
Contingency	15,000	0	15,000
Total	200,000	145,000	200,000

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

N/A

⁴If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities.