

Ecosystems/Landscape approach to climate proof the Rural Settlement Program of Rwanda

Part I: Project Information

GEF ID

10096

Project Type

FSP

Type of Trust Fund

LDCF

CBIT/NGI

CBIT

NGI

Project Title

Ecosystems/Landscape approach to climate proof the Rural Settlement Program of Rwanda

Countries

Rwanda

Agency(ies)

UNDP

Other Executing Partner(s):

Rwanda Environment Management Authority, Rwanda Housing Authority, District Authorities Gakenke and Kirehe Districts

Executing Partner Type

Government

GEF Focal Area

Climate Change

Taxonomy

Focal Areas, Climate Change, Climate Change Adaptation, Climate resilience, Least Developed Countries, Livelihoods, Community-based adaptation, Disaster risk management, Ecosystem-based Adaptation, Influencing models, Strengthen institutional capacity and decision-making, Demonstrate innovative approaches, Transform policy and regulatory environments, Stakeholders, Local Communities, Civil Society, Non-Governmental Organization, Community Based Organization, Academia, Beneficiaries, Private Sector, SMEs, Financial intermediaries and market facilitators, Individuals/Entrepreneurs, Type of Engagement, Partnership, Information Dissemination, Consultation, Participation, Communications, Behavior change, Education, Awareness Raising, Public Campaigns, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Gender results areas, Capacity Development, Capacity, Knowledge and Research, Innovation, Knowledge Exchange, Knowledge Generation, Learning, Adaptive management, Theory of change, Indicators to measure change

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 1

Submission Date

10/29/2018

Expected Implementation Start

1/26/2021

Expected Completion Date

12/31/2026

Duration

72In Months

Agency Fee(\$)

793,786.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCA-1	Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change	LDCF	6,800,000.00	16,000,000.00
CCA-2	Strengthen institutional and technical capacities for effective climate change adaptation	LDCF	1,555,638.00	6,860,000.00
Total Project Cost(\$)		8,355,638.00	22,860,000.00	

B. Project description summary

Project Objective

To climate proof the Rural Settlement Program of Rwanda via Ecosystems/Landscape approach piloted in Gakenke and Kirehe Districts

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 1: Capacity and knowledge for Landscape approach and community based adaptation	Technical Assistance	<p>Outcome 1: Institutional and community capacities for planning for landscape approach enhanced to climate-proof imidigudu:</p> <p>INDICATED by i) changes in capacity scores (systemic, institutional, individual), as measured by the UNDP capacity scorecards for RHA, Local Authorities of Kirehe and Gakenke, Cooperatives and Production SACCOS, Twigire Muhinzi serving the four landscapes (capacity to support climate proofing)</p> <p>ii) Number of plans completed and available (include: prototype climate proofing model, EbA</p>	<p>Output 1.1: Training programmes and their sustainability mechanisms designed and delivered to provide specialized technical skills and awareness on landscape approaches to climate risk management for technical staff of all relevant Departments and community groups;</p> <p>Output 1.2: Climate-risk assessments methods and information provided to support adaptation planning as an on-going practice with a focus on the local level in the project areas (supported by skills developed under output 1.1 and complimenting activities already supported by NAP);</p>	LDC F	1,500,000.00	5,000,000.00

plans, climate information and decision-tools);

Output 1.3: Climate-proofed Imidugudu models developed in a science-led highly participatory process and piloted in four landscapes;

Output 1.4: Four Ecosystems-based Adaptation Plans developed in a science-led and highly participatory process and implementation started;

Output 1.5: Climate information based decision-making tools provided to support uptake of adaptation measures in the four project sites;

Component 2: Resilient lives and livelihoods in targeted landscapes	Technical Assistance	<p>Outcome 2: Adaptation measures implemented in targeted landscapes following the landscape-approach:</p> <p>Indicated by; i) Ha of land put under improved management and/or protection for climate resilience (25,566), ecologically sensitive areas and agricultural</p>	<p>Output 2.1: Climate smart agricultural practices adopted to increase and sustain food production under uncertain climate scenarios in the four pilot areas</p> <p>Output 2.2: Degradation hotspots (forests, hilltops and wetlands systems) identified by the EbA plans are rehabilitated</p>	LDC F	5,916,270.00	15,000,000.00
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land put under improved management (500 of each) ;	to restore ecosystems services as the cornerstone of resilient livelihoods – covering at least 500 ha distributed across the 23,560ha;
ii) All four villages rating along the criteria set by the government for an IDP (see Table 1 of the Prodoc) improves to at least 0.7	Output 2.3: Upgrading of housing and infrastructure around Imidugudu to more climate smart versions in four villages benefitting about 500 households or 2500 people assuming 5 people per household actual number of beneficiaries established at ppg);
iii) at least 50% improvement in the vulnerability index	Output 2.4: Rainwater harvesting and alternative energy options piloted to increase resilience of livelihoods under the Imidugudu programme;
iv) At least 40% men and 35% women and 40% youth with surplus produce for sale, combined with at least 25% increase in incomes for all groups who sell .	Output 2.5: Beneficiaries of the Imidugudu supported to utilize existing value chains to increase resilience via higher household incomes
v) Number of people benefiting from the project: Direct beneficiaries – 54,000 (50% women); Indirect beneficiaries – 107,651 (50% women): People trained - 4,275 (at least 35% women)	

Component 3: Policy and coordination	Technical Assistance	<p>Outcome 3: Policy frameworks and coordination strengthened to support climate-proofing of Imidugudu;</p> <p>INDICATED by; i) number of policy, legal and planning instruments revised to mainstream climate risk into rural settlements (at least 4);</p> <p>ii) At least 75% of staff of technical and community coordination institutions trained.</p> <p>iii) REMA's toolkit and guidelines updated to mainstream climate risks</p>	<p>Output 3.1: Strategic review of policies, national and district strategies, programmes and planning tools to ensure they capture climate proofing of Imidugudu in the investment decision-making processes;</p> <p>Output 3.2: Technical and community institutions (DIDMACs, SEDIMACs, JADF and community institutions) trained to improve their effectiveness in the cross sectoral coordination units and networks recently created by the GoR</p>	LDC F	400,000.00	1,500,000.00
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Component 4: Knowledge Management	Technical Assistance	Outcome 4: Knowledge management and M&E strengthened to support iterative adaptation planning, INDICATED by; i) number of technically superior knowledge products generated and shared (including lessons); ii) M&E information available and being used in the reports (PIRs, annual reports).	Output 4.1: Development of participatory M&E plans and enhancement of communities' capacities to monitor, learn and sustain the climate proofing initiatives; Output 4.2: Best practices, lessons collated and shared, KM products codified and disseminated	LDC F	150,000.00	500,000.00	
Sub Total (\$)					7,966,270.00	22,000,000.00	
Project Management Cost (PMC)							
					LDCF	389,368.00	860,000.00
					Sub Total(\$)	389,368.00	860,000.00
					Total Project Cost(\$)	8,355,638.00	22,860,000.00

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
GEF Agency	UNDP	Grant	Recurrent expenditures	500,000.00
Recipient Country Government	Rwanda Housing Authority	In-kind	Recurrent expenditures	4,000,000.00
Recipient Country Government	Rwanda Housing Authority	Grant	Investment mobilized	6,000,000.00
Recipient Country Government	Ministry of Agriculture and Animal Resources	In-kind	Recurrent expenditures	5,360,000.00
Recipient Country Government	Gakenke District	In-kind	Recurrent expenditures	2,000,000.00
Recipient Country Government	Kirehe District	In-kind	Recurrent expenditures	2,000,000.00
Recipient Country Government	Rwanda Environmental Management Authority	In-kind	Recurrent expenditures	3,000,000.00
			Total Co-Financing(\$)	22,860,000.00

Describe how any "Investment Mobilized" was identified

RHA will provide US 6 million Grant – from its budgetary resources to build 500 houses under the Imidugudu programme.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)
UNDP	LDCF	Rwanda	Climate Change	NA	8,355,638	793,786
Total Grant Resources(\$)					8,355,638.00	793,786.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **Yes**

F. Project Preparation Grant (PPG)

PPG Required



PPG Amount (\$)

200,000

PPG Agency Fee (\$)

19,000

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)
UNDP	LDCF	Rwanda	Climate Change	NA	200,000	19,000
Total Project Costs(\$)					200,000.00	19,000.00

Part II. Project Justification

1a. Project Description

1a. Project Description.

While there is no fundamental change from the PIF, project sites were selected during the project development process (PPG) and a detailed baseline assessment was conducted (Annex 12 of the Prodoc). This allowed refinement and updating of the adaptation problem, the root causes and barriers to be addressed and the development of the Theory of Change (Figure 1). These sections are outlined in detail in the Prodoc and summarized below.

1.a.1 The adaptation problems, root causes and barriers that need to be addressed (systems description);

Rwanda's topography, high population density, rainfall patterns, land cover and soil types combined with high dependence on subsistence agriculture for livelihoods, high dependency on biomass as the sources of energy and economic development make it highly sensitive and vulnerable to the impacts of climate change. By 2015, Rwanda was rated 13th most vulnerable country and the 90th least ready to combat climate change, with a vulnerability ranking of 131 of 178 countries[1]. The highly mountainous country covers a relatively small surface area (26,338 km²) of land, largely 1,000 meters above sea level. With a total population of close to 12 million people and an average density of 497 persons per square kilometre[2] (the highest in Africa), human settlement has spread to land with over 50% slopes on hills and hilltops. Land holding in the rural areas averages at less than 0.2 hectares (ha) per household[3]. It is predicted that the population will be more than double, reaching 26 million by 2050, with a population density of 987 people per square kilometre[4], with even lower land holding per household. Like the rest of the country, livelihoods in Gakenke and Kirehe are based on an agricultural production system that is characterized by small family farms of less than 0.2 ha, with farmers practising mixed farming that combines rain fed grain crops, traditional livestock-rearing and some vegetable production[5]. Inhabitants of these two districts, especially the poor farmers, are amongst the most vulnerable people in Rwanda (ibid), and are amongst the target group of the government's rural settlement program (Imidugudu). Imidugudu aims to regroup vulnerable households in rural areas on serviced sites equipped with the basic infrastructure and community amenities, prioritizing households in categories one and two[6].

Despite the rapidly growing population, Rwanda has adopted ambitious socio-economic goals expected to transition the country into middle-income status by 2024[7]. This was outlined in the Vision 2020 (now updated to 2050), which identifies the modernization of rural settlement sector as a strategic intervention for improving the quality of life via provision of decent and accessible housing, improved and affordable transport system, access to social amenities amongst other necessities. The sector aims to use "planned rural settlements" or *Imidugudu* to tackle vulnerability and improve public services, the quality of public infrastructure in rural areas and to contribute to socio-economic development and poverty reduction in the rural[8] areas. However, the risks associated with climate change are not fully mitigated, which might compromise development gains delivered by this programme.

The climate challenge: The climate in Rwanda is complex with wide variations across the country and strong seasonality. The annual average temperature of Rwanda is 18°C and ranges from 13°C to 25°C. The annual mean temperature varies from 15°C to 21° from western highland to eastern plains and hills respectively. In the North-West, temperatures range from 13°C to 20°C. There are two rainy seasons, March-May and mid-September to mid-December with an annual average rainfall of 1,295 mm. The highest monthly average rainfall, observed in April, is 157mm[9]. Although the country is not a major emitter of greenhouse gasses (GHGs), it has experienced temperature increase of 1.4°C since 1970, which is higher than the global average; projected to further increase by up to 2.5°C by the 2050s from 1970s[10]. The already highly variable average annual rainfall is projected to increase by up to 20% by the 2050s

from 1970 (ibid) which is likely to cause floods and storms that can increase incidents of landslides, crop losses, health risks and damage to infrastructure, especially in the more mountainous and steep North and West of the country. Indeed, Meteo Rwanda reported regional increase in average temperature of 0.29°C per decade from 1985 to 2015, with increased inter-annual variability in recent decades (e.g., 0.79°C average increase from 2012 to 2014)[11]. Furthermore, projected changes by the 2050s include: increased average annual temperature of 1.4 – 2.3°C; likely increase in average rainfall (range of -3 to +9%); increased heavy rainfall event frequency (7–40%) and intensity (2–11%); and likely increase in the duration of dry spells with a range of 0 to +7 days[12]. These changes will affect agriculture, water resources, ecosystems, energy systems and human health[13].

The country's rural settlement programme, and the livelihood strategies being applied to support its implementation, have been affected by the impacts of climate change that have compounded the pressures of population growth, associated land fragmentation, and demands for resources for economic growth. Since 1995, seven major floods caused loss of life, crops, livestock and property, while the 2007 flood cost Nyabihu and Rubavu Districts some \$22 million[14]. The Stockholm Environment Institute estimated that in the absence of adaptation, a 5-fold increase in costs of similar floods might occur by 2030[15]. A 2018 Risk Assessment[16] found that the country is highly prone to drought, landslides, floods, earthquakes and windstorms. In the northern and western Provinces, heavy rain events in combination with steep slopes and highly erodible soils accelerate soil erosion and causes landslides in susceptible areas (Map 1 in Annex 1), affecting dwellings and infrastructure. Furthermore, land scarcity has led to placement of Imidugudu in vulnerable areas in the landscapes while inappropriate land management practices have resulted in severe and widespread soil erosion[17].

The 2019 Annual Report on Disaster Effects[18] reported that nation-wide in 2019 alone, there were 80 deaths, 212 injuries, 8,425ha of crops damaged, and 4,796 houses damaged or destroyed by landslides, floods, fire, heavy rains, and winds, thunderstorms or lightning. In addition, 212 animals (livestock) died, 169 classrooms, 59 churches, 22 bridges and 58 power transmission lines were destroyed. In 2016 landslides in Gakenke, Muhanga and Ngororero Districts resulted in the death of 50 people, 27 injured and 2,317 houses damaged, rendering about 13,500 people homeless, including children[19]. About 3,447 hectares of land under crops were destroyed and 56 animals lost (ibid). Crop damage further led to food insecurity and lack of income in the following three months for about 4,000 families (or approximately 23,200 individuals) (ibid). In the same year, droughts in the Eastern Province caused severe food shortage, necessitating famine relief. Collectively, the current effects of climate change (including inter alia destruction of rural infrastructure and houses, reduced land and agricultural productivity) are estimated to result in annual economic costs of just under 1% GDP by 2030[20]. Assuming the current level of GDP (RwF 7,269 billion)[21] this economic cost translates to RwF 72.9 billion of the real GDP in 2018 or about 1.6 times the national budget allocated to water and sanitation sector (RwF 46.1 billion)[22] in 2019/2020 financial year.

The project sites: the project will be piloted in four mini-catchments: Bukinanyana and Gasharu in Kirehe District (Eastern lowland) and Muzo/Kagano and Muramba in Gakenke District (Northern highlands). (i) Bukinanyana catchment covers a surface area of about 5,282.5 ha with the Bukinanyana IDP model village covering about 10.9 ha (0.2 % of the catchment). The Mahama refugee camp is included in the Bukinanyana catchment[23]. (ii) Gasharu covers about 6,165.1 ha, with the existing old and proposed extension site for the Gasharu IDP model village covering about 6.8 ha (0.1 % of the catchment). (iii) Muramba covers about 3,033.2 ha, with the proposed IDP model village covering about 29.9 ha (1.0 % of the catchment). (iv) Kagano covers 9,085.1 ha, with the proposed IDP model village covering about 46.7 ha (0.5 % of the catchment). The total project pilot area is therefore 25,566 ha, with a total population of 107,651 in 191 villages. Both sites of Kirehe are located in lowlands with elevation varying between 1300 m and 1700m (Figure 2 and 3 in Annex 1), while Gakenke district's sites have topography with very high contrast, with elevation varying between 1400 m and 2400 m (see Figure 4 and 5 in Annex 1). These sites were selected in a participatory process based on the criteria outlined in Annex 12 (Baseline Assessment Report).

The four areas have high levels of vulnerability[24] due to high levels of exposure and sensitivity to climate events, coupled with low adaptive capacities (Figs 1 and 2) (brief explanation on the methodology used to assess the vulnerability in Box 1, full report in the baseline assessment report (Annex 12), including the coding of indicators for exposure, sensitivity and adaptive capacity used in the analysis).

Box 1: Summary of vulnerability assessment methodology applied to assess the four pilot sites

The assessment was based on responses to a questionnaire administered to 120 households (30 per site) drawn from Bukinanyana and Gasharu IDP sites in Kirehe District and from Muzo/Kagano and Muramba IDP sites in Gak enke District (Questionnaire in Annex 1 of the Baseline Assessment Report, Annex 12). The responses reflected the experience and perceptions of households in the following areas of vulnerability to climate change:

- **Exposure:** perceptions of change in temperature, rainfall amount and start date of the rainy season, drought episodes, flooding and windstorm events and thunderstorms with lightning;
- **Sensitivity:** perceptions on change in soil erosion and landslides, soil fertility, changes in the natural environment, household size, extent of irrigation used, water catchments, the extent of reliance on income from farming and non-farming sources, and income levels;
- **Adaptive Capacity:** levels of awareness of climate variability and change, respondents' access to hazard alerts and weather information, respondents' change in surplus production, agricultural practices, and household practices following extreme weather events.

Vulnerability per village was calculated using the formula: $Vulnerability = (Impact + Adaptive Capacity)/2$.

Figure 1: Exposure and Sensitivity per village relative to District averages

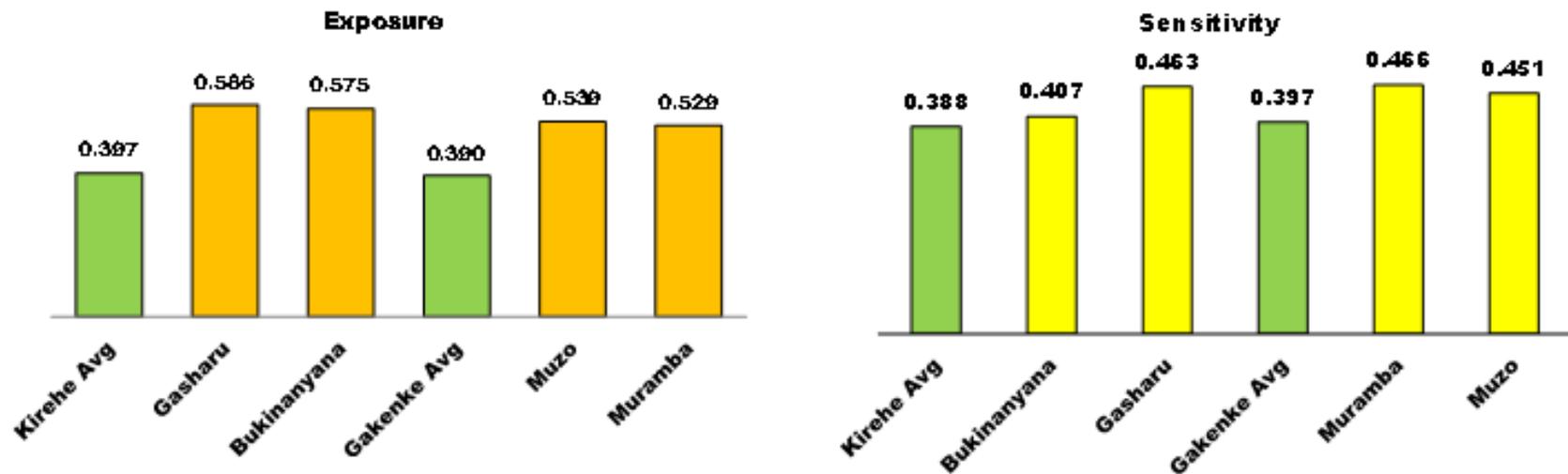


Figure 2: Adaptive capacity and vulnerability per village relative to District averages

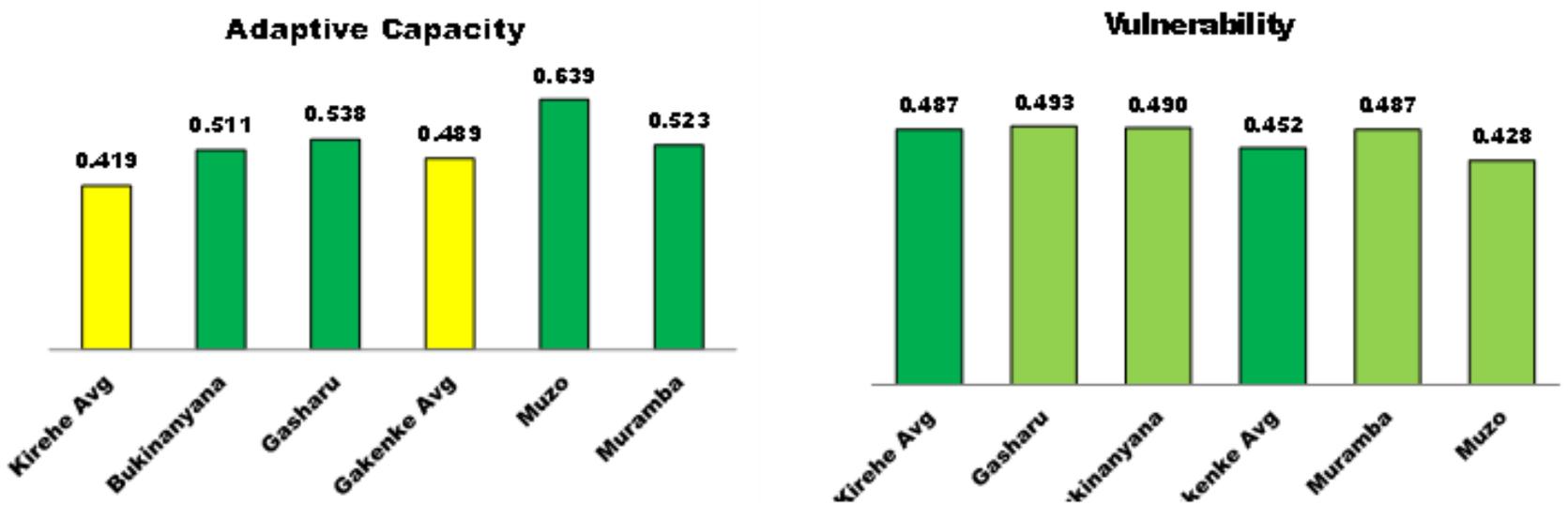


Figure 1: Exposure and Sensitivity per village relative to District averages

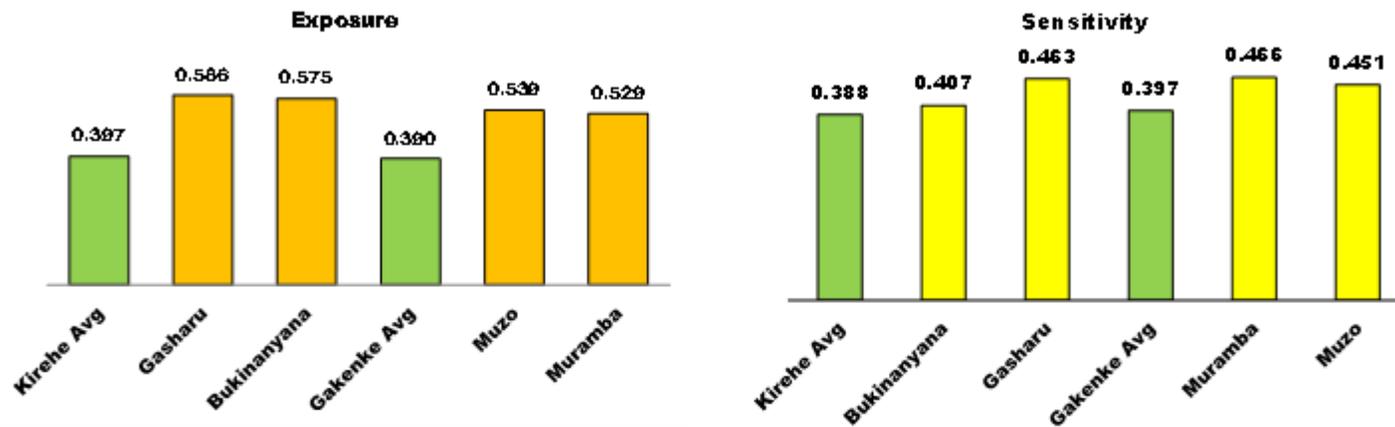
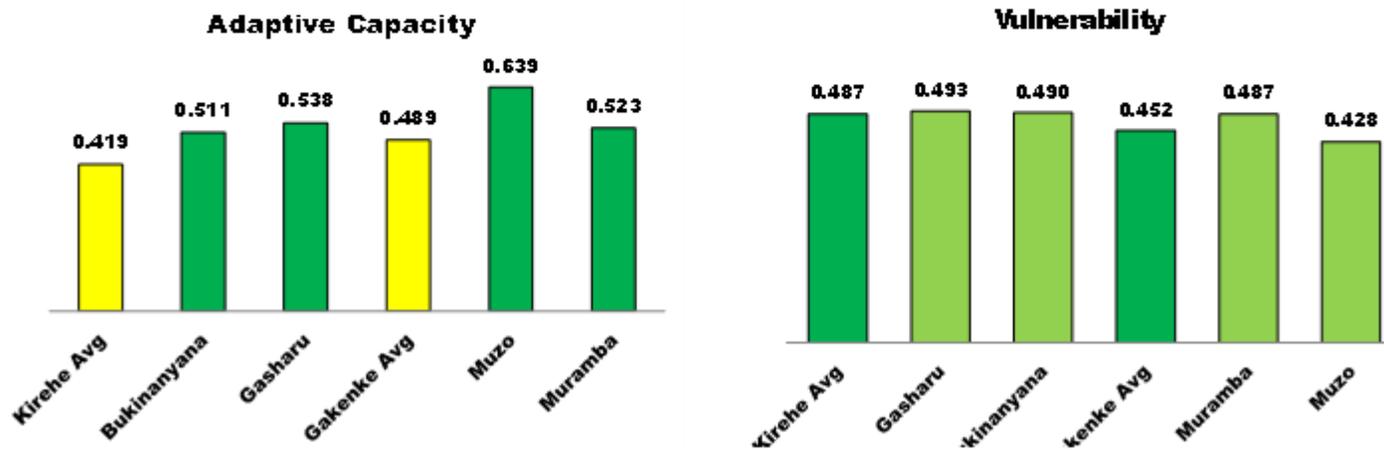


Figure 2: Adaptive capacity and vulnerability per village relative to District averages



Exposure: The findings showed that all the four villages had higher exposure (above 50%) compared to the District average. High exposure was due to the fact that in the last ten years, rainy seasons have become shorter and the onset and quantities of rainfall less reliable[25]. In addition, dry seasons have become longer and unpredictable and despite improvements in flood control, the number of landslides have increased, become more destructive and the number of victims increased (ibid).

Sensitivity: The high sensitivity was due to a combination of factors[26] namely: a) degradation of ecosystems services (soil, watershed, food), high dependence on rain-fed agriculture with only 43% of the households producing a surplus (hence low incomes of less than US\$ 220 per year) and high rates of illiteracy with limited economic opportunities outside agriculture. The average land holding per household is 43.32 Ares (0.4 ha)[27]. The four sub-catchments face serious degradation arising from increasing soil erosion, deforestation, receding wetlands and deteriorating riverbanks (Table 2). Between 1990 and 2018, agriculture expanded by 8,439.70 ha at the expense of 5,140.20 ha of forest. Currently, 10,410 ha of land faces moderate to extremely high risk of soil erosion while 7,000 ha of forests are already degraded. In addition, 580 ha of marshland and 47 kilometres of riverbanks are being exploited [28] unsustainably. The respondents reported degraded ecosystems services such as loss of timber and non-timber products due to deforestation, declining land productivity due to soil loss and reduced soil fertility, reduced water for the irrigation scheme in Bukinayana due to degraded watershed.

Adaptive capacity: The villages lacked basic amenities that are available in a modern IDP village, which reduced their resilience and ability to recover after disasters such as droughts and floods. Table 1 below ranks the village amenities in the project based on government criteria for model Imidugudu on a scale of 0 to 1[29]. It is clear that all the four villages have serious lack of amenities although Bukinanyana is relatively better off. In addition, over 75% of the households that received early warning did not use the information for decision-making. This shows that they have capacity gaps in their preparedness to adapt to climate events.

Table 1: Ranking of Village Amenities in the Proposed Project Area

Amenities	Village			
	Muzo/Kagan o	Muramba	Gasharu	Bukinanyana
Planned/consolidated dwellings	0	0.3	0.3	0.8
Quality of building materials (from temporary to permanent)	0.3	0.3	0.2	0.8
Access to electricity	0.2	0.2	0.1	1
Ownership of Water tanks	0	0.5	0.2	1
Girinka (access to one cow per family)	1	1	1	1
Access to biogas	0	0	0	0.5
Community center	0	0	0.8	0
Dispensary	0	0	0	0
Early Childhood Center	0	0	0	0
Technical training center	0	0	0	0
Crop Intensification Programme	1	1	1	1
Access roads (tar, murrum, none)	0.4	0.5	0.4	0.4
Access to insurance (crop, livestock)	0	0	0	0
Average scores	0.22	0.29	0.31	0.50
Rank	4	3	2	1

Furthermore, inequitable gender relations put women and the youth at higher vulnerability due to inequitable access to natural resources, to education and limited presence in decision-making forums. The livelihoods of the communities in the pilot areas are highly dependent on natural resources (firewood, land, water etc.). Access to natural resources are affected by gender because, in general, the socially constructed roles and relationships determine gendered division of labour and time use, access and control of important resources, power and decision making, and knowledge and capacities (power-relations). The Government of Rwanda has made strong political commitment to gender equity and equality at all levels[30], placing the country first on the global ranking of countries with the most women in legislature and fourth on the World Economic Forum's Global Gender Gap Report of 2017[31]. Indeed, the country has legislation to reduce the scope for application of customary law in the areas of land tenure and inheritance, has adopted a uniform and government-administered tenure regime and a new law on matrimonial regimes and inheritance, all of which incorporate progressive ideals of gender equality.

Nevertheless, these measures have not significantly changed the social inequality mind-set: whilst women may not face much resistance in accessing politics and decision-making positions, this has not liberated them from gender subordination; political participation has increased their workload and generally adapted patriarchal norms instead of eliminating them[32]. This is because the rise in women's participation was not reciprocated by a cultural change, thus,

gender power relations, gender hierarchies and gender-based inequality and injustices practiced through gender biases and stereotypes still prevail (ibid). Indeed, application of the progressive new law in rural areas is hindered by a combination of factors, including weak enforcement in the reality of weak regulatory influence on village life; low levels of awareness and understanding of the new law, both amongst men and women; limited access to State Courts. Furthermore, the rights under the Law on Matrimonial Regimes and Inheritance (1999) accrue only to legally recognized marriages. The Law therefore does not protect the many women in customary marriages, second wives and concubines. The prevailing gender biases and stereotypes have led to the gender gaps reported throughout the various sections of this prodoc.

The long-term preferred solution is to climate proof Rwanda's rural settlement program by integrating climate risks and adaptation measures during the planning, design and implementation, to avoid maladaptation and 'lock-in', and to sustain the benefits of the programme despite the escalating uncertainties related to climate change. Given the low levels of economic and technological sophistication in the rural areas, high population density, hilly topography with settlements on slopes, land scarcity and high dependence on agriculture, climate proofing should take a systemic, holistic approach to building resilience of the rural settlements in which: a) planning, design and building of the settlements and related infrastructure are based on non-proxy climate information to understand the real climate risks (short and long term timescale/projections from reliable source); b) a landscape-based approach to mainstreaming climate information/risk into the programs is used that connects socio-economic activities, infrastructure and ecosystem functions; c) stakeholders understand climate information and are engaged in improved management of ecosystems to increase ecosystems services, adopt climate-resilient production systems and diversified livelihood options, linked to viable high value markets; d) the country has a policy framework and knowledge sharing systems to ensure that all future settlement programmes in Rwanda are climate proofed; e) beneficiaries have access to affordable finance to support adoption of climate resilient technologies and production systems and alternative livelihoods. Achieving the long-term desired solution is however hindered by five barriers; the four identified during the PIF and a fifth (barrier #2b) identified during the PPG. The four barriers were described in the PIF and refined during the PPG as presented below (and summarized in the Theory of Change Diagram in the Prodoc).

Barrier # 1: Inadequate technical capacity to generate relevant climate information and integrate climate risks into the planning, design and implementation of the imidugudu program

Although the quality of climate information has increased in the recent past^[33], there are misalignments and capacity gaps in the climate information products and services value chain, from the collection, analysis and packaging of such information to meet the needs of communities, to the application of this information at local level to support the integration of climate risks into the rural settlement programme and adaptation decisions and actions. Consequently, majority of the population tend to mistrust the available climate information and weather forecasts. About 75% of the respondents to the baseline assessment undertaken during the formulation of this project reported that they did not use climate information in decision-making. Meteo Rwanda has limited capacity (up-to-date skills and state-of-the art equipment) to generate, analyse and provide usable weather and climate information. Insufficient training of staff of relevant departments within the Ministries of Infrastructure, Agriculture and Animal Resources and Environment, and Community Groups facilitating development at local levels such as the Joint Action Development Forum (JADF), cooperatives (SACCOs), Twigire Muhinzi and the associated Farmer Field Schools exacerbates the challenge of using climate information in the planning and implementation of the Imidugudu programme. These institutions have limited capacity to offer needed advisories and effective extension support to the communities which would enable them to adopt more resilient and productive practices within the rural settlement programme. Consequently, communities have limited awareness of the risks that climate change poses to the Imidugudu and their livelihoods and are not familiar with climate smart solutions to build their resilience and adaptive capacity.

Climate proofing the Imidugudu programme is further hampered by a lack of a clear, locally applied/tested model to guide climate-proofing the Imidugudu programmes. Thus, a working definition for the climate proofing is yet to be developed; the requirements for the widespread application of such a model(s) are not yet known including the policy framework, institutional coordination, budgetary provisions or the skills and capacities required for its successful uptake.

As a result, there are no prototype climate-resilient settlement designs; and the facilitators of the Imidugudu programme – such as the private sector engaged in building the model villages (architects, contractors) - have little awareness of the necessity of climate proofing the process, and have no tools or skills for climate proofing.

While it is widely accepted that healthy ecosystems provide a cost effective means of reducing vulnerability of livelihoods to climate risks, the technical staff and the communities do not have the skills or the capacity to generate this knowledge and utilize it in facilitating a landscape approach or community based adaptation plans, that would guide the climate proofing of the Imidugudu program. The four sub-catchments targeted by this project are host to important river systems, wetlands and forests, which would provide cost-effective adaptation measures to secure the Imidugudu programme. These natural resources are highly degraded, which sets off a vicious cycle where degradation of natural resources further increases poverty, often leading to negative capacity and coping strategies. Despite the high levels of vulnerability reported during the baseline assessment, none of the communities had any comprehensive plan(s) to tackle climate risks systematically.

Outcome 1 will provide skills, information and tools to reduce and/or manage climate risks and secure the benefits of the imidugudu programme.

Barrier # 2A: : Imidugudu beneficiaries lack the financial resources to invest in available climate smart technologies and solutions to integrate climate risk into the Imidugudu and diversify and sustain climate-resilient livelihoods.

The communities in the four project areas are resource-poor and unable to invest in the available climate smart technologies, opportunities and solutions for integrating climate risks into the Imidugudu and to diversify related livelihood systems. There are many opportunities to implement resilience building measures to existing and new Imidugudu, which include: a) rehabilitation of degraded ecologically sensitive resources to improve ecosystems services and the effectiveness of nature based adaptation technologies; b) uptake of climate smart agriculture practices to rehabilitate degraded agricultural land and increase food production and adaptive capacity; c) improved and climate smart livestock management practices such as uptake of Girinka programme (zero grazing system for cows) and diversification of livestock systems; b) use of improved household energy systems such as biogas, electricity (including solar); d) constructing water harvesting reservoirs that help address the prevailing water scarcity; and, e) utilization of existing value chains to add value to produce, access organized markets and increase household incomes, boosting adaptive capacity. Communities in the project area have underutilized these opportunities as explained below, further undermining their collective adaptive capacities.

Increasing resilience of settlements by implementing village greening measures (measures outlined in Table 1 of the Prodoc): Muzo/Kagano and Muramba are not yet climate resilient settlements, Gasharu is an old Imidugudu site with only 120 families (with additional room for 400 more). Many of the homesteads are constructed with non-durable materials and are located in vulnerable sites, surrounded by degraded ecosystems, making them prone to climate risks (landslides and floods). Indeed, only one of the four pilot sites rated 50% along the criteria set by the government for a model village^[34] (Table 1). The RHA, in collaboration with the Kirehe and Gakenke Local Authorities, have identified many vulnerable households (categories 1 and 2) in the two districts. They have plans and budgetary provisions for settling many households into less vulnerable sites. However, the resettlement process is progressing slowly due to shortage of resources to build climate resilient houses and implement the greening processes simultaneously. Residents of these areas do not benefit from planned/consolidated dwellings and the associated access roads. More than 80% of the households do not have electricity or biogas, have no water harvesting facilities, and lack social amenities (community, health or technical training centres). Consequently, the beneficiaries of the new settlements to be established by RHA and the Local Councils will fall short of implementing these additional climate resilient measures, thus fall short of securing the benefits of the settlement programme from further climate risks.

Ecosystems management to improve ecosystems services necessary to increase resilience: the levels of ecosystems services was reported to have deteriorated significantly due to degradation of ecosystems over the last decade (Table 2 of the Prodoc). Between 1990 and 2018, agriculture expanded by 8,439.70 ha and 5,140.20 ha of forests was lost. Currently, 10,410 ha of land faces moderate to extremely high risks of soil erosion and about 7,000 ha of forests are degraded. In addition, there are 288 ha and 47 kilometres of degraded wetlands and riverbanks, respectively[35]. Despite these facts, there is limited protection and/or rehabilitation of these ecologically sensitive segments of the landscape, reducing the effectiveness of the natural capital in providing cost-effective adaptation infrastructure to the settlements and livelihoods.

Limited uptake of climate smart livelihood support practices such as climate smart agriculture and diversification livestock systems, that would increase land productivity and diversify sources of household incomes, thus increasing resilience. Although the Crop Intensification Programme (CIP) was available in all four pilot areas, more than half[36] of the households did not access the programme due to their inability to consolidate land with neighbours, a requirement for joining the CIP[37]. In addition, many of the households cannot afford the 50% payment for irrigation equipment and technology (government subsidy covers the other 50%)[38]. Furthermore, although the Girinka Programme (one cow per family) is available in the four pilot areas, many respondents to the baseline assessment, especially women found it a challenge to keep cows. This is due to insufficient forage, lack of alternative choice (no small stock is offered to families who struggle to maintain the hybrid cows), limited consideration of gender aspect at project design level, limited land for eligible beneficiaries (families with less than 0.2 ha do not receive a cow while many teenage mothers fall in this category) and limited skills in the care and management of the given cows[39]. None of the households had crop or livestock insurance, leaving them exposed to loss of capital due to unusual climate events.

Barrier # 2B: Low levels of community and local institutions' capacity to add value to products and to effectively participate in existing value chains thereby limiting their access to high value markets

Despite the presence of considerable number of value chains operating in the two districts (detailed in the baseline assessment report), households in the pilot sites found it challenging to utilize them to benefit from value addition and existing markets. This reduces their opportunities to diversify household incomes, thereby increasing vulnerabilities. The inability to link with value chains is attributed to weak cooperatives and absence of a culture of savings, exacerbated by high levels of financial illiteracy. Although savings would contribute to cushioning livelihoods against shocks from climate change, most people have very low levels of financial literacy which restricts their ability to save and access loans from formal financial services for improving agriculture and/or other income generating activities. Consequently, the number of people accessing these facilities is limited.

There are many banks and financial institutions offering loans and investment packages (outlined in the baseline assessment report). However, many people in the project areas are either unaware of these services, do not qualify for the services and/or believe the packages are too complex. Despite the many opportunities therefore, households in the target sites remain poor and outside this financial system. In Muramba, Muzo/Kagano and Gasharu, poor prices for milk sets a vicious cycle of weakening the milk savings and credit cooperative (SACCO) and irregular milk collection, high cost of transportation (3 hours to the processing unit). Furthermore, the local organizations had very limited capacities to undertake their stated objectives (particularly linking members to inputs, credits and markets), with a combined score of below 40% (using the modified UNDP Capacity Assessment System – Annex 12 of the Prodoc).

Barrier # 3: Climate proofing Imidugudu is not recognized within the Rwanda Planning, Budgeting and Public Investment System

The Government of Rwanda has taken keen interest in promoting strong adoption of adaptation and low carbon, climate resilience development strategies. Despite these advances, climate change is still seen as part of the environment agenda, rather than as part of the development or planning agenda. Furthermore, climate proofing the Imidugudu programme is not yet recognized within the country's planning, budgeting and public investment system, limiting its national uptake. National priorities in Rwanda are implemented in accordance with planning frameworks that ensure coordination across all public institutions and adherence to national strategic objectives. This planning happens at three levels, namely: i) long-term planning at the national level; ii)

medium-term planning at the national, sectoral and institutional level; and iii) annual planning at the institutional level. An issue that is not mainstreamed into these planning frameworks will not feature in the decision-making on national public investment, hence cannot be budgeted for, nor upscaled or replicated. The important planning frameworks include: the National Strategy for Transformation (NTS 1) 2017-2024: Rwanda's National Investment Policy (NIP, 2017), the National Decentralisation Policy (2012), District Development Strategies (2018-2024), the rural settlement Strategic Sector Plan (2018-2024), the Organic Law on State Finance and Property (No. 12/2013 of 12/09/2013). Furthermore, important stakeholders involved in the planning and budgeting processes within the public sector investments are unaware of the importance of climate proofing the Imidugudu programme. They include Parliament, District Councils, Public Investment Committee (PIC), Local Government Projects Advisory Committee (LGPAC), Clusters, Ministry of Finance and Economic Planning (MINECOFIN), National Development Planning and Research Department (NDPR), National Budget Department (NBD), Ministry of Local Government (MINALOC), Local Administrative Entities Development Agency (LODA), Rwanda Development Board (RDB) Budget agencies, Line ministries and agencies and Districts.

Coordination of climate proofing development initiatives at the district level is further exacerbated by the out dated tools for environmental planning and the limited capacity for coordination of the institutional framework for disaster management and response established by the GoR in 2018, which includes national, district and sector level coordination mechanisms (see details in Box 4). A National Platform for Disaster Risk Reduction (NADIMAC) has been established and it provides interagency and multi-sectoral technical support to MINEMA on disaster management, disaster risk management and risk reduction issues and concerns. District Disaster Management Committees (DIDIMACs) have been established by law in the 28 Districts; and, Sector Disaster Management Committees (SEDIMACs) have been established in all sectors of Rwanda. These two institutions are in charge of coordinating and implementing disaster management activities at the District and Sector levels. Nevertheless, these institutions are nascent and still require additional capacity to sustain the coordination role. Similarly, the Joint Action Development Forums and Monthly Community Work (Umuganda), the parents evening forum (Umugoroba w'Ababyeyi) and general village assemblies (Inama Rusange y'Abaturage), which provide important foci for cross sector coordination in the implementation of the rural settlement programme have limited require additional training to be carry out these roles more effectively.

Barrier # 4: Inadequate knowledge management and M&E systems limit the use of experiences to improve rural settlement programme on a larger scale Robust M&E, knowledge management systems are critical; they would enable the beneficiaries of the Imidugudu and the technical institutions that support them to learn from experience and lessons generated in Rwanda and abroad to collectively improve climate proofing and adaptation actions. However, these groups are not adequately or systematically monitoring the impacts of the programme on adaptive capacities of the beneficiaries. This is because they have no systems for monitoring and evaluation or knowledge management. The M&E and knowledge management systems of the institutions supporting the rural settlement programme and the associated livelihoods, such as the Twigire Muhinzi and the Local District Councils also have limited capacities for M&E and KM, because these functions are inadequately prioritized in budgeting processes.

1.a.2 Baseline scenario and any associated baseline projects

Rwanda has put in place several measures to strengthen technical, financial and institutional capacities for both rural settlement (Imidugudu) and enabling climate change adaptation. A number of national policy initiatives, sectoral policies, programs and strategies described in the PIF are still on-going and relevant to adaptation, and hence this project. They include: a) the National Human Settlements Program (Imidugudu), which provides the mandate for regrouping vulnerable households in rural areas on serviced sites equipped with the basic infrastructure and community amenities, prioritizing households in categories one and two^[40]; b) the Integrated Development Programme (IDP) Model Village Project (2009 onwards) which is upscaling the Imidugudu by building demonstration villages in all the thirty districts; c) the Greening the Imidugudu programme, which is demonstrating adoption of environmental management practices within the IDP model villages. Measures include provision of water reservoirs to control run-off and ensure that it is productively

utilized, control of soil erosion to reduce soil fertility loss and maintain or improve agricultural productivity and retain much of the water through terracing: d) Kirehe and Gakenke District Development Strategies (starting 2018 - 2024), which make provision for the construction of IDP model green villages for population living in high-risk zones, in order to facilitate settlement of households in planned “Imidugudu” sites. e) The Comprehensive African Agriculture Development Program – 2007 to 2030: which supports African governments to: i) to achieve at least 6% annual growth in agricultural productivity; ii) to increase the allocation of national budgets directed to the agricultural sector to at least 10%. By 2014, the share of the country’s national budget for the Ministry of Agriculture and Natural Resources (MINAGRI) reached 13% of the overall budget and the estimated agricultural sector growth stood at 6% (ibid); f) The Green Growth and Climate Resilience Strategy (GGCRS), 2011 – 2050, which provides guidelines and a process of mainstreaming climate resilience and low carbon development into key sectors of the economy. With a focus on agroforestry, climate knowledge, irrigation and roads infrastructure as its main tenants for adaptation, it provides a strategy focusing on green, low carbon development, but does not explicitly provide mechanisms to deal with vulnerabilities, associated with climate change. These baseline programmes and policies are described in detail in the PIF.

Changes in the baseline scenario since the PIF: There are two important changes to the baseline since the PIF:

a) The National Housing Policy has been reviewed and is pending Cabinet approval. It now contains provisions for mainstreaming climate risk into the rural settlement programme.

b) The government has established a robust institutional set up for National, District and Sector level cross coordination of disaster risk reduction across the sectors. A National Platform for Disaster Risk Reduction (NADIMAC) has been established to provide interagency and multi-sectorial technical support to Ministry in charge of emergency management (MINEMA) on disaster management, disaster risk management and risk reduction issues and concerns. At the lower levels, District Disaster Management Committees (DIDIMACs) have been established in all 28 Districts; and, Sector Disaster Management Committees (SEDIMACs) have been established in all sectors of Rwanda. These two institutions are in charge of coordinating and implementing disaster management activities at the District and Sector levels. The government provided capacity building support on disaster management and deployed District Disaster Management Officers (DDMOs) in 10 most disaster risk prone Districts, namely Gakenke, Rubavu, Nyabihu, Ngororero, Nyamagabe, Muhanga, Rwamagana, Nyagatare, Kayonza and Rutsiro. It has produced and made available Training Manual on Disaster Management for DIDIMACs and SEDIMACs and trained several officials, authorities, staff and professionals at national and District/Sector levels developed (35% women) and communities. The training is focused on post disaster needs assessment, better management of disaster at community level and use of early warning system. In addition, the government has undertaken the following:

- Mainstreamed DRR in Annual Action Plans (AAPs) and policies of sectorial Ministries (infrastructure, agriculture, environment, education, ICT, youth employment and productivity, housing and settlement, urbanization, transport, water and sanitation, health, education), and in 28 District Development Plans (DDPs);
- Provided a functioning National Disaster Risk Assessment and Monitoring System (DRAMS) – in the form of the National Risk Atlas of Rwanda, which is used policy planning, infrastructure development including urban planning for settlement, agriculture, etc. This is also informing investors especially those in the field of agriculture and other sectors;
- Set up and operationalized the end-to-end early warning systems in the form of the disaster communication system of MINEMA, which feeds into the national disaster database. Daily reports of disaster data are compiled and disseminated to decision makers and technical units appropriate and corresponding actions;
- It aired many public discussions on radio on disaster risk reduction and formed 209 schools clubs focused on awareness raising on the same.
- In addition to the above, the SERVIR^[41]-Eastern and Southern Africa team members, with partners in Rwanda, have developed a system that serves as a data and information coordination platform for disaster management across government agencies. The web platform, managed and hosted by MINEMA, provides a place for interagency data sharing. Designed with a mixture of technical and non-technical users in mind, the system is available to anyone with

access to the internet who is in need of disaster data and information and can push disaster-relevant information from different agencies to the application. Selected focal points from specific agencies have the ability to upload and download data, and anyone with access to the internet can easily mash-up data layers from different agencies to create disaster maps and download data.

In addition, to the coordination committees, each district has a Joint Action Development Forum (JADF). Established by The Ministerial Instructions No. 04/07 of 15/07/2007 JADF is a multi-stakeholder platform put in place to facilitate and promote full participation of citizens in the decentralized and participatory governance and improve service provision processes with representatives from the public sector, private sector and civil society. JADF members come from institutions and organisations operating at District level including public, private, local and international NGOs, Faith-based organisations and other development partners. JADF meetings are a key platform facilitating the implementation of effective decentralization by providing a forum for service provision and development planning accountability. At the village level, coordination and linkages to the official committees is provided through the community level organisations, namely, Monthly Community Work (Umuganda), the parents evening forum (Umugoroba w'Ababyeyi) and general village assemblies (Inama Rusange y'Abaturage). In addition, Rwanda has introduced performance contracts through 'Imihigo' which in turn serve for coordination and accountability mechanism at all instances of governance.

Despite the baseline policies and programmes, the long-term gains from the Imidugudu program are still threatened by the impacts of climate change. Historically, climate risk has not been factored in the selection of settlement sites, actual construction of the villages and accompanying infrastructure or the selection of consolidated crops and other income generating activities. Although the public works under both Imidugudu and VUP have a strong focus on natural hazard vulnerability reduction, such as terracing and small-scale irrigation, there is a possibility that the Imidugudus and the short-term social protection might maintain livelihoods in areas that will become unsustainable in the long-term (e.g. locking in development to extremely high risk areas under climate change)[42]. While social protection is a form of adaptation, and builds the resilience of vulnerable groups to future climate change, there is also the potential for climate change to impact on the program itself (ibid). Increases in variability and extremes from climate change could reduce the effectiveness of the programs or increase the number of people who fall back into poverty due to more frequent shocks. It also raises the question of whether public works (infrastructure) will be resilient to future climate.

1.a.3 The proposed alternative scenario with a brief description of expected outcomes and components of the project

The project builds on the existing baseline scenario and a number of national and local level projects (described in the Prodoc section on Partnerships) to address the additional challenges faced by communities and the technical institutions in climate proofing the Imidugudu. The project strategy is detailed in the Prodoc and summarized in the section below. A few change made to the project since the PIF are outlined in Table xx below. These changes were necessitated by the changing baseline scenario since the PIF, in particular the review of the Human Settlement Policy and the establishment of the national and local level cross-sectoral coordination of disaster risk management, both of which affected outcome 3. Output 2.4 was changed to reflect the findings of the baseline assessment, which found that the challenge to improving household incomes was not lack of functional value chains but the difficulty of accessing these value chains by communities, due to low financial literacy and weak institutions at the local levels. Other minor changes were made the indicators to reflect the changes in the outcomes and outputs and to align them with the Climate Change focal area core indicators.

The project strategy: The goal of the project is to put Rwanda's Rural Settlement Programme (Imidugudu) on a climate-resilient pathway to secure the programme's development gains in the face of uncertainties emanating from climate change. The project adopts four integrated pathways that collectively tackle exposure and sensitivity to climate risks at the landscape level by providing technical skills, more accurate and relevant short to long-term climate information, tools, plans, methods to create and sustain climate resilient livelihoods for over 100,000 beneficiaries of the rural settlement programme in 191 villages covering over 25,000 ha of currently degraded landscapes in Kirehe and Gekenke districts. It also provides institutional and policy enablers to upscale the concept through the national and district budgetary systems. Implementation will be guided by a Gender Action Plan (Annex 9 of the Prodoc), a

Stakeholder Engagement Plan (Annex 7 of the Prodoc) and an environmental and social impacts management plan (ESMP), supported by a grievances mechanism. The ESMP will be designed during the first year of the project, based on the environmental and social impacts management framework (ESMF) in Annex 8 of the Prodoc).

Under the first pathway, the project will increase synergistic and effective service delivery along the entire climate information value chain, from the collection, analysis and packaging of such information to meet the needs of communities, to the application of this information at local level to support the integration of climate risks into the rural settlement programme and adaptation decisions and actions. The project will therefore ensure that local communities and the technical institutions that support them fully understand the risks to the rural settlement programme emanating from climate change, they appreciate the benefits and opportunities presented by climate change and have the skills to adopt climate smart solutions and adaptation practices to secure its benefits in the long-term. It will also ensure that communities have access to up-to-date, downscaled climate information and the appropriate tools and advisory services to support local adaptation planning and to integrate climate risks into the rural settlement programme.

This will be achieved by designing and implementing a programme to increase skills and knowledge on integrating climate risks into the rural settlement for the local communities and their supporting technical institutions (Rwanda Housing Authority, Ministries of Agriculture, Environment and Local Government and local institutions such as the Joint Action Development Forum, Twigire Muhinzi, Farmer Field Schools and Cooperatives). The training will include themes such as ecosystems-based adaptation and will be delivered using a training of trainers (TOT) approach, via the Farmer Field Schools. It will be delivered in partnership with other projects advancing ecosystems-based adaptation in the country.

The project will also facilitate formulation of community based adaptation plans, based on a thorough and holistic analysis of vulnerability, with a community based monitoring system to enable stakeholders to understand, monitor and control the changes to the important ecosystems and natural systems necessary for long-term resilience. The plans will provide a conceptual framework that will highlight layers and components of resilience, and define a range of activities, actors and processes that are important parts of a resilience building system. This should also inform plans at a higher level, e.g. at Sector and District level, including the District Development Strategies, that should also be further climate proofed. The project will develop a cost-effective model for integrating both climate information and ecosystems-based adaptation in the rural settlement programme to avoid mal-adaptation and lock-in to vulnerable development. It will highlight the requirements for the widespread application of such a model(s) including the policy framework, institutional coordination, budgetary provisions and the skills and capacities required for its successful uptake.

While this Pathway will benefit from the practical experiences delivered through the other Pathways (2 to 4), it lays the foundation for the rest of the project. Pathways 2 to 4 will utilize the skills and tools provided by the Pathway.

Under the second Pathway, the project will increase adaptive capacity and reduce exposure to climate risks for the beneficiaries of the rural settlement programme in the four mini-catchments. This will be achieved by accelerating the uptake of measures for adaptive lives and livelihoods (increasing resilience) via the implementation of the community adaptation plans to transition the current unsustainable settlement patterns and exploitative farming practices to sustainable, diversified livelihoods, throughout the 23,560 ha landscapes with about 100,000 beneficiaries. The project will work alongside three villages that Government and the districts have already identified for resettlement into new more climate smart villages (Muramba, Gasharu and Muzo), and whose upgrade is already budgeted for by government (output 2.3). LDCF funding will support climate-proofing activities through ecosystem based and diversified livelihood activities for the beneficiary communities, building on the Government co-financing of USD 10 million. It will also work with the inhabitants of the rest of the 191 villages in the four mini-catchments to rehabilitate at least 500ha of degraded hotspots (forests, hilltops, riverbanks, wetlands etc.) to restore ecosystems services across the 23,560ha; facilitate adoption of climate smart agricultural practices to increase land productivity and food security, pilot water harvesting and efficient household energy options to reduce pressure on the forests; and facilitate more effective utilization of existing value chains to increase household incomes. Collectively, these measures increase social capital, reduce pressure on natural resources and increase resilience of livelihoods

and ecosystems. The results of this pilot will inform the design of the entire settlement programme of Rwanda to include climate change adaptation. Experiences from implementing this Pathway will be monitored via the fourth Pathway, and will inform the skills development and policy reform processes under Pathways one and three respectively.

The third Pathway will provide the policy enabling environment and improved cross sectoral coordination to create avenues for replication and scale up of the climate proofing concept. The project will ensure that climate proofing the Imidugudu programme is recognized within the country’s planning, budgeting and public investment system, and that key stakeholders^[43] who influence national and district budgeting processes understand the importance of climate proofing the programme. This will create a sustainable pathway for its national uptake. The project will therefore facilitate the review of the national, regional and district mid-term planning frameworks (policies, strategies and programmes) and provide recommendations to influence uptake of climate proofing concept in the next planning cycles. These include the National Strategy for Transformation (NTS 1) 2017-2024, Rwanda’s National Investment Policy (NIP, 2017), the National Decentralisation Policy (2012), District Development Strategies (2018-2024), the Rural Settlement Strategic Sector Plan (2018-2024) and the Organic Law on State Finance and Property (No. 12/2013 of 12/09/2013).

The project will update REMA’s environmental planning tools to include principles of climate proofing. It will also increase the skills of institutions and platforms recently created by the GoR for cross sectoral coordination and disaster risk reduction. At the district level, the institutions include the District Disaster Management Committees (DIDIMACs) and Sector Disaster Management Committees (SEDIMACs). These are supported by the District Disaster Management Officers (DDMOs), the Joint Action Development Forum (JADF) and community level committees (Monthly Community Work (Umuganda), the parents evening forum (Umugoroba w’Ababyeyi) and general village assemblies (Inama Rusange y’Abaturage). The results of this Pathway will be monitored (through the fourth Pathway) and fed back into the skills development and practical implementation of adaptation measures under Pathways one and two, respectively.

A fourth pathway provide monitoring and evaluation systems, codify knowledge and promote its dissemination to further support replication and upscaling. The project will design a participatory M&E plan and integrate it into the M&E systems of the Twigire Muhinzi, District and/or relevant Sectors. It will also develop a comprehensive Communications and Knowledge Management Framework to coordinate communications and knowledge management. Knowledge products will be produced and disseminated targeting different audiences at all levels - local, national, international, including decision-makers, project partners, aligned programmes, community stakeholders. At least two knowledge sharing events will be held at the district level. This Pathway is fundamental to monitoring the results of all the other Pathways, distilling and disseminating lessons; thus it integrates all the project outcomes into one logical strategy whose outcome is greater than the sum of its parts.

Table 2:Comparing Outcomes and Outputs at PIF and at CEOR

At PIF	At CEOR	Reason/justification for change
Outcomes		
Outcome 1	No change	
Outcome 2	No change	
Outcome 3: The project will provide a policy enabling environment for the integration of climate risks into the Imidugudu settlement programs, and improve cross sectoral coordination for its integration into planning frameworks relevant to its impl	The project will provide a policy enabling environment for the integration of climate risks into the Imidugudu settlement programs, and improve cross sectoral coordination for its integration into planning frameworks relevant to i	The changes have been necessitated by the findings of the baseline assessment which found that: 1) the Human Settlement Policy has been reviewed and is now pending Cabinet approval. The concepts proposed in the PIF have influenced the r

<p>ementation. It will therefore contribute to the finalization of the draft Human Settlement Policy, ensuring that the policy provides a stronger basis for integrating climate risk in human settlement, and ensure that the rules and regulations developed to implement the policy reinforce the message. It will also revise the Green Smart Village Toolkit by REMA / PEI, by further integrating climate concerns. In addition, the project will provide mechanism to support cross sectoral and district coordination to make it easy for technical departments to coordinate the multiple decisions needed using multiple sets of climate information, and the actions thereof, in a manner that is beneficial for integrating climate risk into Imidugudu.</p>	<p>ts implementation. The project will ensure that the concept of climate proofing the Imidugudu is captured in the national and district planning, budgeting and public investment systems, to provide a basis for budgetary provisions for its roll out. It will update REMA's environmental planning tools to include principles of climate proofing. It will also increase the skills of institutions and platforms recently created by the GoR for cross sectoral coordination and disaster risk reduction</p>	<p>view and it now provides the basis for integrating climate risk in human settlement. 2) the GoR has put in place a clear and robust institutional set up for cross sectoral coordination of disaster management, which includes coordination for mainstreaming climate risks (described in the baseline scenario). The outcome was re-oriented to ensure that: a) the concept of climate proofing the Imidugudu is captured in the national and district planning, budgeting and public investment systems, to provide a basis for budgetary provisions for its roll out: b) to update REMA's environmental planning tools (instead of just the one Greening Toolkit) to include principles of climate proofing; c) to increase the skills of institutions and platforms recently created by the GoR for cross sectoral coordination and disaster risk reduction. This ensures that the project builds on the existing baseline and avoids duplication and waste.</p>
<p>Outcome 4</p>	<p>No change</p>	
<p>Outputs</p>		
<p>Outputs 1.1: A training programme designed and delivered to provide specialized technical skills and awareness on landscape approaches to climate risk management for technical staff of all relevant Departments and community group</p>	<p>Training programmes and their sustainability mechanisms designed and delivered to provide specialized technical skills and awareness on landscape approaches to climate risk management for technical staff of all relevant Departments and community groups</p>	<p>Slight modification to ensure that the training programme is sustained. This is important because EbA and climate proofing of the Imidugudu are long-term processes that will require continued skills development. this will be achieved by channelling the training programme through the Twigire Muhinzi extension service, which is a highly participatory scheme, involving communities (via the Farmer Field Schools).</p>
<p>1.2: Climate-risk assessments methods and</p>	<p>No change</p>	

<p>d information provided to support adaptation planning as an on-going practice with a focus on the local level in the project areas</p>		
<p>1.3: Climate-proofed Imidugudu models developed and piloted in four landscapes</p>	<p>Climate-proofed Imidugudu models developed in a science-led highly participatory process and piloted in four landscapes</p>	<p>Slight modification to emphasize the importance climate science and participation of stakeholders from the civil society, academia, communities and government in the design of the climate proofing model.</p>
<p>1.4: Four community-based adaptation plans developed and implementation started</p>	<p>Four Ecosystems-based Adaptation Plans developed in a science-led and highly participatory process and implementation started</p>	<p>Slight modification to emphasize that the project will develop ecosystems based adaptation plans to provide a systematic approach to addressing the vulnerabilities at the landscape level and promote healthy natural resources and ecosystems. Although EbA and community based adaptation plans share commonalities, they are different. An EbA focuses on natural systems as a corner stone of adaptation. Also to emphasize the role of good science and participation of all relevant stakeholders in the formulation process.</p>
<p>1.5: Climate information and decision-making tools to support planning of Imidugudu and community-based adaptation measures piloted in four communities;</p>	<p>Climate information based decision-making tools provided to support uptake of adaptation measures in the four project sites</p>	<p>Simplified to articulate that the project will provide communities with climate information based decision-making tools to support their uptake of adaptation measures. The planning and implementation of the Imidugudu will be guided by the climate proofing model described under output 1.3.</p>
<p>2.1: Rehabilitation of degraded/ unproductive land via agro-ecological interventions to reverse the effects of unsustainable agricultural practices covering about 500ha</p>	<p>Climate smart agricultural practices adopted to increase and sustain food production under uncertain climate scenarios in the four pilot areas</p>	<p>This output was combined with the PIF output 2.6 (Adaptive livelihood initiatives such as climate responsive farming and livestock rearing practices introduced in the four target landscapes benefiting at least 500 households) and edited to focus the project on introducing climate smart</p>

		<p>the project on introducing climate smart agricultural practices to increase and sustain food production under uncertain climate scenarios. Rehabilitating degraded/ unproductive land via agro-ecological interventions to reverse the effects of unsustainable agricultural practices is part of climate smart agricultural practices.</p>
<p>2.2: Protection and/or rehabilitation of ecologically sensitive segments of the landscape such as hills, river banks and lake shores, wetlands, watersheds, etc. covering 200ha</p>	<p>Degradation hotspots (forests, hills and wetlands systems) identified by the EbA plans are rehabilitated to restore ecosystem services as the cornerstone of resilient livelihoods – covering at least 500 ha distributed across the 23,560ha</p>	<p>Edited to focus on the rehabilitation of the degraded hotspots with the objective of restoring the ecosystem integrity (and delivery of ecosystem services for adaptation) by the entire mini-catchments with a total area of 23,560ha.</p>
<p>2.3: Upgrading of housing and infrastructure around Imidugudu to more climate smart versions in four villages benefitting about 500 households</p>	<p>No change</p>	
<p>2.4: Provision of rainwater harvesting and alternative energy options piloted under the Green Village and Integrated Development Programme (IDP) models</p>	<p>Rainwater harvesting and alternative energy options piloted to increase resilience of livelihoods under the Imidugudu programme</p>	<p>Edited to focus the provision of the water and energy systems to support resilience.</p>
<p>2.5: Value chain analysis and development of at least 4 selected value chains for implementation</p>	<p>Beneficiaries of the Imidugudu supported to utilize existing value chains to increase resilience via higher household incomes</p>	<p>This output changed from developing four value chains to the current version – where the project will facilitate the communities to utilize existing value chains more effectively. This was necessitated by the findings of the baseline assessment which found many vibrant value chains operating in the project areas. It also found that the beneficiaries of the Imidugudu programme are the poorest people and have considerable challenges in utilizing these value chains; primary challenge is financial illiteracy and weak institution</p>

		s (SACCOs that fail to adequately equip them to utilize the value chains).
2.6: Adaptive livelihood initiatives such as climate responsive farming and livestock rearing practices introduced in the four target landscapes benefiting at least 500 households	This output was combined with the new output 2.1	See explanation under output 1.1.
3.1: Revision of Human settlement policy, rules, regulation, planning frameworks and Green Village Toolkit to mainstream climate risks into Imidugudu;	Strategic review of policies, national and district strategies, programmes and planning tools to ensure they capture climate proofing of Imidugudu in the investment decision-making processes.	See explanation under outcome 3 above.
3.2: Establishment of cross-sectoral coordination mechanism at the district level	Technical and community institutions trained to improve their effectiveness in the cross sectoral coordination units and networks recently created by the GoR.	
4.1: Development of participatory M&E plans and enhancement of communities' capacities to monitor, learn and sustain the climate proofing initiative	No change	
4.2; Best practices and lessons collated and shared including project monitoring and evaluation reports	Best practices, lessons collated and shared, KM products codified and disseminated to support continued adaptation planning and implementation for the Imidugudu program	PIF Outputs 4.2 and 4.3 were merged into one because the activities are very closely related and the budget under each very limited. The merger has however not resulted in dropping of any activities envisaged at PIF stage.
4.3: Codify and disseminate knowledge products (tool kits, land-use plans, training programs, etc.) to support continued adaptation planning and implementation for the Imidugudu program		

In addition to the above, the project will build on lessons and partnerships offered by other projects under implementation detailed below.

Building the capacity of Rwanda's government to advance the National Adaptation Planning process – GEF-LDCG Project # 6986 – 2019 - 2023: Supported by the UN Environment: The GEF project will assist the Government of Rwanda (GoR) with implementing the NAP process by strengthening its: i) technical and institutional capacity for medium - and long-term adaptation planning; ii) technical capacity to mobilise funding for climate change adaptation; iii) scientific

capacity to monitor, evaluate, and generate knowledge on adaptation interventions. Such strengthening will be achieved through three components, namely: i) technical and institutional capacity for the NAP process in Rwanda; ii) advancing climate-resilient technologies and practices; and iii) monitoring, reviewing and knowledge-sharing to learn from the NAP process in Rwanda. Relationship to this project: The proposed project will collaborate closely with the NAP project to utilize the capacities provided to METEO Rwanda and MINAGRI to avail better information for the development of the Imidugudu climate proofing model, the formulation of the community-based ecosystems-based adaptation plans and selection of the climate smart livelihood measures. It will also rely on the information on EbA generated via the NAP project research efforts and the training manuals to train stakeholders on EbA at all relevant levels. The formulation of the community-based EbA plans and the participatory plans for its implementation will be closely coordinated with the indicators generated to monitor the effectiveness of the NAP process, to ensure that the proposed project contributes to generating monitoring information for the national monitoring process.

Increasing the adaptive capacity of vulnerable Rwandan communities to adapt to the adverse effects of climate change: Livelihood diversification and investment in rural infrastructures – GEF # 5495, supported by the Africa Development Bank (2016 – 2020). The project objective is to facilitate diversification of livelihoods away from traditional agricultural activities so as to most efficiently utilize the new infrastructure created by an electricity rollout programme, and consequently increase resilience to the negative impacts of climate change – in 3 districts (Rusizi, Nyamasheke and Karongi all of them in western Rwanda). In this regard, it is diversifying and strengthening climate resilient rural livelihood opportunities for vulnerable women and men by developing value chain and creating and linking demand to supply, training communities and raising awareness and abilities to link to these value chains. It is supporting community driven adaptation and reduced vulnerability to climate change via providing skills and awareness on the social dimensions of vulnerability and resilience to climate change and designing and implementing six community-based adaptation programmes. It is also increasing resilience of small-scale rural infrastructure to climate change by building one market facility and upgrading six others with specifications that takes into account anticipated climate risk and training District engineers and local contractors on climate risks on the design and construction of small-scale rural infrastructure. Relationship to the proposed project: The proposed project will likely start implementation when the lessons from the AfDB project have been made available via the terminal evaluation and knowledge sharing publications. The implementation of the proposed project will be informed by these lessons, particularly on linking communities to existing value chains, formulation and implementation of community-based adaptation plans, specifications for climate resilient infrastructure (to inform the climate proofing model development). It will also build on the training manuals developed by the AfDB project, to avoid duplication and waste.

Reducing Vulnerability to Climate Change in North West Rwanda through Community-based Adaptation - funded by the Adaptation Fund (2014 - 2022[44]), implemented by REMA. The project supports improved water and land management initiatives intended to restore ecosystem functions and services to reduce vulnerability to climate induced hydrological stresses such as flooding and landslides. It also supports diversification and strengthening of rural livelihoods to reduce the number of people reliant solely on farming especially on steep slopes and other ecologically sensitive areas. This is intended to promote the recovery of rehabilitated land and resources and to restore ecosystem services. Finally, it supports community-based adaptation through ecosystem-based approaches and the integration of knowledge and lessons learned into communication materials disseminated widely via all relevant channels. Relationship to the proposed project: The proposed project tackles many similar issues as the Adaptation Fund Project including community-based EbA planning, diversifying livelihoods and knowledge management. The proposed project will build on training materials produced by the Adaptation Fund project to train stakeholders on ecosystems-based adaptation, which will include field visits to areas supported by the AF project. It will also collaborate on the lessons generated on the livelihood diversification and the adaptation planning process. The Ministry of Environment, which also hosts the Single Project Implementation Unit (SPIU) of REMA is in charge of the AF project, which will provide an excellent linkage for coordination and collaboration.

Feed the Future Rwanda/ HingaWeze (HW) Project: The Feed the Future Rwanda HingaWeze project is a five-year (2017-2022), \$32.6 million USAID-funded project that aims to sustainably increase smallholder farmers' income, improve the nutritional status of women and children, and increase the resilience of Rwanda's agricultural and food systems to a changing climate. HingaWeze implements holistic interventions that target the interrelated issues of under-

nutrition, food insecurity and barriers to agricultural productivity by focusing on the sustainable intensification of Rwandan smallholder farming systems, with an emphasis on climate-smart, nutrition-sensitive approaches. HingaWeze is utilizing innovative approaches to enhance the production of five value chains: high-iron beans, orange flesh sweet potato (OFSP), Irish potato, maize, and horticulture. By 2022, the project will have benefited over 700,000 smallholder farmers in ten target districts: Gatsibo, Kayonza, Bugesera, Ngoma (Eastern Province); Nyabihu, Rutsiro, Ngororero, Nyamasheke, and Karongi (Western Province); and Nyamagabe (Southern Province). **Relationship to the proposed project:** the proposed project will draw lessons from the Feed the Future Rwanda project on the involvement of private sector in the irrigation system, engaging farmers in the existing value chains and integration of agriculture and livestock systems to improve household food security.

Solar irrigation project: Since 2018, in partnership with Energy for impact, the Rwanda Development Organization (RDO), a local NGO, is implementing the solar irrigation project in all sectors of Kirehe District. The project builds capacity on irrigation technologies via (among others) demonstration plots for energy irrigation and supply of irrigation materials to farmers. Implemented under the GoR Small scale irrigation technology support program, the initiative provides 50% subsidy on the material cost for farmer uptake of irrigation systems. **Relationship to the proposed project:** The proposed project will link farmers in the four pilot sites to the irrigation projects, to benefit from the subsidy programme. the proposed project will work through local SACCOs to provide incentive grants to be accessed by potential irrigators to match the government subsidy.

Teka nourishing iwemuhinzimworozi Programme (Agriculture and Livestock insurance): This is a new Rwandan Government program supporting farmers to insure their crops and cows in collaboration with selected insurance companies (Radiant, SONARWA and Prime insurance). This program was approved by Cabinet meeting in November 2018, where insurance will be provided for two crops (Maize and rice) and cross breeds or pure bred cows, via a subsidy arrangement. The insurance covers disaster, disease and accident that result in animal death for a cow aged between 8 months and eight years. The insurance annual premium is 4.5% of the productive cow value; 7.02% for the expected value of rice and 8-10% for maize. The Government pays 40% as subsidy while assets owners pay 60%. **Relationship to the proposed project:** The proposed project will, through SACCOs, mobilize farmers and livestock owners in the four pilot areas, by providing some level of incentives to engage with the insurance scheme.

Farm to market alliance project: The Farm to Market Alliance (FtMA) is the new name for the Patient Procurement Platform (PPP), a five years project (2019-2023) which supports farmers to procure cereals for the World Food Programme (WFP), supported by the Rwanda Development Organization (RDO), WFP, AGRA and relevant cooperatives. The project also supports smallholder farmers to increase on-farm productivity and market access for their produce via contract farming in cooperatives, linked to input dealers willing to provide high quality seeds and fertilizers to farmers. So far, the project supports 24,000 farmers grouped into 80 cooperatives. The project is implemented by the Rwanda Development Organization in Kirehe District and Rwanda Rural Rehabilitation Initiative (RWARRI) in Gakenke district. **Relation to the proposed project:** The proposed project will mobilize farmers in the four pilot areas, via their cooperatives, to benefit from the cereal value chain provided by WFP via the FtMA project.

Accelerating Progress towards the Economic Empowerment of Rural Women (RWEE) is a project initiated by FAO and three other UN agencies (WFP, IFAD and UN Women) under the ONE UN initiative in 2015. The third Phase of the project ended in December 2019 but there is a high chance of another five years extension (2020-2024). The objective of the RWEE project is to secure rural women's livelihoods and rights in the context of sustainable development. The joint global program has four outcome areas namely: improved food and nutrition security; increased income to secure their livelihoods; enhanced leadership, participation in rural institutions and; in shaping laws, policies, programs and gender responsive policy environment for the economic empowerment of rural women. **Relationship to the proposed project:** The proposed project will draw lessons and experiences on the economic empowerment of women, with a particular focus on transitioning women and the youth from agriculture to other economic activities, to create opportunities for household incomes and reduce vulnerability.

1.a.4 Alignment with GEF focal area and/or Impact Program strategies

The proposed project contributes to objectives one and two of the Adaptation Focal Area (CCA) under the Least Developed Countries Fund (2018-2022), as outlined in Table 3 of the Prodoc and summarized in the Table below.

Table 3: Alignment of Project Objectives to Climate Change LDCF

LDCF Objective	LDCF Outcome	Project outputs contributing to objective
OBJECTIVE 1:	Outcome 1.1	1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 4.1
OBJECTIVE 2:	Outcome 2.1	3.1, 3.2, 4.2, 1.1, 1.2, 1.3, 1.4

1.a.5 Incremental/additional cost reasoning and expected contributions from the baseline, the LDCF co-financing

The design of the proposed project is informed by lessons and best practices proven to be cost-effective in Rwanda and abroad. Extensive consultations and review of technical publications and past and current projects show that healthier ecosystems, skills to implement climate smart agricultural practices, increased access to water and efficient household energy systems, higher incomes, insurance schemes and robust homes (made from permanent building materials) reduce exposure and sensitivity to climate events thereby increasing adaptive capacities and reducing vulnerability. This approach will therefore ensure that LDCF finances are used to deliver and to sustain maximum measurable socio-economic and ecological benefits to local project beneficiaries. The estimated additional costs of delivering the project is presented in the Table below.

The baseline funds come from the baseline programmes described in the PIF and summarized in the section on baseline scenario and any associated baseline projects above. They constitute long-term government programmes whose funding over the project period exceeds US\$ 100,000,000. They include: a) the National Human Settlements Program (Imidugudu); b) the Integrated Development Programme (IDP) Model Village Project (2009 onwards); c) Kirehe and Gakenke District Development Strategies (starting 2018 - 2024); d) The Comprehensive African Agriculture Development Program – 2007 to 2030; e) The Green Growth and Climate Resilience Strategy (GGCRS), 2011 – 2050.

Table 4: Additional costs

Component	Baseline	Co-finance	LDCF Grant	Total
1	7,000,000	5,000,000	1,500,000	13,500,000
2	20,000,000	15,000,000	5,916,270	40,916,270
3	8,000,000	1,500,000	400,000	9,900,000
4	3,000,000	500,000	150,000	3,650,000
PMC	5,000,000	860,000	389,368	6,249,368
Total	43,000,000	22,860,000	8,355,638	74,215,638

Incremental cost reasoning

Component 1 –Enhanced institutional capacities and knowledge to support a landscape approach and community based adaptation to integrate climate risks into Imidugudu programs: Without the component, the efforts from government, communities and other stakeholders to address vulnerability of households in the target landscapes through Imidugudu program is likely to continue without adequate, knowledge based climate risk considerations, threatening the

long-term viability and sustenance of its benefits. The skills and awareness provided to advance the implementation of the Imidugudu program under the baseline will continue to be impacted on negatively by climate variability and change, because the stakeholders will lack the skills, information and plans to address climate risk. In the absence of reliable forecasts and decision-making tools, beneficiaries will remain vulnerable to the impacts of climate change, thereby decreasing viability of the Imidugudu, local economic development and food security. Under this component, the LDCF investment will change the baseline situation by increasing understanding of how vulnerability of livelihoods, local economies and the Imidugudu program are intertwined with the state of the natural systems, and providing more accurate and relevant weather forecasts packaged in the form of advisory services for farmers. Using this knowledge to design alternative “climate proofed” Imidugudu plans, supported by updated skills which enable technical staff and communities to factor in climate risk into the Imidugudu planning will avoid locking in maladaptation into national development.

Component 2: Adaptive lives and livelihoods (increased resilience) in selected landscapes: Without this component, communities will continue to implement the Imidugudu livelihood support programme without factoring in climate risks, under continually declining ecosystems services and dwindling household incomes, without adequate water and energy systems and without insurance because they will not have access to the relevant information, plans, value chains, subsidies and institutional support from empowered local organisations (SACCOs). They will not easily identify climate risks to their cropping systems, housing, livestock production, income generating activities or even local value chains. They will therefore not be in the position to identify opportunities, or utilize the opportunities presented by climate change. In the absence of the project, the investments, productivity, income generation etc. would be undermined (potentially washed away) by climate impacts. The LDCF alternative will support the switch to resilient technologies and practices, adaptive livelihoods, and climate-proofed infrastructure.

Component 3: Policy and coordination: Without this component, the national policy and its planning frameworks will continue to facilitate business-as-usual Imidugudu development projects, ignoring potential risks to the program arising from climate change. In addition, poor inter-sectoral coordination would weaken any effort to integrate risk into Imidugudu and its livelihood support programs. These facts are likely to lead to a situation where short-term social protection and settlement policies might maintain livelihoods in areas that will become unsustainable in the long-term by locking in development to extremely high risk areas under climate change. This would fail to address increasing variability and extremes from climate change comprehensively, which could reduce the effectiveness of the programs and increase the number of people who fall back into poverty due to more frequent shocks. The alternative will provide sustainability mechanisms for the project impacts by ensuring that policies, laws and planning frameworks support mainstreaming climate risk considerations into the Imidugudu in a coordinated effort across all relevant sectors and vertical planning levels, improving the basis of trade-off decisions needing to be made in a context of high opportunity cost of money.

Component 4: Knowledge management: The Imidugudu is a country-wide program. In the absence of effective knowledge management, the opportunity for learning from this project will be lost, resulting in replication of investments that could be jeopardized by climate risks leading to inefficient use of scarce public resources, and widespread damage to economy and livelihoods. The LDCF investment enables the creation of pathways of transformative change, ensuring that lessons from this project inform nation-wide replication of the climate proofed Imidugudu.

In addition, the incremental contribution from the LDCF will assist the Government (GoR) to promote the climate proofing of the Imidugudu programme country-wide and to sustain climate change adaptation and sustainable economic growth. The project therefore increases the effectiveness of the baseline being invested by the GoR and communities in the on-going ecosystems-based adaptation and the accompanying restoration of forests, soil and water conservation measures to increase agricultural productivity and food security. Importantly, the proposed LDCF project includes technical training for local communities where a “training the trainers” approach is adopted, in which extension agents will undergo technical capacity building. This is a cost-effective

approach as it reduces the number of beneficiaries that will undergo direct training but will also enable the project to reach a wider audience as the trainers themselves will further disseminate climate change concepts amongst local communities. The training of local communities in conjunction with the adoption of a participatory “learning by doing” approach will further promote sustainability and up-scaling of the interventions beyond the lifespan of the project.

1.a.6 Adaptation benefits

The main beneficiaries of the project are the approximately 107,000 people (50% women) who live in the 191 villages where the interventions will take place. Half of the population will be direct beneficiaries while the other half will be indirect beneficiaries. The Project targets the most vulnerable communities, the beneficiaries of the Imidugudu programme and who depend on subsistence agriculture for a livelihood. The project interventions will collectively tackle exposure and sensitivity to climate risks at the landscape level by providing the beneficiaries of the rural settlement programme technical skills, more accurate and relevant short to long-term climate information, tools, plans and methods to create and sustain climate resilient livelihoods. The specific environmental and economic benefits are detailed below.

Environmental benefits: Outcome 2 will restore ecosystem functions and services to reduce vulnerability to climate induced hydrological stresses such as flooding, landslides and droughts. The proposed restoration of 500 ha of ecological critical areas spread throughout the over 25,000 ha via primarily soil and water conservation practices and reforestation will deliver a number of long-term environmental benefits. They include: stabilising hillsides, reduced erosion and land degradation, improvements in the overall hydrology of local watersheds, increased biodiversity, increased carbon sequestration, improved soil fertility, increased agricultural yields and sustainability, enhanced quality of fodder and improved freshwater supplies. The outcome will also support households to diversify and strengthen climate smarter livelihoods reducing the number of people reliant solely on farming especially on steep slopes and other ecologically sensitive areas. Climate smart agricultural practices will allow land to recover and be rehabilitated so that ecosystem services can be restored.

Outcome 1 (capacity building) consolidate the positive environmental impacts of the project by building the capacity of local institutions to support community based adaptation through ecosystem based approaches as well as providing relevant climate information, plans and advisory services to support decision-making processes. The climate proofing models will be replicated country-wide (via outcome 3) replicating the above benefits widely. Capacity building of local communities and institutions will ensure that the benefits of agro ecological approaches are widely understood and supported. The increased commitment to ecosystem-based approaches is likely to foster better stewardship of natural resources. outcome 4 will integrate the knowledge and lessons learned into communication materials disseminated widely through appropriate platforms (website, mass media and policy briefs for decision makers). The awareness raising and training of local leaders will increase understanding of climate threats more generally and enable them to incorporate measures to protect ecologically important resources and promote climate resilient farming methods into local development plans. This will help to mainstream climate change and promote the replication of environmentally beneficial activities in other parts of Rwanda.

Economic Benefits: The project will reduce vulnerability to floods, landslides and droughts, which will significantly increase efficiencies of investments in livelihood activities. Use of the tools and plans generated under outcome 1 (climate proofing model, EbA plans, climate advisory services, risk assessment tools) to implement interventions under outcome 2 (climate smart agriculture, utilization of value chains to increase household incomes, upgrading houses to more climate smart versions) will reduce the exposure of populations living downstream to flash flooding, landslides and droughts reducing expenditure on expensive response and rehabilitation measures for households and infrastructure. Improving water flows in the hydrological network will contribute to the restoration of important economic services such as hydroelectricity and irrigation. The farming community will directly benefit from reduced erosion, improved soil fertility, enhanced yields and increased profit margins deriving from integrated and adaptive farming practices and more resilient ecosystems and services. Crop losses due to climate-related hazards (flooding, droughts) will also be reduced. The restoration of ecosystem services will therefore safeguard and sustain agricultural livelihoods food production, generate growth in the rural economy, alleviate poverty levels in the project area and increase the diversity

and resilience of rural livelihoods to climate change. More effective utilisation of the value chains will improve access to markets, enhance demand for existing and new products and services and more effectively link suppliers to buyers. This will foster increased trade and investment in existing and new value chains. Investment in renewable energy generation (biogas, solar etc.) will provide much needed gas and electricity to support income generation.

1.a.7 Innovativeness, sustainability and potential for scaling up.

This project has two innovative elements, described below.

Model for climate-proofing settlements: While there is agreement that climate proofing is a cost-effective measure for safeguarding investments into the rural settlement, there is no clear model for doing so. Developing one is therefore highly innovative. This model will be integrated in nature as it brings together elements of climate-informed planning, design of settlements and buildings, resilient production and livelihood practices and ecosystem-based adaptation all in one model. To promote its roll out, the project will undertake cost benefit analysis of likely options and provide estimated costs for implementation and determine the institutional arrangement that would be needed for its effective uptake. It will also provide practical guidelines such as prototype climate-resilient settlement designs, policy briefs (with recommendations for policy and regulatory changes that might be required, training materials that are deemed necessary to support the uptake of the model.

Application of new building codes for climate proofing: The partnership with the Government, via the Rwanda Housing Authority is unique. Under output 2.3, the government will provide new IDP villages, providing the project an opportunity to utilize the process to test recommendations for refining the selection of the sites for the new villages, ensuring that medium to long-term climate information and the status of the ecosystems inform the choice. It will work on the designs of the new homes, ensuring that climate risks are factored into the building plans, thereby testing, or contributing to the development of building codes for climate proofed Imidugudu to be developed under outcome 1. It will support the building process, ensuring that all relevant government guidelines apply and that the stakeholders engaged in the building process, including the private sector contractors, have been trained on climate proofing (training provided under output 1.4).

Nature based solutions: The ecosystems-based adaption plans will offer systematic and holistic tools to reduce exposure and sensitivity to climate risks at the landscape level. These plans will enable the communities to treat a few degradation hotspots to improve the ecological integrity and delivery of ecosystems services by a whole landscape. Research on indigenous species (trees and grasses) with high potential for economic returns to be used in the rehabilitation of degraded landscape will further support climate smart business opportunities while rehabilitating ecosystems services. The plans will therefore guide the creation of climate resilient livelihood options and will sustain them post project. While nature-based solutions are likely more cost effective than infrastructural solutions, the project combines both, with significant gains in efficiencies and effectiveness for both. Establishment of rural enterprises will increase household incomes and diversify livelihoods, adding to adaptive capacities.

Scaling up and sustainability will be achieved via four core strategies, described below.

Mainstreaming climate proofing into the housing and other policies related to the rural settlement will create pathways for replication and scale up, as it will ensure that future investments in the Imidugudu mainstream climate risk. Given the high level of involvement of the RHA in the project and the development of the cost effective climate proofing model, the project will influence the institution's budgeting processes to include climate proofing, ensuring long-term upscaling. The project will also improve cross sectoral coordination to support the mainstreaming and replication. It will also codify knowledge and promote its dissemination to further support replication and upscaling. Consolidation and sharing of lessons and best practices at local, national and international levels will trigger upscaling.

Implementing the project through government and local institutions mandated to support the rural settlement and other development in the rural areas will build practical skills, operational capacities and ownership of the project initiatives, creating powerful incentives for upscaling. Similarly, community and farmer level interventions will be aligned with the needs of the beneficiaries so that they are part of the community and household livelihood strategies. In its mainstreaming efforts, the project will promote the inclusion of climate adaptation activities and integrated use of climate information in the work of extension workers. The involvement of the private sector and the building of local business skills enables the project interventions to be taken up beyond the external financing of the project.

[1] Rwanda Environment Management Authority, 2015: Baseline Climate Change Vulnerability Index for Rwanda

[2] National Institute of Statistics (NISR), 2015

[3] RURANGWA, E. 2013: Land Tenure Reform. The Case Study of Rwanda. Paper presented at the Conference on 'Land Divided: Land and South African Society in 2013, in Comparative Perspective', University of Cape Town, 24 – 27 March 2013.

[4] Government of Rwanda, 2011: The Green Growth and Climate Resilience National Strategy for Climate Change and Low Carbon Development; Kigali October 2011

[5] RURANGWA, E. 2013: Land Tenure Reform. The Case Study of Rwanda. Paper presented at the Conference on 'Land Divided: Land and South African Society in 2013, in Comparative Perspective', University of Cape Town, 24 – 27 March 2013.

[6] These categories were created in 2014 by the Local Administrative Entities Development Agency, in a participatory process, and are reviewed every three years. Under the programme, households are put in categories based on their social-economic status, and their property – in terms of land and other belongings – and what the families' breadwinners do to earn a living. The categories are: Category 1: Families who do not own a house and can hardly afford basic needs. Category 2: Those who have a dwelling of their own or are able to rent one but rarely get full time jobs. Category 3: Those who have a job and farmers who go beyond subsistence farming to produce a surplus which can be sold. The latter also includes those with small and medium enterprises who can provide employment to dozens of people. Category 4: Those who own large-scale business, individuals working with international organisations and industries as well as public servants.

[7] Government of Rwanda, Macroeconomic Framework http://www.minecofin.gov.rw/fileadmin/National_Strategy_For_Transformation_-NST1.pdf

[8] The Law 20/2011 of 21/06/2011 Governing Human Habitation in Rwanda defines rural as "an area which is mainly characterized by agricultural and livestock activities. It is also characterized by a small number of medium-height buildings within a cluster of dwellings".

[9] GCAP, UK Met Office and Atkins, 2015: Future Climate for Africa: Rwanda Pilot Case; Final Report

[10] GCAP, UK Met Office and Atkins, 2015: Future Climate for Africa: Rwanda Pilot Case; Final Report

[11] USAID, 2019: Rwanda Climate Change Risk Profile Fact Sheet. https://www.climatelinks.org/sites/default/files/asset/document/2019_USAID-ATLAS-Rwanda-Climate-Risk-Profile.pdf

[12] USAID, 2019: Rwanda Climate Change Risk Profile Fact Sheet. https://www.climatelinks.org/sites/default/files/asset/document/2019_USAID-ATLAS-Rwanda-Climate-Risk-Profile.pdf

- [13] USAID, 2019: Rwanda Climate Change Risk Profile Fact Sheet. https://www.climatelinks.org/sites/default/files/asset/document/2019_USAID-ATLAS-Rwanda-Climate-Risk-Profile.pdf
- [14] USAID, 2016: https://www.land-links.org/wp-content/uploads/2016/09/USAID_Land_Tenure_Rwanda_LAND_IG_Climate_Change.pdf
- [15] ECONOMICS OF CLIMATE CHANGE IN RWANDA, 2011: Stockholm Environment Institute. <https://www.weadapt.org/sites/weadapt.org/files/>
- [16] Ministry of Disaster Management and Refugee Affairs, 2015. The National Risk Atlas of Rwanda
- [17] FAO. 2015. Strengthening capacity for climate change adaptation in the agriculture sector in Rwanda. Environment and Natural Resources Management.
- [18] Rwanda Environment Management Authority, 2015: Baseline Climate Change Vulnerability Index for Rwanda (updated in 2018)
- [19] Ministry in charge of Emergency Management (MINEMA), 2019: Annual Report on Disaster Effects Situation: 2018/2019. <http://minema.gov.rw/index.php?id=107>
- [20] GoR, 2011: Green Growth and Climate Resilience National Strategy for Climate Change and Low Carbon Development
- [21] National Institute of Statistics – Statistical Yearbook 2019
- [22] Ministry of Finance and Economic Planning - Budget Framework Paper 2018/2019-2020/2021 page 33
- [23] The refugee camp is spread across two villages namely: Karambi (where about 65% of the camp is situated) and Nyenyeri village (covered by about 35% of the refugee camp areas)
- [24] The analysis used the vulnerability analysis methodology developed by REMA to determine vulnerabilities at National and District levels in 2018 (REMA and J. Mossel, 2018. Climate Vulnerability Assessment and Index, 2018. Kigali, Rwanda), which was modified for village level assessment. The methodology is built on the conceptual assumption that climate change vulnerability is a function of impact and adaptive capacity where impact is a combination of exposure and sensitivity.
- [25] Findings from the baseline assessment reported in Annex 12 of the Prodoc available separately.
- [26] Findings from the baseline assessment reported in Annex 12 of the Prodoc available separately
- [27] Average holdings are smallest in Muzo village in Gakenke and largest in Gasharu village in Kirehe. Land is jointly owned by men and women, by law, except in cases of widowed or unmarried people.
- [28] Source - (Prime Minister's order No006/03 of 30/01/2017 "Drawing a list of Swamp Lands, their characteristics and boundaries and determining modalities of their use, development and management
- [29] An expanded list of facilities to be considered in the refinement of the baseline and indicators will be used – in Annex 12 of the Prodoc. This will be done in the first six months of project implementation.
- [30] This principle is enshrined in the National Constitution of June 2003 (as amended in 2019) and is reflected in all government policies. One of the Constitution's most effective scheme is the "one-third gender rule", the affirmative action that dictates that all public offices be held by a minimum of one third of the minority gender. This has led to more women in public offices, especially in political positions, governance, decision making, and legal matters. With women making up 53.2% parliamentarians (a slight drop from the 64% in the 2013 general elections)

[31] The Global Gender Gap Report 2017. World Economic Forum. http://www3.weforum.org/docs/WEF_GGGR_2017.pdf

[32] Georgia Orenstein, 2018: Blogger - <https://borgenproject.org/gender-equality-in-rwanda/>

[33] For example, Meteorological Services of Rwanda (Meteo-Rwanda) has recently reconstructed rainfall and temperature data to compensate for the significant decline in meteorological station data coverage from the mid-1990s to around 2010. In addition, Meteo Rwanda generates weather information at 4x4 kilometre grid and communicates it using the administrative boundaries as reference.

[34] An improved Imidugudu is expected to have basics such as: planned/consolidated dwellings constructed with good quality permanent materials, have access to modern energy systems such as electricity, biogas, liquid petroleum gas, solar technologies, be equipped with water harvesting systems such as water tanks, have an established Girinka programme (access to one cow per family with a communal shed) and other economic activities linked to vibrant value chains, be served by public facilities such as a community hall, health facility, Early Childhood Centre and a technical training centre, members have access to land under the land consolidation program (with its improved extension services, commercialization and access to value chains), have well developed access roads (tar, murrum) and that members have insurance, preferably for crop and/or livestock.

[35] Source - (Prime Minister's order No006/03 of 30/01/2017 "Drawing a list of Swamp Lands, their characteristics and boundaries and determining modalities of their use, development and management

[36] 48.8% of the men reported accessing land under the programme compared to 32.3 of the men and 14% of the youth

[37] Implemented since 2008, the Ministry of Agriculture and Animal Resources (MINAGRI) has used the CIP to promote commercialization of agriculture products and boost economic development of farmers, supported by input schemes and value chains.

[38] The baseline assessments undertaken during the project formulation revealed that: (i) over 85% of farmers in the pilot areas do not use irrigation currently; (ii) irrigation produces a significant increase in yields both in Kirehe (where the climate is dry) and Gakenke (less dry, but high rain variability); (iii) a typical 0.25 ha farm could spend in the range of RWF 930,000 (~USD 1,000) to purchase a pump, sprinklers, pipes and accessories; (iv) half of the investment is covered by the subsidy the government; the remaining half needs to be finance by the farmer (or cooperative) directly, through loans or, if available, contributions from donors and NGOs.

[39] Government of Rwanda, 2018. GENDER MONITORING OFFICE ANNUAL REPORT 2017-2018. http://www.gmo.gov.rw/fileadmin/user_upload/reports/GMO_Annual_Report_2017-2018.pdf

[40] These categories were created in 2014 by the Local Administrative Entities Development Agency, in a participatory process, and are reviewed every three years. Under the programme, households are put in categories based on their social-economic status, and their property – in terms of land and other belongings – and what the families' breadwinners do to earn a living. The categories are: Category 1: Families who do not own a house and can hardly afford basic needs. Category 2: Those who have a dwelling of their own or are able to rent one but rarely get full time jobs. Category 3: Those who have a job and farmers who go beyond subsistence farming to produce a surplus which can be sold. The latter also includes those with small and medium enterprises who can provide employment to dozens of people. Category 4: Those who own large-scale business, individuals working with international organisations and industries as well as public servants.

[41] SERVIR means to serve. SERVIR is a global network of regional partners dedicated to environmental management through the integration of Earth observations and geospatial technologies. It provides state-of-the-art, satellite-based Earth monitoring, imaging and mapping data, geospatial information, predictive models and science applications to help improve environmental decision-making among developing nations in eastern and southern Africa, the

Hindu-Kush region of the Himalayas and the lower Mekong River Basin in Southeast Asia.

[42] GCAP, UK Met Office and Atkins, 2015: Future Climate for Africa: Rwanda Pilot Case; Final Report

[43] include Parliament, District Councils, Public Investment Committee (PIC), Local Government Projects Advisory Committee (LGPAC), Clusters, Ministry of Finance and Economic Planning (MINECOFIN), National Development Planning and Research Department (NDPR), National Budget Department (NBD), Ministry of Local Government (MINALOC), Local Administrative Entities Development Agency (LODA), Rwanda Development Board (RDB) Budget agencies, Line ministries and agencies and Districts.

[44] The first Phase was 2014-2019, with an extension to 2022.

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

see Annex E

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

n/a

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities

Private Sector Entities

If none of the above, please explain why: No

Please provide the Stakeholder Engagement Plan or equivalent assessment.

A Stakeholder Engagement Plan (SHEP) is included in the Prodoc Annex 7, and summarized in the Table below.

Table 5: Stakeholder Engagement Plan

Name of Stakeholder	Mandate and Role of Stakeholder	Role stakeholder could play in the Project	Indicators	Budget	Timing
Rwanda Environment Management Authority (REMA) for the Ministry of Environment and Natural Resources (MoE)	<ul style="list-style-type: none"> ü Environmental Regulation Enforcement Mechanism ü Law Enforcement ü Coordination ü Supervision and ensure compliance to environmental friendly practices ü Training ü Fund mobilization 	<p>Lead project implementer; will host the Project Management Unit and be responsible for overall project coordination, monitoring and reporting. Lead implementer for</p> <ul style="list-style-type: none"> i) Output 1.1 – Development of training material and training of relevant stakeholders; ii) Outcome 3 – Policy Reform and stronger cross sectoral coordination; iii) Outcome 4 – M&E and Knowledge Management <p>REMA will be responsible for ensuring that the Environment and Social Impact Assessment is undertaken – using a Free, Prior and Informed Process, and that an Environment and Social Impact Management Plan (ESMP) is formulated before activities likely to cause any negative impacts are implemented. It will develop a formal Grievance Mechanism at project inception (using UNDP guidelines) to ensure that stakeholders have a known and transparent channel and process through which any grievances can be directed and addressed.</p> <p>REMA will therefore be responsible for the overall smooth im</p>	<p>Project Implementation Reports, MTR and TE rated Satisfactory (on average).</p> <p>ESMP in place</p> <p>Grievance mechanism in place and available to project stakeholders</p> <p>Training modules available for upscaling</p>	<p>Provided under budget notes 1, 2, 12, 13, 14, 15, and all outcome 4 and PM C budgets</p>	<p>The timing of all the project activities related to each output is provided in Annex 2 of the Prodoc – Multi-year workplan.</p>

		REMA will therefore be responsible for the overall smooth implementation of the project, delivery and sustainability of all the results.			
Rwanda Housing authority	<ul style="list-style-type: none"> ü Implementation of rural settlement programme ü Policy formulation on rural settlements ü Training ü Fund mobilization 	<p>PB member and lead implementer for the following outputs:</p> <ul style="list-style-type: none"> i) 1.3: Climate-proofed imidugudu models developed and piloted in four landscapes; ii) 2.3: Upgrading of housing and infrastructure around imidugudu to more climate smart versions in four villages benefiting about 500 households; iii) 2.4: Provision of rainwater harvesting and alternative energy options piloted under the Green Village and Integrated Development Programme 	<p>Climate-proofed imidugudu model available for upscaling</p> <p>Number of households provided with improved household energy systems and water harvesting tanks.</p>	<p>Provided under budget notes 4, 7, 8, 17 and 18</p>	
Ministry of Local Government (MINALOC), Kirehe and Gakenke	<ul style="list-style-type: none"> ü Facilitate the participation of local communities; ü Control over land use and land allocation; ü Support decentralized forestry extension services; and ü Facilitate interventions of NGOs in the forestry sector 	<p>PB member and lead implementer for the following outputs;</p> <ul style="list-style-type: none"> i) Collaborate closely with REMA in the implementation of training under output 1.1; ii) Lead output 1.2 - Climate-risk assessments methods and information provided to support adaptation planning as a on-going practice with a focus on the local level in the project areas iii) 1.4 - Four community-based adaptation plans developed and implementation started iv) 2.2 - Protection and/or rehabilitation of ecologically sensitive segments of the landscape such as hills, river banks and lake shores, wetlands, watersheds, etc. covering 200ha 	<p>Number of people trained.</p> <p>Number of people reached by the Climate-risk assessments methods and information disseminated</p> <p>Number of adaptation plans developed</p> <p>Hectares of land rehabilitated</p>	<p>Provided under budget note 3, 16 and 20.</p>	
Ministry of Agriculture and Animal Industry	<ul style="list-style-type: none"> ü Agricultural policy and programmes ü Twigire Muhinzi (extension service) ü Training ü Research and development in agriculture ü Enterprise development ü Cooperatives 	<p>PB member and lead implementer for the following outputs;</p> <ul style="list-style-type: none"> i) 2.2 - Protection and/or rehabilitation of ecologically sensitive segments of the landscape such as hills, river banks and lake shores, wetlands, watersheds, etc. covering 200ha; ii) 2.5: Value chain analysis and development of at least 4 selected value chains for implementation; iii) 2.6: Adaptive livelihood initiatives such as climate responsive farming and livestock rearing practices introduced in the four target landscapes benefiting at least 500 households. 	<p>Number of adaptation plans developed</p> <p>Hectares of land rehabilitated</p> <p>Number of people benefiting from the new opportunities with</p>	<p>Provided under budget notes 20, 19 and 22</p>	

		<p>Four target landscapes benefiting at least 500 households</p>	<p>opportunities with value chains and amounts of money earned by households from the new opportunities</p> <p>Number of households engaging in alternative livestock rearing (from the cow).</p> <p>Number of people taking on crop and livestock insurance packages</p>		
Ministry of Lands and Forestry - Rwanda Land Use Agency	<ul style="list-style-type: none"> ü Policy formulation, overseeing land and forestry related activities ü Supervision, monitoring and evaluation ü Research and monitoring, ü Assisting the Government in conducting forestry awareness programmes among communities 	PB members and active collaboration in the implementation of EbA-based adaptation plans and participatory M&E plans (providing GIS capacities).	Number of M&E products produced via the GIS system	To be determined based on annual workplans.	
Private sector and the Private Sector Federation	<ul style="list-style-type: none"> ü Creating and sustaining value chains ü Linkages to agro-processing and markets ü Financial services 	Service providers - partner with SACCOs to support collective actions in agro-processing, bulking, marketing	Number of people linked to value chains opportunities by SACCOs	To be determined based on annual workplans.	
INGOs – IUCN	<ul style="list-style-type: none"> ü Specialized expertise in FLR and related themes. 	Provide targeted support on FLR planning in the context of EbA planning	Number of FLR plans produced within the EbA plans	To be determined based on annual workplans.	
National N	<ul style="list-style-type: none"> ü Soil conservation and Fores 	Likely sources of co-finance and members of the PB. Could b	Number of people fro	To be det	

<p>GOs and CSOs such as ACNR, APEFA, FHA, GCI-Rwanda,</p>	<p>t landscape restoration,</p> <ul style="list-style-type: none"> ü Community development; ü Integrated water management ü Sustainable agriculture; ü Climate change adaptation & mitigation; ü Gender mainstreaming, women and youth empowerment; ü Support and empowering demobilized soldiers in entrepreneurship through collaboration with RDF/Reserve Force in our field of intervention 	<p>are involved in providing community facilitation services; training and awareness raising campaigns. The PMU will engage these development partners to identify opportunities for collaboration on the project and pursue them, as appropriate.</p>	<p>from these institutions contributing to the project outputs</p>	<p>etermined based on annual workplans.</p>	
<p>Community members in the four project sites and in the two districts</p>	<ul style="list-style-type: none"> ü Owners of land and natural resources under threat by climate change ü Beneficiaries of training and advisory services ü Implementers of adaptation plans and climate resilient livelihood options ü Knowledgeable about local practices on adaptation, land and natural resources rehabilitation; ü Responsible for sustaining the project results 	<p>These groups will be the drivers of the entire project. They will participate in all project activities ensuring engagement of all gender groups. The PMU and the PB will ensure inclusive, meaningful consultation, avoiding the common pitfalls that challenge participation, and ensuring that mere conducting of, and attendance at, community fora is not used as proxy for true participation. They will ensure that consultation meetings are organized to enable meaningful consultation; thus organized with adequate notice for communities to prepare for them; held in accessible places, discussions conducted in a language that promotes genuine participation. The project will therefore empower communities to actively participate, providing local stakeholders an active voice in the design and management of the landscape, using relevant tools such as participatory land use planning, resource mapping, to genuinely understand local needs, identify potential conflicts and negotiate compromises.</p> <p>During implementation, communities will engage in land rehabilitation, treat degradation hotspots to address risk of landslides, soil erosion, floods; plant trees and grasses to stabilize river banks and degraded lands, get employed in nursery bed preparation and distribution, adopt SLM/SFM and climate smart agriculture practices, adopt improved household water harvesting energy systems, act as private sector service providers for sustainability after the project life cycle.</p>	<p>Change in vulnerability values</p>	<p>The bulk of the budget is targeted at implementation activities supported by the district-based technical institutions.</p>	

		providers for sustainability after the project time, suggest tree species needed, alert project facilitators about planting seasons, monitor the growth of trees and forests, can report cases of tree theft and destruction and provide affordable labour as a cost sharing benefit.			
Gender Monitoring Office (GMO)	<ul style="list-style-type: none"> ü A Government Observatory Body to ensure compliance of gender principles in all sectors to ensure that women are part and Parcel of all processes that take place in their community's social, economic and political spheres. 	Provide technical backup to the monitoring of gender sensitivity compliance in implementation of project activities, training and orientation, Advocacy as well as facilitate the drafting of the Gender and forestry Strategy and pushing for implementation	Number of events the gender monitoring office contributes to the project	To be determined based on annual workplans.	
Rwanda Television and Radio (RTV) Through its local community radios	<ul style="list-style-type: none"> ü Broadcasting to the communities the available opportunities ü Government and other organisations developmental programmes ü Awareness raising on the need to combat deforestation 	Implementation of the communications strategy and climate services advisory services via the media outlets	Number of programmes and messages being aired or disseminated via each channels	To be determined based on annual workplans.	
Academia	<ul style="list-style-type: none"> ü Technical expertise on climate modelling and climate proofing 	Participate in the design of the climate proofing model	Number of technical papers contributing to the model development produced by the academia.	To be determined based on annual workplans.	

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement.

The SHEP will be updated during the project inception and used to guide project implementation. In addition, the Prodoc Chapter IV (Results and Partnerships) highlights how potential partners will be consulted in project execution, the means and timing of engagement and how information will be disseminated.

The proposed stakeholder engagement strategy comprises the following elements:

a) Clear rules of engagement: there is a clear socio-economic profile of project beneficiaries (explained in Baseline Assessment Report in Prodoc Annex 12, and summarized in Chapter 1 of the Prodoc). The project contains clear statement of objectives, outputs and activities, which forms a good basis for the project boundaries (hence what is excluded).

b) Awareness-raising with beneficiaries throughout project cycle: through inception meetings and workshops, training workshops, media strategy: e.g. targeted radio broadcasts. The project will strengthen engagement capacity of beneficiaries by covering costs of participation in project meetings (as per the detailed budget notes).

c) Delivery of project services through existing community structures: The project will work through the Twigire Muhinzi (includes the Farmer Field Schools), local co-operatives and self-help groups to extend its community outreach, building their capacity and strengthening their governance structures to promote inclusion, e.g. through recruiting the Farmer Field Schools. The project will work in partnership with government Cooperative Officers on these initiatives as this could also help to strengthen government capacity to support cooperatives and to share experience with cooperatives outside the project.

d) Development of a close working relationship with local Government: The project will engage Government staff through the various project management structures (Steering Committee etc.) and training staff so that they are more effective communicators on key adaptation issues. Sector and Cell level government bodies (Executive Secretaries, Agronomy Officers, Cooperative Officers and IDPs) will be important for planning specific interventions, identifying project beneficiaries and communicating with them throughout the course of the project. The project will also use existing communication channels between the Government and the community including the Umudugudu Committees and Cell Level IDPs, and sector level agronomist officers.

e) Use of tried and tested approaches and models based on best practice: The project will build on existing tools to promote the participation of weaker stakeholders in community decision making processes including gender inclusion as well as testing other examples of best practice: e.g. CARE Cell level Adaptation Implementation Committees.

f) Development of feedback channels: A project grievance mechanism will be introduced in accordance with UNDP Standards with representatives at the local level to ensure that there is a mechanism for stakeholders to communicate any problems with implementation.

g) Review and refinement of approaches to interventions: The project will also incorporate regular progress and experiences reviews to assess progress and lessons, and to build learning into the project. A process review and documentation of lessons is included under each output. In addition, the M&E and learning is described in more detail in the Monitoring and Evaluation Section but will include regular (quarterly) progress reviews, participatory monitoring and evaluation with beneficiary groups established to provide feedback on the project, annual impact assessments of project.

The stakeholders identified during project preparation will continue to be involved in project implementation. Furthermore, i) stakeholders of high influence and high importance will be identified and closely involved throughout the implementation of the project to ensure their support for the project (such as SACCOs, Farmer Field Schools, resources user groups, men, women associations and youth associations); ii) stakeholders of high influence but low importance such as religious institutions, school boards and local politicians will be identified and kept informed and their views on the project will be acknowledged in order to avoid disruption or hindrance of the project's implementation; iii) stakeholders of low influence and high importance such as media, NGOs active in the area, private sector organizations will be identified and special efforts will be undertaken to ensure that their needs are met and that their participation is meaningful; iv) stakeholders of low influence and low importance are unlikely to be closely involved in the project and require no special participation strategies (beyond information-sharing to the general public).

Stakeholders will be consulted throughout the project implementation process to: i) promote understanding of the project's outcomes; ii) promote local community ownership of the project through engaging in planning, implementing and monitoring as well as in the evaluation of the interventions; iii) communicate to the public in a consistent, supportive and effective manner and iv) maximise synergies with other on-going projects.

The project's design incorporates activities and mechanisms to ensure on-going and effective stakeholder participation for different institutions, groups and forum during project implementation, including:

- Project inception phase and workshop will enable stakeholder awareness of the start of project implementation. The project will be launched by a multi-stakeholder workshop, which will provide an opportunity to share and discuss with all stakeholders the most updated information on the project and the project work plan. It will also establish a basis for further consultations as the project's implementation commences.

- Project Board ensures representation of stakeholder interests in the project: A Project Board (PB) will be constituted to ensure broad representation of all key interests throughout the project's implementation. The PB is further described in Section VII (Management Arrangements) of the Project Document.
- Regional/project technical platform supports project implementation from the four project areas and relevant Sector entities. Equitable representation of men, women and youth will be prioritized.

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier;

Member of project steering committee or equivalent decision-making body;

Executor or co-executor;

Other (Please explain) Yes

CSO/NGOs will be likely sources of co-finance and members of the PB. They are likely to be involved in providing community facilitation services, connecting communities to existing and new value chains, provide training and awareness raising campaigns. The PMU will engage these development partners to identify opportunities for collaboration on the project and pursue them, as appropriate, to be captured via annual workplans.

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assessment.

A gender analysis and gender action plan are attached as Annex 9 of the Prodoc. Despite considerable progress in political participation in public offices, women in rural areas are socially, economically and culturally disadvantaged in Rwanda and have poorer access to resources and information, have poorer representation and less authority than men and are often marginalized in decision-making over household resources and incomes. The baseline assessment showed several gender gaps: More men (68.25%) reported being members of community organizations compared to 50.75% of the women (Gap – 17.5). More men (59%) than women (40%) had had done something to address deforestation in the last one year. In general, more men and the youth reported to have taken up improved practices after receiving training.

The assessment also found that more men (45%) had received training on climate change compared to 34% of the women. Consequently, 58.75% of the male respondents reported that they understood climate change issues relatively well, compared to 47.25 of the women. 36% of the men, compared to 29% of the women reported having been trained on soil conservation. 46% of the men compared to 36% of the women had received training on livestock farming. 26% of the men, compared to 13% of the women reported to have been trained on business management. The youth suffer similar challenges as the women. This predisposes both groups to higher levels of vulnerability and poverty, loss of voice and therefore higher chances of being excluded from project activities and benefits. The PPG took pro-active steps to include men, women and youth in the formulation of the project, thus all the project activities are gender responsive to the greatest extent possible. The gender action plan will be utilized to ensure that project implementation is done in a gender responsive manner, ensuring equal opportunities for women, men and the youth in all project initiatives. Assessments, evaluations and monitoring of project activities will be based on gender disaggregated indicators to ensure feedback and course correction where necessary. The gender strategy proposed for the project is in line with the national efforts in mainstreaming gender, as outlined in the Gender Monitoring Office.

The project's gender strategy comprises of three key elements:

- a) Training of all project stakeholders on gender mainstreaming, to ensure that everyone understands the importance of mainstreaming gender into the project initiatives and the way to achieve it. All technical staff as well as community members and their local leaders will be trained (or provided with refresher courses);
- b) Ensuring that all activities are implemented in a gender responsive manner. A gender specialist will be appointed on the project team to provide guidance and support throughout the implementation process. This will promote conscious integration of gender-based groups in community-based activities (including training as well as the piloting and developing of alternative livelihoods). Existing tools and those developed during project implementation will be explicitly inclusive of gender criteria. Reporting on the projects progress will place special emphasis on how women are engaged in the various project activities.
- c) Involvement and representation of women in project implementation and management structures: Women will be encouraged to apply to all positions in the project structure. Similarly, membership to project committees will be made as gender sensitive as possible.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources; Yes

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

Private sector will be engaged in the following ways:

- a) Consultations during the development of the climate proofing model: the private sector is engaged in building houses under the Imidugudu programme. They therefore have a role to play and important contribution to provide to the climate proofing model development. the stakeholder engagement plan provides for their consultation.
- b) Service providers – the project will rely on the private sector to provide services on topics such as training and enabling the communities to utilize value chains to add value and increase household incomes. These will be recruited by the PMU using competitive bidding on the basis of the ToR provided in Annex 6 of the Prodoc.

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

The risk analysis was updated during the project formulation using the new details of project activities and beneficiaries. The categorization is now High risk due to the fact that the UNDP Social and Environmental Safeguards Screening Procedure (SESP) identified eleven risks; ten categorized as Moderate and one categorized as of Low significance. The SESP (Annex 4 of the Prodoc) contains the detailed risk analysis and the proposed risk mitigation measures. The project itself mainstreams climate proofing, adaptation and environmental sustainability and specific emphasis is given to gender equality in its design. In order to manage and mitigate risks, the project will follow a human-rights based approach, ensuring consistency with international and national law and UNDP's SES (Social and Environmental Standards) principle on Human Rights.

Indeed, due to the High-risk categorization, the project will formulate an Environmental and Social Impact Management Plan (ESMP) and establish a formal Grievance Mechanism at project inception, in accordance with UNDP's Social and Environmental Standards Policy. The ESMP will assess all the risks identified in the SESP and will be developed in line with the Environmental and Social Impact Management Framework (ESMF) provided in Annex 8 of the Prodoc. In line with the ESMF, the following activities will not be implemented before the ESMP is completed, and is therefore used to guide the implementation of these activities: a) rehabilitation of the degraded hotspots – including selection of trees and plants to rehabilitate the riverbanks and for reforestation; b) establishment of terraces and uptake of new cropping and livestock diversification programmes; c) construction of biogas and water harvesting structures. The Grievance Mechanism will ensure that stakeholders have a known and transparent channel and process through which any grievances can be directed and addressed.

As per standard UNDP requirements, the Project Manager will monitor risks quarterly and report on the status of risks to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log (Annex 5 of the Prodoc), which will be updated annually, ahead of completion of the Project Implementation Report (PIR). Risks will be reported as critical when the impact and probability are high (i.e. when impact is rated as 5 or 4 and probability is rated at 3 or higher). Management responses to critical risks, as well as environmental and social grievances, will also be reported to the GEF in the annual PIR.

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

The project will be implemented under the National Implementation Modality, as depicted in Figure 3. REMA is the national Executing Agency. It will however work very closely with the Rwanda Housing Authority, Meteo-Rwanda, Minagri and the District Authorities of Kirehe and Gakenke, as detailed in the budget notes and the Terms of Reference in Prodoc Annex 6. Coordination with other relevant GEF-financed projects and other initiatives is detailed in Chapter IV of the Prodoc, under partnerships.

Figure 3: Project organization structure

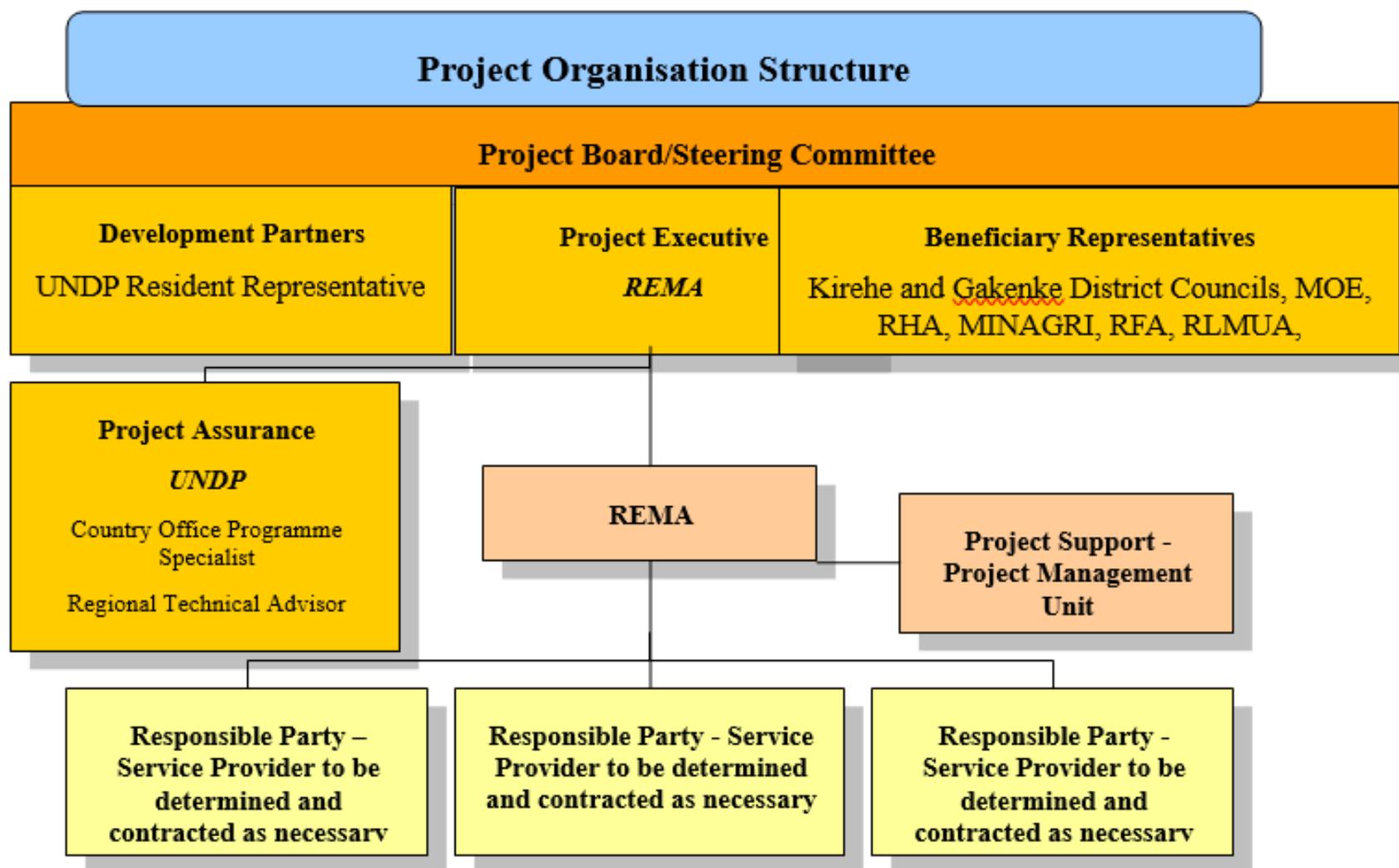
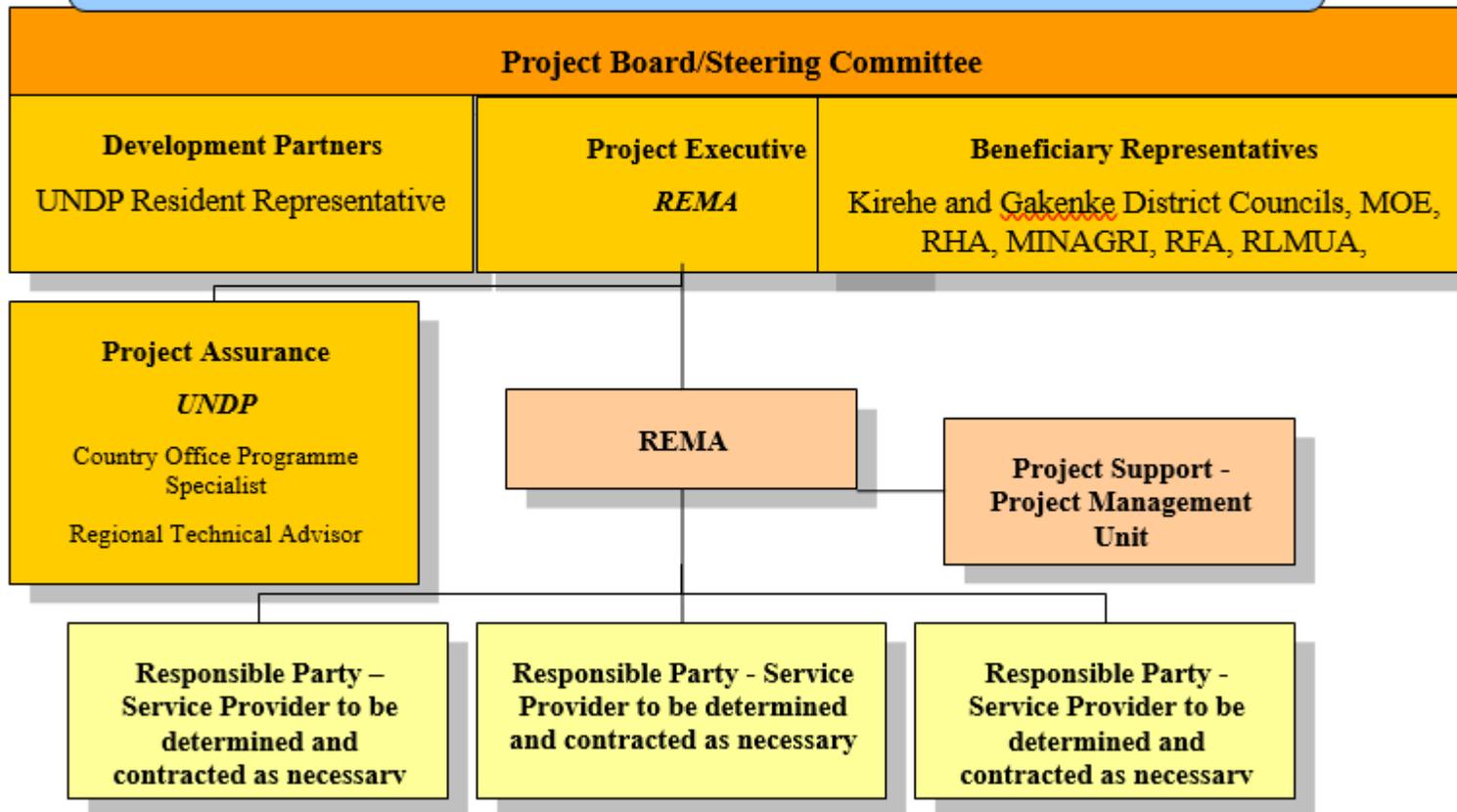


Figure 3: Project organization structure

Project Organisation Structure



7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

The design of the proposed project ensures that it both aligns with and builds on the policies and strategies listed below.

- **Rwanda's 2006 National Adaptation Programme of Action**, which identified setting up an information system to provide hydro-agro meteorological information as one of the six priority areas for adaptation.
- **Rwanda's Second National Communication on Climate Change (SNC)** that highlights the effects that climate change will have on the environment, economy and human lives;
- Rwanda's primary development programme known as **Vision 2050** that identifies six development pillars including: i) good governance and a capable state; and ii) human resource development and a knowledge-based economy.
- **Rwanda's National Strategy for Transformation (NST1; 2018–2024)**, which addresses Rwanda's medium- to long-term development challenges post EDPRS2.
- **The Green Growth and Climate Resilience Strategy (GGCRS)**, which outlines the national strategy for climate change and low carbon development.
- The **Environmental and Climate Change Sub-Sector Strategic Plan (2017/18 – 2023/24)** whose objectives include: i) mainstreaming environmental sustainability and climate change into all national development policies, programmes, plans and budgets; and ii) mitigation and adaptation to the effects of climate change.
- The **Strategic Programme for Climate Resilience (SPCR)** which focuses on three cross-cutting priorities related to the attainment of climate change-resilience. These are: i) technical capacity building and strengthening institutional coordination; ii) integrated land use and spatial planning; and iii) climate services and disaster risk management.
- **Nationally Determined Contributions (NDCs)**, which lists the goals and targets for each of the programmes of action that are included in it^[1], namely: i) sustainable intensification of agriculture; ii) agricultural diversity in local and export markets; iii) sustainable forestry, agroforestry and biomass markets; iv) ecotourism, conservation and PES promotion in protected areas; v) integrated water resources management (IWRM); vi) integrated approach to land use planning and management; vii) disaster management; and viii) data management. Alignment of the proposed project with specific adaptation priorities of the NDC is outlined in Table 12. Furthermore, under Output 1.6 of the proposed project, relevant NDC adaptation priorities will be identified for refinement of descriptions and targets, based on the adaptation measures included in the sectoral adaptation plans developed under Output 1.5 and LTRP of Output 2.3. Guidelines for the refined NDC adaptation priorities will then be developed based on the CCA measures implemented and studied under the LTRP, as well as those of the sectoral adaptation plans. Costs based on those calculated for the sectoral adaptation plans will be used to provide cost estimates for the implementation CCA measures associated with the relevant NDC priorities. The guidelines will also provide the information required for the implementation of appropriate CCA measures throughout Rwanda with the objective of meeting refined NDC targets

[1] The GGCRS plans for the year 2050 but provides no quantified targets.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

The participatory planning process, consultations, awareness campaigns, and direct involvement in the integrated land and water management activities will increase the knowledge and awareness on important subjects such as the role of healthy ecosystems on ecosystem services and resilient livelihoods place through. One of the key activities built into every output is to reflect on the process of implementation, results achieved and the impacts of these results to the conditions being addressed by the project in order to build adaptive capacities, increase resilience and reduce vulnerability. This will contribute greatly to a participatory process of generating, assimilating and disseminating knowledge generated by the implementation process.

Lessons will be captured primarily through the Monitoring and Evaluation system which will provide regular monitoring of project indicators, as well as progress against the key milestones. The project will promote Participatory Monitoring and Evaluation System so that, as much as possible, the results of climate adaptation approaches will be measured, processed and evaluated by the communities involved. As well as enabling project participants to use the information to modify approaches as they go, this approach will also build the capacity of local communities to adapt to future climate trends and shocks. In addition to the routine monitoring of indicators, the project will also collect case studies under each output to drill down into specific innovations and practices that arise due to project interventions.

Output 4.2 specifically focuses on capturing and sharing project results and lessons learned and mainstreaming new approaches in local and national planning. The lessons will be disseminated through farmer-to-farmer fora (cross visits, community meetings etc.), enterprise development meetings, participatory videos made by farmers to showcase local experiences, techniques and achievements, and directly transmit messages to decision makers and donors, project reports and policy briefs, a project website, as well as mass media outlets (community radios, newspapers, social media, etc.) to promote a wider understanding of the issues and the secondary uptake of successful approaches.

At least two lessons sharing events will be held at the District level, closely linked to the medium term review and the terminal evaluation. During this process significant new understandings will be catalogued and used to build the knowledge base of best practices as well as document where project implementation has resulted in unexpected impacts or investigate approaches that have not worked and why. Lessons learned will include detailed, specific information about behaviours, attitudes, approaches, that will inform project implementation and other interventions. The project will also develop a knowledge management strategy to ensure that stakeholders learn from the experience gained during implementation and that the knowledge is shared with other stakeholders as reference for future projects. The knowledge acquired under this project will enhance that of other projects or initiatives funded by the GEF, UNDP other donors in the areas of EbA, rural settlement, sustainable natural resource management and rural development (livelihoods, income generating activities, etc.). Lessons learnt as well as knowledge acquired will inform project annual reports, completion reports and performance evaluation reports. The reports as well as recommendations will be incorporated into project activities to improve the performance of the project. Dissemination of lessons will also take place under the capacity building (outcome 1) where peer influence and learning will be used to learn from other local governments and projects working on climate adaptation as well as to motivate other government departments to support climate adaptation. The project will also facilitate the emergence of "adaptation champions" among Farmer Field Schools under Twigire Muhinzi. The project will also engage experts and private sector stakeholders to become involved in the adaptation planning processes.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

The M&E system is described in detail in Chapter V of the Prodoc and the M&E Action Plan in Annex 3 of the Prodoc. The Table below provides the summary of the M&E plan.

Monitoring and Evaluation Plan and Budget:			
LDCF GEF M&E requirements	Responsible Parties	Indicative costs (US\$)	Time frame
Inception Workshop	Implementing Partner PM/Coordinator	10,000 (under Budget Note 20, Yr1)	Within 60 days of CEO endorsement of this project.
Inception Report	PM/Coordinator	None	Within 90 days of CEO endorsement of this project.
Monitoring of indicators in project results framework	PM/M&E Officer	5,000 per year, total 30,000 – as part of the M&E Officers cost under Budget note 16	Annually prior to GEF PIR. This will include LDCF core indicators.
Monitoring of Gender Action Plan, stakeholder engagement plan and the ESMP	<i>Project Gender and Safeguards Specialists</i>	5,000 per year, total 30,000 as part cost of Safeguards and M&E specialists under Budget note 9	On-going.
GEF Project Implementation Report (PIR)	RTA UNDP Country Office [1] PM/Coordinator	None	Annually typically between June-August
Monitoring all risks (UNDP risk register)	UNDP Country Office	2,000 per year, total 12,000	On-going.

sk register)	PM/Coordinator	ar, total 12,000 – as part of the M&E Officers cost under Budget note 16	
Supervision missions	UNDP Country Office	None[2]	Annually
Oversight missions	RTA and BPPS/GEF	None14	Troubleshooting as needed
<i>Mid-term LDCF Core indicators in the CCA Tracking Tool</i>	REMA	2,000 per year, total 12,000 – as part of the M&E Officers cost under Budget note 16	<i>Before mid-term review mission takes place.</i>
<i>Independent Mid-term Review (MTR) 56</i>	Independent evaluators	65,000 (UNDP Grant - under budget notes 18 for IC and 19 for LC)	July to December 2023
Terminal GEF and LDCF Core indicators	REMA	1,833.33 per year, total 11,000 – as part of the M&E Officers cost under Budget note 16	Before terminal evaluation mission takes place
Independent Terminal Evaluation (TE)	Independent evaluators	80,000 (UNDP Grant - under budget notes 18 for IC and 19 for LC)	<i>June – September 2026</i>
TOTAL indicative COST		250,000=3% of LDCF Co	

	Of LDCG Grant	
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[1] Or equivalent for regional or global project

[2] The costs of UNDP CO and UNDP-GEF Unit's participation and time are charged to the GEF Agency Fee.

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

See section 1.a.6 on Adaptation Benefits

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial			

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

<p>QUESTION 2: What are the Potential Social and Environmental Risks? <i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.</i></p>	<p>QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?</p>
<p>Risk Description</p> <p>P1, Q 3; P3, Q 5.2; P6 Q 6.3 and 6.6. Implementation of the EbA plans could lead to restricted access to resources</p>	<p>Description of assessment and management measures as reflected in the Project design. If ESI A or SESA is required note that the assessment should consider all potential impacts and risks.</p> <p>Implementation of the project will be guided by three important tools to minimize risks to livelihoods and the natural resources/environment: the Stakeholder Engagement Plan (SHEP in Annex 7) the Gender Action Plan (GAP in Annex 8) and the Environmental and Social Management</p>

es (land and forest products) with possible economic displacement for households including marginalized individuals and groups.

Risk 1

), the Gender Action Plan (GAP in Annex 9) and the Environment and Social Impacts Management Plan (ESMP). During the first year of implementation, the project will undertake an in-depth Environment and Social Impact Assessment (ESIA) of all the risks identified, and any others that might be identified during the inception period (including those associated with COVID-19 and the responses at all levels), based on which an Environment and Social Management Plan (ESMP) will be prepared, including a Resettlement Action Plan and an Ethnic Minority Plan, if deemed necessary. The matter of Free, Prior and Informed Consent (FPIC) will be explored during the ESIA and the approach applied if deemed appropriate.

Developed in line with the Environment and Social Impacts Management Framework (ESMF) in Annex 8, the ESMP will provide environmental and social provisions to be put in place to minimize any negative impacts on the environment and livelihoods, to ensure that the benefits of the project outweigh any potential negative impacts. The PMU will refine the SHEP and the GAP during the first year of the project implementation, informed by the outcomes of the ESIA and the needs and requirements identified by the ESMP.

The government regulation states that farmers should be compensated for perennial crops found in the farm before construction of terraces. It further dictates 120 days as the mandatory allowed notice period before the start of any soil and water conservation measures activities on fields with seasonal crops. The PMU will ensure compliance with these laws to compensate farmers for any economic displacement related losses incurred due to project implementation. In addition, households that lose immediate livelihood options (e.g. due to radical terracing construction or a doption of tree crops or protection of ecologically sensitive areas) will be prioritized in the get for employment in project activities – under the Vision 2020 Umurenge Programme (VUP). Additional requirements for SES compliance, if any, will be identified during the ESIA and included in the ESMP as appropriate.

In addition to the above, the project will promote alternative household energy systems (biogas, solar technologies) under output 2.4). It will also promote uptake of climate smart agricultural practices and livelihood options, including better utilization of existing value chains, to increase land productivity and sale of produce to increase household incomes. It is expected that these measures will collectively compensate for any negative impacts caused by the uptake of soil and water conservation measures the better enforcement of rules and regulations. These interventions actually promote the recovery of the ecosystems, providing cost effective measures of reducing exposure and sensitivity of the livelihoods to climate risks (using natural systems to regulate water flow to reduce likelihood of flooding and landslides, improving watersheds to increase water flow; combined with water harvesting systems, this will increase availability of water to reduce impacts of drought, rehabilitating degraded lands to increase land productivity and provide better measures against soil erosion and landslides while promoting crop productivity even under mild droughts).

P1, Q5

There is a probability that duty-bearers (technical Specialists of relevant institutions) do not have the capacity to meet their obligations in the Project

Risk 2

Several measures will be put in place to mitigate these risks: a) Project deliverables will be included in the Imihingo (Performance Contracts) where possible to ensure project activities become integrated into workplans of both individuals and their units, promoting sustainability; b) Project implementation will be supported by a competent team of professionals that are dedicated full time to the project. To this end: i) the Government will recruit a Project Manager/Coordinator with strong managerial and technical skills, who will be on a full time basis (ToR in Annex 6); ii) REMA, which will host the Project Management Unit will provide a senior professional to coordinate the project; iii) The key partner institutions will appoint senior staff members dedicated to coordinate project implementation within their institutions as follows: Rwanda Housing Authority (1), Meteo Rwanda (2) District Authorities of Kiruhura and Gakenke (1 each). The Focal Points will spearhead th

and (2), District Authorities of Kiruhira and Gashyamba (1 each). The focal units will spearhead the mainstreaming of the project initiatives into the workplans of the parent units while ensuring smooth coordination, communication and implementation of relevant activities allocated to each institution; iv) Additionally, the project will provide a budget to recruit other senior professionals who will increase the capacity of the SPIU and the PMU to implement the project and deliver results. They include: Gender and Safeguards Specialists, Monitoring and Knowledge Management Specialist and a Procurement Specialist) – all recruited on the basis of the ToRs in Annex 6; v) The project will develop and regularly update a Procurement Plan to ensure forward thinking and speedy procurement; iv). These measures are in addition to the current plans by government to expand SPIU (by increasing the number of technical staff). Collectively, these measures will increase the number of senior staff in partner institutions working in close collaboration with the SPIU and the PMU to coordinate the implementation of the project activities with considerable gains in efficiency and effectiveness of the duty-bearers (technical Specialists of relevant institutions) in meeting their obligations to the rights holders.

On collaboration with other projects - Project design took into consideration many lessons generated from similar projects in Rwanda. In addition, all other relevant climate change projects are coordinated by SPIU, which is the lead coordinator for the proposed project, thus provides a link to lessons from other projects. The PM will be mandated by the ToRs to coordinate and collaborate with other relevant projects, as described in the Partnerships Section, in collaboration with the Thematic Working groups. In addition, the District administrations have been involved in designing the project. Furthermore, the project has high levels of support by the Ministry of Local Government and Mayor of each district). The project will continue to work closely with the district administrations throughout implementation to ensure local ownership – which is a more practical level of coordinating with other existing initiatives. In addition, the project has a strong focus on training and capacity building – under output 1.4, to increase duty bearers ability to serve the rights holders in implementing this project as well as the rights holders ability to demand the same.

These measures will boost the capacities of the technical institutions considerably to not only effectively implement the project in a timely manner, but to also enhance sustainability and upscaling. In line with the UNDP SES Guidelines, this risk will be included in the ESIA and ESMP.

P1, q6

Risk 2: There is a probability that rights holders (project beneficiaries – farmers) may be slow to take up project activities that require investments of resources or foregoing access to resources, even in the short-term (to claim their rights under the project).

Risk 3

The ESMP, SHEP and the GAP will be used to mitigate this risk. Furthermore, outcome 1 focuses on capacity building under which the project will train community members to increase their effectiveness in participating in the project activities. Communities will be engaged via the Twigire Muhinzi system, under which farmers at the Cell level are organized in Farmer Field School (FFS) groups of 25-30 people. Each FFS group is supported by a Facilitator (with strong technical and facilitation skills), who leads them through a hands-on learning process. The project will train the Farmer Field School Facilitators on gender and will supervise them to ensure that the project leaves no one behind, and that all deserving beneficiaries engage and participates.

Furthermore, the project will train other community institutions which are part of the Joint Action for Development Forum (JADF) that address community problems at grassroots level. These organizations are mandated to represent all their members, including the vulnerable in the society. They include:

- Ø Community assemble (Inteko z'abaturatione) which is a platform for social interaction and problem solving between local authority and citizens;
- Ø Mediation Committees (Abunzi) at Cell level which is a form of justice combining traditional with modern methods of conflict resolution at the community level. This platform is especially

	<p>active in representing the vulnerable to access justice.</p> <p>The project indicators have been gender disaggregated to the greatest extent possible. This process will continue – hence the indicators will be refined as the project implementation progresses, to ensure that the M&E system provides information on possible discrimination and/or groups not engaging with the project process, for adaptive management.</p> <p>In addition, the PMU will establish a Grievance Redress Mechanism to provide systems and resources for the project to receive and address concerns about its impact on the relevant stakeholders. This will be done in line with UNDP guidelines on Grievances Redress Mechanisms.</p>
<p>P2, Q 2</p> <p>There is a possibility that the project potentially reproduces discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits.</p> <p>Risk 4</p>	<p>The Gender Action Plan (GAP), supported by the SHEP and the ESMP will be used to mitigate this risk. The PMU will apply these plans to ensure that all beneficiaries are provided with equal opportunities to participate in the project activities. The GAP in particular comprises of three key elements: a) Training of all project stakeholders on gender mainstreaming, to ensure that everyone understands the importance of mainstreaming gender into the project initiatives and the way to achieve it. All technical staff as well as community members and their local leaders will be trained (or provided with refresher courses); b) Ensuring that all activities are implemented in a gender responsive manner. A gender specialist will be appointed on the project team to provide guidance and support throughout the implementation process. This will promote conscious integration of gender-based groups in community-based activities (including training as well as the piloting and developing of alternative livelihoods). Existing tools and those developed during project implementation will be explicitly inclusive of gender criteria. Reporting on the projects progress will place special emphasis on how women are engaged in the various project activities; c) Involvement and representation of women in project implementation and management structures: Women will be encouraged to apply to all positions in the project structure. Similarly, membership to project committees will be made as gender sensitive as possible.</p> <p>In addition, the gender Specialist will refine the gender analysis and identify barriers to women's involvement in any of the livelihood options on offer and ensure that the barriers are addressed by the project. The project will create awareness and advocate for equal opportunities in these fields.</p>
<p>P 3, questions 1.1, 1. 2, 1.3, 1.5, 1.6, 1.11.</p> <p>The project includes reforestation and protection of hills and wetlands (all environmentally sensitive areas), in line with EbA plans. There is a possibility that the project could introduce alien invasive species. Land use zonation (in the implementation of the EbA plans) may necessitate land use changes such as change from annual crops to tree crops. These changes may cumulatively alter ecosystems character and services.</p> <p>Risk 5</p>	<p>The EbA plans will be used to ensure that land use changes are guided by an in-depth, science informed analysis (output 1.4), and that the plans implemented will result in positive changes that far outweigh any potential negative impacts. Indeed, the project will rehabilitate degradation hotspots (output 2.2) which will improve the overall ecosystems integrity and strengthen ecosystems services. Furthermore, the project will engage in awareness raising on the importance of ecosystems rehabilitation in adaptation. Output 1.3 will facilitate the formulation of adaptation plans, under which the project will mobilize, train and provide relevant capacities (demonstration and experience sharing) to demonstrate that project interventions increase productivity even as adaptation and rehabilitation measures are adopted.</p> <p>In addition, the ESMP will therefore provide environmental and social provisions to be put in place to minimize any negative impacts on the environment and livelihoods, to ensure that the benefits of the project outweigh any potential negative impacts. To avoid the risk of introducing invasive alien species, no known IAS will be planted; and species that are not known will be assessed for their potential to become IAS.</p> <p>Furthermore, reforestation will be guided by the Forest Landscape Restoration Concept, following the methodology introduced by the World Resources Institute (WRI) and IUCN and already tested in the country by the former Ministry of Natural Resources (MNR) as recently modified and applied for</p>

	<p>in the country by the former Ministry of Natural Resources, as recently modified and applied to the Gatisbo FLR baseline conditions assessment [2]. In line with both FLR and the SES, the PMU will ensure that project activities (a) conserve natural forests and biodiversity, avoiding conversion of natural forests; (b) incentivize protection and conservation of natural forests and their ecosystem services and other social and environmental benefits; (c) enhance sustainable management of forests (including certification of industrial logging); (d) that restoration projects maintain or enhance biodiversity and ecosystem functionality; (e) ensure plantations are environmentally appropriate, socially beneficial, economically viable, utilizing native species. Give preference to small-scale community-level forest management approaches.</p>
<p>P3, Q 2.2</p> <p>The project outcomes are likely to be sensitive or vulnerable to potential impacts of climate change</p> <p>Risk 6</p>	<p>The project has a sharp focus on adaptation, seeking to climate proof the Imidugudu and to enhance the uptake of ecosystems based adaptation to climate proof livelihoods in the four pilot sites. Outcome 1 will support climate informed planning as the basis for integrating climate risks into the rural settlement programmes and the associated livelihoods, while outcome 2 will enable the beneficiaries of the rural settlement programme to create, improve and sustain livelihood options that collectively reduce their exposure and sensitivity to climate risks at the landscape level while simultaneously increasing their adaptive capacities.</p> <p>Specifically, output 1.3 will provide a model for climate proofing the Imidugudu and provide a practical step-by-step methodological approach to assist stakeholders (government, private sector, communities) to incorporate climate change adaptation measures into the planning and implementation of the Imidugudu programmes. Output 1.4 will provide ecosystems based adaptation plans which aims to reduce vulnerability of the ecosystems and the livelihoods dependent on them.</p> <p>Output 1.5 will increase the capacity of Meteo Rwanda to generate required climate information to inform decision-making at central and project levels. The project will enhance climate related research, modelling and prediction of weather and climate through Numerical Weather Prediction (NWP) and climate. Numerical Weather Prediction products will inform policy makers at central level and community level, increasing the use of climate information in the day-to-day decision-making processes. In addition, climate projection information will guide policy and decision makers and interveners in their long-term plans, hence minimise costs and risk in the long-term.</p> <p>Output 2.4 will increase the capacities of households to capture and utilize rainwater and take up improved household energy systems (biogas, improved cookstoves, solar). Outputs 2.5 and 2.6 further diversify livelihoods by introducing value chains and climate smart practices, respectively. These measures build household adaptive capacities.</p> <p>In line with the UNDP SES Guidelines, this risk will be included in the ESIA and ESMP.</p>
<p>P3, Qs 3.1, 3.2, 3.3, 3.4, 3.5 and 3.7</p> <p>Poor practices in construction could pose safety risks to local workers and communities during transportation of materials, actual construction works, storage, and use and/or disposal of hazardous or dangerous materials. Failure of structural elements of the buildings and other works could endanger workers and communities (e.g. collapse of buildings or infrastructure).</p> <p>Risk 7</p>	<p>The ESMP and the SHEP will be used to mitigate this group of risks. Implementation of the National Imidugudu program is supported by the Rural Settlements Task Force, Rwanda Land Management and Use Authority, Rwanda Environment Management Authority (REMA), the Rwanda Development Board (RDB), and the Rwanda Development Bank – all of which have strict rules, regulations and guidelines for safety and waste management in buildings and infrastructure development. Building of the houses and the related infrastructure will follow laid down procedures and guidelines, provided by the Government of Rwanda contained in various ministerial policies such as Environmental Organic Law N° 04/2005; National Environment Policy, 2003 and the Transport policy, 2008. Specific instruments will include:</p> <p>a) Sector Guidelines for Environmental Impact Assessment (EIA) for the Housing Projects in Rwanda (https://eia.nl/docs/mer/diversen/rwanda-eia-guidelines-housing-construction.pdf);</p> <p>b) REMA's Tool and Guideline[3], which contains 11 Practical Tools for Sectoral Environmental Planning, namely i) Building Constructions; ii) Rural Roads; iii) Water Supply; iv) Sanitation Systems;</p>

Planning, namely i) Building Constructions, ii) Rural Roads, iii) Water Supply, iv) Sanitation Systems; v) Forestry; vi) Crop Production; vii) Animal Husbandry; ix) Irrigation; x) Fish Farming; xi) Solid Waste Management

c) Rwanda Building Code – of the Rwanda Housing Authority (2015 – currently under review, with the participation of the relevant stakeholders^[4]

d) Ministerial Orders N° 005/2008 and N° 007/2008 establishing respectively modalities of inspecting companies or activities that pollute the environment and the list of protected animal and plant species and others.

a) Rwanda National Land Use Planning Guidelines (2017) - http://www.rlma.rw/uploads/media/LUP_Guidelines_Final_Published.pdf;

b) Code of practice for construction and demolition waste management – https://members.wto.org/crnattachments/2018/TBT/RWA/18_0145_00_e.pdf

c) REMA's Guidelines for Environmental Impact Assessment For Waste Management In Rwanda -https://www.commissiemer.nl/docs/mer/diversen/os_rwanda-eia-guidelines-waste-management-2009.pdf

d) Certification from the Rwanda Standards Board, British Standards (BS) will be crucial for the local engineering sector to adapt usage of these material, replicate it or scale up to other construction sites in the country

Under these guidelines, the buildings will be designed by qualified architects and the bills of quantities (specification of strength and quantities of materials to be used) will be undertaken by qualified building/structural engineers. Similarly, the roads will be designed by qualified civil engineers and the bills of quantities provided by qualified structural engineers. The actual building will be supervised by teams of qualified engineers and foremen, in line with the laid down procedures approved by the relevant ministries. Regular inspections of all construction works will be undertaken in line with the approved guidelines. Electricity connections will be done in line with the guidelines on Environmental, Health and Safety Plan developed by EDCL (Energy Development Corporation Limited) under the Electricity Access Rollout Programme (EARP) And Scaling -up Energy Access Project (SEAP) - http://www.reg.rw/fileadmin/user_upload/50_APPROVEDEHSFORTHAELECTRIFICATIONOFNORTHERNZONEBYAIL_FINALREPORT.pdf

In addition, the PMU will ensure that workers use personal protection equipment (PPE) during all construction activities and other relevant activities as required by the building code. These will include: Provision of Health and Safety training for all personnel; Follow documented procedures for all site activities; Keep accident reports and records; Inform local communities about the work and the potential dangers; Have emergency measures (toolkits) for quick and First Aid in case of accidents; Installation of hygiene facilities like clean water, toilets, etc. In addition, the PMU will establish a Grievance Redress Mechanism to provide systems and resources for the project to receive and address concerns about its impact on the relevant stakeholders. This will be done in line with UNDP guidelines on Grievances Response Mechanisms (https://info.undp.org/sites/bpps/SES_Toolkit/SES%20Document%20Library/Uploaded%20October%202016/Supplemental%20Guidance_Grievance%20Redress%20Mechanisms.pdf)

In addition to the above, the project has a sharp focus on providing a model for climate proofing the Imidugudu programme, specifically to avoid such risks (of poor choice of site and poor construction of houses). It will deliver such a model under outcome 1 and test its application – simultaneously – under outcome 2. The project will partner with the government in this process, and contribute to the refinement of the selection of the sites for the new villages, ensuring that medium to long-term climate information and the status of the ecosystems inform them. It will work on th

	<p>e designs of the new homes, ensuring that climate risks are factored into the building plans, thereby testing, or contributing to the development of building codes for climate proofed Imidugudu to be developed under outcome 1. It will support the building process, ensuring that all relevant government guidelines apply (listed above) and that the stakeholders engaged in the building process, including the private sector contractors, have been trained on climate proofing (training provided under output 1.1). The project will upgrade the access road network (using the guidelines listed above), and green the roads and public spaces, in line with the Greening Imidugudu Toolkit – which will be updated via the proposed project.</p>
<p>P3, Q 3.8</p> <p>There is risk that the project may engage in child labour in the VUP that will be used to rehabilitate the degraded lands or support value chains and other practices that engage child labour</p> <p>Risk 8</p>	<p>In line with International Practices, the PMU will adhere strictly to government guidelines on the prohibition of Child labour, forced works and freedom of workers' opinions. No one below the age of 16 years will be employed as per article 4 of the National law regulating labour in Rwanda No. 13/2009. Recruitment of workers will therefore be based on submission and verification of a copy of National Identity Card, which bears the age of the card holder.</p> <p>The risk of supporting practices that rely on child labour will be assessed during the ESIA and additional mitigation measures identified and put in place to avoid this risk.</p>
<p>P 3, Qs 5.1 and 5.4; P6 Q 6.1, 6.2 and 6.6</p> <p>The project beneficiaries constitute the poorest and highly vulnerable groups of society. Benefiting from the planned villages will involve moving to the new houses permanently, with the risk of disrupting livelihoods. Similarly, consolidating land under the Crop Intensification Programme (CIP) may affect land tenure arrangements.</p> <p>Risk 9</p>	<p>The ESMP, Resettlement Action Plan (RAP) and (if deemed necessary during the ESIA) Ethnic Minority Plan will be used to mitigate these risks, supplemented by the SHEP and the GAP.</p> <p>Led by the Rwanda Housing Authority, the Imidugudu program originates from the National Human Settlement Policy (2009) and the RHA has an established system of land appropriation and compensation (to acquire land to build new IDP villages), outlined in Law N° 32/2015 of 11/06/2015 relating to expropriation in the public interest (Noting that land appropriation is already accomplished by the GoR). Implementation of the program is supported by the Rural Settlements Task Force, Rwanda Land Management and Use Authority, Rwanda Environment Management Authority (REMA), the Rwanda Development Board (RDB), and the Rwanda Development Bank – all of which have strict rules, regulations and guidelines for managing environmental and social impacts associated with such initiatives. In accordance with the law, an Environmental and Social Impact Assessment (ESIA) will be undertaken and an Environment and Social Impact Management Plan (ESMP) developed (guided by the ESMF in Annex 8). A Resettlement Action Plan (RAP) will also be developed (as part of the ESMP, based on the ESIA), in accordance with National laws and UNDP safeguard policies. As stated previously, the ESMP will include an Ethnic Minority Plan, if deemed necessary. The need for Free, Prior and Informed Consent (FPIC) will be explored during the ESIA and the approach applied if deemed appropriate. These plans will be approved by the Project Board, and will guide project implementation. No construction or movement to new houses will be undertaken before the completion of the ESMP and the RAP.</p> <p>Households will be supported (under output 2.1) to consolidate land so they can access farming under the Crop Intensification Programme (which has high levels of support by extension service, including organized access to agricultural inputs and value chains). Under the MINAGRI guidelines, the CIP is a voluntary process of commercialization of disparate lands where farmers retain their lands but agree to produce under a set of management rules: they plant the same crops at the same time and subject the crop to similar management practices, harvest at a set time and sell t</p>

	<p>same time and subject the crop to similar management practices, harvest at a set time and sell through the same market avenues. The project will ensure adherence with these guidelines to minimize chances of disrupting land tenure arrangements. The design of the RAP will also minimize chances of land tenure disruptions.</p> <p>In addition, the Grievance Redress Mechanism to be established by the PMU will provide systems and resources for the project to receive and address concerns about its impact on the relevant stakeholders.</p>
<p>P 3, Qs 7.4 and 7.5. Farming under Crop Intensification could involve the application of pesticides and fertilizers that may have a negative effect on the environment or human health. Furthermore, the CIP and construction of cow sheds, biogas units, etc.) may increase consumption of raw materials such as water.</p> <p>Risk 10</p>	<p>The ESMP will be used to mitigate these risks. Furthermore, under output 1.1 and 2.1, farmers will be trained on the correct use of inputs. Application of skills acquired will be supported by the Farmer Field Schools and their facilitators. This is in addition to the fact that the project will implement measures to reduce soil erosion – in particular reforestation of degraded hilltops, protecting wetlands and river channels (no annual crops or grazing within 30 meters, channel protection by planting bamboo and other protective vegetation), and the general adoption of climate smart agricultural practices.</p> <p>Furthermore, water consumption as a result of irrigation under the CIP and construction of cow sheds, biogas units, etc. is expected to minimally increase. Any potential negative impacts will likely be more than compensated for by the improved water harvesting and ecosystems restoration practices supported by the project.</p>
Comments	
<input type="checkbox"/>	
<input type="checkbox"/>	-
<input checked="" type="checkbox"/>	<p>The project is rated High risk because it has ten risks, nine rated Moderate and one rated Low significance. Three key plans will be used to mitigate all the risks: a) an ESMP (informed by an in-depth ESIA of all the risks identified now, and any that may become apparent during the inception period, formulated before any activities associated with such risks can be implemented, and guided by the ESMF). The ESMP will include an Ethnic Minority Plan and a Resettlement Action Plan if deemed necessary. The application of Free, Prior and Informed Consent (FPIC) will be explored during the ESIA and the approach applied if deemed appropriate. b) the Stakeholder Engagement Plan (Annex 7); and, c) the Gender Action Plan (Annex 9).</p>
Comments	
<input checked="" type="checkbox"/>	<p>Moderate risk: The project has put in place measures to support the SPIU of REMA and to increase skills for planning and implementation of strategies to climate proof Imidugudu, adopt EbA and take up livelihood improvement options for both technical institutions and communities. It has also put in place practical measures to increase capacity of technical institutions to implement this NIM project.</p>
<input checked="" type="checkbox"/>	<p>Moderate risk. Gender equity is low in Rwanda. The ESMP, SHEP and the Gender Action Plan will guide project implementation to mainstream gender (Annex 9 of Prodoc) and is budgeted for under output 2.1.</p>
<input checked="" type="checkbox"/>	<p>Moderate risk. Three plans will be used to mitigate the risks: ESMP, SHEP (Annex 7) and the GAP (Annex 9). The ESMP will be developed in line with the ESMF and will be informed by an ESIA of all project activities. The ESMF provides guidance on the processes that will be undertaken during project inception/implementation to ensure that the project identifies all relevant risks in a participatory and scientific-led process, and their mitigation measures. The ESMF highlights required assessments of potential impacts and development of appropriate risk mitigation / management measures, consistent with UNDP's Social and Environmental Standards (SES). It also identifies the steps that will be followed during the project inception and development of activity specific / stand-alone management plans as guided by the Rwanda Environmental Management Act and EIA regulations.</p>

	No activities with any risk to the environment or livelihoods will be implemented before the ESMP is completed.
X	Moderate risk. Three plans will be used to mitigate the risks: ESMP, SHEP (Annex 7) and the GAP (Annex 9). Furthermore, the climate proofing model, EbA planning and decision-making tools, rehabilitation of ecologically sensitive areas, climate smart agriculture and other livelihood diversification activities will be promoted to improve household resilience.
X	Moderate risk. Project implementation will be guided by an ESMP, formulated in the first year, based on the ESMF. No activities with any risk to the environment or livelihoods will be implemented before the ESMP is completed.
<input type="checkbox"/>	
X	Moderate risk. There is likely to be economic displacement by those illegally accessing natural resources (forest products, grazing areas and cultivation). The project identifies alternative measures to illegal access. In addition, implementation will be guided by the ESMP, the SHEP and the GAP, which will collectively mitigate the risks.
X	Moderate risk. There is likelihood that the project may affect human rights and natural resources of the vulnerable sections of society, who are the target of the project (those in Categories 1 and 2 of the Ubudehe ^[5] classification - see footnote 14). Implementation will be guided by the ESMP, which may include an Ethnic Minority Plan as assessed during ESIA, and Resettlement Action Plan, complemented by the SHEP and the GAP. These tools will collectively mitigate the risks.
X	Low Risk. The project will apply the relevant guidelines to minimize pollution and increase efficiency of resource use.

[1] Ministry of Natural Resources – Rwanda (2014). Forest Landscape Restoration Opportunity Assessment for Rwanda. MINIRENA (Rwanda), IUCN, WRI. viii + 51pp.

[2] World Resources Institute, Ornanong Maneerattana, Fred Stolle, Tesfay Woldemariam; 2017: Baseline Conditions of Forests and Landscapes in Gatsibo District. Methodologies for Understanding Restoration Progress through Biophysical, Socioeconomic and Governance Indicators: Gatsibo District, September 2017.

[3] https://rema.gov.rw/rema_doc/Environmental%20Management%20Practical%20Tools/1-Practical%20Tools%20for%20Sectoral%20Environmental%20Planning%20_Final%20Version_%2017-07-2010.pdf

[4] Includes the City of Kigali (CoK), Rwanda Standards Board (RSB), Ministry of Infrastructure (MININFRA), Institute of Engineers of Rwanda (IER), Rwanda Institute of Architects (RIA), RAPEP, Rwanda Environment Management Authority (REMA), Ministry of Environment (MoE) and Rwanda Development Board (RDB).

[5] These categories were created in 2014 by the Local Administrative Entities Development Agency, in a participatory process, and are reviewed every three years. Under the classification, households are put in categories based on their social-economic status, and property ownership – in terms of land and other belongings – and what the families’ breadwinners do to earn a living. The categories are: Category 1: Families who do not own a house and can hardly afford basic needs. Category 2: Those who have a dwelling of their own or are able to rent one but rarely get full time jobs. Category 3: Those who have a job and farmers who go beyond subsistence farming to produce a surplus which can be sold. The latter also includes those with small and medium enterprises who can provide employment to dozens of people. Category 4: Those who own large-scale business, individuals working with international organisations and industries as well as public servants.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
PIMS 6083 Annex 4 SESP Rwanda PIMS 6083 Final	CEO Endorsement ESS	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

– found in Chapter IV (Project Results Framework) of the Prodoc.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Council Comments	Responses at PIF	Additional response at CEOR
<p>1. The programme “rural resettlements” has been supported by One-UN for a long time, but demographic pressure and land fragmentation justify the project objectives</p>	<p>This is noted. These pressures will be further detailed in the project rationale.</p>	<p>The description of development challenge recognizes demographic pressure and land fragmentation as contributors to vulnerability (as demonstrated in the vulnerability assessment undertaken during the project formulation (PPG).</p>
<p>2. The regions Gakenke and Kirehe are well chosen, but surprisingly the biggest refugee camp in Kirehe isn’t mentioned</p>	<p>The project focuses on areas vulnerable to climate change and where there is clear potential to increase communities’ resilience. The GEF project will support the government’s Rural Settlement Programme, whose priority is the establishment of rural households in integrated viable settlements (<i>imidugudu</i>) to mitigate the potentially threatening living situation of rural households to severe disasters (e.g. flood, landslide). The GEF project will ensure that climate resilience is embedded into this programme and create replicable models that can be scaled up across the country through this programme and others such as the Green Village programme. As main targets of the g</p>	<p>The Mahama refugee camp is included in the Bukinanyana mini-catchment. It will be included in the four EbA plans and will benefit from all project interventions except the upgrading of the houses for the 500 households (output 2.3), which is restricted to the beneficiaries of the Imidugudu programme as explained in the PIF-stage response.</p>

	<p>overnment's Rural Settlement Program me, rural households are also the main t arget and beneficiaries of this GEF inve stment. For this reason, refugees and re fugee camps were not considered as a t arget at PIF stage. However, UNDP is ful ly cognizant of the Kirehe refugee camp and will do the due diligence by embedd ing the camp within the scope of risk an d vulnerability assessment during PPG and identify and forge partnerships with the organizations already engaged into the refugee work if found relevant.</p>	
<p>3. The approach lo oks coherent but the activities are not very detailed</p>	<p>While the overall approach and types of activities are specified in the PIF, more detailed specification of activities will o nly be possible during the PPG. Details of activities will emerge from more in-d epth risk and vulnerability assessments and field consultations with the commu nities through participatory approaches to ensure the community buy-in. These and other technical studies during the P PG will flesh out the feasible and cost-e ffective adaptation measures at the acti vity level.</p>	<p>Detailed activities are now provided in the Prodoc Chapter 4 (Results) and further det ailed in the budget notes.</p>
<p>4. The main comm ent is high cost, 6,35 million GEF and 22,36 million co-financing, f or 500 families and if such a high cost can be replicated in the G reen Village/Rural set tlements of Rwanda.</p>	<p>The targeted districts are densely popul ated and the project does indeed aim to deliver impact at scale. The targeted 50 0 households is the minimum number o f beneficiaries that the project will direct ly target in the chosen landscapes. It is i mportant to note, however, that the 500 vulnerable households (representing an estimated 2500 people) are targeted by those activities wherein the project will directly contribute to the upgrading of in frastructure. The project will also reach</p>	<p>The PIF identified the beneficiaries of upgra ded houses (500 households) as the total n umber of project beneficiaries. However, thi s only relates to those whose houses will b e upgraded on a pilot basis. The 500 house holds belong to three villages (Gasharu, Mu zo/Kagano and Muramba). An additional vil lage (Bukinanyana) already has upgraded h ouses. The project however covers four mi ni-catchments, covering an area of 25,566 ha with a total of 191 villages and a populat ion of just over 107,000 people who will be</p>

	<p>more beneficiaries who will benefit indirectly from the adoption of the technologies introduced by the project. Outside the targeted landscapes, the project will reach more communities and local government staff on a broader level through targeted (a) capacity building and training, (b) awareness raising, and (c) support for planning and developing replicable models for scaled up applications (e.g. Green Village models, replicable value chain approaches). Kirehe and Gakenke have a combined estimated population of 680,000, of which we estimate at least 10% can benefit from those activities. More detailed methods and calculations of project beneficiaries (both direct and indirect) will be done during the PPG when conducting capacity assessment and mapping.</p>	<p>benefit from the project.</p> <p>The Project targets the most vulnerable communities who depend on subsistence agriculture for a livelihood. The project interventions will collectively tackle exposure and sensitivity to climate risks at the landscape level by providing the beneficiaries technical skills, more accurate and relevant short to long-term climate information, tools, plans and methods to create and sustain climate resilient livelihoods.</p>
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ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: USD 200,000			
<i>Project Preparation activities Implemented</i>	<i>GEF/LDCF Amount</i>		
	<i>Budget Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Technical assistance (design technical elements as well as all the required financial and administrative components of the project)	118,000.00	91,065	26,935
Conducting missions to the project sites	42,000.00	23,519	18,481
Stakeholder consultation and validation workshop	40,000.00	9,606	30,394
Total	<u>USD 200,000</u>	<u>USD 124,190</u>	<u>USD 75,810</u>

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

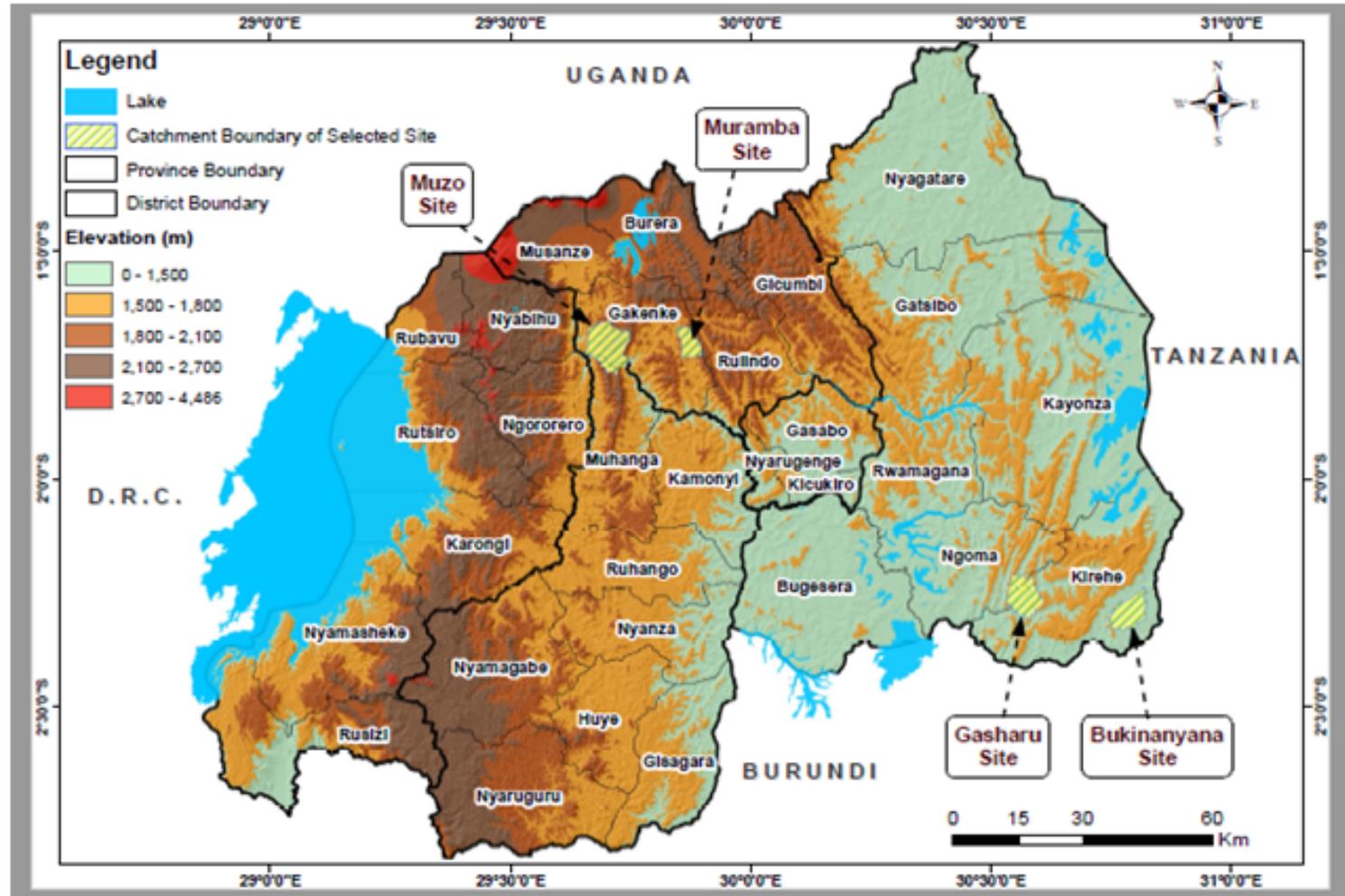
Provide a calendar of expected reflows to the GEF/LDCF/SCCF/CBIT Trust Funds or to your Agency (and/or revolving fund that will be set up)

-- N/A

ANNEX E: Project Map(s) and Coordinates

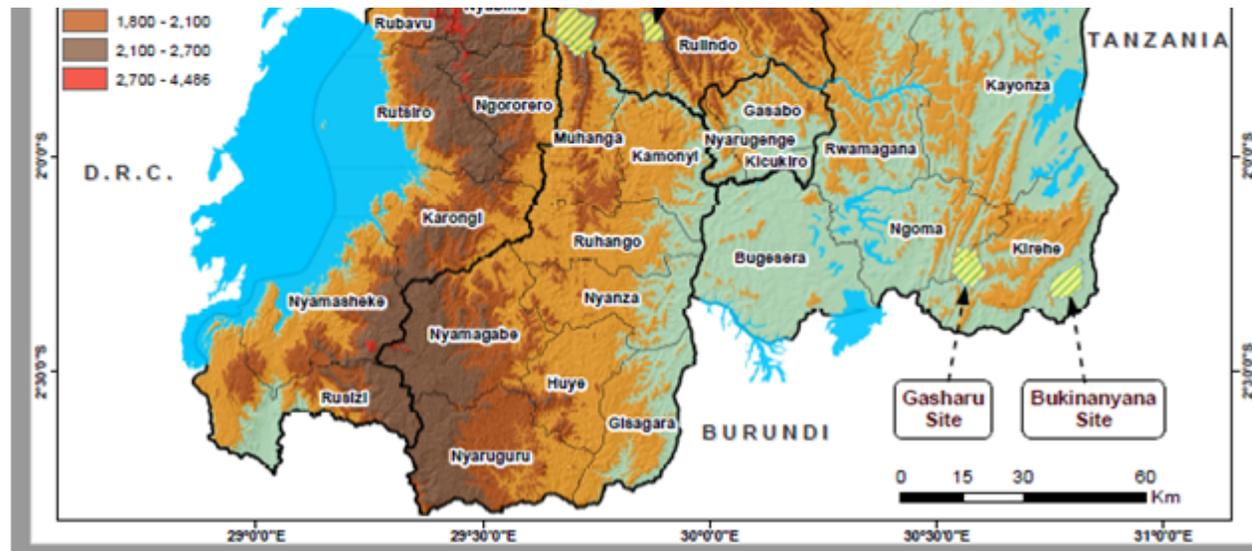
Please attach the geographical location of the project area, if possible.

Annex E: Project Map(s) and Coordinates



Annex E: Project Map(s) and Coordinates





Geospatial coordinates of the project area

Bukinyanya is located between Long: $30^{\circ}44'46.24''E$, Lat: $2^{\circ}14'41.52''S$ (Upper Left corner's coordinates); and Long: $30^{\circ}50'1.46''E$ 30.834003 , Lat: $2^{\circ}20'28.95''S$ (Lower Right corner's coordinates). **Gasharu** located between Long: $30^{\circ}31'51.95''E$, Lat: $2^{\circ}12'37.97''S$ (UL coordinates); and Long: $30^{\circ}37'4.87''E$, Lat: $2^{\circ}19'2.25''S$ (LR coordinates). **Muramba** is located between Long: $29^{\circ}50'25.65''E$, Lat: $1^{\circ}40'4.12''S$ (UL coordinates) and Long: $29^{\circ}54'17.47''E$, Lat: $1^{\circ}44'37.17''S$ (LR coordinates). **Kagano** is located between Long: $29^{\circ}39'4.40''E$, Lat: $1^{\circ}39'7.04''S$ (UL coordinates) and Long: $29^{\circ}45'40.73''E$, Lat: $1^{\circ}46'46.77''S$ (LR coordinates)

ANNEX F: Project Budget Table

Please attach a project budget table.

The LDCF CCA Tracking Tool is found in Annex 10 of the Prodoc.