REQUEST FOR CEO ENDORSEMENT
PROJECT TYPE: FULL-SIZED PROJECT
TYPE OF TRUST FUND: GEF TRUST FUND

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PART I: PROJECT INFORMATION

Project Title: Building resilience of communities living in degraded forests, savannas and wetlands of Rwanda through an ecosystem-based adaptation approach.			
Country(ies):	Rwanda	GEF Project ID[1]:	5194
GEF Agency(ies):	United Nations Environment Programme (UNEP)	GEF Agency Project ID:	970
Other Executing Partner(s):	Rwandan Environmental Management Authority (REMA) in partnership with Ministry of Natural Resources (MINIRENA) and Ministry of Agriculture and Animal Resources (MINAGRI)	Submission Date: Resubmission date:	29 May 2015 21 August 2015
GEF Focal Area (s):	Climate Change Adaptation	Project Duration (Months)	48
Name of parent program (if applicable): For SFM/REDD+ For SGP ☐ For PPP ☐		Agency Fee ($):	522,500

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK[2]

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount ($)	Co- Financing ($)
CCA-1	Outcome 1.2: Reduced vulnerability in development sectors	Output 1.2.1: Vulnerable physical, natural and social assets strengthened in response to climate change impacts, including variability	LDCF	2,993,167	5,030,697
CCA-1	Outcome 1.3: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	Output 1.3.1: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	LDCF	970,511	1,631,164
CCA-2	Outcome 2.2: Strengthened adaptive capacity to reduce risks to climate-induced economic losses	Output 2.2.1: Adaptive capacity of national and regional centers and networks strengthened to rapidly respond to extreme weather events	LDCF	869,067	1,460,665
CCA-3	Outcome 3.2: Enhanced enabling environment to support adaptation-related technology transfer	Output 3.2.1: Skills increased for relevant individuals in transfer of adaptation technology	LDCF	667,255	1,121,474
			Total Project Cost	5,500,000	9,244,000

B. PROJECT FRAMEWORK

[1] Project ID number will be assigned by GEFSEC.
[2] Refer to the Focal Area Results Framework and LDCF/SCCF Framework when completing Table A.

Project Objective: Increased capacity of Rwandan authorities and local communities to adapt to climate change by implementing Ecosystem-based Adaptation (EbA) interventions in forests, savannas and wetlands						
Project Component	**Grant Type**	**Expected Outcomes**	**Expected Outputs**	**Trust Fund**	**Indicative Grant Amount ($)**	**Indicative Co-Financing ($)**
Component 1: National and local institutional capacity development for the use of an EbA approach.	TA	Outcome 1: National and local authorities have increased capacity to plan and implement EbA interventions.	Output 1.1: A National Steering Committee (NSC) mobilised as a platform to promote large-scale EbA programmes in Rwanda.	LDCF	70,957	119,260
			Output 1.2: Training events organized for local authorities, environmental committees and other target groups – with an emphasis on women and youth – to plan, budget and implement EbA interventions.	LDCF	95,023	159,708
			Output 1.3: Technical EbA guidelines developed and distributed to environmental committees and local authorities.	LDCF	204,115	343,062
			Output 1.4: Educational resources on EbA developed for communities living near project sites, and school and university students.	LDCF	276,690	465,040
			Output 1.5: Scientific studies prepared and forum for dissemination of knowledge on EbA effects created.	LDCF	369,265	620,634
Component 2: Policies, strategies and plans for adaptation to climate change.	TA	Outcome 2: Sectoral and local policies, strategies and plans strengthened to promote the restoration and management of degraded ecosystems for EbA.	Output 2.1: Revisions to national ecosystem management and development policies and strategies to promote EbA proposed and submitted for government validation.	LDCF	147,410	247,756
			Output 2.2: A national upscaling strategy developed to promote EbA.	LDCF	141,110	237,167
			Output 2.3: Policy-makers and decision-makers trained to integrate and promote upscaling of EbA interventions.	LDCF	195,846	329,164
			Output 2.4: District Development Plans (DDPs) of pilot sites revised to promote the use of EbA.	LDCF	175,119	294,327
Component 3: EbA interventions that reduce vulnerability and restore natural capital.	TA	Outcome 3: EbA implemented by local communities to restore degraded ecosystems in forest, wetland and savanna ecosystems and establish climate-resilient livelihoods.	Output 3.1: EbA implemented to restore wetland ecosystems in Kimicanga to increase resilience of local communities to floods and droughts.	LDCF	1,161,241	1,951,730
			Output 3.2: EbA implemented to restore forest ecosystems in Sanza to increase resilience of local communities to floods and landslides.	LDCF	688,207	1,156,688
			Output 3.3: EbA implemented to restore savanna ecosystems in Kayonza District to increase resilience of local communities to droughts.	LDCF	897,274	1,508,073
			Output 3.4: Training events, equipment and technical support for the establishment of climate-	LDCF	816,718	1,372,680

			resilient livelihoods in wetlands, forests and savannas to enhance local communities' resilience to the effects of climate change.			
Sub-Total				LDCF	5,239,000	8,805,288
Project management Cost (PMC)[3]				LDCF	261,025	438,711
Total project costs					5,500,000	9,244,000

C. SOURCES OF CONFIRMED COFINANCING FOR THE PROJECT BY SOURCE AND BY NAME $)

Pls include letters confirming cofinancing for the project with this form

Sources of Co-financing	Name of Co-financier (source)	Type of Co-financing	Cofinancing Amount ($)
Multi-Lateral Development Bank	World Bank (LWH and RSSP projects)	Grant	6,939,000
Bilateral Development Agency	Belgian Development Agency (BTC) and Netherlands Government (PAREF project)	Grant	2,305,000
		Total Co-financing	9,244,000

D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY[1]

GEF AGENCY	TYPE OF TRUST FUND	FOCAL AREA	Country name/Global	(in $)		
				Grant amount (a)	Agency Fee (b)[2]	Total c=a+b
UNEP	LDCF	Climate Change	Rwanda	5,500,000	522,500	6,022,500
Total Grant Resources						6,022,500

[1] In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

[2] Indicate fees related to this project.

E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

COMPONENT	GRANT AMOUNT ($)	COFINANCING ($)	Project Total ($)
International Consultants	413,900	695,653	1,109,553
National/Local Consultants	399,128	670,825	1,069,953

F. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? No

(If non-grant instruments are used, provide in Annex D and indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

[3] PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF[4]

Several changes have been made in terms of the alignment of the proposed project document with the original project design of the PIF. The following summarises the most significant changes in terms of GEF Focal Areas, baseline projects, partner projects and proposed project's outcomes/outputs:

- The Focal Areas selected at PIF stage were maintained in the Project Document, although the total number of outcomes were streamlined as a result of consultations with stakeholders during the PPG. For CCA-3, it should be noted that Outcome 3.1 originally included in the PIF was changed to Outcome 3.2 to better reflect investments made by the proposed project in technical capacity building.
- All baseline projects and the co-financing amounts identified at the PIF stage were maintained in the Project Document, apart from the UNEP-IEMP partnership which has now been moved to be a relevant project that this project will work with.
- Other projects found relevant to the proposed project that were identified at the PIF stage have largely remained the same, although some were removed and others were added following in-country consultations during the PPG phase. Projects removed from the Project Document include: i) Africa Adaptation Programme, as it finished in December 2012; and ii) Payment for Ecosystem Services (PES), as it is not a project *per se*. However, the Wildlife Conservation Society (WSC) is relevant to the proposed project and their experience in PES will be built on (please see Section 3.3 and Section 5 of the Project Document). Partner projects that were not identified at PIF stage but have been added as relevant include: i) Lake Victoria Environmental Project; ii) African Model Forest Network; iii) Project for the Rehabilitation of Cyohoha lake; and iv) UNEP-IEMP projects (please see Section A.7 of the CEO endorsement).
- Changes to the outcomes and outputs defined in the PIF were necessary to meet the needs of the stakeholders. From the development of the PIF (initial consultations took place in 2011) to the PPG phase (in 2014), many projects have been implemented, and new national policies and strategies have been developed in Rwanda. In order to meet the country's current context and requirements the following changes have been made to the Components, Outcomes and Outputs as detailed in the table below.

[4] For questions A.1 – A.7 in Part II, if there are no changes since PIF and if not specifically requested in the review sheet at PIF stage, then no need to respond, please enter 'NA' after the respective question

PIF	PD/CEO endorsement	PIF	PD/CEO endorsement	PD/CEO endorsement
Project component/ expected outcomes	**Project component/ expected outcomes**	**Expected outputs[5]**	**Expected outputs**	**Justification of the change to the PIF**
1. Local and national institutional capacity development for an ecosystem management approach to adaptation. Strengthened technical capacity of local and national institutions to plan and implement an ecosystem management approach to adaptation to benefit climate-vulnerable communities.	1. National and local institutional capacity development for the use of an EbA approach. National and local authorities have increased capacity to plan and implement EbA interventions.	A multi-disciplinary national committee established that: i) facilitates cross-cutting national dialogue on climate change adaptation; ii) develops large-scale ecosystem management-focused adaptation programmes; and iii) mobilises funds for the implementation of the programmes.	A National Steering Committee (NSC) mobilised as a platform to promote large-scale EbA programmes in Rwanda.	Since the PIF was developed, the following systems have been implemented: - The Single Project Implementation Unit (SPIU) was created in 2012 to coordinate the implementation of all projects within REMA and reduce administrative costs. - The environment and climate change fund (FONERWA) was established in 2012 for raising and allocating funds for environmental management and climate change adaptation. - Sector Working Groups (SWGs) were created to implement the Economic Development and Poverty Reduction Strategy (EDPRS). The SWGs are responsible for: i) developing and updating the Sector Strategic Plan; ii) coordinating the activities within the sector and ensuring alignment to achieve sector outcomes; and iii) developing Sector Wide Approaches (SWAps). SWGs bring together central and local government institutions, development partners, civil society and the institutions of the private sector for each sector. According to the Executing Agency, the creation of a new national committee as described in the output is not necessary. However, training the members of the SWGs on EbA and the integration of EbA into their working forums are necessary (activities included under Output 2.3). During the last steering committee meetings of the UNFCCC, CBD and UNCCD in Rwanda, a decision was taken to establish one NSC for these conventions to reduce costs and increase the synergy of interventions under the Rio Conventions in Rwanda. The Terms of Reference (ToRs) for this committee have already been developed. These ToRs clearly describe: i) the role and responsibility of the NSC; ii) the institutional arrangement and composition of the NSC; and iii) the role and responsibility of the different members of the NSC including 10 ministries (e.g. MINIRENA, MIDIMAR, MINISANTE), other national institutions (e.g. RAB, RRA, RCAA), and NGOs (e.g. ARCOS, WCS, ACNR). However, the NSC meetings have not yet been initiated. Instead of creating a new NSC for EbA, activities of the proposed project will build on this initiative

[5] In case of a single focal area, single country, single GEF Agency project, and single trust fund, no need to provide information for this table.

PIF	PD/CEO endorsement	PIF	PD/CEO endorsement	PD/CEO endorsement
Project component/ expected outcomes	**Project component/ expected outcomes**	**Expected outputs[5]**	**Expected outputs**	**Justification of the change to the PIF**
				to mobilise this NSC, and integrate EbA into planning for the Rio conventions in Rwanda. EbA is a suitable intervention for all three of these conventions because it addresses climate change, biodiversity and desertification. Therefore, the NSC will serve as a platform to promote large-scale EbA interventions in Rwanda. To catalyse this, NSC members will be trained on: i) using EbA to increase the resilience of local communities to climate change; and ii) planning large-scale EbA interventions, including project selection and funding..
		Local authorities, committees and user groups – with an emphasis on women and youth – trained on using specific techniques for restoring degraded ecosystems to reduce climate risks to vulnerable communities.	Training events organized for local authorities, environmental committees and other target groups – with an emphasis on women and youth – to plan, budget and implement EbA interventions.	
		Policy briefs and technical guidelines developed and distributed for policy- and decision-makers on increasing resilience of local communities to climate change by using appropriate ecosystem restoration techniques based on emerging research findings as well as on local indigenous knowledge.	Technical EbA guidelines developed and distributed to environmental committees and local authorities.	The training activities and development of guidelines for the decision- and policy-makers are included in Component 2 (Output 2.3). However, technical guidelines are necessary to inform the training activities of Output 1.2 and 2.3 and the on-the-ground activities of Component 3. Following the ECCSSS for 2014–2018, green technologies will be promoted in the project intervention sites to increase climate-resilience of local communities and increase the sustainability of EbA interventions (e.g. use of organic compost, use of biogas). Therefore, to support the implementation of these activities under Outcome 3, the production of technical guidelines on green technologies has been added into this output. The policy briefs will be developed under Component 2.
		PhD and MSc theses produced with a focus on addressing major climate change hazards in Rwanda (including, *inter alia*, increased frequency of drought and increased	Scientific studies prepared and forum for dissemination of knowledge on EbA effects created.	Following the example of the LAFREC project, technical staff of Rwanda Education Board (REB), Agroforestry Centre (ICRAF) or National University of Rwanda (NUR) will be appointed to conduct research projects. This approach is preferred by the stakeholders to funding Master and PhD projects. However, the

PIF	PD/CEO endorsement	PIF	PD/CEO endorsement	PD/CEO endorsement
Project component/ expected outcomes	**Project component/ expected outcomes**	**Expected outputs[5]**	**Expected outputs**	**Justification of the change to the PIF**
		frequency of intense rainfall events) by developing suitable ecosystem management plans for the targeted areas. These plans could include research on appropriate multi-use, resilient plant species assemblages for restoration of degraded ecosystems under climate change conditions.		selected candidates will be responsible for involving Master and PhD students in the research activities as much as possible to increase their technical knowledge. The output name was changed accordingly. The research projects will be developed based on the existing gaps in knowledge on the effects of EbA on the livelihoods of local communities because it is essential to show evidence of the positive effects of the EbA approach to promote its use. The research on the appropriate plant species will be conducted by national consultants to inform the restoration activities of the proposed project through Output 1.3.
		Community awareness increased in terms of how to adapt to climate change through restoration of ecosystems, including lessons learned in Component 3.	Educational resources on EbA developed for communities living near project sites and school and university students.	
2. Climate change adaptation policy and strategy strengthening. National and district policies and strategies developed to promote the restoration and management of degraded ecosystems to increase the resilience of local communities to climate change.	2. Policies, strategies and plans for adaptation to climate change. Sectoral and local policies, strategies and plans strengthened to promote the restoration and management of degraded ecosystems for EbA.	Revisions on existing national ecosystem management and development policies and strategies produced to identify entry points for promoting restoration of degraded ecosystems to reduce climate change vulnerability.	Revisions to national ecosystem management and development policies and strategies to promote EbA proposed and submitted for government validation.	
		A national upscaling strategy developed and institutionalised to promote an ecosystem management approach to adaptation.	A national upscaling strategy developed to promote EbA.	
		Current national forestry, agricultural and water sector budgets, policies and strategies revised to promote upscaling of adaptation activities for ecosystem management.	Policy-makers and decision-makers trained to integrate and promote upscaling of EbA interventions.	The two outputs for the revision of policies, strategies and plans were combined into one output (Output 2.1) given that several policies have been created/revised since the development of the PIF. Additionally, a separate output was created for the training of relevant government experts from various sectoral ministries for an integrated approach to adaptation (Output 2.3); training will be on EbA role, budgeting, planning, implementation, and on the use

PIF	PD/CEO endorsement	PIF	PD/CEO endorsement	PD/CEO endorsement
Project component/ expected outcomes	**Project component/ expected outcomes**	**Expected outputs[5]**	**Expected outputs**	**Justification of the change to the PIF**
				of the policy recommendations. Having a separate output for training emphasises the importance of capacity strengthening and will promote the development of comprehensive training material during the implementation phase.
		An ecosystem management approach to climate change adaptation integrated into district development plans (DDPs).	District Development Plans (DDPs) of pilot sites revised to promote the use of EbA.	
3. Interventions that reduce vulnerability and restore natural capital. Improved resilience and reduced vulnerability of local communities to climate change impacts, including increased frequency of drought, and increased frequency of intense rainfall events, through strategic restoration of degraded ecosystems.	3. Interventions that reduce vulnerability and restore natural capital. Improved resilience and reduced vulnerability of local communities to climate change impacts, including increased mean temperature, increased frequency of drought, and increased frequency of high-intensity rainfall events, through strategic restoration of degraded ecosystems.	Climate-resilient and multi-use ecosystems restored to stabilise soils, increase water infiltration, reduce soil erosion, improve water quality and to improve livelihood options.	EbA implemented to restore wetland ecosystems in Kimicanga to increase resilience of local communities to floods and droughts.	During consultations with the stakeholders, it was decided to reorganise the first three outputs of this component from one output per activity type as in the PIF to one output per ecosystem (i.e. per intervention site). This restructuring will make it easier for the field officers and the project manager to implement the activities presented in the Project Document and also to monitor project outcomes per ecosystem and per project site.
		Techniques to reduce erosion and ensure regular river flow developed and implemented.	EbA implemented to restore forest ecosystems in Sanza to increase resilience of local communities to floods and landslides.	
		Capacity of communities to undertake ecosystem management-based adaptation activities increased.	EbA implemented to restore savanna ecosystems in Kayonza District to increase resilience of local communities to droughts.	
		Alternative livelihoods based on the benefits of functional ecosystems developed and promoted to enhance community resilience to climate change impacts.	Training events, equipment and technical support for the establishment of climate-resilient livelihoods in wetlands, forests and savannas to enhance local communities' resilience to the effects of climate change.	

A.1 <u>National strategies and plans</u> or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.

Four of the six priorities identified by Rwanda's National Adaptation Programme of Action (NAPA) will be addressed by the proposed LDCF project. These priorities are: i) Priority 1 "Integrated water resources management"; ii) Priority 3 "Promotion of income-generating activities"; iii) Priority 4 "Promotion of intensive agriculture and animal husbandry"; and iv) Priority 5 "Introduction of varieties resistant to environmental conditions". Project interventions will conform to the standards of the Rwandan Environmental Management Authority (REMA).

The proposed project is aligned with the national policies, strategies and plans in Rwanda. Stock-taking and consultations during the PPG highlighted additional policies, strategies and plans of relevance that have been added to the project document and CEO endorsement. A brief description of the main policies, strategies and plans leading development in Rwanda and how they relate to the proposed project is presented below. For more information, please see Section 2.4 of the Project Document.

- The proposed project is aligned with the **Rwanda Environmental Policy** (2003) that promotes the protection and sustainable management of natural resources in Rwanda while recognising the need for economic growth and social development. Its objectives include *inter alia*: i) sustainable socio-economic development; ii) the integration of environmental management into development policies and plans; iii) the conservation and restoration of ecosystems to promote ecosystem functioning; iv) sustainable resource use; v) public awareness; and vi) women and youth participation in environmental activities. With regard to water resources, the policy includes the protection of watersheds and wetlands to prevent erosion, siltation, and pollution by colluvial deposits and deforestation. Similarly, the policy promotes the rehabilitation of degraded forest ecosystems, particularly on deforested hills.
- The **National Forestry Policy** (2011) envisions the forestry sector as a major economic contributor in Rwanda as well as a contributor to Vision 2020 goals. The objectives of the policy that the proposed project will contribute to achieve include: i) encouraging private sector investment in forestry; ii) promoting sustainable natural resource management; iii) encouraging community participation; iv) promoting the production of timber and Non-Timber Forest Products (NTFPs); and v) promoting research and education on forestry.
- The **Rwanda Biodiversity Policy** (2011) recognises the contribution of biodiversity to local livelihoods, food security, health, environment, cultural diversity and economy. The goal of the policy is "to conserve biodiversity in Rwanda, to sustain the integrity, health and productivity of its ecosystems and ecological processes whilst providing lasting development benefits to the nation through the ecologically sustainable, socially equitable, and economically efficient use of biological resources". The use of the EbA approach under the proposed project is aligned with this goal. Furthermore, the policy recognises natural disasters, land-use changes and loss of ecosystem services as some of the threats to biodiversity in Rwanda.
- The **National Land Policy** (2004) is focused on land tenure security for all Rwandans. It guides land reforms and promotes the "good management and rational use of national land resources". The policy requires that the National Land Use and Development Master Plan be put in place to guide spatial development in Rwanda. It also provides guidelines for land use and management, and details the guidelines to develop District Land Use Plans that will be built on by the proposed project.
- The **National Water Resource Management Policy** (2011) is aligned with the principles of Integrated Water Resource Management. Related to the policy, the **Water Resources Management Sub-Sector Strategic Plan** (2011–2015) has identified strategic outcomes that relate to: i) governance; ii) monitoring and evaluation; iii) water catchment restoration; iv) equitable utilisation; v) water-related disaster management; vi) capacity development for water resource management; vii) knowledge management; and viii) transboundary water management.
- Further policies regarding water include the **Sectoral Policy on Water and Sanitation** (2010). This recognises the role of water and sanitation management in poverty reduction. It promotes the achievement of the Millennium Development Goals (MDGs) objectives and the 2020 Vision. In relation to the proposed project, the policy promotes the sustainable management of water resources, increased access to water for agriculture and livestock, and environmental protection.
- **Vision 2020** contains six development pillars. The proposed project is aligned with Pillar 4: Infrastructure development and Pillar 5: Productive and market-oriented agriculture. Vision 2020 also identifies three cross-cutting areas. The proposed project is aligned with the second cross-cutting area: Protection of environment and sustainable natural resource management.
- Rwanda's **Second National Communication** (2012) focuses on both mitigation of and adaptation to climate change. The proposed project is aligned with several of their objectives including enhancing natural carbon sinks, watershed restoration, rainwater harvesting and community awareness-raising activities.
- The proposed project is consistent with the rural development priorities of **EDPRS 2** (2013–2018). These include increased agricultural productivity, promotion of investments in rural poverty and decreased rural poverty.
- The proposed project is aligned with the objectives of the **Environmental and Climate Change Sub-Sector Strategic Plan** (2013/14–2017/18) that include: i) mainstreaming of environmental sustainability and climate change into all national development policies, programmes, plans and budgets; ii) mitigation and adaption to the effects of climate change; iii) pollution management; iv) promotion of research and improved planning for environmental management;

and v) improvement of environmental governance and decentralised service delivery. The interventions of the proposed project will facilitate the execution of multiple activities identified as priorities for climate change adaptation in Rwanda by the EDPRS 2 and the Environmental and Climate Change Sub-Sector Strategic Plan.

- The proposed project is consistent with the first two objectives of **National Strategy for Community Development and Local Economic Development** (2013–2018), namely "enhance community empowerment and citizen participation" and "improve local capacity for sustainable economic growth through the growth of micro and small enterprises, and job creation".
- The proposed project is consistent with the second of the three objectives **Green Growth and Climate Resilience: National Strategy on Climate Change and Low Carbon Development** (2011), namely "to achieve sustainable land use and water resource management that results in food security, appropriate urban development and preservation of biodiversity and ecosystem services". It is also aligned with several programmes of action defined by this strategy such as the development of agroforestry.
- The proposed projects is also aligned with: i) the revised **National Decentralisation Policy** (2012); ii) the **Water Resources Management Sub-Sector Strategic Plan** (2011–2015); iii) the **Water, Climate and Development Program** (WACDEP); iv) the **National Land Use and Development Master Plan** (NLUDMP); and v) the **Strategic Plan for the Transformation of Agriculture in Rwanda** Phase III (2013–2017).

Ecosystem restoration is promoted in several policy and strategy documents including the Environmental Policy (2003), the Environmental and Climate Change Sub-Sector Strategic Plan (2013/2014-2017/2018) and the Water Resource Management Sub-Sector Strategic Plan (2011-2015) but the consideration of adaptation to climate change in these documents remains limited. For example, adaptation to climate change is cited once in the Environmental Policy. Overall, except for the Environmental and Climate Change Sub-Sector Strategic Plan that mention the need for training of government and communities on EbA, this approach is absent from national policies (e.g. Environmental Policy, Forestry Policy, Biodiversity Policy), and recently developed/revised strategies and plans (e.g. EDPRS 2, Green Growth and Climate Resilience Strategy, Water Resources Management Sub-Sector Strategic Plan). Considering that the sectoral policy documents of relevance for the project (i.e. environment, forestry, land, water) were developed at least four years ago, revisions to these documents will be proposed as part of the project activities to fully integrate adaptation to climate change and promote the use of EbA. However, most of the sectoral and sub-sectoral strategies have been developed recently (e.g. EDPRS 2, Strategic Plan for the Transformation of Agriculture in Rwanda Phase III, National Strategy for Community Development and Local Economic Development). During consultations at the PPG phase, the stakeholders stated that there was no need to revise these recent documents. Consequently, these documents were not cited as potential documents to be revised in the Project Document. The need for revising these strategies and plans to promote EbA will be reassessed during the inception phase.

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

The proposed project is aligned with the following LDCF/SCCF Focal Area Objective:

- **CCA-1**: Reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional and global level
- **CCA-2**: Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level
- **CCA-3**: Promote transfer and adoption of adaptation technology

Table A indicates the corresponding outputs and indicators, and funds that are allocated to the relevant Focal Areas under the Results-Based Management Framework.

A.3 The GEF agency's comparative advantage:

UNEP has considerable experience in implementing projects and providing scientific guidance in the field of climate change. To date UNEP has facilitated the completion of 15 NAPAs and is also assisting LDCs and other developing countries towards implementation of the adaptation priorities identified by the NAPAs, National Communications and Technology Needs Assessments. This agency also has experience in implementing more than 80 adaptation projects at global, regional and national levels. Through the implementation of those projects, UNEP works to develop innovative solutions for national governments and local communities to adapt in an environmentally sound way to future climate change. These innovative solutions include the provisions of methods and tools to support decision making, addressing barriers to implementation, and testing and demonstrating those solutions, as well as building climate resilience through

restoration of key ecosystems – river basins, mountains, coasts and dry lands – vulnerable to climate change. UNEP's work on climate change adaptation focuses on three main areas: i) Science and Assessments; ii) Knowledge and Policy Support; and iii) Building the Resilience of Ecosystems for Adaptation. UNEP first focused its adaptation work on EbA – as mandated by its Governing Council – through the EbA[6] Flagship Programme of UNEP.

UNEP is uniquely positioned to undertake the innovative approach of ecosystem restoration for adaptation. Importantly the adaptation interventions of the proposed project hinge around knowledge of a wide range of ecosystems. Other parts of the project such as enhancing water supplies, increasing agricultural productivity and developing alternative community livelihoods are attached to the central theme of managing ecosystems appropriately. UNEP's core business is providing technical advice on managing environments in a sustainable manner and it thus has a significant comparative advantage in implementing the project. The technical and scientific knowledge that UNEP brings to the project will be fundamental for its success. In particular, ecological science will need to guide the design and monitoring of Outcome 3's demonstration activities to ensure that rigorous evidence of the effect of these interventions on local communities is generated. UNEP's experience in revising policy will be important for translating the information generated into appropriate policy, strategy and legislative documents.

UNEP has worked in Rwanda since 1994 and has developed strong relationships with local partners. In particular, these include ongoing relationships with the Ministry of Natural Resources (MINIRENA), the Ministry of Agriculture and Animal Resources (MINAGRI), the Ministry of Infrastructure (MININFRA) and the Rwanda Development Board Tourism and Conservation Department (RDB T&C). Partnerships also include international organisations such as the Institute for Sustainability Studies (IISD), United Kingdom Department for International Development (DFID), and the World Wildlife Fund (WWF). UNEP has contributed to many studies and policies within the country, including the EDPRS (2007), Vision 2020, the Post-Conflict Environment Assessment (2006), the NAPA (2006), the Economic Analysis of Natural Resource Management (2007), the State of the Environment Report (2009) as well as the review of the report on State of Environment and Information Networking in Rwanda (2010). Finally, UNEP has a long history of working with the Government of Rwanda on addressing the effects of climate change. This includes the national communications to the UNFCCC, development of the NAPA, implementation of the LDCF 1 project and implementation of the UNEP-IEMP partnership (please see Section A.7 for more information on UNEP-IEMP).

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

Baseline situation addressed by the baseline projects

Unsustainable resource usage is the most consistent threat to sustainable economic growth in Rwanda. In the past three decades, increases in population density have escalated rates of deforestation. At present, 86% of the energy use in Rwanda is from biomass[7]. Furthermore, the civil war that took place during 1990–1994 exacerbated ecosystem degradation in Rwanda, because of: i) the deforestation that took place during this time; ii) the loss of environmental professionals and advocates; and iii) the resettlement of displaced communities in protected areas after 1994. The result of this anthropogenic pressure on natural ecosystems is the reduction of vegetation cover in the country that leads to soil erosion, landslides, reduction in the availability of food, reduction in availability of water and reduced water infiltration leading to increased flooding. As a result of the strong dependence on natural resources from wetlands, forests and savannas, few livelihood options exists and rural poverty is widespread. Women and men are both vulnerable to these problems, although female-headed households tend to have lower incomes and fewer opportunities than men do (as they need to both take care of children and make an income in order to feed the family resulting in less economic opportunities).

Under this scenario, the main problems that the baseline projects seek to address are an increase in rural poverty degradation of natural ecosystems, reduction of agricultural productivity and decreasing availability of potable water in

[6]Participants at COP 16 as well as the IUCN have noted that UNEP is an appropriate agency for implementing in developing countries and further developing the EbA concept. At the 2010 United Nations Climate Change Conference (COP 16), the EbA approach adopted by UNEP was noted as vital in playing a role in integrating EbA into the adaptation and development strategies of developing countries. It was also noted at this COP that investing in EbA was one of the most effective ways to address the multiple challenges of vulnerability and poverty. (As reported in the article 'Inspiring action towards a low carbon, climate resilient future'. Available from http://www.cc2010.mx/en/press-center/press-resources/news_2010112340160.htm)

[7] Rwanda-NAPA.

Rwanda as summarised below. For more information, please refer to Annex N (Theory of change for underlying problems), and Sections 2.1 and 2.3 of the Project Document.

- *Poverty*: Rwanda has a large prevalence of poverty. In terms of human development, the country is ranked 167th out of 186 countries, with a Human Development Index (HDI) of 0.434. The incidence of poverty was estimated to be ~45% in 2011[8]. Poverty is ubiquitous in the country's rural areas and has resulted in chronic food insecurity.
- *Degradation of ecosystems*: Population density, population growth rate and rural poverty in Rwanda threaten natural ecosystems. The primary catalysts of degradation are: i) the demand for food that fuels the extension of agricultural land; ii) the construction of settlements; and iii) the reliance of local communities on natural resources for subsistence and income. For example, the GoR[9] has acknowledged the role of wetlands in improving water availability. However, several wetlands were transformed into settlements (e.g. Province of Kigali City) or agricultural land[10] (e.g. in Bugesera district) thereby reducing the potential to deliver important ecosystem services needed for the wellbeing of local communities such as soil stabilisation and water infiltration. Similarly, mining activities, stock grazing and tree cutting for woodfuel are degrading forests.
- *Agriculture*: Agriculture is the primary economic activity for rural communities. However, the amount of arable land is reducing because of soil erosion induced by ecosystem degradation for woodfuel. In dry areas such as the Eastern Province of Rwanda, agricultural activities are mostly rain-fed. This is a consequence of limited knowledge of water management techniques and minimal infrastructure for irrigation. As a result, agricultural productivity is reduced during the dry season. The majority of the farmers practise monocropping in Rwanda which leads to a decrease in crop diversity and an increase in soil impoverishment. Additionally, chemical fertilisers and pesticides are used to maintain the productivity of land. The excessive application of chemical fertilisers and pesticides on many fields is leading to environmental degradation, including water pollution.
- *Water availability*: Although the percentage of the population with access to clean drinking water has increased from 77% in 2005 to 87% in 2011, the supply of potable water in Rwanda is threatened. The greatest threats are related to land-use systems and soil erosion. In particular, agricultural fertilisers and pesticides are increasingly polluting Rwanda's surface water via surface runoff[11]. Other anthropogenic pollutants include household and industrial wastes. Furthermore, soil erosion increases the amount of sediment and suspended matter in surface water therefore reducing its quality. These threats result from: i) expansion of human settlements and agricultural lands; ii) construction of transport infrastructure; and iii) overexploitation of natural resources.
- *Gender inequality*: Women and men are both vulnerable to the abovementiond problems, although female-headed households tend to have lower incomes and fewer opportunities than men do (as they need to both take care of children and make an income in order to feed the family resulting in less economic opportunities).

Baseline projects

The proposed LDCF project will build on the ongoing activities of selected baseline projects which address the baseline problems in Rwanda as detailed above. A brief description of these projects is provided below (please refer to Section 2.6 and Appendix 22 of the Project Document for more information).

- **Projet d'Appui à la Reforestation au Rwanda** (PAREF Phase 2) (Co-financing of US $2,305,000) (2012–2016) is focused on supporting the Forestry Sector and the National Forestry Policy in Rwanda to contribute to poverty alleviation, economic growth and conservation. This project is funded by the Belgian Development Agency (BTC) and the Netherlands government, and implemented by RNRA. The PAREF-Be began in 2008 and has been extended to December 2016. The PAREF-Ne was initiated in 2009 and has also been extended until December 2016. The PAREF projects have two primary objectives: i) building capacity within the forestry sector; and ii) improving forest management, increasing afforestation and developing agroforestry. The PAREF-Ne has interventions in progress in the Western Provinces, including Mukura native forest that is in close proximity to Sanza native forest. In addition, interventions for the PAREF-Be are being implemented in the Eastern Province, including in Kayonza District. The afforestation activities of PAREF involve mainly the plantation of exotic, fast-growing species including *Pinus* and *Eucalyptus* to meet the target of 30% forest cover by 2016. Currently, there is a gap in knowledge on the sustainability of afforestation with one versus multiple species, and with indigenous species adapted to local climate versus exotic,

[8] http://hdrstats.undp.org/en/countries/profiles/RWA.html [Accessed 1st October 2013].
[9] REMA. 2009. Rwanda State of Environment and Outlook. Kigali, Rwanda.
[10] In 2008, 53% of marshland were under cropping.
[11] Rwanda National Resource Authority. 2012. Water Quality Monitoring in Rwanda. National University of Rwanda, Faculty of Science. Butare, Rwanda.

fast-growing species. As a result, the capacity of PAREF to climate proof its interventions is limited. The interventions of the proposed project will build on PAREF in several ways. Firstly, PAREF provides training on afforestation and management of forest resources to local authorities and the private sector. The proposed project will build on this activity by providing additional training on EbA to government staff including local authorities and PAREF management team (Activities 1.2.1 and 1.2.2, training on the use of EbA interventions), communities (activities under Component 3) and the private sector (Activity 1.2.3). This training will focus on climate-resilient afforestation methods and forest resource management that maximise the provision of ecosystem goods and services to local communities in a sustainable manner. This will increase the technical capacity of stakeholders participating in the baseline project to design and implement climate-resilient afforestation interventions through PAREF. Through Component 3 of the proposed project, interventions will be implemented to increase the resilience of the afforestation and agroforestry interventions of PAREF in Ngororero to intense rains through: i) implementing EbA to restore degraded forest patches; ii) building radical terraces; and iii) promoting agroforestry. Such interventions will enhance the ecosystem functioning of watersheds – e.g. by increasing water retention and infiltration – in which PAREF is working under conditions of climate change. In addition, through the proposed project, evidence-based information on the benefits of using indigenous species for afforestation and agroforestry will be produced and shared with local authorities and communities involved in PAREF. The climate-resilient planting protocols that will be developed through Component 1 of the proposed project will also be shared with these stakeholders. This will further contribute to increasing the sustainability of PAREF interventions under conditions of climate change.

- **The Land Husbandry, Water Harvesting and Hillside Irrigation Project** (LWH) (Co-financing US $6,543,000) (2010–2017) focuses on increasing the productivity and commercialisation of hillside agriculture. The project – which is funded by the World Bank – will build on these objectives by introducing sustainable land husbandry at selected sites and developing hillside irrigation areas within selected sites. The three components of LWH are: i) capacity development and institutional strengthening for hillside intensification; ii) infrastructure development for hillside intensification; and iii) ensuring implementation of LWH interventions through the ministerial sector-wide approach (SWAp) structure of MINAGRI. The LWH is working in a number of districts including Kayonza, which is also be a target district of the proposed project. As raised by the national stakeholders, project management teams do not have sufficient technical knowledge available on best-practice restoration and agricultural practices under conditions of climate change. To address these gaps, the proposed project will develop the technical capacities of national and local government staff including the management team of LWH, and local communities on climate-resilient practices including EbA, agroforestry, green technologies and techniques to prevent evaporation (through restoration activities for forest and savanna restoration). This will be achieved by providing training and disseminating technical guidelines in the first year of the proposed project (within Component 1). Additionally, implementation of EbA to restore vegetation in forests, savannas and on the risers of terraces, and agroforestry development in Ngororero and Kayonza (Activities 3.2.5, 3.3.5 and 3.1.8) will reduce the impact of climate-related disasters – such as landslides and floods – on the hard infrastructure that has been built by LWH including water harvesting and irrigation infrastructures. This will increase sustainability of the LWH interventions, and reduce the cost of maintaining the infrastructure that has been built through this project. By implementing these interventions within Component 3 (Activities 3.1.5 to 3.1.7, 3.2.5 and 3.3.5), the proposed project will support the LWH in meeting its objectives of increasing agricultural productivity through improving the quality and quantity of water supplies for household and agricultural use under conditions of climate change. In particular, these EbA interventions will decrease soil erosion, siltation of water supplies and the impact of droughts on local communities.

- **The Rural Sector Support Project, Phase 3** (RSSP 3) (Co-financing US $396,000) (2012–2018), which is funded by the World Bank, is executed by the Rwandan Environmental Management Authority (REMA) within the Ministry of Natural Resources (MINIRENA) in partnership with the Rwanda Natural Resource Authority (RNRA) within MINIRENA, the Ministry of Agriculture and Animal Resources (MINAGRI) and several other government ministries. The project has the following two objectives: i) increase the agricultural productivity of organised farmers in the marshlands and hillsides of sub-watersheds for development in an environmentally sustainable manner; and ii) strengthen the participation of both women and men in market-based value chains. The components for RSSP 3 are: i) infrastructure for marshland, hillside and commodity chain development; ii) capacity for marshland, hillside and commodity chain Development; and iii) Project Coordination and Support. The RSSP 3 is implementing interventions in the Kayonza District, which will also be targeted by the proposed project. The proposed project will contribute to increasing the climate resilience of RSSP 3 interventions by implementing EbA to restore savannas in Kayonza and wetlands in Bugesera (within Component 3). These interventions will contribute to reducing erosion and siltation into waterways under conditions of climate change, thereby increasing sustainability of irrigation infrastructure that has

been built by RSSP 3. Similarly to the LWH, the EbA interventions that will be implemented by the proposed project will contribute to reducing the maintenance costs of this infrastructure in the future. Through the proposed project, evidence-based knowledge on climate-resilient practices for soil and water management – including rainwater harvesting and agroforestry (Component 3) – will be collated and shared with stakeholders who are implementing RSSP 3. Technical guidelines on these topics will be developed and disseminated to these stakeholders. Additionally, government authorities in the Eastern Province and Kayonza District will be trained to implement climate-resilient restoration and agricultural practices (Activities 1.2.1 and 1.2.2). These stakeholders will consequently have strengthened capacity to plan and implement methods that improve agricultural productivity and water availability under conditions of climate change, and to train local communities on these topics in the future. Lastly, the farmers that are involved in the Farmer Field Schools (FFSs) created by RSSP 3 will be trained in climate-resilient agricultural practices through the proposed project

Through the planned interventions, the proposed project will increase the climate resilience of the baseline projects described above. The additional LDCF investments will strengthen the capacity of government authorities and local communities participating in baseline projects to plan and implement EbA. The benefits of strengthening their capacities will be sustained after these baseline projects have terminated. As a result of training on EbA that will be provided during the first year of the LDCF project, stakeholders involved in the following sectors/activities will have strengthened capacity to adapt to climate change through an EbA approach: i) forestry (PAREF); ii) hillside agriculture intensification (LWH); and iii) marshland and hillside agriculture intensification, and commodity chain Development (RSSP 3). Importantly, stakeholders from these initiatives will be consulted on an ongoing basis, and lessons learned through the proposed project will be shared with these stakeholders. To achieve this, the managers of the baseline projects will be involved in PSC meetings and coordination working groups organised by SPIU to gather the project managers of the baseline projects, the partner projects and the proposed project. Furthermore, increased gender inequalities as a result of climate change impacts will be addressed by project interventions such as capacity building, training on climate resilient livelihoods and awareness raising.

The overarching goal of the proposed project is to increase the capacity for adaptation to climate change in Rwanda. The objective of the project is to build the capacity of Rwandan national and local authorities to implement EbA interventions in degraded wetlands, forests and savannas. The project will focus on vulnerable communities living adjacent to these ecosystems. The additionality of the proposed project is described in Section A.5 below.

A.5 Incremental / Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

The challenges currently faced in Rwanda that the baseline projects seek to address – as described in Section A.4 – are expected to be exacerbated by the predicted effects of climate change, including increased frequency and intensity of flood events, and increased occurrence and duration of droughts. In addition to these climate-related hazards, impoverishment and dependence of the majority of the rural population on agriculture, livestock and the use of natural resources for their livelihoods will increase the vulnerability of the rural population in Rwanda. This is because floods, landslides and droughts cause damage or destruction to these sources of livelihoods – particularly food – for these local communities. The degradation of wetlands, forests and savannas is expected to further increase the vulnerability of local communities to floods and droughts through decreased quantity and quality of drinkable water and emergence of water-induced health problems[12]. Regarding local communities' livelihoods, rain-fed agriculture is affected disproportionately by water shortages associated with droughts and therefore contributes to the vulnerability of local communities to the effects of climate change.

To build the resilience of Rwanda to climate change including the interventions of baseline projects, the following gaps should be addressed. For more information, please see Section 2.6 of the PD.

- The **institutional capacity** to address the effects of climate change has recently been increased at both national and local scales but it should be strengthened and complemented to become more effective.
- The **technical capacity** of local authorities, CBOs and local communities to plan and implement initiatives on adaptation to climate change – and EbA in particular – is limited. Therefore, the expected effects of climate change are

[12] Floods lead to the increased spread of water-borne diseases, such as cholera, as well as injury and death in extreme events.

rarely considered when designing development projects. Consequently, the interventions implemented in Rwanda might not be efficient in the medium and long term.

- **Information availability** on the level of ecosystem degradation, the role of ecological infrastructure and communities' vulnerability to climate change in Rwanda is limited. These information gaps hinder the prioritisation and coordination of adaptation interventions including EbA interventions.
- **Gender inequality**: women tend to have lower incomes and fewer opportunities than men do, and their capacity to adapt to the effects of climate change is more limited
- There is limited use of **green technologies** that would facilitate the sustainable management of natural resources under the climate change scenario.
- The absence of **proof of concept** on EbA hinders the use of this approach to increase the sustainability of restoration interventions and appropriate planning for adaptation to climate change in Rwanda.
- The implementation of long-term adaptation projects is prevented by the **limited involvement of the private sector** in funding environment projects.
- The **awareness of local communities** on practices that would increase their resilience to climate change is limited as well as their technical capacity to implement ecosystem restoration initiatives using an EbA approach.
- EbA is not integrated into Rwanda's local **development planning** which prevent the systematic use of the EbA approach at the local scale.
- There are limited **livelihood options** beyond agriculture and the few alternatives that exist are rarely climate-resilient.

Succinct additional cost reasoning to address the problems previously mentioned in the section and in Section A.4 is presented below. For more information, please see Section 3.3 of the Project Document.

Component 1: National and local institutional capacity development for the use of an EbA approach.

Without LDCF resources

Without LDCF resources, the technical capacity of national and local level institutions in Rwanda including members of national committees and decentralized environmental committees, local authorities, and CSOs will remain insufficient for the effective planning and implementation of best adaptation interventions. In particular, both the awareness of local authorities of adaptation options and their technical capacity to plan and implement adaptation interventions will remain limited to the interventions of a couple of donor-funded adaptation projects with short timeframes such as LAFREC and LVEMP. Additionally, the scientific knowledge base available on the effects of EbA on community livelihoods likely to convince national stakeholders to prioritise EbA as a best adaptation practice will remain insufficient and incomplete, as well as the tools to make it accessible for the practitioners. As a result, the integration of EbA into development planning will remain *ad hoc*. Because of the limited awareness and technical capacity of national stakeholders for adaptation to climate change, current and future effects of climate change will seldom be considered when designing interventions for the economic development in the country which will prevent the investments made into development from improving people livelihoods sustainably. Furthermore, budget allocations and staff commitments to resilient ecosystem management will continue to remain insufficient for implementing adaptation activities because of a limited integration of adaptation to climate change within national priorities. As a result, the GoR will continue to have insufficient institutional, technical or financial capacity to implement an efficient and synergetic response to climate change and the population will remain vulnerable to floods, droughts and landslides. Lastly, the unsustainable use of natural resources and consequent degradation of ecosystems will continue because of the limited awareness of local communities on EbA techniques and on the role of natural ecosystems in increasing resilience to climate change.

Adaptation Alternative

Additional funding (US $879,496) is required to catalyse large-scale EbA initiatives across Rwanda by establishing institutional frameworks and building technical capacity of national and local institutions and local communities to plan and implement EbA in Rwanda. To achieve this, Component 1 will: i) increase the technical capacity of the members of the National Steering Committee (NSC) to develop large-scale EbA programmes; ii) increase the technical capacity of environmental committees, local authorities, relevant private sector actors and user groups on EbA planning and implementation; iii) update and increase the availability of technical knowledge on EbA best-practices and complementary green technologies; iv) increase awareness and knowledge of local communities, and school and

university students on EbA and climate change; and v) increase the scientific knowledge base on EbA through the support of long-term academic research.

Training the members of existing SWGs on EbA and the integration of EbA into their working forums is necessary (activities included under Output 2.3). Additionally, activities of the proposed project will mobilise the NSC that has been created to coordinate the Rio conventions, and integrate EbA into planning for these conventions in Rwanda. EbA is a suitable intervention for all three conventions because it addresses climate change, biodiversity and desertification. Therefore, the NSC will serve as a platform to promote large-scale EbA interventions in Rwanda. To catalyse this, the NSC members will be trained on: i) using EbA to increase the resilience of local communities to climate change; and ii) planning large-scale EbA interventions including project selection and funding (Output 1.1).

Under Output 1.2, various groups of people will be trained in EbA techniques to develop national and local capacity to plan and implement EbA. Firstly, the proposed project will support the GoR to establish a NSC to apply the following Rio Conventions: CBD, UNFCCC and UNCCD. Secondly, the project will train the members of the NSC on EbA techniques to increase the resilience of local communities to climate change. The increased technical capacity of the NSC will promote the funding and implementation of large-scale EbA interventions.

Training sessions at the local level will primarily be directed at: i) DEOs[13] and DEFs; ii) environmental committees[14]; and iii) private sector actors, NGOs and CBOs. These training activities will be implemented in the districts selected by the project, which include Bugesera, Ngororero, Gasabo and Kayonza[15]. As a result, the proposed project's interventions will increase the technical capacity of the participants to prioritise, conceptualise, plan and implement EbA. In particular the training sessions will focus on the following technical aspects of EbA: i) selection of plant species that are resilient to droughts (i.e. Eastern Province) or floods (Western Province and Kigali City); ii) selection of plant species that have stabilising effects on the soil; and iii) planning of restoration activities to increase resilience of local communities to climate change in the ecosystems relevant to each district (Output 1.2).

Technical guidelines produced by the project under Output 1.3 on the use of indigenous species in restoration activities will be used to prepare the training sessions. Additionally, technical guidelines will be produced for the application of green technologies that promote the sustainability of the restoration activities (e.g. biogas) and promote the use of climate resilient techniques in agriculture (e.g. organic composting and water conservation techniques). Lastly, developing a map of priority ecosystems will facilitate the prioritisation of EbA interventions nationally.

Component 1 also includes a campaign to raise public awareness on EbA (Output 1.4). The awareness-raising campaign will target the local communities living near the project intervention sites to increase local awareness of the benefits of EbA and promote local ownership of the project's activities. The awareness-raising campaign will also target university and school students to increase the knowledge and awareness of youth groups on the benefits of restored ecosystems for increasing climate resilience. The increased public awareness of the predicted effects of climate change and the benefits of EbA will support the national upscaling of project activities and increase human capacity to plan and implement EbA at the national level. This objective will also be supported by proposed revisions to academic curricula in Rwanda – from primary school through to technical college and university – to promote learning on EbA. The proposed revisions will be formally presented to MINEDUC at a workshop. Training on applying this revised curricula will also be provided for educators near project intervention sites.

The interventions under Output 1.5 will contribute to increasing the knowledge base on the planning and implementation of EbA and will include a focus on the generation of scientifically credible information through the implementation of research projects. Therefore, short-term thematic research projects will be funded to investigate the impact of the interventions on the local communities and the environment. The results of these research projects will inform the selection of appropriate techniques for EbA interventions in Rwanda. The research subjects will be identified based on the knowledge generated, studies conducted and gaps identified under partner and baseline projects. Potential topics to be investigated include: i) the economic and social costs, and benefits of using exotic species versus native species in EbA

[13] The training of the DEOs will build on the training provided as part of the LDCF 1 project.

[14] Environmental committees exist at the provincial, district, sectoral and cell level to promote environmental protection. The function of these committees differs at each level and is determined by the Prime Ministerial Order No126/03 of 25/10/2010 Determining the Organization, Functioning and Responsibilities of Committees in Charge of the Environment Conservation and Protection.

[15] The Republic of Rwanda is divided into provinces, districts, sectors, cells and villages.

interventions; ii) the efficiency of promoting the use of biogas to sustain ecosystem restoration activities; iii) the efficiency of the new livelihoods in reducing pressure on natural ecosystems; and iv) the economic and social costs, and benefits of using chemical fertilisers or compost in croplands to stabilise agricultural yields under climate change. All knowledge generated and updated in Component 1 will be shared on the climate change portal and on a research forum.

Outcome 1: National and local authorities have increased capacity to plan and implement EbA interventions.

Output 1.1 A National Steering Committee (NSC) mobilised as a platform to promote large-scale EbA programmes in Rwanda.

Activities under Output 1.1 include:

1.1.1 Establish the NSC using the ToRs developed by REMA to define the institutional framework and role of the members of the steering committee.
1.1.2 Provide training to the NSC members on the role of EbA in increasing the resilience of local communities to climate change and on planning large-scale EbA projects.
1.1.3 Hold the first two NSC meetings and promote EbA during the meetings (e.g. workshop sessions on the upscaling of EbA).

Output 1.2. Training events organized for local authorities, environmental committees and other target groups – with an emphasis on women and youth – to plan, budget and implement EbA interventions.

Activities under Output 1.2 include:

1.2.1 Provide training to the DEO and DEF of each district as well as other environmental specialists where the project interventions will be implemented in planning, budgeting and implementing EbA interventions.
1.2.2 Provide training to environmental committees at provincial (three provinces), district (four districts), sector[16] (seven sectors) and cell (eight cells) levels on the use of EbA[17] interventions.
1.2.3 Raise awareness of the private sector – including private environmental service providers – on the use of EbA for adaptation to climate change and provide training on how to implement EbA.
1.2.4 Provide training to local communities' representatives – with an emphasis on women and youth, NGOs and CBOs[18] – on the use of EbA.

Output 1.3 Technical EbA guidelines developed and distributed to environmental committees and local authorities.

Activities under Output 1.3 include:

1.3.1 Undertake Environmental Impact Assessments (EIAs) for each of the proposed project activities that require an EIA as defined by the Ministerial Order N°004/2008 of 15/08/2008.
1.3.2 Develop and distribute/promote guidelines for climate-resilient restoration activities and agroforestry. Sub-activities include:
- identify suitable climate-resilient indigenous species for restoration and agroforestry in Rwanda;
- review past and current restoration activities which use indigenous species including the protocols to restore ecosystems and develop agroforestry used in Rwanda as well as indigenous knowledge on climate resilience, use, planting, maintenance of indigenous species;
- produce guidelines for planting and maintaining beneficial indigenous plant species for wetland, savanna and forest restoration as well as for agroforestry development;
- provide training to trainers from Farmer Field School (FFSs) on the benefits of planting climate-resilient indigenous species, and on the use of the guidelines; and

[16] Rwanda is divided into provinces, districts, sectors, cells and villages. This division is referred to as "sector" hereafter. When referring to economic sectors such as water, transport and energy they will be designated as "economic sectors".
[17] The environmental committees have already been created at all three levels. The objective of this activity is to increase their capacity to implement EbA activities.
[18] In this document, CBOs designate cooperatives and associations.

- disseminate the guidelines to the management team of partners and baseline projects, and to the relevant government authorities within MINIRENA and MINAGRI.

1.3.3 Develop and distribute guidelines for the use of organic waste compost in small and large agricultural plots. Sub-activities include:

- review the current use of organic composts system and composting practices in place in Bugesera, Ngororero, Gasabo and Kayonza;
- produce guidelines to enable the farmers to develop and use organic compost using experience learned from other sites in Rwanda and neighbouring countries;
- provide training to trainers from farmer field schools on the benefits of using organic compost to increase agricultural productivity and resilience to drought, and on the use of the guidelines; and
- disseminate the guidelines to relevant local government authorities including environmental committees at different geographic scales (i.e. provinces, districts, sectors and cells) [19].

1.3.4 Develop and distribute guidelines for the use of biogas as a source of energy in villages. The same sub-activities as Activities 1.3.3 will be implemented to promote the use of biogas as a source of energy.

1.3.5 Review project documents, progress reports, lessons learned and other relevant documents on adaptation projects being implemented in the country to collate the best adaptation practices and promote them on the climate change adaptation portal[20].

1.3.6 Compile GIS data, aerial images, maps and local reports on the state of ecosystems to create a national map of priority ecosystems where EbA interventions can be implemented.

Output 1.4 Educational resources on EbA developed for communities living near project sites and school and university students.

Activities under Output 1.4 include:

1.4.1 Design and implement a public awareness-raising campaign for the communities living near the project intervention sites on EbA with a particular focus on the role of wetlands, forests and savannas as well as on the importance of conserving indigenous tree species.

1.4.2 Review and propose revisions to school curricula at primary and secondary levels to include adaptation to climate change using EbA.

1.4.3 Review university and technical college curricula to identify entry points for the establishment of programmes on adaptation to climate change using EbA and propose a detailed education programme on EbA using the lessons learned from Output 1.5 and Component 3.

1.4.4 Develop guidelines on the implementation of the proposed revisions and education programmes on EbA produced in Activities 1.4.2 and 1.4.3, and present the proposed revisions and the guidelines to MINEDUC, universities and schools.

1.4.5 Provide training to school teachers and other educators located in the intervention sites on how to integrate EbA into school curricula according to the revisions produced in 1.4.2.

1.4.6 Develop a school-based EbA project per intervention site using a participatory approach with school students.

1.4.7 Develop a performance index and an award system for school environmental clubs to incentivise them to implement EbA school pilot projects.

1.4.8 Conduct field trips for school students to the project intervention sites to demonstrate the effects of EbA and green technologies to promote the EbA school-based pilot projects.

Output 1.5 Scientific studies prepared and forum for dissemination of knowledge on EbA effects created.

Activities under Output 1.5 include:

1.5.1 Identify the gaps in knowledge on EbA in Rwanda and develop the research topics accordingly.

[19] Republic of Rwanda. 2011. Green Growth and Climate Resilience – National Strategy for Climate Change and Low Carbon. Kigali, Rwanda. Programme 1, Action 2.

[20] The climate change portal has already been created. A webpage is currently being developed on the portal for the LDCF 1 project. The LDCF 2 project will extend the role of this website through compiling the information of the LDCF 2 as well as the other adaptation projects at the national scale.

1.5.2 Develop Memorandums of Understanding (MoUs) between REMA and the research partners – including NUR, ICRAF and/or REB. These MOUs will contain: i) a detailed description of the responsibility of each institution in the implementation of the research projects; ii) the timeframe for the implementation of the research projects; and iii) a system to monitor the performance of the research projects.

1.5.3 Publish scientific papers based on research results[21].

1.5.4 Present the results of research projects to the management teams of the baseline projects, partner projects and other relevant governmental staff (e.g. SPIU, FONERWA, policy-makers), and add them into the project webpage (generated in Activity 1.3.5).

1.5.5 Create a research forum and data storage system on EbA in Rwanda to increase the dissemination of the evidence base on the effects of EbA on the resilience of local communities to climate change.

1.5.6 Encourage young scientists to pursue research on EbA by organising an awareness-raising session for masters students on the role of EbA in increasing climate resilience of local communities and the need for scientific evidence of this.

1.5.7 Revise the training/education content produced in Outputs 1.3 and 1.4 based on the findings of the research projects using an adaptive management approach.

Component 2: Policies, strategies and plans for adaptation to climate change.

Without LDCF resources

Without LDCF resources, the national strategies and polices that articulate development objectives and the need to adapt to climate change could remain ineffective because of the limited understanding of EbA and the role of ecosystems in improving resilience to the effects of climate change of policy- and decision-makers. The understanding of EbA will also remain limited at the local level because of the gaps in development planning at the local level regarding adaptation to climate change and ecosystem restoration. Consequently, policies, strategies and plans in Rwanda will continue to not promote EbA as a cost-effective means of adaptation. As a result, EbA in Rwanda will still be used in an ad hoc manner. Activities designed by the GoR to increase the climate-resilience of local communities and economic sectors will continue to be implemented in isolation with limited sharing of knowledge between sectors. In addition, national budgets will not generally be allocated to such activities, and the role of ecosystems in adaptation to climate change will not be the focus of these activities. FONERWA is functional since 2013 and currently funds some adaptation initiatives. Although Rwanda has made progress in implementing FONERWA, this mechanism is not adequately positioned (within REMA) to provide funding for an integrated approach to adaptation across all sectors and may mean that EbA could remain marginal in terms of the funding it receives. Ecosystem restoration activities will address immediate community needs and fail to increase sustainably the resilience of local communities to climate change. On the contrary, ecosystem degradation will continue thereby further increasing poverty levels and inversely.

Adaptation Alternative

Additional funding (US $587,684) is required to: i) guide future revisions of national ecosystem management and development plans; ii) develop a national upscaling strategy; iii) guide the integration of EbA into sectoral plans; and iv) promote the integration of EbA into local development planning.

National ecosystem management and development policies and strategies were published in 2012–2013. These include: i) the biodiversity policy; ii) the forestry policy; and iii) the water resources master plan. To promote the use of EbA in reducing vulnerability to climate change at the national scale, interventions under Output 2.1 of the proposed project will include the review of relevant documents to identify how EbA can be integrated into these policies and strategies as outlined here. Revisions to the selected policies will then be proposed to direct this integration. A workshop will be held to present these proposed policy revisions to the planning experts of MINIRENA and MINAGRI. Additionally, these revisions will be submitted for government validation.

At the national level, the technical capacity of planning experts in the relevant government agencies to integrate EbA into national ecosystem management and development policies and strategies will be increased. This will promote the integration of EbA national ecosystem management and development policies in Rwanda. To further promote EbA, the

[21] The papers will be produced by the research staff. These will be part of their research contract.

interventions of the proposed project will include developing an upscaling strategy for the best EbA activities implemented in the pilot sites of the project (Output 2.2).

Under Output 2.3, policy recommendations to integrate EbA into environmental policy and legislation will be developed and training on the use of these policy recommendation documents will be provided. Three groups will be targeted by these training sessions including: i) the members of the five SWGs of MINIRENA; ii) the experts of the planning and technical departments of the relevant government authorities; and iii) the national EIA, Environment Audits (EA) and Strategic Environment Assessment (SEA) experts. These policy recommendations and training sessions will: i) increase the technical capacity of the three groups to determine in which context to propose EbA as an intervention; ii) increase the success of development plans and projects through complementing hard interventions with soft interventions such as EbA; and iii) promote the use of best EbA practices in several ecosystems.

At the district level, policy recommendations will be produced to help district authorities to integrate the following into DDPs (Output 2.4): i) adaptation to climate change using the EbA approach; and ii) green technologies that promote the sustainable use of natural resources. Additionally, to promote the success and sustainability of EbA interventions, guidelines will be produced for district authorities to monitor and prevent future ecosystem degradation. Training on the implementation of recommended interventions in these guidelines will then be provided to district level officers in at least the four districts where the activities of the proposed project will be implemented (i.e. Bugesera, Ngororero, Gasabo and Kayonza). Revisions to the yearly award system for the best-performing district, NGO, CBO and individual working in the private sector will be proposed to promote the implementation of EbA interventions.

Outcome 2: Sectoral and local policies, strategies and plans strengthened to promote the restoration and management of degraded ecosystems for EbA.

Output 2.1 Revisions to national ecosystem management and development policies and strategies to promote EbA proposed and submitted for government validation.

Activities under Output 2.1 include:

2.1.1 Identify the entry points for EbA in the environment, biodiversity and forestry policies as well as in the water resources master plan.
2.1.2 Propose revisions to selected national policies to integrate EbA into these documents.
2.1.3 Produce policy briefs on the proposed revisions to national policies and disseminate them to planning experts, policy- and decision-makers, and other relevant stakeholders.
2.1.4 Hold a workshop to present these policy briefs and proposed revisions to national policies to the relevant planning experts.

Output 2.2 A national upscaling strategy developed to promote EbA.

Activities under Output 2.2 include:
2.1.5 Identify and select successful project activities to be replicated and the suitable sites for the replication of these activities.
2.1.6 Communicate the information on the suitable replication sites to the appropriate national and local authorities.
2.1.7 Identify opportunities to fund: i) the replication and upscaling of successful project activities; ii) long-term research projects on EbA including the maintenance of the research forum and data storage systems; and iii) the school-based EbA projects.
2.1.8 Develop an upscaling strategy framework defining the role of the various government authorities in the upscaling process in collaboration with relevant stakeholders including MINIRENA (e.g. FONERWA staff), MINAGRI, MININFRA, MINECOFIN and MIDIMAR.

Output 2.3 Policy-makers and decision-makers trained to integrate and promote upscaling of EbA interventions.

Activities under Output 2.3 include:

2.2.1 Develop policy recommendations for the integration of EbA principles into the national development plans including EDPRS for the following SWGs of MINIRENA: environment and climate change, land use, water resource management, forestry and ecosystem conservation, and mining.
2.2.2 Provide training on EbA role, budgeting, planning, implementation, and on the use of the policy recommendations produced in Activity 2.3.1.
2.2.3 Develop policy recommendations to mainstream EbA into development plans of relevant economic sectors including budgeting, planning and implementing EbA for planning department experts and technical department experts of MINIRENA including REMA and RNRA, MINECOFIN, MINEDUC, MININFRA and MINICOM.
2.2.4 Provide training on EbA role, budgeting, planning, implementation, and on the use of the policy recommendations produced in Activity 2.3.3.
2.2.5 Develop policy recommendations for mainstreaming EbA into national assessment tools including Strategic Environment Assessments (SEAs), Environment Impact Assessments (EIAs) and Environment Audits (EAs) for the different sectors.
2.2.6 Provide training to national EIA, EA and SEA experts, DEFs and DEOs, and other relevant technical staff in the environmental sector on the use of the policy recommendations developed in Activity 2.3.5 to promote EbA when reviewing sectoral projects.

Output 2.4 District Development Plans (DDPs) of pilot sites revised to promote the use of EbA.

Activities under Output 2.4 include:

2.4.1 Identify entry points for EbA into the DDPs and develop DDP revisions specific to each intervention district to support the integration of EbA and other relevant adaptation techniques into local-level planning.
2.4.2 Develop and monitor the indicators for degradation of natural ecosystems such as forests and wetlands at district and sector levels.
2.4.3 Review implementation processes of environmental policies, strategies and plans at district level to identify shortcomings.
2.4.4 Develop technical guidelines at the district and sector levels to incentivise ecosystem protection and monitor the condition of natural ecosystems.
2.4.5 Provide training to district- and sector-level officers in Bugesera, Ngororero, Gasabo and Kayonza on the use of the DDP revisions and guidelines developed in Activity 2.4.1 and 2.4.4.
2.4.6 Review the yearly award system for the best-performing district, NGO, CBO and individual working in the private sector to promote the implementation of EbA interventions.

Component 3: EbA interventions that reduce vulnerability and restore natural capital.

Without LDCF resources

Without LDCF resources, population density, rural poverty and the limited livelihood options will cause further degradation of natural ecosystems including wetlands, forests and savannas through unsustainable exploitation of soil, water and wood resources. As a result, the livelihoods of local communities depending primarily on these natural resources will remain vulnerable to the effects of climate change. Restoration activities undertaken by the GoR will continue to be *ad hoc* and focus on addressing immediate needs of local communities rather than maximising the climate-resilience of the ecosystems and local communities. For example, although indigenous species are more climate-resilient and offer increased ecosystem services, many restoration activities use exotic, fast-growing species and use mono-cropping practices to address immediate needs for food and woodfuel of the communities similarly to PAREF and LWH. Future investments will also be limited by inadequate knowledge availability on best adaptation practices to improve the livelihoods of local communities in a sustainable manner. Consequently, the provision of ecosystem goods and services will further reduce and local communities living around degraded ecosystems will remain vulnerable to floods, landslides and droughts.

Adaptation Alternative

Additional funding (US $3,491,640) is required to: i) implement EbA to restore wetlands, forests and savannas, thereby enhancing the functioning of these ecosystems under conditions of climate change (particularly to provide additional benefits to local communities); and ii) diversify local communities' livelihoods to increase their resilience to climate

change. These interventions will increase the resilience of local communities at intervention sites to prolonged drought, frequent floods and landslides. Upscaling of this approach across Rwanda will be promoted through development of an upscaling strategy (see Outcome 2) to further promote the uptake of these interventions across Rwanda.

The EbA interventions for wetland ecosystems (Output 3.1) will take place in three pilot sites in Rwanda, with a particular focus on the Kimicanga and Murago wetlands, and banks of the Satinsyi River (see Appendix 8B). These EbA interventions will have multiple benefits for the local communities. For example, planting trees adjacent to wetlands and on the banks of rivers/lakes will reduce the impact of flooding on local communities in low-lying areas by slowing down water flow. Additionally planting on the banks of rivers/lakes will reduce siltation in water sources. The interventions will contribute to: i) improved water quality; ii) reduced costs of dam maintenance; and iii) increased potential for the production of hydroelectric power. River bank restoration will be complemented by the construction of terraces. These terraces will reduce erosion and the resulting sedimentation of the river. The use of agroforestry, biogas, organic compost and rainwater harvesting will also be promoted to increase the sustainability of the EbA interventions.

EbA interventions particular to forest ecosystems (Output 3.2) will be implemented in the indigenous forest of Sanza in Ngororero district. Indigenous tree species will be used as a priority for forest restoration. These restoration interventions will be complemented by planting indigenous, agroforestry species in the agricultural land adjacent to Sanza. To increase the sustainability of these EbA interventions, the proposed project will reduce the dependence of local communities on timber products for their livelihood. To achieve this, sustainable harvesting of NTFPs will be introduced as an alternative livelihood option (Output 3.4). The continued provision of NTFPs will increase the incentive for local communities to protect indigenous forests. The activities under Output 3.2 and 3.4 will be designed in collaboration with PAREF and the knowledge generated through the implementation of these activities particularly regarding the use of a set of complementary, beneficial, indigenous, climate-resilient species will be provided to PAREF management team.

EbA interventions for savanna ecosystems (Output 3.3) will be focused in the Eastern Province of Rwanda. These restoration activities will take place in Isangano savanna (Kayonza district). To complement this savanna restoration activities, techniques for rainwater harvesting will be promoted to decrease the vulnerability of local communities to droughts. Water shortage because of drought periods is the main problem for local communities in Kayonza. Consequently, the proposed project's activities in savanna areas will include: i) restoring natural savannas; ii) promoting the development of agroforestry in adjacent agricultural land; iii) promoting water harvesting and conservation techniques; and iv) promoting the use of biogas as an alternative source of energy to woodfuel. The activities implemented in savanna ecosystems will build on the experience of LWH and RSSP 3 in increasing agricultural productivity.

The practice of agroforestry will be promoted in agricultural land located within each of the proposed project intervention sites (Outputs 3.1, 3.2 and 3.3). This will be promoted through: i) raising farmers' awareness on the benefits of planting indigenous species on their land to increase agricultural productivity; ii) providing agroforestry trees for planting in and around agricultural land; and iii) training the farmers on planting and maintaining these trees using a learning-by-doing approach. The benefits of agroforestry will be presented to farmers, and are as follows: i) reduction of crop vulnerability to landslides; ii) soil enrichment through nitrogen fixing and retaining of sediment; iii) reduction of crop exposure to intense rainfall; iv) delimitation of their land; v) provision of shade; vi) provision of natural pesticides; and vii) provision of NTFPs such as fodder, fruits and medicine. The activities related to terracing and agroforestry will be designed in collaboration with LWH and RSSP 3, and the knowledge generated through the implementation of climate-resilient agricultural practices involving indigenous species and water conservation techniques will be transmitted to the management teams of these projects to support the integration of this knowledge into their practices.

Woodfuel is the primary source of energy for local communities living close to all but one of the of the project intervention sites[22]. As a result, the restored ecosystems are at risk of being degraded by tree cutting for woodfuel. To complement the activities of PAREF for reducing unsustainable exploitation of wood resources for woodfuel, the proposed project will promote the use of biogas in the communities living near the intervention sites. Given the water-intensiveness of biogas production, water availability will be a major criteria in the selection of the villages where biogas will be implemented. A biogas digester will be provided in the selected villages. Additionally, community members in the selected villages will be trained on the use of biogas digesters with cow-dung and human wastes. They will also be trained to reuse waste from the biogas digester as fertiliser. This intervention will be based on the biogas model developed in

[22] except Kimicanga where electricity is provided

Rubaya, the pilot village of the PEI project. In the intervention sites where biogas is not a suitable technique, improved cook stoves will be provided to reduce household fuel consumption. As a further benefit, improved cook stoves will reduce smoke emissions and thus respiratory diseases. Promoting the use of biogas and improved cook stoves will reduce the demand on woodfuel. Consequently, the sustainability of the project's interventions will be increased. Additionally, the project will develop climate-resilient livelihoods that promote reliance on restored ecosystems and the sustainable use of natural resources (Output 3.4). In so doing, an incentive will be provided for local communities to maintain the restored ecosystem. Lastly, the proposed project will promote private sector financing of community-based EbA projects.

The above-mentioned EbA interventions will be community-based, and community participation will be promoted as follows. Consultation with local communities will commence to develop the restoration protocols, particularly the selection of the plant species. The local communities will then implement the activities. Environmental committees at the cell level will oversee the restoration activities on a daily basis. The environmental committees will report the progress of the activities and any potential problems met during their implementation to the project focal point and the project management team.

All the training activities in Component 3 will be developed in collaboration with FFSs. This collaboration will include: i) involving the FFSs in the development of the training sessions; ii) inviting the FFSs to assist in the training sessions in the intervention sites; and iii) sharing successes and failures of the proposed project's activities with the FFSs. Collaborating with the FFSs will facilitate the upscaling of the project activities to other sites in Rwanda.

Vulnerability Impact Assessments (VIAs) will be conducted as the first activity of each output of Component 3. The VIAs conducted as part of the baseline study of the AAP and LDCF 1 project will be built on to develop a vulnerability index for the intervention sites of the proposed project[23]. These VIAs will be used to identify the most vulnerable communities within the selected interventions sites.

Outcome 3: Reduced vulnerability of local communities to the effects of climate change through restoration of degraded ecosystems and establishment of climate resilient livelihoods.

Output 3.1 EbA implemented to restore wetland ecosystems in Kimicanga to increase resilience of local communities to floods and droughts.

Activities under Output 3.1 include:

3.1.1 Identify the communities that are the most vulnerable to climate change within the project intervention sites in wetland areas through undertaking VIAs.
3.1.2 Identify plant species for wetland restoration under conditions of climate change and develop technical protocols for restoring degraded wetlands with indigenous species using the knowledge generated in Output 1.3 and Output 1.5.
3.1.3 Establish nurseries for wetland restoration and agroforestry, and develop nursery management systems within local communities.
3.1.4 Provide training to local communities in wetland restoration activities and develop monitoring systems for these restoration interventions within local communities.
3.1.5 Restore 50 hectares of wetland in Kimicanga (Kimihurura and Kacyiru sectors, Gasabo district).
3.1.6 Restore at least 10 km of riverbank (i.e. 5 km per riverbank) along the Satinsyi River[24] (Ngororero district) to decrease sedimentation and decrease the vulnerability of the local communities downstream to flooding and sedimentation.
3.1.7 Restore at least 100 hectares of wetland ecosystem in Murago marshland (Mareba Sector, Bugesera District) to decrease the vulnerability of the local communities to floods and droughts.
3.1.8 Construct 100 hectares of progressive terraces and promote the development of agroforestry using indigenous species (using the information produced in Activity 1.3.2) on these terraces adjacent to the wetland restoration

[23] Gbetiboua, G, & Mills, A.J. 2012. Baseline information and indicators for the Rwanda AAP and LDCF projects. C4 EcoSolutions. Cape town, South Africa.
[24] During consultations with the stakeholders at the PPG phase, it was suggested several times to use bamboo to restore river banks. Additionally, the use of bamboo is included into the ECCSSP 2013–2018.

sites in Murago by providing trees from nurseries (established in Activity 3.1.3) and raising awareness of the benefits of indigenous species.

3.1.9 Provide water tanks and training on rainwater harvesting techniques including the construction of contour earthen bunds and bio-retention systems in Murago wetlands.

3.1.10 Provide training to local communities on identifying, managing, removing and using alien invasive plants including water hyacinth in the wetland restoration areas.

3.1.11 Design and implement a public awareness campaign in the areas adjacent to the wetland restoration sites focusing on the benefits of using organic instead of – or balanced with – chemical pesticides and fertilisers in wetlands.

3.1.12 Establish pilot sites and provide training on the use of biogas in the areas around the wetland restoration sites (using the information collected and guidelines produced in Activity 1.3.4) or provide improved cook stoves (e.g. ceramic cook stoves) – where biogas systems cannot be implemented – to reduce reliance on woodfuel.

3.1.13 Establish pilot sites and provide training on the use of organic compost as fertiliser for agriculture in the agricultural land around the wetland restoration sites (using the information collected and guidelines produced in Activity 1.3.4).

Output 3.2 EbA implemented to restore forest ecosystems in Sanza to increase resilience of local communities to floods and landslides.

Activities under Output 3.2 include:

3.2.1 Identify the communities that are the most vulnerable to climate change within the project intervention sites in forest areas through undertaking VIAs.

3.2.2 Identify plant species for forest restoration and agroforestry under conditions of climate change and develop technical protocols for restoring degraded forests with indigenous species and implementing agroforestry using the knowledge generated in Output 1.3 and 1.5.

3.2.3 Establish nurseries for forest restoration and agroforestry, and develop nursery management systems within local communities.

3.2.4 Provide training to local communities in forest restoration activities particularly in planting and maintaining indigenous species, and develop monitoring systems for these restoration interventions within local communities.

3.2.5 Restore at least 20 hectares of degraded forest patches in Sanza using a participatory forest management approach.

3.2.6 Build radical terraces and promote the development of agroforestry on terraces on 200 hectares in Sanza area using indigenous species by providing trees from nurseries (established in Activity 3.2.3) and raising awareness on the benefits of indigenous species.

3.2.7 Establish pilot sites and provide training on the use of biogas around the forest restoration sites (using the information collected and guidelines produced in Activity 1.3.4) or provide improved cook stoves (e.g. ceramic cook stoves), where biogas system cannot be implemented, to reduce reliance on woodfuel[25,26].

Output 3.3 EbA implemented to restore savanna ecosystems in Kayonza District to increase resilience of local communities to droughts.

Activities to be implemented under Output 3.3 include:

3.3.1 Identify the communities that are the most vulnerable to climate change within the project intervention sites in savanna areas through undertaking VIAs.

3.3.2 Identify plant species for savanna restoration under conditions of climate change and develop technical protocols for restoring degraded savannas with indigenous species using the knowledge generated in Output 1.3 and Output 1.5.

3.3.3 Establish nurseries for savanna restoration and agroforestry, and develop nursery management systems within local communities.

[25] Developing the use of biogas is one of the priority development activities of the country. (Priority Area 4, Thematic Outcome 4.3, Interventions 2 and 3 of Economic Development and Poverty Reduction Strategy 2013–2018 (EDPRS 2). 2013. International Monetary Fund. Washington, D.C.)

[26] In the vision 2020 published in 2000, one of the objectives is to reduce the percentage of household using wood as a source of energy from 94% in 2000 to 50% in 2020 (the estimation in 2010 was ~86%).

3.3.4 Provide training to local communities in savanna restoration and agroforestry activities, and develop monitoring systems for these restoration interventions within the local communities.
3.3.5 Restore at least 300 hectares of degraded savannas with indigenous species in Isangano savanna (Ndego sector, Kayonza district) using a participatory, forest management approach.
3.3.6 Promote the development of agroforestry using indigenous species on 200 hectares around Isangano by providing trees from nurseries (established in Activity 3.3.3) and raising awareness on the benefits of indigenous species.
3.3.7 Provide material and training to local communities on rainwater harvesting techniques including contour earthen bunds, water tanks and boreholes.
3.3.8 Provide training to local communities on techniques to reduce evaporation from agricultural land.
3.3.9 Establish pilot sites and provide training on the use of biogas in the project intervention sites in Isangano (using the information collected and guidelines produced in Activity 1.3.4) or provide improved cook stoves (e.g. ceramic cook stoves), where biogas system cannot be implemented, to reduce reliance on woodfuel.
3.3.10 Review the framework of the environmental clubs of the four schools neighbouring the savanna restoration site, and develop and implement a system to make them operational.

Output 3.4 Training events, equipment and technical support for the establishment of climate-resilient livelihoods in wetlands, forests and savannas to enhance local communities' resilience to the effects of climate change.

Activities under Output 3.4 include:

3.4.1 Design and implement the payment system for the community members hired for the restoration and building activities[27].
3.4.2 Provide local communities in Murago, Sanza and Isangano with equipment and training to practice apiculture. This activity will include providing (or facilitating the purchase of) the required equipment and infrastructures, as well as providing training on beekeeping and honey production.
3.4.3 Provide local communities at Murago and Isangano restoration sites with training and equipment to develop sustainable fishing activities.
3.4.4 Provide local communities adjacent to the Murago restoration site with training and equipment for handcrafting including weaving using NTFPs[28].
3.4.5 Design community-based ecotourism projects in suitable project intervention sites to increase the direct benefits of ecosystem restoration and preservation to local communities.
3.4.6 Undertake a feasibility assessment to identify appropriate models for private sector financing of community-based EbA projects.
3.4.7 Design two community-based EbA projects suitable to the models for private sector financing identified under Activity 3.4.6 and submit them for funding.
3.4.8 Promote knowledge sharing between the targeted local communities on the climate-resilient livelihoods introduced through developing and implementing workshops for local communities who adopted the same climate-resilient livelihoods in different intervention sites of the proposed project.

A.6 Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks:

	Description of risk	Potential consequences	Risk rating	Mitigation measures/proposed interventions	Risk category	Probability & Impact (1–5)
1	Current climate and seasonal variability and/or hazard events prevent	Economic loss or physical damage to infrastructure is a challenge to the timely implementation of	Medium	• Consider current climatic variability during the restoration process. • Focus on climate-resilient species and techniques to: i) assist plant growth particularly in the seedling/sapling phase; and ii) reduce risk of damage from	Economic	P=3 I=4

[27] Following the example of the PEI project, this payment will be made on the bank account of the community member opened within a Saving Cooperative (SACO). The potential for setting aside a systematic proportion of the salary to create savings for the community member will be investigated.
[28] Seburanga, J.L. 2013. Decline of indigenous crop diversity in colonial and postcolonial Rwanda. International Journal of Biodiversity. Vol. 2013.

	implementation of planned activities.	project activities.		hazard events. • Take meteorological predictions and seasonal variability into account to reduce the risk of damage to plants.		
2	Communities do not support interventions and do not adopt ecosystem management activities for adaptation during or after the term of the proposed project because of limited immediate benefits of EbA.	Unsustainable use of natural resources continues, leading to further degradation of ecosystems. Water management and agriculture techniques are not implemented in the long term. Consequently, the community continues to be vulnerable to climate-induced natural hazards.	Medium	• Institutionalise the pilot programmes within MINIRENA/MINAGRI to promote sustainable, long-term delivery. • Implement alternative livelihoods that have been deemed financially, technically and socially viable/feasible to reduce reliance on intensive land use. • Engage with community stakeholders during the PPG phase to strengthen their buy-in into the proposed project. • Actively involve local communities in project implementation. • Raise public awareness on the capacity of the restored ecosystems to increase community resilience to climate change. • Foster a bottom-up, grassroots approach throughout the project's development and implementation phases. • Improve capacity building and training of the communities to improve their understanding of the adaptation benefits of the EbA activities. • Implement activities that have direct benefits to local communities.	Social, environmental	P=1 I=4
3	Loss of government support may result in poor prioritisation of proposed project activities.	Project activities are delayed.	Low	• Engage with the government to maintain its commitment to the proposed project. • Integrate the objectives of national development policy in decision making throughout the project to maintain government commitment.	Institutional	P=1 I=3
4	Institutional capacity and relationships between line ministries are not sufficient to provide effective solutions to climate problems that are complex and multi-sectoral.	Multi-sectoral adaptation interventions are compromised and interventions are confined to those sectors willing to engage in cross-sectoral dialogue. The vulnerability of certain sectors and Rwanda as a whole is not fully addressed.	Medium	• Promote the development of institutional capacity throughout the project design. This will ultimately lead to the development of an appropriate institutional framework for analysing climate change impacts, amending policy and implementing EbA interventions for climate change adaptation.	Institutional	P=2 I=3
5	Limited technical capacity to conduct preliminary studies and design the implementation of activities.	Preliminary studies do not take place resulting in delayed implementation of project activities. Adaptation interventions are not designed appropriately.	Medium	• Identify and develop human resource capacity as required. • Identify whether staff trained by the LDCF1 project is available to carry out certain tasks in order to increase technical capacity in-country. • Include funds in the project budget for preliminary studies to hire international consultants to complement the research team. • Engage field officers to work closely with	Technical	P=2 I=2

				the project manager of the proposed project to ensure timely delivery of project outputs.		
6	Priority interventions implemented are not found to be cost-effective.	Project interventions are not upscaled for large-scale EbA programmes	Low	• Use cost-effectiveness as a core principle in the implementation of adaptation measures. • Record detailed information on cost-effectiveness. Such information will be widely disseminated to allow future projects to use them.	Economic	P=2 I=4
7	Baseline project activities not achieved as planned.	The proposed project activities are compromised because of a lack of existing interventions upon which to build.	Low	• Design activities that build on baseline projects but do not depend on the baseline projects. The activities are designed to be beneficial to the local communities even if they are implemented alone.	Economic	P=2 I=2
8	Climate change adaptation priorities undermined by national emergencies or civil unrest.	Project activities are interrupted. Natural and financial capital is lost.	Low	• The project manager and CTA will keep abreast of national events and politics to plan contingency activities when/if necessary.	Social, environmental	P=1 I=3
9	Large-scale infrastructure development takes place within project areas.	Project activities are disrupted or delayed.	Low	• The project manager and CTA will work with appropriate governmental agencies to ensure prioritisation of the proposed project in the project areas.	Institutional	P=1 I=2
10	Uncontrolled settlements into the natural ecosystems.	The restoration activities are unsustainable.	Medium	• Raise awareness of the national and local government on this potential risk. • Raise communities' awareness on the benefits of restored natural ecosystems for their livelihoods. • Maximise the economic benefits from sustainable natural resource management. • Increase the capacity of district authorities to enforce policies for natural resource protection.	Social, environmental	P=2 I=4

A.7 Coordination with other relevant GEF financed initiatives

There are several projects underway in Rwanda that present opportunities for synergies and knowledge exchange with the proposed project. A brief description of these partner projects is provided below. For more information, please refer to Section 2.7 of the Project Document.

- **UNDP-UNEP LDCF project – Reducing Vulnerability to Climate Change by Establishing Early Warning and Disaster Preparedness Systems and Support for Integrated Watershed Management in flood prone areas** was implemented by REMA and ended in December 2014. The objective of the LDCF 1 project was to reduce the vulnerability of local communities in the districts of Nyabihu, Rubavu, Rutsiro and Ngororero to climate change effects. In particular, the project has: i) prepared an early warning and disaster management plan for the project area; ii) produced a land use master plan for climate resilience; and iii) upscaled sustainable practices of land management from pilot areas to the rest of the country. The proposed project will build on the interventions and knowledge generated by LDCF 1 project by: i) further training district authorities on adaptation to climate change; ii) providing additional support for the integration of adaptation to climate change into Ngororero district; iii) further developing bee keeping in other intervention sites; and iv) increasing the use of climate-resilience of agroforestry practices.
- **Lake Victoria Environmental Management Project** (LVEMP) (2011–2017) has four components: i) strengthening institutional capacity for management of shared water and fisheries resources; ii) point source pollution control and

prevention; iii) watershed management; and iv) project coordination and management. It is implemented in 12 districts including Bugesera. The proposed project will work in close collaboration with LVEMP.

- **The Decentralisation and Environmental Management Project Phase III** (DEMP) (UNDP) (2013 – 2018) has a focus on ecosystem restoration and the development of sustainable livelihoods for rural communities. In particular, the proposed LDCF project will build on the interventions of DEMP in ecosystem restoration and in the development of alternative livelihoods such as fish farming.
- **The Rwanda Forest Landscape Restoration Initiative** (RFLRI) focuses on: i) promoting sustainable management of natural resources throughout Rwanda; ii) increasing the rate of reforestation on public land; and iii) promoting tree planting and agroforestry on private land. The proposed project will exchange knowledge and lessons learned from the ecosystem restoration interventions and capacity development at the local level.
- **UNEP-IEMP: China-Rwanda International Research partnership on long-term ecosystem monitoring, integrated management and capacity building for the source of River Nile in Rwanda** is a partnership between REMA and the Institute of Geographical Sciences and Natural Resources Research (IGSNRR). This project is funded by the United Nations Environment Programme International Ecosystem Management Partnership (UNEP-IEMP). The objective of this partnership is to: i) enhance the technical capacity through research and training on the management of major ecosystem services such as water, soil, food production, wetlands, and carbon sequestration; and ii) provide policy support and integrated management techniques on best practices through ecological monitoring and on-site demonstration. To achieve this, field investigations, quantitative assessments and socioeconomic surveys are being conducted on management effectiveness, stakeholder engagement, and the link between livelihoods and ecosystem services through the China-Rwanda partnership. Knowledge sharing between this UNEP-IEMP project and the proposed LDCF project on soil management, water conservation and agriculture practices in this area will benefit both projects.
- **The UNEP-UNDP Poverty Environment Initiative** (PEI) (2014 – 2018) has the objective to mainstream environmental management and climate change considerations into development planning in Rwanda. The proposed project will build on the PEI experience to develop the best technologies in the intervention sites such as the use of biogas as a source of energy and rainwater harvesting. Additionally, the project will strengthen the local and national capacity already built by the PEI.
- **World Bank Project – The Landscape Approach to Forest Restoration and Conservation (LAFREC)** (2015 - 2018) will restore and maintain degraded landscapes to enhance and diversify ecosystem services in Rwanda. This objective will be met through the following interventions: i) forest-friendly and climate-resilient restoration of Gishwati-Mukura landscape, with a focus on Gishwati forest and the corridor between the Gishwati and Mukura; ii) nation-wide multi-sectoral landscape restoration planning and institutional development; and iii) research, monitoring and management. The proposed project will capitalise on LAFREC's agroforestry, forest restoration and animal husbandry activities. Additionally, LAFREC and the proposed project will work in close collaboration to implement the research and knowledge management activities.
- **African Model Forest Network (AMFN)** supports the creation of a model forest in Gishwati. The implementation of the AMFN activities follow a participatory approach and include: i) the promotion of local management and leadership for adaptation to climate change; ii) the restoration of riverbanks; and iii) the development of agroforestry species. The proposed project and AMFN will collaborate during the implementation phase through continuous information sharing.
- **FONERWA project – Rehabilitation of Cyohoha Lake (RCL)** (2014-2016) will improve water resources management in the watershed of Lake Cyohoha north. The main interventions under RCP project that are relevant to the project are: i) removing water hyacinth; ii) restoring a vegetation buffer around the lake; iii) strengthening the capacities of community and local authorities to maintain the achieved results; and iv) developing fishing in Lake Cyohoha north. The proposed project will: i) complement these activities by restoring the Murago wetland considered as an extension of the Lake Cyohoha north; ii) benefit from the lessons learned on wetland restoration and water hyacinth management; and iii) increase the sustainability of the RCL project activities through the development of sustainable livelihoods and the provision of further training to local community on wetland role and sustainable management.
- **UNEP LDCF project: Catalysing ecosystem restoration for climate resilient natural capital and rural livelihoods in degraded forests and rangelands of Nepal** (2015-2019)**:** this project will share lessons learned on i.a. EbA implementation and its integration into policies and plans.
- **UNEP SCCF Enhancing capacity, knowledge and technology support to build climate resilience of vulnerable developing countries (2013-2017)** the project will link to the EbA platform developed under this project in order to increase learning through the South-South Cooperation

B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:

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

A major element of the implementation strategy of the proposed project will be extensive stakeholder participation. A brief description of the expected involvement of stakeholders in the implementation of the project is provided below. For more information on this section, please refer to Section 5 of the Project Document. For details on the stakeholder participation during the PPG phase, please refer to Appendix 19 of the Project Document. The role of stakeholders in site selection is detailed in Appendix 8. A stakeholder engagement plan to be used during the implementation phase will be developed at the project inception workshop.

The mechanisms for stakeholders consultations will include: i) initial meetings with local government (i.e. provincial, district and sector authorities) and national government ministries (i.e. MINIRENA, MINAGRI, MIDIMAR) during the inception workshop (see Section 2.5); ii) consultation meetings with the coordinators of the baseline projects and co-financing institutions (see Section 2.6); iii) consultation meetings with the partner projects; iv) consultation meetings with local NGOs and CBOs (e.g. WCS, ARCOS) and community leaders; and v) consultation meetings in local communities with the beneficiaries of the proposed project. Local communities will be involved in the implementation of the project intervention and in decision-making processes. Community members will also receive training – through a learning-by-doing approach – on restoration, agroforestry and green technology techniques. Approximately 700 households (~2 800 people) will directly benefit from the on-the-ground activities implemented under Component 3 in the four intervention sites. Last, community leaders and CBOs from the intervention sites will be invited to PSC meetings.

During project implementation, stakeholder consultations will be divided into three phases. Firstly, the 'mobilisation phase' will take place during the first year of the project. This phase includes the following: i) developing time specific details of the activities and local management structures for implementation; ii) forging partnerships for action; and iii) developing and agreeing to the extent of stakeholder engagement in each activity. Secondly, the 'consultative implementation' phase will run during the main implementation phase of the proposed project. This phase involves applying the stakeholder involvement plan to each of the activities defined during the first phase. Thirdly, the 'completion and upscaling' phase will start during the last year of project implementation. This phase will support the sustainability of the project by transferring responsibility for management of the LDCF project's investments to the stakeholders.

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

Rwanda is vulnerable to extreme climate events such as floods, droughts and landslides. The impact of these hazards is particularly detrimental to Rwanda's water, agriculture, environmental and health sectors. Rwanda also faces several non-climate change-related threats. Unplanned and unsustainable resource use and settlement are particularly problematic because they result in widespread degradation of ecosystems. To address these problems, the proposed project will implement ecosystem restoration interventions using an EbA approach, and the development of agroforestry and other climate-resilient techniques for agriculture. This will be supported by institutional and capacity development activities to reduce the vulnerability of local communities living adjacent to Sanza remnant forest, Isangano wetland, Kimicanga wetland and Lake Cyohoha north to climate change.

The selected intervention sites were designated as particularly vulnerable to climate change in the latest national reports on ecosystem degradation, climate change effects and development planning. The selection process for these sites also included intensive stakeholder consultation. In the selected intervention sites, the project will enhance the delivery of ecosystem goods and services under conditions of climate change by: i) increasing local capacity to design and implement best development plans for adaptation to climate change; ii) restoring wetland, forest and savanna ecosystems; and iii) developing climate-resilient agriculture practices including agroforestry and rain-water management techniques. The outcomes of the proposed LDCF project will generate multiple socio-economic benefits including *inter alia*: i) increased availability and quality of water for domestic use and irrigated agriculture; ii) reduced damage and economic losses resulting from floods, droughts and landslides; and iii) increased resilience of agriculture to floods and droughts. Additional benefits include increased income and livelihood diversity. These activities will be complemented by a public awareness campaign on the benefits of these alternative livelihood practices. Diversification of livelihoods will increase

the resilience of the local communities to climate change by reducing reliance on a narrow range of resources such as forests and agricultural lands. The project activities will directly benefit at least 700 households (~ 2,800 people). This will include men and women in both men-headed and women-headed households. Consequently, this diversification will decrease poverty and food insecurity. Additionally, by restoring the natural ecosystems in the intervention sites, the proposed project will increase the availability of natural habitat for plant and animal species that depend on these ecosystems. This will include endangered and endemic species.

The promotion of the use of indigenous species will have multiple socio-economic benefits. Firstly, it will revive and conserve indigenous knowledge on the use of these plants including for medicinal purposes. Secondly, it will contribute to the conservation of Rwandan natural heritage for future generations. Thirdly, the potential for tourism particularly ecotourism in Rwanda will be increased.

Through the proposed project, institutional capacity will be strengthened by training relevant line ministries, district authorities and local communities on EbA. This training will enable the GoR to plan and implement EbA interventions in the future. In addition, local communities in the selected intervention sites will be engaged and trained to promote their ownership of the project. Local communities will also be able to initiate their own small-scale interventions, such as ecosystem restoration and development of alternative livelihoods. The proposed project will also strengthen national expertise on EbA by prioritising the appointment of national consultants. This will increase their capacity to support planning and implementation of EbA approaches in Rwanda, thereby contributing to sustained adaptation benefits.

The proposed project was designed in consultation with multiple local stakeholders and included considerations of equal gender representation. All interventions of the proposed project will maintain a participatory approach to include stakeholders such as participating communities, local associations, NGOs and relevant government authorities. This approach will increase support and ownership of the project by all participating stakeholders, thereby supporting the long-term sustainability of the interventions.

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

The adaptation interventions to be implemented through the proposed project will restore natural ecosystems and increase agricultural productivity in the project target areas. This will reduce the vulnerability of communities living near project intervention sites.

The adaptation interventions are no-regret[29] and low-cost with tangible benefits. As part of the development of the SNC and NAPA, multi-criteria analyses were undertaken to prioritize adaptation interventions according to their potential for positive effects on economic development, social capital and environmental management. Cost-effectiveness was a criterion used to prioritise the allocation of resources. The actions proposed by the NAPA are therefore not only the most urgent and most pressing, but have been assessed to be cost-effective. The adaptation interventions to be implemented through the proposed project are prioritised in the NAPA as well as several other national strategies, policies and plans – see Section 3.1 of the project document. As such, the GoR has already identified the interventions as cost-effective.

The most noteworthy feature of the project with respect to cost-effectiveness is the emphasis on an EbA approach. A growing body of scientific research demonstrates that past initiatives which included EbA measures resulted in a greater ratio of benefit/cost compared to the use of hard infrastructural measures. For example, an economic analysis of the restoration and rehabilitation of grasslands and woodlands estimated internal rates of return of 20–60% and benefit/cost ratios of up to 35:1[30] for grasslands. A frequently cited example of the cost-effectiveness of EbA is an economic analysis undertaken in Lami, Fiji[31]. This study included assessments of the costs and benefits of three approaches to watershed management: i) solely EbA measures; ii) "hard" engineering options and a hybrid approach; and iii) combining both hard engineering and EbA interventions. The analysis demonstrated that EbA watershed management options are at least twice as cost-effective as hard engineering options – e.g. a benefit/cost ratio of US$19.50 for EbA compared with US$9 for hard

[29] No-regret options are those that are justified by current climate conditions and further justified when climate change is considered, e.g. pollution reduction in water supplies will be beneficial if water supplies decrease because of climate change. Lim, B. & Spanger-Siegfried, E. 2004. Adaptation policy frameworks for climate change: developing strategies, policies and measures. Cambridge University Press, Cambridge, UK.
[30] De Groot et al. 2013. Benefits of investing in ecosystem restoration. *Conservation Biology* 27: 1286-1293.
[31] Rao et al. 2013. *An economic analysis of ecosystem-based adaptation and engineering options for climate change adaptation in Lami Town, Republic of the Fiji Islands*. A technical report by the Secretariat of the Pacific Regional Environment Programme. Apia, Samoa.

engineering[32]. This analysis also showed hybrid approaches to climate change adaptation, which included complementary EbA and engineering measures was likely the most cost-effective approach for adaptation to climate change.

Accurate benefit:cost analyses require accurate environmental and economic data to estimate the direct and indirect economic value of ecosystem services. The availability of these datasets is very limited. The research projects implemented through the proposed project in Rwanda will contribute to fill in this gap.

The effectiveness of the interventions in increasing resilience to climate change will be tested and measured during the course of the project (Output 1.5). Under this Output, cost-benefit analyses of the EbA interventions of the project will be undertaken. The results of these analyses will be made available nationally and will be used to inform the upscaling of the most successful EbA interventions in Rwanda.

The proposed project includes technical and administrative training for community members on EbA interventions through a learning-by-doing approach. This will enhance community ownership of the project interventions. This will reduce the overhead for monitoring and maintenance of the activities as well as promotes the sustainability of the project interventions beyond the lifespan of the project.

The proposed project will build on existing initiatives in Rwanda, which will reduce the costs of the project. For example, stakeholders that are involved in PAREF, and RSSP 3 and LWH will be trained on planning and implementing EbA so that this approach will be integrated into interventions of these baseline projects. Where possible, protocols and/or tools for restoration in relevant ecosystems – and monitoring of this restoration – that have been developed through PAREF, RSSP 3, LWH and the China-Rwanda research partnership will be tailored and implemented to achieve the objectives of the proposed project. Similarly, lessons that have been learned through these projects will inform implementation of the proposed project to promote cost-effectiveness.

The project will contribute some funds to the SPIU, which is a government structure approved by the Cabinet meeting held on 11.2.2011. SPIU is a special mechanism for project/programme delivery in the public institutions in Rwanda in order to eliminate duplications of efforts and rationalise donor activities in the sense of making them as cost-effective as possible. Its services cover institutional support to REMA, awareness raising, financial tracking, and capacity building. In addition SPIU funds will contribute to core staff including SPIU coordinator, procurement specialist, internal auditor and resource mobilizer. It will also contribute to capacity building of SPIU staff. As per government mandate each external project must contribute to the SPIU, including the UNEP-UNDP LDCF1 project where it has been viewed to be a very effective framework in implementing the project and maintaining clear communication between Project Management, Programmes within REMA, Project Proponents and Project Beneficiaries, which further enhanced the success of the UNEP-UNDP LDCF1 project in Rwanda[33]..

C. DESCRIBE THE BUDGETED M& E PLAN:

Type of M&E activity	Responsible Parties	Budget US $(Excluding project team staff time)	Time frame
Inception workshop and report	• PM • M&E SPECIALIST • UNEP TM	Indicative cost: US $12,100	Within first two months of project start up
Measurement of means of verification of project results	• UNEP TM • M&E SPECIALIST • PM WILL OVERSEE	To be finalised at Inception Phase and Workshop. This includes hiring of specific experts and institutions, and delegate responsibilities to relevant team members.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of	• UNEP TM	To be determined as part of the	Annually prior to PIR and to

[32] A combination of EbA and hard engineering options is the most effective option to decrease vulnerability to floods according to this study. However, EbA interventions are prioritised in the proposed project as it focuses mainly on reducing the negative effects of droughts and bushfires.
[33] First draft of UNEP-UNDP TE for UNEP-UNDP LDCF1 project in Rwanda (July 2015),

Type of M&E activity	Responsible Parties	Budget US $(Excluding project team staff time)	Time frame
means of verification for project progress on output and implementation	• PM • M&E SPECIALIST • CTA	AWP's preparation.	the definition of annual work plans
PIR	• PM • M&E SPECIALIST • UNEP TM • UNEP FMO (FUND MANAGEMENT OFFICER)	None. Financial audit records to be provided from IMIS for PSC review	Annually
Periodic status/ progress reports	• PM • M&E SPECIALIST • UNEP TM	None	Quarterly
MTR/MTE	• UNEP TM/UNEP EVALUATION OFFICE	Indicative cost: US $35,000	At the mid-point of project implementation.
Terminal evaluation	• UNEP EVALUATION OFFICE	Indicative cost: US $35,000	At least three months before the end of project implementation
Project terminal report	• PM • M&E SPECIALIST • UNEP FMO • UNEP TM	None	On completion of the terminal evaluation.
Visits to demonstration sites	• UNEP TM • M&E SPECIALIST • PM • PSC REPRESENTATIVES	For GEF supported projects, paid from IA fees and operational budget	Yearly
Consultants	• INTERNATIONAL M&E EXPERT	International M&E Expert: US $53,400	During baseline assessment in inception phase, at the mid-point of project implementation and at least three months before the end of project implementation
	• M&E SPECIALIST	National M&E Specialist: US $77,856	Throughout the implementation phase.
TOTAL indicative COST Excluding project team staff time and UNEP staff and travel expenses			Estimated to cost US $233,356

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):
(Please attach the Operational Focal Point endorsement letter(s) with this form. For SGP, use this OFP endorsement letter)

NAME	POSITION	MINISTRY	DATE *(MM/DD/YYYY)*
Dr. Rose MUKANKOMEJE	Director General of REMA and GEF Focal Point	MINISTRY OF NATURAL RESOURCES	19/10/2012

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for CEO endorsement/approval of project.

Agency Coordinator, Agency name	**Signature**	**Date** ***(Month, day, year)***	**Project Contact Person**	**Telephone**	**Email Address**
Brennan van Dyke; Director - UNEP-GEF Coordination Office		August 21, 2015	Ermira FIDA Portfolio Manager, UNEP-GEF Adaptation	+254-20 762 3113	ermira.fida@unep.org

ANNEX A: PROJECT RESULTS FRAMEWORK

Project objective	**Objective indicator**	**Baseline**	**Target**	**MoV**
Increased capacity of Rwandan authorities and local communities to adapt to climate change by implementing Ecosystem-based Adaptation (EbA) interventions in forests, savannas and wetlands	1. Degree to which capacity of targeted government institutions is strengthened at national and sub-national levels to identify, prioritize, implement, monitor and assess effectiveness of EbA interventions.	1. Current estimated level of capacity to identify, prioritize, implement, monitor and assess effectiveness of EbA interventions is 3. Institutions have increasing capacity to monitor and identify climate risks. They are also able to design, budget and implement restoration interventions but not EbA interventions. Ecosystem restoration is prioritised by national institutions but not EbA. Therefore, EbA interventions are not currently implemented. Baseline study to be conducted at the project inception stage. Quantitative assessment of the baseline for this indicator will be conducted at inception stage.	1. Increase of at least 4 points in the capacity score of each institution. (Max 10, Min 0)	1. Verified through scoring methodologies developed by the TAMD and PPCR and adapted from the GEFSec - AMAT (2014)[34]. *The indicator is based on five step criteria of capacity assessment framework (expressed as questions):* *1. Are the institutions in the process of identifying the future effects of climate change and appropriate EbA interventions?* *2. Are the institutions prioritising restoration activities with climate-resilient, indigenous, beneficial species through the EbA approach?* *3. Have the institutions defined clear roles and responsibilities for the design, coordination and implementation of EbA interventions?* *4. Is there evidence of effective implementation of EbA interventions by the institutions?* *5. Is there evidence of adequate institutional capacities for the continuous monitoring of and learning from adaptation initiatives?* Each question is answered with an assessment and score for the extent to which the associated criterion has been met: not at all (= 0), partially (= 1) or to a large extent/completely (= 2). An overall score is calculated, with a maximum score of 10 given five criteria. These five criteria will be reviewed and validated at inception phase of the project.
	2. Number of individuals benefitting directly from project interventions disaggregated by gender.	2. Zero	2. At least 2,800 (to be validated at inception) including 40% of women.	2. Household surveys and reports
Outcome 1 **National and local authorities have increased capacity to plan and implement EbA interventions.**	**Outcome indicators** 1. A National Steering Committee (NSC) mobilised as a platform to promote large-scale EbA programmes in Rwanda and capacitated to plan large-scale EbA interventions (disaggregated by gender).	1. TOR for the National Steering Committee (NSC) has been developed but no meetings of NSC have been held.	1. NSC is mobilised under REMA and has held at least 2 meetings. At least 50% of members (of which at least 40% women) have been trained on EbA.	1. Meeting minutes, reports and list of participants in NSC meetings.

[34] Adapted from TAMD (2013) and PPCR (2014) scorecard indicators.

	2. Number of local government officials, environmental committee members and local community representatives with capacity to plan, budget and implement EbA interventions (disaggregated by gender).	2. Rwanda has recently implemented a number of national strategies, policies and plans for ecosystem restoration but no local government officials, environmental committee members or local community representatives have the capacity yet to plan, budget and implement EbA interventions. A more quantitative assessment of this indicator will be made at inception phase.	2. By project end point, at least: i) 80 local government officials; ii) 110 environmental committee members including 15 members at the provincial level, 25 members at the district level, 30 members at the sectoral level and 40 members at the cell level; and iii) 80 local community representatives have capacity to plan, budget and implement EbA interventions (of which 50% of women).	2. Attendance registers from training sessions and training reports. A scoring scale methodology will be used to measure the capacity of trained officers. To measure people's capacity to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures; the tracking tool recommends the following scoring scale: 1 = Very limited or no evidence of capacity 2 = Partially developed capacity 3 = Fully developed, demonstrated capacity Depending on the nature and scope of the training provided, the tracking tool may provide an average score based on an assessment of capacity along the following criteria: (a) understanding what is EbA and its role in adapting to climate change; (b) identifying EbA adaptation options and their use to restore ecosystems in Rwanda; (c) developing alternative livelihoods based on restored and resilient ecosystems; (d) identifying cost-effective adaptation interventions; (e) Planning, budgeting and implementing EbA measures.
	3. Number of documents and technical EbA guidelines developed and disseminated to environmental committees and local authorities through the climate change adaptation portal.	3. CC portal has already been created. A webpage is currently being developed on the portal for the LDCF1 project. This project will extend the role of this website through compiling the information of the project as well as other adaptation projects on a national scale.	3. By project mid-point, at least 2 technical EbA guidelines developed; by project end-point, at least 3 technical EbA guidelines developed.	3. The documents are produced and available on the climate change adaptation portal.
	4. Number of educational resources on EbA developed by the project for communities living near project sites to increase awareness on EbA and integrate EbA in national curricula at primary, secondary and university level and submitted to MINEDUC and other relevant educational institutions for validation.	4. Zero	4. By end point at least 3 proposed revisions to school and university curricula to integrate EbA, 4 awareness campaigns on EbA targeting local communities, and 3 school-based EbA projects have been developed and submitted to MINEDUC and other relevant educational institutions for validation..	4. Proposed revisions to primary, secondary and tertiary school curricula; report of the awareness-raising events and list of participants; surveys of proposed project intervention sites (i.e. bio-physical surveys), minutes of the workshop with MINEDUC and other relevant educational institutions. .

	5. Number of tools (research forum and data storage system) developed to disseminate scientific results and other knowledge on EbA and to promote long-term production of evidence base on EbA.	5. No research forum and data storage system currently exist.	5. By end-point, at least 1 research forum and 1 data storage system developed for the dissemination of scientific results and other knowledge on EbA.	5. Research forum; data storage system; databases.
Outcome 2 **Sectoral and local policies, strategies and plans strengthened to promote the restoration and management of degraded ecosystems for EbA.**	**Outcome indicator** 1. Number of policy revisions proposed for cross-sectoral, sectoral and local policies, strategies and plans to incorporate EbA, and submitted to government for validation.	1. The majority of cross-sectoral, sectoral and local policies, strategies and plans promote ecosystem restoration. However, they do not promote EbA.	1. At least 9 policy revisions proposed for cross-sectoral[35], sectoral[36] and local[37] policies, strategies or plans to incorporate EbA.	1. Proposed policy revisions; policy briefs; minutes of government meetings. Proposed policy revisions; policy briefs.
	2. Number of upscaling strategies developed to promote EbA based on project interventions.	2. No upscaling strategy for best adaptation practices in Rwanda developed to date.	2. 1 national upscaling strategy developed.	2. Finalized upscaling strategy document; workshop reports and consultant reports.
Outcome 3 **EbA implemented by local communities to restore degraded ecosystems in forest, wetland and savannah ecosystems and establish climate resilient livelihoods.**	**Outcome indicator** 1. Number of individuals implementing climate-resilient agriculture practices including agroforestry in the project intervention sites.	1. Zero	1. At least 500 individuals implementing climate-resilient agriculture practices including agroforestry in the project intervention sites.	1. Surveys of proposed project intervention sites (i.e. bio-physical surveys).
	2. Number of hectares of wetlands restored with climate-resilient species in Bugesera, Gasabo and Ngororero.	2. Zero	2. At least 190 ha of rangelands restored with climate-resilient species.	2. Surveys of proposed project intervention sites (i.e. bio-physical surveys).
	3. Number of hectares of forest restored with climate-resilient species in Sanza	3. Zero	3. 20 hectares restored with climate-resilient species.	3. Surveys of proposed project intervention sites (i.e. bio-physical surveys).
	4. Number of hectares of savanna restored with indigenous, climate-resilient species in Isangano.	4. Zero	4. 300 hectares restored using primarily indigenous, climate-resilient species.	4. Surveys of proposed project intervention sites (i.e. bio-physical surveys).
	5. Number of individuals receiving training, equipment	5. Zero	5. At least 120 individuals, of which at least 40%	5. 5. Surveys of proposed project intervention sites (i.e. questionnaires given to households); list of equipment

[35] For example, revisions could be proposed for national ecosystem management or development policies or strategies.
[36] For example, revisions could be proposed for the national forestry policy and the water resources master plan.
[37] For example, revisions could be proposed for the DDPs of Bugesera, Kayonza and Ngororero.

	and technical support to adopt climate-resilient livelihoods in the project intervention sites.		women, have received training, equipment and technical support to adopt climate-resilient livelihoods in the project intervention sites.	purchased; reports on the training sessions and lists of participants.

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).

GEF Secretariat Review Question	GEF Secretariat Recommended Action by CEO Endorsement	Response
16. Is there a clear description of: a) the socio-economic benefits, including gender dimensions, to be delivered by the project, and b) how the delivery of such benefits will support the achievement of incremental/additional benefits?	Recommended Actions by CEO Endorsement: Please devise mechanisms that will facilitate involvement of women in the project and please highlight the additional measures that the project will take to generate adaptation benefits for women.	A clear description of the socio-economic benefits of the project is provided in Section B.2 of the CEO endorsement. These include: i) increased availability and quality of water for domestic use and irrigated agriculture; ii) reduced damage and economic losses resulting from floods, droughts and landslides; iii) increased resilience of agriculture to floods and droughts; iv) increased income and livelihood diversity; and v) increased awareness of climate change and adaptation options. Additionally, the focus on indigenous species will: i) revive and conserve indigenous knowledge on the use of these plants including for medicinal purposes; and ii) contribute to the conservation of Rwandan natural heritage for future generations. Project activities have been devised in such a way as to include men and women in both men-headed and women-headed households. As means to facilitate involvement of women, training workshops will aim to have 50% representation by women and men alike. In addition each training and awareness-raising session will be held only if at least 45% of the participants are women. The Monitoring and Evaluation specialist who is part of the management team was given the role of supervising gender equity in the project activities and monitoring these indicators (see Section 4 of the Project Document). The indicators related to building capacity of government authorities and local communities are disaggregated by gender.
17. Is public participation, including by CSOs and indigenous people, taken into consideration, role identified and addressed properly?	Recommended Actions for CEO Endorsement Stage: Please identify NGOs and local-level organisations that could contribute towards and benefit from the project.	Several NGOs (e.g. Wildlife Conservation Society WCS, Albertine Rift Conservation Society ARCOS, Association Rwandaise des Ecologistes ARECO) and cooperatives (e.g. Cooperative of Security and Environment of Ngororero, Tubegere) have been identified as partners and have already been engaged with at the PPG phase (see Section 5 of the Project Document). NGOs and local level organizations will be involved in a large part of activities under the project as detailed in Section 5 of the Project Document. In addition the executing agency has identified all associations and cooperatives in the intervention districts. These CSOs have long-term relationships with local communities and local authorities. The project will engage with these CSOs in the implementation of community-based activities through involving them in the meetings for the design of interventions and decision-making

		processes. Specific involvement plans and modalities (e.g. sub-contract) for each CSO will be determined at inception phase.
19. Is the project consistent and properly coordinated with other related initiatives in the country or in the region?	Recommended Actions for CEO Endorsement Stage: Please determine how and at which stage the proposed project will coordinate and work with other related initiatives.	Team members of national and regional ongoing initiatives were consulted during the PPG phase and were invited to the inception and validation workshops. The way in which the proposed project will engage with these initiatives during the implementation phase are fully detailed in Section 2.7 of the Project Document. For example, the proposed project will collaborate with LVEMP for the design of Activities 3.1.7 and 3.1.8 to benefit from LVEMP previous experience in terracing and wetland restoration in Bugesera. Similarly, the lessons learned by DEMP regarding the development of fishing activities in Lake Kivu will be built on for the design of Activity 3.4.3. Collaboration with UNEP-UNDP Poverty Environment Initiative (PEI) will enable the development of best interventions to successfully increase the use of biogas following their experience in the green villages.
20. Is the project implementation/execution arrangement adequate?	Recommended Actions for CEO Endorsement Stage: Please describe the roles of each of the executing agencies in implementing each of the project components.	The executing agency of the project, REMA, will be responsible for the implementation of each component. However, MoUs with other government institutions will be developed when necessary as well as sub-contracting with non-government institutions. The engagement of these stakeholders in the implementation of each project component is presented in Section 5 of the project document (Table 4). For example, as agreed at PPG phase, the Ministry of Finances and Economic Planning will be involved in the design of the income generating activities for local communities under Output 3.4. The Ministry of Disaster Management and Refugee Affairs will participate in the design of the reforestation activities in wetland and forest to maximise the reduction of flooding. University and schools will be engaged with for the implementation of the research and school-based projects on EbA respectively. Additionally, the Single Project Implementation Unit recently created under REMA will facilitate the coordination of and knowledge sharing between all REMA projects including adaptation projects.
German council comments		**Response**
With regard to the envisaged establishment of a multi-disciplinary national committee (see Component 1 of PD), it		According to the Executing Agency, the creation of a new national committee as described in the output originally included in the PIF is not required. However, training the members of the

might be useful to identify one institution within which the framework for the dialogue could take be located, instead of creating additional bodies or platforms. Especially as the project is intended to be a "*platform for catalysing future large-scale initiatives across Rwanda*" (p. 25), it will be very important to firmly root this initiative with a strong partner who can take this initiative forward and mobilise additional funding after the end of the project.		SWGs on EbA and the integration of EbA into their working forums are necessary (activities included under Output 2.3). During the last steering committee meetings of the UNFCCC, CBD and UNCCD in Rwanda, a decision was taken to establish one NSC for these conventions to reduce costs and increase the synergy of interventions under the Rio Conventions in Rwanda. The Terms of Reference (ToRs) for this committee have already been developed. These ToRs clearly describe: i) the role and responsibility of the NSC; ii) the institutional arrangement and composition of the NSC; and iii) the role and responsibility of the different members of the NSC including ten ministries (e.g. MINIRENA, MIDIMAR, MINISANTE), other national institutions (e.g. RAB, RRA, RCAA), and NGOs (e.g. ARCOS, WCS, ACNR). However, the NSC meetings have not yet been initiated. Instead of creating a new NSC for EbA, activities of the proposed project will build on this initiative to mobilise this NSC, and integrate EbA into planning for the Rio conventions in Rwanda. EbA is a suitable intervention for all three of these conventions because it addresses climate change, biodiversity and desertification. Therefore, the NSC will serve as a platform to promote large-scale EbA interventions in Rwanda. To catalyse this, NSC members will be trained on: i) using EbA to increase the resilience of local communities to climate change; and ii) planning large-scale EbA interventions including project selection and funding.
We would like to encourage you to not only include indicators measuring the participation of women in the sense of quotas (percentage of women participating) but also in relation to results (if and how women benefited from the project activities).		Additionally to the indicators measuring the participation in – and results of – the training and capacity-building activities that are disaggregated by gender, the indicators measuring the number of individuals benefitting from the on-the-ground interventions of the project have also been disaggregated by gender.
US council comments		**Response**
We urge you to clarify how the policy briefs and PhD/MSc theses mentioned as part of Component 1 will help to strengthen local and national institutional capacity. We are concerned that the time it will take to produce these theses will cause delays in implementation of other components of the project designed to build on the findings from this research. For example, these components include national strategies on		Funding research projects on EbA conducted by national experts under the relevant institutions will be preferred to funding of PhD theses. This will be done to: i) prevent any timing problems such as the PhD not being achieved before the end of the project; and ii) increase the sustainability of the benefits of this research projects to increase national capacity. The LAFREC project will implement short-term, thematic research project activities on landscape restoration. To do so, they will allocate an annual lump sum to technical staff from research institutes to undertake research activities. Following the

integrating a ecosystem management approach to climate change.		example of the LAFREC project, the research conducted on the proposed project activities will consist of short-term thematic projects on EbA. These research projects will be conducted by technical staff working within REB, ICRAF or NUR. The selection process for the technical staff that will undertake the research projects will be developed with the REB, RAB, ICRAF, MINEDUC and NUR as they are experienced in implementing research projects in Rwanda. These institutions will also provide the necessary support to the selected technical staff to develop data collection protocols, to analyse the collected data and to publish the results in scientific papers. The role of each institution in the research projects will be further defined at the beginning of the implementation phase during the selection process for the technical staff to conduct the research and for the research subjects. The budget allocated under the proposed project will cover for field trips and equipment for data collection, tools for data analysis, dissemination of the results at workshops and conferences, and publication of the results in peer-reviewed journals (see Section 3.3). As part of their ToRs – to be developed during the early stages of project implementation (see Appendix 4) – the technical staff who will conduct the research projects will provide the results of their research to the relevant institutions (e.g. MINIRENA, MINAGRI, MINEDUC). This research will be used to inform an adaptive management approach. No activities outside of Output 1.5 will depend on the outcomes of these research projects. All preliminary studies necessary to implement the project activities – such as the data review for the production of the restoration protocols – will be conducted independently from the research projects so that project progress would not be affected.
Clarify how the proposed project will communicate results, lessons learned and best practices identified throughout the project to the various stakeholders both during and after the project.		The web-based climate change portal hosted by REMA will be expanded to include the main lessons learned and best practices identified by the projects under REMA. The guiding documents produced by the proposed project will be accessible on this portal. Additionally, the production of guiding documents will be followed by training sessions with relevant stakeholders to distribute and facilitate the use of these guidelines. A national upscaling strategy will be developed by the proposed project and maintained by REMA. The upscaling strategy framework will define the role of government institutions – including FONERWA – in the upscaling of the best practices of the environment projects including the proposed project.
Expand on how the proposed		The web-based climate change portal will provide

project will ensure the sustainability of adaptation education for climate change for decision makers at the national and local level.		access to technical knowledge to both local and national authorities beyond the proposed project implementation phase. The upscaling strategy that will be developed will include updating the portal with examples of the best practices that should be upscaled in the country. Additionally, as part of the upscaling strategy, the identification of the best practices and the appropriate replication sites will be followed by the training of local authorities on the design and implementation of the identified best practices for adaptation to climate change. University modules on climate change adaptation – which include information on EbA – will be developed to increase technical capacity on adaptation to climate change in Rwanda in the long-term.

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS[38]

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

PPG Grant Approved at PIF:			
Project Preparation Activities Implemented	***GEF/LDCF/SCCF/NPIF Amount ($)***		
	Budgeted Amount	***Amount Spent To date***	***Amount Committed***
International Consultant	50,000	50,000	0
Local Consultants	14,500	14,204	296
Travel	14,750	1,442	13,308
Meetings and Workshops	10,250	3,523	6,727
Communications	500	508	-8
Management	10,000	11,883	-1,883
Total	100,000	81,560	18,440

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

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)
Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

N/A

ANNEX E: CONSULTANTS TO BE HIRED FOR THE PROJECT USING GEF/LDCF/SCCF RESOURCES

The financial management of the project will be undertaken by UNEP, owing to complications with the national procurement process. Consequently, the GEF funds will be disbursed through contracts, MoUs or LoAs between UNEP and individual consultants, under guidance from the EA. The national partner institutions will contribute to the outcomes based on their respective expertise and financial capabilities.

The table below specifies the technical assistance consultancies planned for Outcomes 1, 2 and 3 (including both national and international consultants).

National consultants	US $/ person month	Estimated person months	Tasks to be performed	Budget note
National specialist in EbA (Component 1)	4,000	4.5	The national consultant (NC) with proven expertise in EbA will: i) review the ToRs and establish the Rio conference committee (Activity 1.1.1); ii) train members of the committee on EbA planning, budgeting and implementation (Activity 1.1.2); iii) train the DEO and DEF of each of the districts where the project interventions will be implemented on EbA planning, budgeting and implementation (Activity 1.2.1); iv) train the environment committees on the design and implementation of EbA interventions (Activity 1.2.2); v) raise awareness and train the private sector on the role of EbA and the implementation of EbA interventions (Activity 1.2.3); and vi) train local community representatives on the use of EbA (Activity 1.2.4).	2
National specialist in indigenous species in Rwanda	4,000	1.9	The NC with proven experience in ecosystem restoration using indigenous species will review the past and current projects implementing restoration in Rwanda through planting indigenous species. The information collected will include: i) planting protocols; and ii) assessment of the success of the corresponding restoration activities. He/she will visit the restoration sites to assess the success of these restoration interventions. Guidelines on the best planting and maintenance practices for selected indigenous species will then be produced by the NC (Activity 1.3.2).	3
National specialist in green technologies	4,000	3.7	The NC will develop guidelines specific to each intervention site for implementing the use of: i) organic compost for fertilisation (Activity 1.3.3); and ii) biogas as a source of energy (Activity 1.3.4).	4
National specialist in Information technologies	4,000	1.7	The NC will improve the climate change portal (Activity 1.3.5). This will include: i) creating a webpage for each project; ii) downloading all the project documents; and iii) promoting best practices. This consultant will also be responsible for the development of a research forum to share and discuss the results of research studies conducted on the effects of EbA interventions (Activity 1.5.5).	5
National specialist in ecosystem health	4,000	1.5	The NC will work closely with the management team of aligned restoration projects and local authorities to produce a national map indicating the priority ecosystems for future EbA interventions. He/she will use national and local reports, including reports on: i) ecosystem degradation; ii) vulnerability to climate change; and iii) community livelihoods. Additionally, aerial images and all other relevant source of information will be used (Activity 1.3.6).	6
National specialist in	4,000	10.7	The NC will: i) raise awareness of local communities in the intervention sites on the role of natural ecosystem and the use of	7

environmental education.			EbA (Activity 1.4.1); ii) review the education programmes for primary, secondary and tertiary education including technical college (Activity 1.4.2 and 1.4.3); iii) develop guidelines to facilitate the integration of EbA into the education programmes, and present the revisions and guidelines to MINEDUC, universities and schools (Activity 1.4.4); iv) train school teachers on EbA (Activity 1.4.5); v) develop school-based EbA programmes (Activity 1.4.6); vi) integrate the implementation of EbA interventions into a school award system (Activity 1.4.7); and vii) take students and teachers to the LDCF intervention sites to complement the training sessions (Activity 1.4.8).	
National specialist in EbA (Component 2)	4,000	8.5	The NC will: i) review the sectoral policies for the environment, water, forestry, biodiversity and additional relevant national policies to identify how to insert EbA into these documents (Activity 2.1.1); ii) develop policy recommendations and policy briefs to integrate EbA into these policies (Activities 2.1.2 and 2.1.3) and train the corresponding planning experts on the use of these policy recommendations and policy briefs through the organisation of a one-day-long workshop (Activity 2.1.4); iii) select the best project activities according to the benefits they provide to the local communities and identify suitable sites for the replication of these activities (Activity 2.2.1); iv) present this information to the relevant government authorities and develop, in collaboration with these authorities, a funding strategy for the replication of the LDCF activities (Activities 2.2.2 and 2.2.3); v) develop a national upscaling strategy for successful EbA interventions (Activity 2.2.4); vi) review the DDPs for the 4 districts where the project interventions will be implemented and propose revisions to these DDPs to integrate EbA interventions (Activity 2.4.1); vii) train the district authorities on the use of these documents (Activity 2.4.5); and viii) integrate EbA into the award systems developed by REMA for districts, NGOs, CBOs and the private sector (Activity 2.4.6).	10
National expert in environmental economics and adaptation	4,000	2.7	The NC will: i) review national development plans to identify entry points for EbA, produce policy recommendations to integrate EbA into these documents and train MINIRENA's working groups on the use of these policy recommendations (Activities 2.3.1 and 2.3.2); and ii) review sectoral development plans to identify entry points for EbA, produce recommendations to integrate EbA into these documents – including selecting, designing, budgeting for and implementing EbA interventions – and train planning and technical experts in the relevant ministries on the use of these policy recommendations (Activities 2.3.3 and 2.3.4).	11
National expert in environmental assessments	4,000	2	The NC will: i) review national assessment tools including EIA, SIA and SEA checklists and produce policy recommendations to promote EbA into these assessment processes (Activity 2.3.5); and ii) train the authorized EIA, SIA and SEA experts on the use of these policy recommendations (Activity 2.3.6).	12
National expert in natural resources' management	4,000	2.3	The NC will collaborate with the National EbA specialist to: i) develop indicators to measure the degradation of natural ecosystems in Rwanda and measure the level of degradation of natural ecosystems in the districts where the project interventions will be implemented (Activity 2.4.2); ii) investigate the implementation process for environment policies and strategies where natural ecosystems are under ongoing degradation and produce guidelines to improve the efficiency of this implementation	13

			process (Activity 2.4.3); and iii) produce guidelines to address the shortcomings in the implementation process (Activity 2.4.4) and train the district authorities on the use of these guidelines (Activity 2.4.5).	
National specialist in vulnerability assessments	4,000	3	The NC will be in charge of conducting vulnerability assessments to identify the project's beneficiaries for the activities of Component 3 (Activities 3.1.1, 3.1.2 and 3.1.3).	
National specialist in wetland ecosystems	4,000	3.7	The NC will: i) identify the best species for the proposed project's wetland restoration interventions and develop protocols to use, plant and maintain these species (Activity 3.1.2); ii) design nurseries, and supervise both their construction and other restoration activities in wetlands (Activity 3.1.3); iii) train local communities on restoration techniques including constructing nurseries, planting seeds, transplanting trees, monitoring plantation areas and maintaining restoration sites (Activity 3.1.4); and iv) train local community on management techniques for water hyacinth (Activity 3.1.10).	18
National specialist in agroforestry	4,000	3.6	The NC will: i) identify the best species for the agroforestry development – including terraces and for handcrafting – and develop protocols to use, plant and maintain these species in agricultural land adjacent to wetland, forest and savanna restoration sites respectively (Activities 3.1.2, 3.2.2 and 3.3.2); and ii) select farmers for the development of agroforestry with the management team; distribute seeds to the farmers and train them on agroforestry techniques in wetland, forest and savanna restoration sites respectively (Activities 3.1.8, 3.2.6 and 3.3.6).	19
National specialist in agriculture	4,000	4	The NC with proven experience in agricultural development in sites vulnerable to droughts, floods and landslides and in water management will: i) collaborate with the NC in agroforestry to select agroforestry species suitable for terraces, including risers; ii) collaborate with the private company awarded the tender, to design and construct terraces and train farmers on best agricultural practices, including planting on risers (Activity 3.1.8); iii) select suitable water tanks and train local communities on the use and maintenance of these (Activity 3.1.9); and iv) train farmers located adjacent to the savanna restoration sites on best rainwater harvesting techniques to increase resilience to droughts through increased water availability for irrigation (Activities 3.3.7 and 3.3.8).	20
National specialist in green technologies	4,000	4.5	The NC will be supported by an IC in green technologies to: i) raise awareness on the use of organic fertilisers and pesticides in agricultural lands located adjacent to wetland restoration sites (Activity 3.1.11); ii) select pilot sites for the development of biogas and select the material to purchase and train the beneficiaries on the use of this material (Activities 3.1.12, 3.2.7 and 3.3.9); and iii) select pilot sites for the use of organic compost as fertiliser for agriculture, design the composting basins, select the material to purchase and train the beneficiaries on the use of this material (Activity 3.1.13).	21
National specialist in forest ecosystems	4,000	1.7	The NC will: i) identify the best species for the proposed project's forest restoration interventions and develop protocols to use, plant and maintain these species (Activity 3.2.2); ii) design nurseries and supervise both their construction and other restoration activities in forests (Activity 3.2.3); and iii) train local communities on restoration techniques, including constructing nurseries, planting seeds,	22

			transplanting trees, monitoring plantation areas and maintaining restoration sites (Activity 3.2.4).	
National specialist in savanna ecosystems	4,000	2.7	The NC will: i) identify the best species for the proposed project's savanna restoration interventions and develop protocols to use, plant and maintain these species (Activity 3.3.2); ii) design nurseries, and supervise both their construction and other restoration activities in savannas (Activity 3.3.3); and iii) train local communities on the restoration techniques including constructing nurseries, planting seeds, transplanting trees, monitoring plantation areas and maintaining restoration sites (Activity 3.3.4).	23
National specialist in community-based projects	4,000	2.7	The NC will: i) review the financial system adopted in REMA for the implementation of other community-based activities; ii) selected the best system for the proposed project activities; iii) implement this system (Activity 3.4.2); and iv) promote knowledge sharing on climate-resilient livelihoods (Activity 3.4.8).	24
National apiculture specialist	4,000	10	The NC will: i) select sites and beneficiaries for apiculture development; ii) select materials to be purchased; and iii) train beneficiaries on the use and maintenance of these materials and best apiculture practices.	25
National fisheries' specialist	4,000	2	The NC will: i) select sites and beneficiaries for fisheries' development; ii) select the materials to be purchased; and iii) train the beneficiaries on the use and maintenance of these materials, and best fisheries' practices.	26
National specialist in handcrafting	4,000	4.1	The NC will: i) collaborate with the NC in agroforestry development to select appropriate species for the development of handcrafting; i) select sites and beneficiaries for apiculture development; ii) select the materials to be purchased; and iii) train the beneficiaries on the use and maintenance of these material, and best handcrafting practices.	27
National specialist in ecotourism	4,000	2.1	The NC will: i) select the best site for the development of a community-based ecotourism project, as well as the beneficiaries; ii) develop a detailed project proposal; and iii) develop a plan to implement this project through a workshop with the local authorities and community representatives.	28
International consultants	**US $/ person week**	**Estimated person weeks**	**Tasks to be performed**	
Chief Technical Advisor (CTA)	2,500	64	The CTA will: i) provide quality assurance; ii) undertake a technical review of project outputs (e.g. studies and assessments); iii) assist in the drafting of ToRs for technical consultancies; iv) supervise the work of national and international consultants; v) assist in monitoring the technical quality of project M&E systems (including AWPs, indicators and targets); vi) conduct the financial administrative reporting and the PIR; vii) provide advice on the best approaches and methods for achieving project targets and objectives;	

			viii) provide technical supervision for the work carried out by field officers, and national and international consultants hired by the project; ix) assist in knowledge management, communication and awareness-raising; and x) facilitate the development of strategic regional and international partnerships for the exchange of climate change adaptation skills and information.	
International specialist in EbA (Component 1)	2,500	10.8	The international consultant (IC) will work closely with REMA, RAB,REB, NUR and MINEDUC to: i) support the NC specialist in ecosystem health assessment in building the priority map for EbA interventions (Activity 1.3.6); ii) identify gaps in EbA knowledge for Rwanda and develop research projects accordingly (Activity 1.5.1); ii) collaborate with the IT specialist to develop the research forum (Activity1.5.5); and iii) raise awareness of masters students in relevant fields on the need for EbA research projects to be conducted (Activity 1.5.6).	1
International specialist in EbA (Component 2)	2,500	14.6	The IC will support the NC in EbA to: i) identify entry points for EbA in national policies (Activity 2.1.1); ii) identify entry points for EbA in environment assessment processes, to increase the use of EbA (Activity 2.3.5); iii) identify entry points for EbA interventions in the DDPs for the districts where the proposed project will be implemented and provide support to develop training material for the district authorities to implement EbA (Activities 2.4.1 and 2.4.5); and iv) maximise the likelihood of the district, NGOs, CBOs and private sector to implement EbA interventions, through revising the award system (Activity 2.4.6).	8
International specialist in environment economics and adaptation	2,500	8.4	The IC will support the NC in environmental economics and adaptation to: i) identify entry points for EbA in national development plans, produce policy recommendations to integrate EbA into these documents and prepare training material for MINIRENA's working groups (Activities 2.3.1 and 2.3.2); and ii) produce policy recommendations for incorporating EbA into sectoral development plans – including selecting, designing, budgeting for, and implementing EbA interventions – and train planning and technical experts in the relevant ministries on the use of these recommendation documents (Activities 2.3.3 and 2.3.4).	9
International specialist in EbA (Component 3)	2,500	11	The IC will support the NCs specialising in wetland, forest and savanna restoration to: i) select the best species for restoration and develop the restoration protocols (Activities 3.1.2, 3.2.2 and 3.3.2); ii) design nurseries (Activities 3.1.3, 3.2.3 and 3.3.3); iii) develop training material on restoration techniques for local communities (Activities 3.1.4, 3..2.4 and 3.3.4); and iv) develop training material on the management of invasive species for local communities (Activity 3.1.10).	14
International specialist in agroforestry	2,500	6	The IC will support the NC in agroforestry to: i) identify the best species for agroforestry development – including terraces and for handcrafting – and develop protocols for the use, planting and maintenance of these species in agricultural land adjacent to wetland, forest and savanna restoration sites respectively (Activities 3.1.2, 3.2.2 and 3.3.2); and ii) develop training material on agroforestry techniques for farmers located adjacent to wetland, forest and savanna restoration sites respectively (Activities 3.1.8, 3.2.6 and 3.3.6).	15
International specialist in green technologies	2,500	9	The IC will support the NC in green technologies to: i) prepare awareness raising material on the use of organic fertilisers and pesticides in agricultural lands located adjacent to wetland restoration sites (Activity 3.1.11); ii) select pilot sites for the development of biogas, select material to purchase and prepare training material for	16

			beneficiaries on the use of this material (Activities 3.1.12, 3.2.7 and 3.3.9); and iii) select pilot sites for the use of organic compost as fertiliser for agriculture, design the composting basins, select the material to purchase and prepare the training material for the beneficiaries on the use of this material (Activity 3.1.13).	
International specialist in environmental economics and private sector	2,500	19.8	The IC will: i) review the business models of private sector investments in environmental projects in neighbouring countries; ii) select the most appropriate one for Rwanda; iii) develop a detailed protocol for the implementation of a commercially viable business model in Rwanda (Activity 3.4.6); and iv) develop two community-based EbA projects (Activity 3.4.7).	17
M&E expert	2,500	18.2	The consultant will undertake the following M&E tasks: i) baseline assessment; ii) mid-term evaluation; and iii) final evaluation.	

ANNEX F: DETAILED GEF BUDGET

Project number:				5194											Notes
Project executing partner				Rwandan Environmental Management Authority (REMA) in partnership with Ministry of Natural Resources (MINIRENA) and Ministry of Agriculture and Animal Resources (MINAGRI)											
Project implementation period				Expenditure by project component/activity						Expenditure by calendar year					
From:				Outcome 1	Outcome 2	Outcome 3	PM	M&E	Total	Year 1	Year 2	Year 3	Year 4	Total	
To:															
UNEP Budget Line															
10	PERSONNEL COMPONENT														
	1100		Project personnel												
		1101	National project manager (48 months @ $2237/month)	17,896	17,896	17,896	53,688		107,376	26,844	26,844	26,844	26,844	107,376	
		1102	Support to SPIU/REMA				165,000		165,000	41,250	41,250	41,250	41,250	165,000	
		1199	Sub-total	17,896	17,896	17,896	218,688	0	272,376	68,094	68,094	68,094	68,094	272,376	
	1200		Consultants												
		1201	International specialist in EbA (37 days @ $500/day; 2 flights @ $2500/flight; 30 days in-country @ $166/day)	28,500					28,500	8,000	15,000	5,500	0	28,500	1
		1202	National specialist in EbA (91 days @ $200/days)	18,200					18,200	8,200	10,000	0	0	18,200	2
		1203	National specialist in indigenous species in Rwanda (38 days @ $200/day)	7,600					7,600	7,600	0	0	0	7,600	3
		1204	National specialist in green technologies (65 days @ $200/day)	13,000					13,000	7,000	6,000	0	0	13,000	4
		1205	National specialist in Information Technologies (35 days @ $200/day)	7,000					7,000	0	4,000	3,000	0	7,000	5
		1206	National specialist in Ecosystem health (30 days @ $200/days)	6,000					6,000	0	6,000	0	0	6,000	6
		1207	National specialist in education to environment (215 days @ $200/days)	43,000					43,000	10,000	23,000	10,000	0	43,000	7
		1208	International specialist in EbA (49 days @ $500/day; 2 flights @ $2500/flight; 42 days in-country @ $166/day)		36,500				36,500	10,000	26,500	0	0	36,500	8
		1209	International expert in environmental economics and adaptation (25 days @ $500/day; 2 flights @ $2500/flight; 20 days in-country @ $166/day)		21,000				21,000	0	21,000	0	0	21,000	9
		1210	International Chief Technical Advisor (253 days @ $500/day; 8 flights		160,000				160,000	46,000	38,000	38,000	38,000	160,000	

			@ $2500/flight; 80 days in-country @ $166/day)											
		1211	National EbA expert (170 days @ $200/day)		34,000				34,000	0	10,000	12,000	12,000	34,000	10
		1212	National expert in environmental economics and adaptation (54 days @ $200/day)		10,800				10,800	0	10,800	0	0	10,800	11
		1213	National expert in environmental assessments (40 days @ $200/day)		8,000				8,000	0	5,000	3,000	0	8,000	12
		1214	National expert in natural resources' management (46 days @ $200/day)		9,200				9,200	4,000	5,200	0	0	9,200	13
		1215	Field officers at Bugesera, Ngororero and Kayonza (3 x 48 months @ $462/month)		66,528				66,528	16,632	16,632	16,632	16,632	66,528	
		1216	International specialist in EbA (30 days @ $500/day; 2 flights @ $2500/flight; 26 days in-country @ $166/day)			27,500			27,500	10,000	12,500	5,000	0	27,500	14
		1217	International specialist in agroforestry (20 days @ $500/day; 1 flights @ $2500/flight; 14 days in-country @ $166/day)			15,000			15,000	0	10,000	5,000	0	15,000	15
		1218	International specialist in green technologies (27 days @ $500/day; 2 flights @ $2500/flight; 23 days in-country @ $166/day)			22,500			22,500	0	12,500	10,000	0	22,500	16
		1219	International specialist in environmental economics and private sector (66 days @ $500/day; 3 flights @ $2500/flight; 54 days in-country @ $166/day)			49,500			49,500	0	0	29,500	20,000	49,500	17
		1220	National specialist in vulnerability assessments (60 days @ $200/day)			12,000			12,000	12,000	0	0	0	12,000	
		1221	National specialist in wetland ecosystems (75 days @ $200/day)			15,000			15,000	10,000	5,000	0	0	15,000	18
		1222	National specialist in agroforestry (73 days @ $200/day)			14,600			14,600	10,000	4,600	0	0	14,600	19
		1223	National specialist in agriculture (80 days @ $200/day)			16,000			16,000	4,000	8,000	4,000	0	16,000	20
		1224	National specialist in green technologies (86 days @ $200/day)			17,200			17,200	4,000	5,200	5,000	3,000	17,200	21

		1225	National specialist in forest ecosystems (41 days @ $200/day)			6,800			6,800	6,800	0	0	0	6,800	22
		1226	National specialist in savanna ecosystems (55 days @ $200/day)			11,000			11,000	6,000	5,000	0	0	11,000	23
		1227	National specialist in community-based projects (35 days @ $200/day)			11,000			11,000	5,000	2,000	4,000	0	11,000	24
		1228	National apicultural specialist (200 days @ $200/day)			40,000			40,000	5,000	10,000	15,000	10,000	40,000	25
		1229	National fisheries' specialist (36 days @ $200/day)			7,200			7,200	0	3,000	3,000	1,200	7,200	26
		1230	National specialist in handcrafting (82 days @ $200/day)			16,400			16,400	0	6,000	6,000	4,400	16,400	27
		1231	National specialist in ecotourism (43 days @ $200/day)			8,600			8,600	0	3,600	5,000	0	8,600	28
		1232	International M&E expert (91 days @ $500/day; 2 flights @ $2500/flight; 28 days in-country @ $166/day)					53,400	53,400	17,000	17,000	0	19,400	53,400	
		1233	M&E Specialist (48 months @ $1622/month)					77,856	77,856	19,464	19,464	19,464	19,464	77,856	
		1299	**Sub-total**	123,300	346,028	290,300	0	131,256	890,884	226,696	320,996	199,096	144,096	890,884	
	1300		**Administrative Support**												
		1301	Project Officer (48 months @ $371/month)				17,808		17,808	4,452	4,452	4,452	4,452	17,808	
		1302	Internal Auditor (48 months @ $511/month)				24,528		24,528	6,132	6,132	6,132	6,132	24,528	
		1399	**Sub-total**	0	0	0	42,336	0	42,336	10,584	10,584	10,584	10,584	42,336	
	1600		**Travel on official business**												
		1699	**Sub-total**	0	0	0	0	0	0	0	0	0	0	0	
1999		**Component total**		141,196	363,924	308,196	261,024	131,256	1,205,596	305,374	399,674	277,774	222,774	1,205,596	
20	**SUB-CONTRACT COMPONENT**														
	2100		**Sub-contracts (MOUs/LOAs for supporting organisations)**												
		2101	Sub-contract for EIAs	100,000					100,000	100,000	0	0	0	100,000	29
		2102	Baseline study		40,000				40,000	40,000	0	0	0	40,000	
		2103	Progressive terraces on 100 ha in Murago wetland area			39,200			39,200	15,000	19,200	5,000	0	39,200	30
		2104	Radical terraces on 100 ha in Sanza/Satyinski area			248,000			248,000	80,000	100,000	68,000	0	248,000	
		2105	Construction of a honey collection center			80,000			80,000	0	40,000	40,000	0	80,000	

		2106	External financial audit					20,000	20,000	5,000	5,000	5,000	5,000	20,000	
		2199	**Sub-total**	100,000	40,000	367,200	0	20,000	527,200	240,000	164,200	118,000	5,000	527,200	
	2200		**Sub-contracts (for commercial purposes)**												
		2201	10 short-term research projects	300,000					300,000	60,000	92,800	92,800	54,400	300,000	31
		2202	Awareness campaign on the effects of chemical fertilizers and pesticides on wetlands			12,000			12,000	0	12,000	0	0	12,000	32
		2299	**Sub-total**	300,000	0	12,000	0	0	312,000	60,000	104,800	92,800	54,400	312,000	
2999		**Component total**		400,000	40,000	379,200	0	20,000	839,200	300,000	269,000	210,800	59,400	839,200	
30	**TRAINING COMPONENT**														
	3200		**Group training**												
		3201	Training of members of the NSC for the Rio conventions of EbA	5,500					5,500	0	5,500	0	0	5,500	33
		3202	Two-days training of the DEOs and DEFs in Kigali	8,500					8,500	0	8,500	0	0	8,500	34
		3203	Three-days training of environmental committees in the province	16,500					16,500	4,500	12,000	0	0	16,500	35
		3204	One-day training of the private sector companies on EbA in Kigali	7,000					7,000	0	7,000	0	0	7,000	36
		3205	Four-days to train community representatives, NGOs and agriculture cooperative on EbA in the capital of each district of the project	20,000					20,000	6,000	14,000	0	0	20,000	37
		3206	Training of trainers in farmer field schools on the use of organic waste as fertilizer and biogas as a source of energy in 4 districts	36,000					36,000	16,000	20,000	0	0	36,000	38
		3207	One day to present the proposed revisions and the guidelines to MINEDUC, universities and schools.	3,000					3,000	0	0	3,000	0	3,000	
		3208	Two-day training on EbA to teachers/educators/trainers in eight schools	12,800					12,800	0	12,800	0	0	12,800	39
		3209	Six-day training in each of the four selected schools to set up school-based EbA project	20,000					20,000	0	20,000	0	0	20,000	40
		3210	Two-day field visits for eight schools	32,000					32,000	0	16,000	16,000	0	32,000	41
		3211	Training of the planning expert of national ecosystem management		5,000				5,000	0	5,000	0	0	5,000	42

			policies												
		3212	Workshop with REMA to develop the upscaling strategy		6,000				6,000	0	0	0	6,000	6,000	43
		3213	Training of MINIRENA WG members on EbA		6,000				6,000	0	6,000	0	0	6,000	44
		3214	Training of experts in planning and technical departments of relevant government authorities on EbA		8,000				8,000	0	8,000	0	0	8,000	45
		3215	Training of EIA, SEA and EA experts on EbA		12,000				12,000	0	8,000	4,000	0	12,000	46
		3216	Training of district authority to integrate EbA into DDPs and improve policy implementation process		12,000				12,000	0	12,000	0	0	12,000	47
		3217	One-day workshop with local communities to develop the nurseries management system in wetlands			9,000			9,000	9,000	0	0	0	9,000	48
		3218	Training on wetland restoration techniques			18,000			18,000	12,000	6,000	0	0	18,000	49
		3219	Training on construction of climate-resilient terraces			6,000			6,000	0	6,000	0	0	6,000	50
		3220	Training on the use of agroforestry techniques			24,000			24,000	0	15,000	9,000	0	24,000	
		3221	Training on water harvesting techniques in Murago			12,000			12,000	0	8,000	4,000	0	12,000	51
		3222	Training on invasive species management			12,000			12,000	2,000	6,000	4,000	0	12,000	52
		3223	Training on the use of organic compost			18,000			18,000	0	12,000	6,000	0	18,000	53
		3224	Training on the use of the biogas digesters			24,000			24,000	0	24,000	0	0	24,000	54
		3225	One-day workshop with local communities to develop the nurseries management system in forests			3,000			3,000	3,000	0	0	0	3,000	
		3226	Training on forest restoration techniques			6,000			6,000	3,000	3,000	0	0	6,000	
		3227	Training of rainwater management in Sanza			8,000			8,000	0	4,000	4,000	0	8,000	
		3228	One-day workshop with local communities to develop the nurseries management system in savannas			3,000			3,000	3,000	0	0	0	3,000	
		3229	Training on savanna restoration techniques			6,000			6,000	3,000	3,000	0	0	6,000	
		3230	Training on water harvesting techniques in			8,000			8,000	0	4,000	4,000	0	8,000	

			Isangano												
		3231	Training on techniques to reduce evaporation			8,000			8,000	0	3,000	5,000	0	8,000	
		3232	One-day workshop with district authorities on the environmental clubs			3,000			3,000	0	0	3,000	0	3,000	
		3233	Training on bee-keeping			24,000			24,000	0	12,000	8,000	4,000	24,000	
		3234	Training on fishing activities			24,000			24,000	0	10,000	8,000	6,000	24,000	
		3235	Training on handcrafting activities			48,000			48,000	0	20,000	20,000	8,000	48,000	
		3236	One-day workshop on handcrafting with district authorities and community representatives			9,000			9,000	0	0	4,000	5,000	9,000	
		3237	Two-day workshop on ecotourism projects with district authorities and community representatives			6,000			6,000	0	4,000	2,000	0	6,000	
		3299	**Sub-total**	161,300	49,000	279,000	0	0	489,300	61,500	294,800	104,000	29,000	489,300	
	3300		**Meeting/Conferences**												
		3301	One-day workshop on the NSC of the Rio conventions	8,500					8,500	0	0	0	8,500	8,500	55
		3302	Two one-day NSC meetings for the Rio conventions	17,000					17,000	0	8,500	8,500	0	17,000	56
		3303	Three days of awareness raising of local communities on EbA in four districts	36,000					36,000	0	36,000	0	0	36,000	57
		3304	One-day workshop to set up the research projects	500					500	500	0	0	0	500	58
		3305	Two days of conference on the results of the research projects	8,000					8,000	0	0	0	8,000	8,000	59
		3306	One-day awareness-raising campaign on EbA research for Master students	5,000					5,000	0	5,000	0	0	5,000	60
		3307	Inception workshop					9,100	9,100	9,100	0	0	0	9,100	
		3399	**Sub-total**	75,000	0	0	0	9,100	84,100	9,600	49,500	8,500	16,500	84,100	
3999		**Component total**		236,300	49,000	279,000	0	9,100	573,400	71,100	344,300	112,500	45,500	573,400	
40	**EQUIPMENT AND PREMISES COMPONENT**														
	4100		**Expendible equipment**												
		4101	Office supplies	26,000					26,000	8,000	10,000	8,000	0	26,000	
		4102	Computer equipment	20,800					20,800	14,800	2,000	2,000	2,000	20,800	
		4199	**Sub-total**	46,800	0	0	0	0	46,800	22,800	12,000	10,000	2,000	46,800	
	4200		**Non-expendable Equipment**												
		4201	Budget for school-based EbA project	96,000					96,000	0	32,000	32,000	32,000	96,000	61

		4202	Renting vehicles		72,000				72,000	18,000	18,000	18,000	18,000	72,000	62
		4203	Seedlings and nurseries for wetland restoration and agroforestry in Murago			110,200			110,200	80,000	14,200	10,000	6,000	110,200	63
		4204	Restoration of 50 ha of wetland in Kimicanga			67,250			67,250	20,000	25,000	15,000	7,250	67,250	64
		4205	Restoration of 20 km of riverbank or 40 ha in Satyinski			109,100			109,100	20,000	40,000	29,100	20,000	109,100	65
		4206	Restoration of 100 ha of wetland in Murago			195,100			195,100	20,600	100,000	54,500	20,000	195,100	66
		4207	Agroforestry on 100 ha in Murago wetland area			75,000			75,000	10,000	30,000	30,000	5,000	75,000	67
		4208	Purchase 100 water tanks for Isangano and 100 for Murago			88,400			88,400	0	48,400	40,000	0	88,400	68
		4209	Removal of water hyacinth on 10 ha in Murago wetland			70,600			70,600	20,000	30,000	10,600	10,000	70,600	69
		4210	Construct and install 120 biogas systems including two cows			174,000			174,000	0	174,000	0	0	174,000	70
		4211	Building of composting basins			144,000			144,000	0	100,000	44,000	0	144,000	71
		4212	Nursery establishment for forest restoration and agroforestry in Sanza and Satinsyi respectively			72,000			72,000	50,000	12,000	10,000	0	72,000	72
		4213	Restoration of 20 ha of forests			24,000			24,000	0	14,000	10,000	0	24,000	73
		4214	Agroforestry on 200 ha in forest restoration areas			200,000			200,000	20,000	100,000	60,000	20,000	200,000	74
		4215	Nursery establishment for savanna restoration and agroforestry in Isangano			150,000			150,000	30,000	65,000	45,000	10,000	150,000	75
		4216	Restoration of 300 ha of savannas			375,000			375,000	50,000	120,000	120,000	85,000	375,000	76
		4217	Agroforestry on 200 ha in savanna restoration areas			200,000			200,000	20,000	100,000	72,000	8,000	200,000	77
		4218	Apiculture equipment			120,000			120,000	0	60,000	35,000	25,000	120,000	78
		4219	Fishing equipment in Murago and Isangano			300,000			300,000	10,000	160,000	100,000	30,000	300,000	79
		4220	Handcrafting equipment in Murago			50,594			50,594	0	30,000	20,594	0	50,594	80
		4299	**Sub-total**	96,000	72,000	2,525,244	0	0	2,693,244	368,600	1,272,600	755,794	296,250	2,693,244	
	4300		**Office rental**												
		4301													
		4399	**Sub-total**	0	0	0	0	0	0	0	0	0	0	0	
4999		**Component total**		142,800	72,000	2,525,244	0	0	2,740,044	391,400	1,284,600	765,794	298,250	2,740,044	
50	**MISCELLANEOUS COMPONENT**														
	5100		**Operation and maintenance of equipment**												

		5101													
		5199	**Sub-total**	0	0	0	0	0	0	0	0	0	0	0	
	5200		**Reporting costs**												
		5201	Inception workshop report					3,000	3,000	3,000	0	0	0	3,000	
		5202	Reporting costs		40,000				40,000	10,000	10,000	10,000	10,000	40,000	
		5299	**Sub-total**	0	40,000	0	0	3,000	43,000	13,000	10,000	10,000	10,000	43,000	
	5300		**Sundry**												
		5301	Publication	6,000					6,000	0	0	0	6,000	6,000	81
		5302	Communication for PM and M&E		22,760				22,760	5,690	5,690	5,690	5,690	22,760	
		5399	**Sub-total**	6,000	22,760	0	0	0	28,760	5,690	5,690	5,690	11,690	28,760	
	5500		**Evaluation**												
		5501	Mid-term evaluation					35,000	35,000		35,000			35,000	
		5502	Final evaluation					35,000	35,000				35,000	35,000	
		5599	**Sub-total**	0	0	0	0	70,000	70,000	0	35,000	0	35,000	70,000	
5999		**Component total**		6,000	62,760	0	0	73,000	141,760	18,690	50,690	15,690	56,690	141,760	
99	**GRAND TOTAL**			926,296	587,684	3,491,640	261,024	233,356	5,500,000	1,086,564	2,348,264	1,382,558	682,614	5,500,000	

Budget Notes

Number	Budget note
1	The international consultant will work with REMA, RAB, REB, NUR and MINEDUC to: i) identify the gaps in EbA knowledge for Rwanda (five days in country and three days at home for literature review); ii) develop 10 short-term research projects to be conducted within three years (five days in country and eight days at home); iii) encourage young scientists to work on EbA (four days in country including one day for the awareness-raising campaign); iv) provide support to select the best candidates; and v) develop the research forum (two days in country). Additionally, he/she will collaborate with the national consultant in the ecosystem health assessment to identify the ecosystems with the highest need for EbA interventions (10 days in country).
2	The national consultant will be hired to implement six activities. 1) A one-day long workshop will be organised with the actors of the NSC to validate their role in the NSC and to discuss the organisation of the first NSC meeting (Activity 1.1.1). Four days are allocated to the organisation of the meeting and one day to hold it. 2) Five days are allocated to the preparation of the training session, one day for training session itself and two days to prepare the report for this activity. Consequently, eight days are allocated to Activity 1.1.2. 3) Eight days will be necessary to prepare the training session for Activity 1.2.1 and two days for the actual training session. Five days are allocated to prepare the report. 15 days are therefore allocated to Activity 1.2.1. 4) 15 days are allocated for the preparation of the training sessions for Activity 1.2.2, including a two-day visit to each district. The training content in each province will be specific to the districts where the project are implemented. The training sessions will last for three days, with an additional three days required for travelling. Six days are allocated to the writing of the report. Therefore, a total of 29 days are allocated for Activity 1.2.2. 5) Activity 1.2.3 will start with a meeting of 10 private sector companies selected as the most likely to implement EbA technics. 10 days are allocated to the meetings. Five days will be necessary to prepare the training content. The training session will be one day long and four days will be spent on writing the meeting and training report. In total, 20 days are allocated for Activity 1.2.3. 6) Activity 1.2.4 will consist of four days of training on EbA (one per district) to local communities' representatives, NGOs and agriculture cooperatives. The training will be district-specific. The training content from Activity 1.2.2 will be adapted to the audience of this activity. Therefore, four days are allocated to the preparation of the training content. Two days will be added to the district visit of Activity 1.2.2 to meet with major NGOs, community representatives and agriculture cooperatives. Six days are allocated to the writing of the report. Therefore, 22 days are allocated to the national consultant for Activity 1.2.4.

3	4 days are allocated to the consultant to identify indigenous species suitable for the agroforestry and restoration activities of the project. He/she will then review past and current Rwandan restoration project that focus on planting these indigenous species (16 days). 18 days are allocated to producing the guidelines to plant and maintain the selected indigenous species for restoration and agroforestry in wetland, forest and savanna ecosystems respectively (6 days each).
4	1) Six days will be spent in each of the four districts to assess the use of: i) organic waste as fertilizer (3 days); and ii) biogas as a source of energy (3 days). Therefore, a total of 24 days will be spent in the field. 2) 20 days will be spent on the production of guiding documents for farmers on green technologies, containing site-specific guidelines for each district. 3) The preparation of the training sessions on each technologies will take nine days and the training sessions in the farmer field schools will take 12 days. Therefore, a total of 21 days are allocated for the training. 4) The distribution of the documents will be done by REMA.
5	8 days will be spent on a meeting with the project management team of each adaptation projects in Rwanda in Kigali, collection of all the necessary documents and identification of the best adaptation practices to promote on the website. 12 days are allocated to the improvement of the climate change portal. 15 days are allocated to development of the research forum (Activity 1.5.5).
6	30 days are allocated to collect the required information and produce the priority map in collaboration with the international consultant in EbA.
7	The same national consultant will be hired for Activities 1.4.1 to 1.4.8. 1) Three days of awareness-raising will be organised in each of the four districts where the project activities will be implemented (as part of Activity 1.4.1). Four days were added to the budget to allow for travelling time. 12 days are allocated to the preparation of the awareness raising days. This includes one day in each district to determine, in collaboration with the district, sector and cell environmental committee members, the content of the awareness-raising day in each district. 2) Primary school curricula will be reviewed and revisions will be proposed (Activity 1.4.2) to include EbA (20 days). The same will be done for secondary school curricula (20 days). 3) The programme of universities and technical colleges will be reviewed to identify entry points for any EbA module. 25 days are allocated to this review. The module on EbA will then be developed. It will be approximately a 15-hour teaching module. 30 days are allocated to the development of this module. This includes a meeting with at least 10 pre-selected universities to develop the content of the module (Activity 1.4.3). 4) Guidelines will be produced to enable the integration of EbA into the curricula of schools nationally. The proposed revisions and guidelines will then be officially presented to MINEDUC and relevant universities and schools (Activity 1.4.4). 5) Activity 1.4.5 will focus on schools near the project intervention sites. The proposed revisions to the school curricula prepared in Activity 1.4.2 will be used to train teachers, educators and trainers on EbA in at least eight schools. Approximately 12 people will be trained at each school. Five days are allocated to the preparation of the training sessions. Two-day training sessions will be organised at each school. Eight days are allocated to cover travelling time. In total, 29 days are allocated to Activity 1.4.5. 6) Activity 1.4.6 requires two days to select three schools for the implementation of the pilot school-based EbA projects. Additionally, six days are allocated in each school to develop the projects and help teachers and students to set up the project. In total 26 days are allocated to Activity 1.4.6. 7) Activity 1.4.7 will be conducted with the teachers/educators/trainers. Two days in the field will therefore be allocated in each district to develop a performance index and an award system. Five days are allocated to writing the corresponding report. 8) Activity 1.4.8 will consist of two field trips (one at the beginning of the project and one at mid-term to assess progress), one-day field trips will be organised for each school (one field trip per type of ecosystem). Therefore, two days are allocated to the consultant for each school.
8	First, the international EbA consultant will assist the national EbA consultant in identifying the entry points for EbA in Activity 2.1.1 (4 days). Second, the international consultant will assist the national EbA consultant in producing the policy recommendations to integrate EbA into environmental assessment process (Activity 2.3.5, three days). Third, the international consultant will assist the national EbA consultant in implementing Activities 2.4.1, 2.4.5 and 2.4.6 through: i) developing the policy recommendations to introduce EbA into DDPs (Activity 2.4.1, five days); ii) preparing training documents (Activity 2.4.5, five days); and iii) proposing revisions to the criteria for the award system of districts, NGOs, CBOs and individuals working in the private sector (Activity 2.4.6, five days). Five days are allocated to the writing of the mission report.
9	The International consultant will assist the national consultant in the implementation of Activities 2.3.1 to 2.3.4. He/she will support the development of the policy recommendations and training documents to integrate EbA in Rwanda development planning. 20 days are allocated to the international consultant.
10	The national consultant will work on 10 activities. 1) Four days are allocated to the review of each document (Activity 2.1.1). 2) Eight days are allocated to the production of the policy recommendations and policy briefs (Activity 2.1.2 and 2.1.3). 3) Four days are allocated to the preparation of the workshop and one day to hold the workshop (Activity 2.1.4). Three days are allocated to writing the mission report. 4) 10 days are allocated to the identification of successful activities. To do so, the national consultant will consult the project management team and review progress reports such as the mid-term review (Activity 2.2.1). 25 days are allocated to the identification of suitable replication sites. This identification includes field visits to the potential sites. 5) 18 days are allocated to the meetings with the relevant national authorities and on-site with local authorities (Activity 2.2.2). 6) 10 days are allocated to the

	investigation of financing options (Activity 2.2.3). 7) 18 days are allocated to the development of the upscaling strategy framework (Activity 2.2.4) in collaboration with FONERWA and REMA. 8) Eight days are allocated to review the DDPs in the district of intervention of the project as part of Activity 2.4.1. 20 days are allocated to the development of district-specific recommendations to integrate EbA into DDPs. These 20 days include a three-day field visit to each of the four districts. 9) Eight days will be spent on the preparation of the training material for Activity 2.4.5 and one-day training will be organised in each of the four districts. Six days will be added to the contract to cover travelling time between districts. 10) The proposed revisions to the award system (Activity 2.4.6) will be developed after consultation with the district authorities. One day will be added to the field mission organised as part of Activity 2.4.5 in each district. Eight days are allocated to the revision of the award system and to the writing of the report.
11	The national consultant will implement four activities in collaboration with an international consultant. 1) Eight days are allocated to the review of national development plans and eight days to the production of policy recommendations to integrate EbA in these documents (Activity 2.3.1). 2) Six days are allocated to the preparation of the training section and two days to holding the training session. Four days are allocated to the writing of the mission report (Activity 2.3.2). 3) Eight days are allocated to the review of sectoral development plans and eight days to the production of recommendations to integrate EbA in these documents (Activity 2.3.3). 4) Four days are allocated to the preparation of the training section and two days to holding the training session (Activity 2.3.4). Four days are allocated to the writing of the mission report.
12	The national consultant will work on Activities 2.3.5 in collaboration with the international EbA consultant. He/she will develop policy recommendations for the national SEA, EIA and EA experts to promote EbA in the assessment process. 20 days are allocated to the review of the SEA and EIA documents and production of these policy recommendations. These 20 days of work will include meetings with government authorities of corresponding sectors. One training day will be organised for the authorised EIA experts, one-day training for the SEA experts and one-day training for the EA experts (Activity 2.3.6). Three days are allocated to the organisation of each training session. Eight days are allocated to write the report.
13	The national consultant will be in charge of three activities (Activities 2.4.2 to 2.4.4). 1) He/she will have eight days to review the documents available on the state of ecosystems in the four districts and develop indicators for the state wetlands and forests in these districts. Four days will then be spent in the field at each district to develop and measure indicators of the state of wetlands and forests, and to identify the main threats to these ecosystems (Activity 2.4.2). 2) 12 days will be spent identifying problems in the implementation of policies, plans and legislations in the four districts (3 days per district, Activity 2.4.3). 3) Seven days are allocated to the production of the guidelines containing the district-specific solutions to address the shortcomings in the implementation (Activity 2.4.4). Three days are allocated to the preparation of the training documents and one day is allocated to training. Four days are allocated to write the report containing the monitoring indicators and results as well as implementation improvement (Activity 2.4.5).
14	An International EbA consultant will support the national consultants in wetland, forest and savanna restoration to prepare the restoration protocols and training material. 10 days are allocated for each type of ecosystem. These 30 days will be split into two missions.
15	An international consultant in agroforestry will provide support in the following: i) the selection of the most appropriate species to be planted at the intervention sites (10 days); ii) the development of the planting protocols (2 days); and iii) the preparation of training materials (4 days). Four days are allocated to the writing of the report.
16	An international consultant in green technologies and a national consultant will work for 15 days to select the most appropriate sites for the pilot projects and on the design of these projects. Additionally, he/she will provide support the development of the awareness campaign (2 days) and the preparation of training material (6 days). Four days are allocated to the writing of the report.
17	25 days are allocated to the identification of the best model to get funding from the private sector to fund long-term EbA projects in Rwanda. 20 days will then be spent on the development of a detailed protocol for the implementation of this model. Additionally, 15 days are allocated to the development of two community-based EbA projects suitable for private funding. Six days are allocated to the writing of the PD.
18	The national consultant will have 20 days to identify the best plant species for wetland restoration and 10 days to produce the protocols to plant them. Particular focus will be given to indigenous species. Four days are allocated to the writing of the report (Activity 3.1.2). This consultant will also be responsible for the training of local communities in restoration activities (Activity 3.1.3 and 3.1.4). 12 training days will be organised. Four days are allocated for travel and transportation. Six days are allocated to the preparation of training sessions. Last, the national consultant will organise awareness raising on the effects of water hyacinth and other damaging invasive species in wetlands. 10 days are allocated to this activity including a one-day field visit to identify the invasive species at each wetland restoration site. He/she will then train local communities on the best techniques to remove them. Three days are allocated to the organisation of training sessions and six days to hold them at each wetland restoration area (Activity 3.1.10).
19	The national consultant will work for 12 days on the identification of the best agroforestry species in each of the four intervention sites. Six days are

	allocated to the writing of the report (Activities 3.1.2, 3.2.2 and 3.3.2). Additionally, he/she will organise one training session (3 days) in each of the four intervention sites on agroforestry techniques. Three days are allocated to travelling between sites. Four days are allocated to the preparation of the training documents (Activities 3.1.8, 3.2.6 and 3.3.6).
20	The national consultant will work on four activities. 1) First, he/she will design the terraces. 15 days are allocated for the review of techniques and design. He/she will then organise three days of training of local communities on maintaining and planting on the terraces on both terraces and risers (Activity 3.1.8). Seven days are allocated to the preparation of the training material. 2) The consultant will organise six days of training on water harvesting techniques. 10 days are allocated to the preparation of the training documents and training days (Activity 3.1.9). 3) 10 days are allocated to the selection of the best rainwater management techniques for Activity 3.3.7 (this includes a field visit). Five days is allocated to the preparation of the training material and four days to the actual training. 4) 10 days are allocated to the selection of the appropriate pilot sites in Murago and Sanza, and best methods to reduce evaporation in Murago and Isangano. Five days will be spent on developing the training material. Five days of training will be provided to small groups of farmers (Activity 3.3.8).
21	The national consultant will be supported by an international specialist to implement six activities. The national consultant will also collaborate with the national consultant hired under Component 1 to conduct the Activities 1.3.2 to 1.3.4. 1) two days of awareness raising will be organised in each of the three sites for wetland restoration. Six days are allocated to the preparation of the awareness-raising material (Activity 3.1.11). 2) 20 days are allocated to the design of the pilot activities including site visits (e.g. selection of the sites and material). 16 days of training will be provided on the use of biogas digesters. Six days are allocated to the preparation of the training material (Activities 3.1.12, 3.2.7 and 3.3.9). 3) 10 days are allocated for the design of the pilot activities (e.g. selection of the sites and material). 10 days of training will be organised on the use of organic compost. Six days are allocated to the preparation of the training material. Six days are allocated to travelling (Activity 3.1.13).
22	The national consultant will have 20 days to identify the best plant species for forest restoration and 10 days to produce the protocols to plant them. Particular focus will be given to indigenous species. Four days are allocated to the writing of the report (Activity 3.2.2). This consultant will also be responsible for the training of local communities in restoration activities (Activity 3.2.3 and 3.2.4). Three days of training will be organised. One day is allocated to travelling. Three days are allocated to the preparation of the training sessions.
23	The national consultant will have 20 days to identify the best plant species for savanna restoration and 10 days to produce the protocols to plant them. Particular focus will be given to indigenous species. Four days are allocated to the writing of the report (Activity 3.3.2). This consultant will also be responsible for the training of local communities in restoration activities (Activity 3.3.3 and 3.3.4). Three days of training will be organised. One day are allocated for travel time. Three days are allocated to the preparation of the training sessions. Last, the consultant will have five days to review the institutional framework of the environment clubs with the local authorities, five days to propose an improve system and one day to hold a workshop to present the new system to the local authorities.
24	The national consultant will review other projects such as PEI to develop the best payment system to implement the activities under Component 3. Eight days are allocated to the review and meetings with other projects. Two days will be spent in each of the four sites to meet with local authorities. A one-day workshop with the local communities will also be held. Four days are allocated to travel. 15 days will be spent on the development of the selected system with relevant financial institutions. Additionally, 25 days are allocated to the development of a knowledge-sharing system between the local communities in the intervention sites.
25	The national consultant will investigate the occurrence of apiculture activities in Sanza, Isangano and Murago, and techniques that are used. Part of this investigation will be identifying the effects of bee-keeping in these areas. 20 days are allocated to this activity. He/she will then select the pilot sites and equipment needed (10 days). 10 training days will be organised at each intervention site. Five days are allocated to write the report. This training will focus on the following: i) best apiculture practices; and ii) the use of the new material.
26	The national consultant will investigate the occurrence of fishing activities in Murago wetland and Isangano area, and techniques that are used. Additionally, the effects of these fishing techniques on the wetland will be investigated. 10 days are allocated to this activity. He/she will then select the pilot sites and the equipment needed (10 days). 12 training days on the best fishing practices and use of the new material will be organised. Four days are allocated to the writing of the report.
27	The national consultant will investigate handcrafting activities in Isangano and Murago, and the techniques that are used. He/she will then identify the best species for handcrafting and collaborate with the relevant national consultants to include them into the restoration protocols. 20 days are allocated to this activity. He/she will then select the necessary equipment for the sustainable exploitation of these species (10 days). Six days of training at each intervention site on the best handcrafting practices and use of the new material will be organised. Eight days will be allocated to the production of a detailed plan to

	market these products for each of the three sites. This will be presented during a workshop with the district authorities and community representatives in the districts. Four days are allocated to the writing of the report.
28	The national consultant will have 20 days to select the most appropriate ecotourism project. 15 days will then be spent on developing a detailed project document to develop a community-based project in Sanza. Two days of workshop will then be organised with the district authorities and community representatives to present the project. Four days are allocated to the preparation of the workshop. Four days are allocated to writing the report of the mission.
29	EIAs will be conducted for the activities when necessary, it will therefore take place in the four districts were the activities will be conducted. The budget allocated is US $25,000 per district.
30	MoU will be signed with a private company to build the terraces. US $392 are allocated per hectare for progressive terraces and US $2,480 for radical terraces. At least 200 hectares of terraces will be built by the project to increase agriculture productivity and reduce erosion.
31	At least 10 short-term research projects will be conducted. Similarly to the framework used by the LAFREC project, the technical staff selected to conduct these studies will receive a US $30,000 funding per one-year study. Part of the duties of the technical staff will be to: i) present their results to the relevant stakeholders (Activity 1.5.4); ii) participate to the creation of the research forum (Activity 1.5.5); iii) contribute to the development of the awareness-raising campaign for young scientists (Activity 1.5.6); and iv) propose revisions of the training/education content of Outputs 1.3 and 1.4 according to their research outcomes (Activity 1.5.7).
32	Two-day awareness raising will be organised in each wetland restoration site.
33	A one-day long training session will be organised to present the effects of EbA on resilience to climate change and discuss the cross-cutting nature of EbA to address the main issues of the three Rio conventions. 60 participants are expected for this meeting. US $5,500 are allocated to the workshop for the meals, the venue, the transportation and accommodation.
34	2 days of training will be organised in Kigali with the DEO, DFO and DEF, and other relevant stakeholders of each district. Approximately 60 participants are expected. Transportation will be necessary for all participants. The budget is US $8,500 for this event.
35	The districts where the project activities will be implemented are close to the capital cities of the province namely Rwamagana, Kigali and Kibuye. Therefore, one-day training sessions will be organised in the capital cities of the three provinces. The members of the environmental committees at the province (7 members), district (9 members), sector (8 members) and cell level (8 members) will be invited to the meeting. Representatives from three province committees, four district committees, at least five sector committees and at least six cell committees are expected. All committee members will be invited, but approximately half of them are expected. With four members from each committee, 72 participants are expected. A budget of US $5,500 is allocated for the transport of all participants, the venue and the meal for each training day.
36	The main private companies that are contracted by the government to implement environment projects will be trained. 70 participants are expected in each sector. US $7,000 are allocated to this activity.
37	A one-day training will be organised in each district. Approximately 80 participants will be expected in each district. The training session will be implemented in the capital of the districts. A budget of US $5,000 is allocated for the following: i) transport of all participants, ii) venue; and iii) meals for each training day.
38	Three days of training will be held in each of the four districts. Approximately 30 participants are expected in each district. US $3,000 are allocated per day of training for transport, food and one trainer in addition to the national consultant. For 12 days, the budget is US $36,000. 25 participants are expected for each district.
39	US $800 are allocated to each training day to cover for food and transport. 25 participants are expected for each district.
40	US $5000 are allocated for the organisation of the six days of training to cover material and potential transport costs. 25 participants are expected for each district.
41	US $2000 are allocated to each field trip to cover for transport and food.
42	60 participants are expected each day. US $5,000 are allocated to each training day for the following: i) meals; ii) venue; and iii) transportation.
43	Two-day workshops will be organised to develop the upscaling strategy (Activity 2.2.4). US $3,000 are allocated to each workshop.
44	40 participants are expected to this training session. US $3,000 are allocated to organise the training day for the meals, the venue and the transportation.
45	50 participants are expected for this training session. US $4,000 are allocated to organise each training day for the following: i) meals; ii) venue; and iii) transportation.

46	1 training-day will be organised in Kigali for the authorised EIA, SEA and EA experts respectively. 60 participants are expected for each day. US $4,000 are allocated to each training day for the following: i) meals; ii) venue and; iii) transportation.
47	1 training day will be organised in each district. Approximately 25 participants are expected to attend the workshop. The budget allocated for each day of training is US $3,000.
48	A workshop will be organised with local communities to set up a community-based management system with local communities (3 workshops for the wetland restoration nurseries).
49	Three training days will be organised in each of the three wetland restoration sites including one day to establish each nursery and two days to explain the restoration techniques through planting first generation of trees. 80 people are expected for each training day. US $2,000 are allocated to each training day.
50	US $6,000 is allocated to the training session.
51	Six days of training will be organised in Murago with small groups of farmers on water harvesting techniques.
52	Six days will be organised with local communities to train them on how to recognize, remove and use water hyacinth.
53	Three days of training on the use of organic compost will be provided in each wetland restoration sites.
54	One training day on the use of biogas digesters will be organise per group of 10 users.
55	60 participants are expected for this meeting. US $8,500 is allocated to the workshop for the following: i) meals; ii) venue; iii) accommodation; and iv) transportation.
56	The two first NSC meetings will be organised. They will both be day-long meetings. 60 participants are expected for this meeting. US $8,500 is allocated to each meeting for the following: i) meals; ii) venue; iii) accommodation and; iv) transportation.
57	3 days of awareness-raising will be organised in each of the four districts where the project activities will be implemented. Approximately 90 people are expected for each day. US $3,000 have been allocated for the organisation of each awareness-raising day.
58	US $500 has been allocated for the organisation of a one-day workshop to develop the system to host the research projects.
59	As part of their contract, the technical staff conducting the research projects will present their findings at a conference with the management team of the baseline, partner projects and other relevant staff of MINIRENA. These conferences –where approximately 70 participants are expected – have an allocated budget of US $4,000.
60	US $5,000 has been allocated to the organisation of the awareness-raising campaign in Kigali for Master students for venue rental and meals.
61	A budget of US $8,000 is allocated per project/per year for three years. This includes the budget to purchase tools (e.g. spades, wheelbarrow) and material (e.g. fencing, educative signs, and pamphlets).
62	The preference of the executing agency is to rent vehicles to avoid having to maintain them. Renting a vehicle all included (e.g. driver and insurance) costs between US $85 and US $103. This price will vary according to the model of the vehicle. Therefore, a total of US $18,000 is allocated per year for motor vehicle rental.
63	An average of US $380 per hectare have been allocated to the purchase of seedling and building of nurseries for wetland restoration and agroforestry development.
64	US $1,345 have been allocated per hectare for the restoration of Kimicanga wetland.
65	US $5,455 have been allocated per hectare for the restoration of Satinsyi riverbanks.
66	US $1,951 have been allocated per hectare for the restoration of Murago wetland.
67	US $750 per hectares are allocated per hectare for the development of agroforestry on progressive terraces in Muraqo.
68	3,000-litre tanks will be provided to 200 households. The cost per unit is US $442.
69	The actual costs of hyacinth removal is US $3,530 per hectares according to the partner project "Rehabilitation of Cyohoha lake".
70	5-cubic meter biogas digesters have a cost per unit of US $880. 40 biogas digester will be provided in Sanza, 40 in Isangano and 40 in Murago. The households will participate 20% of this cost. Therefore, US $706 are allocated per biodigester. Additionally, two cows will be provided with each biodigester. US$ 370 are allocated for each cow. When biogas cannot be used, this budget will be allocated to the purchasing of improved cook stoves.
71	40 composting basins will be built in Murago and 40 in Satinsyi. US $1,800 are allocated to building one unit.
72	1,500 trees will be planted per hectare of forest. A mortality rate of 40% is accounted for. Therefore, 2,200 seedlings will be planted in nurseries for each hectare of restored forest. An average of US $600 per hectare are allocated to purchase the seeds and build the nurseries for forest restoration and agroforestry in Sanza area.

73	US $1,200 per hectare are allocated for forest restoration in Sanza.
74	US $1,000 are allocated to the development of agroforestry in forest restoration area.
75	An average of US $300 per hectare are allocated to purchase the seeds and build the nurseries for savanna restoration and agroforestry in Isanagano savanna.
76	US $1,250 per hectare are allocated for forest restoration in Sanza.
77	US $1000 are allocated to the development of agroforestry in forest restoration area.
78	US $40,000 are allocated to the development of bee-keeping in pilot sites in Sanza, Isangano and Murago respectively. This price includes the following: i) hives; ii) protection clothes; and iii) extracting tools.
79	US $150,000 are allocated to the development of fishing activities in pilot sites in Isangano and Murago. This price includes fishing material (e.g. fish cages) and storage infrastructures.
80	This cost of US $50,594will support the development of handcrafting associations including purchasing tools, treatment products and storage infrastructure.
81	The budget allocated for the publication of scientific papers is US $6,000 to cover the costs for editing and journal fees.

ANNEX G: MONITORING AND EVALUATION BUDGET AND WORKPLAN

Output	Activity	Annual breakdown				Quarterly breakdown															
						Year 1				Year 2				Year 3				Year 4			
		Year 1	Year 2	Year 3	Year 4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Outcome 1:																					
Output 1.1	1.1.1																				
	1.1.2																				
	1.1.3																				
Output 1.2	1.2.1																				
	1.2.2																				
	1.2.3																				
	1.2.4																				
Output 1.3	1.3.1																				
	1.3.2																				
	1.3.3																				
	1.3.4																				
	1.3.5																				
	1.3.6																				
Output 1.4	1.4.1																				
	1.4.2																				
	1.4.3																				
	1.4.4																				
	1.4.5																				
	1.4.6																				
	1.4.7																				
	1.4.8																				
Output 1.5	1.5.1																				
	1.5.2																				
	1.5.3																				
	1.5.4																				
	1.5.5																				
	1.5.6																				
	1.5.7																				
Outcome 2:																					
Output 2.1	2.1.1																				
	2.1.2																				
	2.1.3																				

Output	Activity	Annual breakdown				Quarterly breakdown															
	2.1.4																				
Output 2.2	2.2.1																				
	2.2.2																				
	2.2.3																				
	2.2.4																				
Output 2.3	2.3.1																				
	2.3.2																				
	2.3.3																				
	2.3.4																				
	2.3.5																				
	2.3.6																				
Output 2.4	2.4.1																				
	2.4.2																				
	2.4.3																				
	2.4.4																				
	2.4.5																				
	2.4.6																				
Outcome 3:																					
Output 3.1	3.1.1																				
	3.1.2																				
	3.1.3																				
	3.1.4																				
	3.1.5																				
	3.1.6																				
	3.1.7																				
	3.1.8																				
	3.1.9																				
	3.1.10																				
	3.1.11																				
	3.1.12																				
	3.1.13																				
Output 3.2	3.2.1																				
	3.2.2																				
	3.2.3																				
	3.2.4																				
	3.2.5																				

Output	Activity	Annual breakdown				Quarterly breakdown															
	3.2.6																				
	3.2.7																				
Output 3.3	3.3.1																				
	3.3.2																				
	3.3.3																				
	3.3.4																				
	3.3.5																				
	3.3.6																				
	3.3.7																				
	3.3.8																				
	3.3.9																				
	3.3.10																				
Output 3.4	3.4.1																				
	3.4.2																				
	3.4.3																				
	3.4.4																				
	3.4.5																				
	3.4.6																				
	3.4.7																				
	3.4.8																				

ANNEX H: PROJECT IMPLEMENTATION ARRANGEMENTS

1. The proposed project will be implemented over a period of four years according to the workplan (see Appendix 4). Following the CEO endorsement, the project will begin with the process of hiring project staff shortly after internalisation. Implementation will be informed by lessons learned from the LDCF 1 project. During the inception phase of the implementation period, the following activities will be conducted: i) the inception workshop (which ensures that all existing and new stakeholders are briefed on the project and that a detailed workplan is developed in a participatory manner) will be held; ii) the EIA and the SEA will be conducted according to national legislation to ensure that none of the activities proposed in the project will have detrimental effects on the environment; iii) the baseline study will take place to measure the baseline of the indicators selected for project outputs and AMAT[39]; and v) additional project stakeholders will be identified and engaged with.

2. UNEP will be the Implementing Agency (IA) for the proposed project and will oversee the project, and provide the technical assistance required to meet the project goal (see details of UNEP's comparative advantage in Appendix 12). Therefore, UNEP will be responsible for project supervision to ensure consistency with GEF and UNEP policies and procedures. This supervision will be the responsibility of the Task Manager (TM), which will be appointed by UNEP. The UNEP TM will formally participate in the following: i) Project Steering Committee (PSC) meetings (at least once a year); ii) the mid-term and final evaluations; iii) the clearance of half-yearly and annual reports; and iv) the technical review of project outputs.

Management Structure

The management structure of the proposed project is presented in Figure 9. This will comprise: i) Project Steering Committee (PSC); ii) Project Manager; iii) Monitoring and Evaluation (M&E) specialist; iv) Field Officers; v) Project Officer; vi) Procurement Specialist; vii) Accountant; and viii) Technical Unit (e.g. national and international consultants). The roles of each component of the management structure are detailed in Appendix 13.

The mandate of the PSC will include: i) overseeing project implementation; and ii) reviewing annual workplans and project reports. All decisions taken by the PSC will be communicated to the PMU. The PSC will include representatives from REMA, RNRA, MINIRENA, MINAGRI, MINECOFIN, MIDIMAR, and district and provincial authorities. The representative of REMA will chair the PSC, which will meet twice a year, with *ad hoc* meetings held when necessary to discuss project main performance indicators and provide future guidance. At the discretion of the PSC, members of relevant implementing NGOs, as well as community leaders, will be invited to participate to the PSC to ensure local ownership and guidance for the project.

REMA with be the National Executing Agency (NEA). A full-time Project Manager (PM) will be hired by REMA to lead the PMU and execute the day-to-day management of the project. He/she will operate in a transparent and effective manner in line with all budgets and workplans. In addition, the PM will provide regular updates on a monthly basis (at the minimum) to the UNEP Task Manager (UNEP TM) and the Chief Technical Advisor (CTA) on the progress and challenges encountered on the ground during the execution of activities. In particular, the PM will: i) lead the planning and implementation of the project; ii) provide on-the-ground information for UNEP progress reports; iii) engage with stakeholders; iv) organise the PSC meetings; v) provide technical support to the project, including measures to address challenges to project implementation; vi) manage the project budget and resource allocation; and vii) participate in training activities, report writing and facilitation of consultant activities that are relevant to his/her area of expertise. The PM will be supported in the project implementation by an M&E specialist whose duties will include: i) establishing and managing a performance monitoring framework; and ii) supervising the field officers in each of the three main intervention areas. As part of his/her responsibilities, the M&E specialist will oversee and monitor the application of gender-disaggregated indicators. The role of the field officers will include: i) the timely execution of activities and achievement of expected deliverables; ii) dialogue between stakeholders

[39] The baseline study conducted for the AAP and LDCF 1 projects will be used to design the baseline study of the proposed projects (Gbetiboua, G. & Mills, A.J. 2012. Baseline information and indicators for the Rwanda AAP and LDCF projects. C4 Ecosolutions. Cape town, South Africa).

particularly at a local level; and iii) participation of local communities in project activities. To achieve this, the field officers will be required to visit the intervention sites regularly. The field officers will also work in close collaboration with the PM (see Appendix 13). The PMU members will be responsible for monitoring and reviewing gender sensitivity in the training activities.

A project officer, a procurement specialist, an accountant and an internal auditor will form a project management unit and be responsible for the logistical and administrative part of the project. The project officer will help the project staff with technical, logistical and administrative matters. The procurement specialist will be responsible for the development of the required procurement plans to implement the project activities. The accountant will handle the accounts of the project. The internal auditor will conduct regular inspections of the project accounts and expenditures. An accountant specialist has already been hired by LVEMP and procurement specialist has been hired by LAFREC. These two specialists will be responsible for LVEMP, LAFREC and the proposed project. A salary for these two positions has therefore not been budgeted. However, the internal auditor will be hired by the proposed project and be responsible for auditing the proposed project as well as LVEMP and LAFREC.

Consultants will be hired for specific tasks that cannot be carried out by government staff. International technical assistance will be sourced for specialised tasks only when national capacity is insufficient. However, to increase technical capacity in Rwanda, national consultants will benefit from the support of an international expert when deemed necessary. International consultants will be selected with the assistance of UNEP structures and in conjunction with the PM. Consultant descriptions are included in the budget notes (see Appendix 1). UNEP will participate in the review of consultant ToRs. ToRs for project staff are presented in Appendix 13. REMA will contribute office space in the selected intervention areas of the proposed project.

Budget disbursement will be managed by UNEP to facilitate timely expenditure, disbursement and transparency. Financial reports will be prepared quarterly based on the UNEP's Integrated Management Information System (IMIS), and will be made available to REMA and other members of the PSC for review.

The proposed project manager will meet the baseline project managers twice a year or more frequently if necessary. These meetings will include the project coordinators of all baseline projects. The focus will be on sharing lessons learned. Such meetings will also help avoid duplication of activities.

The project management team will use the GoR transport framework to go to the field. The project will also hire drivers to assist with transport, as well as an administrative assistant to provide support to the entire management. Procurement of services, goods and works of the proposed project will follow the national procurement regulations.

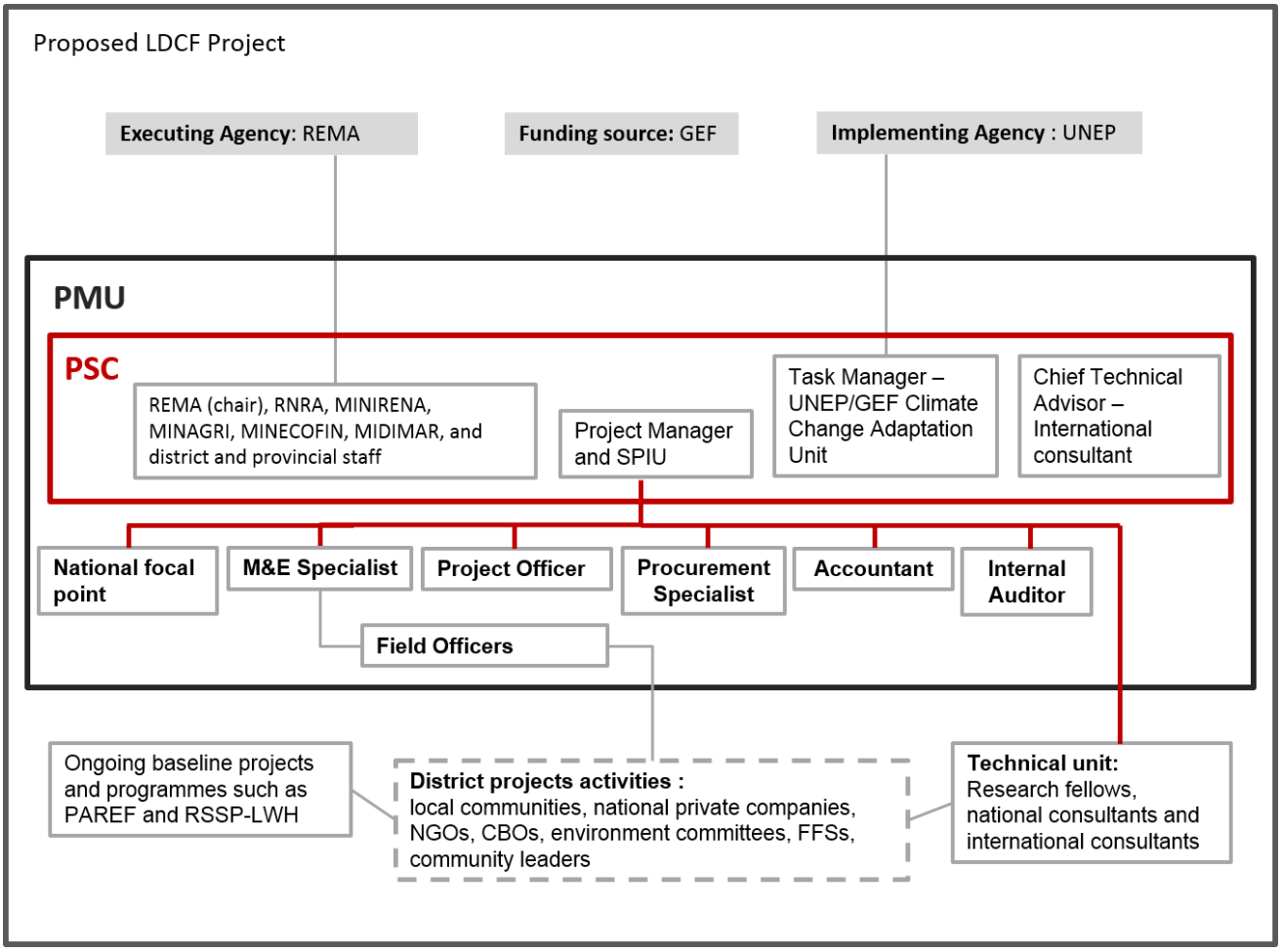


Figure 1. Organogram of the project management structure.

ANNEX I: KEY DELIVERABLE AND BENCHMARKS

See Annex 1 (Results Framework) and Annex G (Monitoring and Evaluation budget and workplan).

ANNEX J: TRACKING TOOLS

Outcome and Output Indicators	Metric	Target at CEO Endorsement	Baseline
Objective 1: Reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional and global level			
Outcome 1.2: Reduced vulnerability in development sectors			
Indicator 1.2.10 % change in income generation in targeted area given existing and projected climate change	% change in income (US $)	25%	0% change
Output 1.2.1: Vulnerable physical, natural and social assets strengthened in response to climate change impacts, including variability			
Indicator 1.2.1.3 Climate resilient agricultural practices introduced to promote food security	Type and level:		
	Agroforestry nurseries (units)	6	0
	Terraces (ha)	400	200
Outcome 1.3: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas			
Indicator 1.3.1 Households and communities have more secure access to livelihood assets	Score - Disaggregated by gender. Score for this indicator will have to be assigned based on the results of a conducted survey. The score ranges from 1 to 5 and below are the explanations of the rankings: 1. No access to livelihood assets; 2. Poor access to livelihood assets; 3. Moderated access to livelihood resources; 4. Secure access to livelihood resources; 5. Very secure access to livelihood resources.	Female: 4	Female: 2
		Male: 4	Male: 2
Output 1.3.1: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability			
Indicator 1.3.1.1 % of targeted households that have adopted resilient livelihoods under existing and projected climate change	%	50%	0 targeted households
Objective 2: Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level			
Outcome 2.2: Strengthened adaptive capacity to reduce risks to climate-induced economic losses			
Indicator 2.2.1 No. and type of targeted institutions with increased adaptive capacity to reduce risks of and response to climate variability	Number and type:		
	Government institutions	5	1
	NGOs	8	0
	Community groups	12	0
Output 2.2.1: Adaptive capacity of national and regional centers and networks strengthened to rapidly respond to extreme weather events			
Indicator 2.2.1.1 No. of staff trained on technical adaptation themes (disaggregated by gender). Themes: - Monitoring/Forecasting capacity (Early Warning System (EWS), Vulnerability mapping system) - Policy reform -Capacity development Sustainable forest management - Agriculture diversification - Improved resilience of agricultural systems - Strengthening infrastructure	Theme:		
	Improved resilience of agricultural systems	Female: 80	Female: 500
		Male: 150	Male: 550
	Erosion control/Soil water conservation	Female: 80	Female: 500
		Male: 150	Male: 550

- Supporting livelihoods - Mangrove reforestation - Coastal drainage/irrigation system - Community-based adaptation - Erosion control/soil water conservation - Microfinance - Special Programs for women - Livelihoods - Water storage - Information and communication technologies (ICT) and information dissemination - Other			
Objective 3: Promote transfer and adoption of adaptation technology			
Outcome 3.2: Enhanced enabling environment to support adaptation-related technology transfer			
Indicator 3.2.2 Strengthened capacity to transfer appropriate adaptation technologies	Score (1-3) disaggregated by gender: 1. No capacity achieved (< 50% correct) 2. Moderate capacity achieved (50-75%) 3. High capacity achieved (>75% correct)	Female: 3 Male: 3	Female: 2 Male: 2
Output 3.2.1: Skills increased for relevant individuals in transfer of adaptation technology			
Indicator 3.2.1.1 No. of individuals trained in adaptation-related technologies	Number of individuals disaggregated by gender	Female: 1120 Male: 1680	Female: 100 Male: 130

ANNEX K: OFP ENDORSEMENT LETTER

REPUBLIC OF RWANDA

Kigali, on 19 OCT 2012
N°...1323.../DG/2012

RWANDA ENVIRONMENT
MANAGEMENT AUTHORITY (REMA)
P.O.BOX 7436 KACYIRU/KIGALI
TEL: 0252 580101

Mrs Maryam Niamir-Fuller
Director, GEF Coordination Office,
United Nations Environment Programme
P.O BOX 30552-00100
Nairobi, Kenya
E-mail: maryam.niamir-fuller@unep.org

Subject : **Endorsement for Building Resilience of Communities Living nearby Degraded Forests, Savannahs and Wetlands of Rwanda through an Ecosystem Management Approach.**

Dear Madam,

In my capacity as GEF Operational Focal Point for Rwanda, I confirm that the above project proposal (a) is in accordance with my Government's national priorities including the priorities identified in the National Adaptation Plan of Action of Rwanda and our commitment to the relevant global environmental conventions; and (b) was discussed with relevant stakeholders, including the global environment conventions focal points.

I am pleased to endorse the preparation of the above project proposal with the support of the GEF Agencies listed below. If approved, the proposal will be prepared and implemented by UNEP. I request the GEF Agencies to provide a copy of the project document before it is submitted to the GEF Secretariat for CEO endorsement.

The total financing (from GEFTF, LDCF and/or SCCF) being requested for this project is US$6,160,000, inclusive of project preparation grant (PPG), if any, and Agency fees for project cycle management services associated with the total GEF grant.

The financing requested for Rwanda is detailed in the table below:

Source of Funds	GEF Agency	Focal Area	Amount (in US$)			
			Project Preparation	Project	Fee	Total
LDCF	UNEP	CC	100, 000	5,500,000	560,000	6,160,000
(Select)	(Select)	(Select)				0
(Select)	(Select)	(Select)				0
(Select)	(Select)	(Select)				0
Total GEF Resources			**100,000**	**5,500,000**	**560,000**	**6,160,000**

Sincerely,

Dr. Rose MUKANKOMEJE
Director General of REMA and
GEF Operational Focal Point

CC:
UNFCCC Focal Point
KIGALI

ANNEX L: COFINANCING COMMITMENT LETTERS FROM PROJECT PARTNERS

REPUBLIC OF RWANDA

Kigali, on.....2..4 APR 2014.....
N°1884/**16.03/RNRA/PAREF NL2**

RWANDA NATURAL RESOURCES AUTHORITY
P.O.BOX: 433 KIGALI

Dr. Naoko Ishii
CEO & Chairperson
Global Environment Facility
1818 H Street, NW
Washington DC 20433, USA
Email: nishii@thegef.org

Dear Sir,

RE: Rwanda Natural Resource Authority co-financing commitment to the GEF LDCF project entitled "Building resilience of communities living in degraded forests, savannahs and wetlands of Rwanda through an ecosystem management approach."

The Rwanda Natural Resources Authority (RNRA) is the executing agency for Project d'Appui à la Reforestation au Rwanda (PAREF) project: *PAREF-Netherlands* and the objectives of that project are the following:

i) build capacity within the forestry sector; ii) improve forest management; iii) increase afforestation; and iv) develop agro-forestry.PAREF focused on the sectors of the eastern, northern and western Provinces. Its activities includes: i) training national authorities on afforestation and forest resource management; ii) training local authorities on afforestation and forest resource management; iii) training private sector operators on afforestation and forest resource management; iv) developing legislation, decision-making and communication tools; v) applying above tools at local level; vi) strengthening operational capacities at national level; vii) strengthening operational capacities at local level; viii) forest management; ix) afforestation; and x) agro forestry.

Therefore, the LDCF project will not only benefit from lessons learned and technical knowledge of PAREF but also it will provide complementary knowledge to restore climate-resilient forests.

Indeed, PAREF is well-aligned with and support the GEF LDCF project entitled *"Building resilience of communities living in degraded forests, savannahs and wetlands of Rwanda through an ecosystem management approach"* which

intends to strengthen rural communities' resilience to climate change, particularly floods and droughts in Rwanda.

This letter serves to confirm the Rwanda Natural Resources Authority's investment in PAREF project will amount to a co financing support of **Two million three hundred and five thousand US Dollars (2,305,000) US$** to the GEF LDCF project over the period of 2015-2018. This collaboration will provide mutual benefits for PAREF and the GEF LDCF project.

We look forward to your continuing cooperation.

Yours sincerely,

Dr. NKURUNZIZA Emmanuel
Director General
Rwanda natural resources Authority

Cc:

- Permanent Secretary of MINIRENA
- Director General of REMA
- Deputy Director General in Charge of Forestry and Nature Conservation/RNRA
- Director of Intervention/ PAREF NL 2 Project

REPUBLIC OF RWANDA

MINISTRY OF AGRICULTURE AND ANIMAL RESOURCES

MINISTERE DE L'AGRICULTURE ET DES RESSOURCES ANIMALES

OFFICE OF THE PERMANENT SECRETARY

Kigali 25 APR 2014

Ref: 0729/11.80

Dr. Naoko Ishii
CEO & Chairperson
Global Environment Facility
1818 H Street, NW
Washington DC 20433, USA
Email: nishii@thegef.org

Subject: **Co-financing commitment to the GEF LDCF project entitled "Building resilience of communities living in degraded forests, savannahs and wetlands of Rwanda through an ecosystem management approach."**

The Ministry of Agriculture and Animal Resources (MINAGRI) is responsible for initiating, developing, and managing suitable programs of transformation and modernization of agriculture and livestock to ensure food security and to contribute to the national economy. MINAGRI is the executing agency for the following projects:

- *Land Husbandry, Water Harvesting and Hillside Irrigation Project (LWH)* which seeks to introduce sustainable land husbandry at selected sites and develop hillside irrigation areas within selected sites. The activities of this project also include: i) strengthening farmer organisations; ii) provide extension services; iii) marketing and rural finance; and, iv) capacity development and institutional strengthening.

- *Rural Sector Support Project (RSSP)* which seeks to increase the agricultural productivity of organised farmers in the marshlands and hillsides of sub-watersheds for development in an environmentally sustainable manner; and strengthening the participation of women and men beneficiaries in market-based value chains. The activities of this project include the rehabilitation and development of irrigation schemes in marshlands, sustainable development of surrounding hillsides and commodity chain development.

Therefore, the proposed LDCF project will not only benefit from strengthened farmer organisations that will facilitate the implementation of the training sessions from LWH but also it will increase the technical capacity of provincial, district, sector and cell authorities in implementing restoration activities and agricultural techniques that are climate resilient. Indeed, the proposed LDCF project will benefit from the lesson learned and technical knowledge of RSSP

P.O BOX 621 KIGALI Tel: 584644, 585057 Fax: 584644, 585057

in sustainable land management on hillsides; and increase the national capacity to implement restoration activities and agricultural techniques that are climate resilient.

LWH and RSSP are well-aligned with and support the GEF LDCF project entitled "*Building resilience of communities living in degraded forests, savannahs and wetlands of Rwanda through an ecosystem management approach*" which intends to strengthen rural communities' resilience to climate change, particularly floods, droughts and landslides in Rwanda.

This letter serves to confirm the Ministry of Agriculture and Animal Resources's co-financing support of **six million five hundred forty three thousand US Dollars (6,543,000 US$)** from LWH project and **three hundred ninety six thousand US Dollars (396,000 US$)** from RSSP project, which will finance land-husbandry development activities to be implemented in LWH and RSSP sites during the period of 2015-2018. This collaboration will provide mutual benefits for LWH, RSSP and the GEF LDCF project.

We look forward to continued cooperation.

Sincerely,

Tony R. NSANGANIRA
Permanent Secretary

Cc:
- The Hon. Minister, MINAGRI
- The Hon. Minister, MINIRENA
- The Permanent Secretary, MINIRENA
- The Director General, REMA
- The Coordinator, SPIU LWH-RSSP

P.O BOX 621 KIGALI Tel: 584644, 585057 Fax: 584644, 585057

ANNEX M: ENVIRONMENTAL AND SOCIAL SAFEGUARDS CHECKLIST

Note that as part of the GEFs evolving Fiduciary Standards, Implementing Agencies are required to address "Environmental and Social Safeguards".

To address this requirement, UNEP-DGEF has developed a checklist and has supplied the following guidance:

1. The checklist must be filled in initially during concept development to help guide the identification of possible risks and activities that will need to be included in the project design.
2. A completed checklist must accompany the PIF.
3. The checklist must be reviewed during the PPG phase and updated as required.
4. The final checklist must be submitted with the Project Package and must clearly show which activities are being undertaken to address the issues identified

Project Title:	***Building resilience of communities living in degraded forests, savannas and wetlands of Rwanda through an ecosystem management approach.***		
GEF project ID and UNEP ID/IMIS Number:	**GEF Agency Project ID: UNEP ID: 00970**	***Version of checklist:***	**One**
Project status (preparation, implementation, MTE/MTR, TE):	***Preparation***	***Date of this version:***	***April 2015***
Checklist prepared by (Name, Title, and Institution):	*Nina Raasakka, Task Manager, GEF Climate Change Unit, DEPI, UNEP*		

In completing the checklist, both short- and long-term impacts shall be considered.

Section A: Project location:

If a negative impact is identified or anticipated, the Comment/explanation field needs to include: i) the stage of the proposed project in which the problem will be addressed; ii) who is responsible for addressing the issue; iii) budget implications of addressing the problem; and iv) other comments.

	Yes/No/N. A.	*Comment/explanation*
- Is the project area in or close to -		
- densely populated area	No	Rwanda is the most densely populated country in Africa. Despite that, most of the project interventions will be undertaken in rural areas, they are still considered as taking place in a densely populated area. Furthermore, some interventions will occur close to Kigali city. No negative environmental or social impacts associated with working in densely populated areas are anticipated during project implementation. Monitoring and evaluation will be undertaken during the standard M&E periods. However, the specific focus of the activities is to improve the resilience of local communities to climate change. Additionally, on-the-ground activities will implemented for and by the communities.
- cultural heritage site	No	
- protected area	No	Forest restoration interventions will be conducted in Sanza Forest during the implementation phase. The forest is

		located 22 km from Mukura native forest that is protected. The project interventions will increase the habitat that birds and mammals may migrate to from nearby protected areas.
- wetland	Yes	The LDCF project will build resilience of local communities living in wetlands using an EbA approach during the implementation phase. Consequently, no negative effects on wetland areas are expected.
- mangrove	No	
- estuarine	No	
- buffer zone of protected area	No	
- special area for protection of biodiversity	No	
- Will project require temporary or permanent support facilities?	No	
If the project is anticipated to impact any of the above areas, an Environmental Survey will be needed to determine if the project is in conflict with the protection of the area or if it will cause significant disturbance to the area.		

Section B: Environmental impacts,

If a negative impact is identified or anticipated, the Comment/explanation field needs to include: i) the stage of the proposed project in which the problem will be addressed; ii) who is responsible for addressing the issue; iii) budget implications of addressing the problem; and iv) other comments.

	Yes/No/N. A.	*Comment/explanation*
- Are ecosystems related to project fragile or degraded?	Yes	The LDCF project will restore – and build the resilience of – degraded ecosystems using an EbA approach during the implementation phase. Note that the degradation of the wetland and forest ecosystems where the project activities will be implemented is human induced.
- Will project cause any loss of precious ecology, ecological, and economic functions due to construction of infrastructure?	No	No infrastructure construction is planned.
- Will project cause impairment of ecological opportunities?	No	Ecological opportunities will be increased.
- Will project cause increase in peak and flood flows? (including from temporary or permanent waste waters)	No	The resilience of local communities to floods will be increased.
- Will project cause air, soil or water pollution?	No	No pollution will be generated by the project activities.
- Will project cause soil erosion and siltation?	No	Soil stability and water infiltration will be enhanced by planting trees in the project areas, thereby reducing erosion and sedimentation.
- Will project cause increased waste production?	No	No increase in waste production will result.

- Will project cause hazardous waste production?	No	No hazardous waste will be generated.
- Will project cause threat to local ecosystems due to invasive species?	No	The project will focus on the control of invasive species. It will promote: i) removing water hyacinth in wetlands; and ii) planting indigenous tree species instead of exotic tree species.
- Will project cause greenhouse gas emissions?	No	Project activities are likely to reduce the atmospheric concentration of greenhouse gases at project sites. This will be achieved by replanting both forests and multiple other tree species (e.g. by implementing agroforestry techniques). Consequently, carbon will be sequestered in soils and plant biomass.
- Other environmental issues, e.g. noise and traffic	No	
Only if it can be carefully justified that any negative impact from the project can be avoided or mitigated satisfactorily, both in the short and long-term, can the project go ahead.		

Section C: Social impacts

If a negative impact is identified or anticipated, the Comment/explanation field needs to include: i) the stage of the proposed project in which the problem will be addressed; ii) who is responsible for addressing the issue; iii) budget implications of addressing the problem; and iv) other comments.

	Yes/No/N.A.	*Comment/explanation*
- Does the project respect internationally proclaimed human rights including dignity, cultural property and uniqueness and rights of indigenous people?	Yes	All project interventions were developed in accordance with internationally proclaimed human rights and UN guidelines. In addition, all activities were developed in consultation with stakeholders. Consequently, no rights or laws will be infringed upon by the proposed activities.
- Are property rights on resources such as land tenure recognised by the existing laws in affected countries?	Yes	Land tenure arrangements are clear because both traditional and state-based rights are recognised.
- Will the project cause social problems and conflicts related to land tenure and access to resources?	No	Consultations with community members occurred at the PPG phase and will be continued throughout the project implementation phase to avoid any problems or conflicts. In addition, local community members will use a participatory approach to agree on regulating access to natural resources.
- Does the project incorporate measures to allow affected stakeholders' information and consultation?	Yes	The LDCF project will reduce the vulnerability of stakeholders by providing information on climate risks and opportunities and ensuring feedback on the application of such information. Additionally, all on-the-ground activities will be community based.
- Will the project affect the state of the targeted country's institutional context?	Yes	The LDCF project will strengthen institutional capacity in Rwanda to adapt to climate change using EbA. National and local (i.e. province, district, sector and cell) authorities will be trained in the implementation of EbA. Additionally, knowledge sharing will be promoted through meetings, creation of partnership, training of committee members and improvement of a national

		online portal.
- Will the project cause change to beneficial uses of land or resources? (incl. loss of downstream beneficial uses (water supply or fisheries))?	No	The LDCF project is designed to enhance ecosystem services and access to resources. This includes reduced flooding and sedimentation at intervention sites because of the project activities.
- Will the project cause technology or land use modification that may change present social and economic activities?	Yes	The LDCF project will increase the efficiency of current land use systems to enhance the social and economic benefits of these systems.
- Will the project cause dislocation or involuntary resettlement of people?	No	The LDCF project will restore degraded ecosystems in sites from which people have already been relocated from by the GoR. It will not cause any population dislocation or involuntary settlements.
- Will the project cause uncontrolled in-migration (short- and long-term) with opening of roads to areas and possible overloading of social infrastructure?	No	No infrastructure works are planned.
- Will the project cause increased local or regional unemployment?	No	No long-term change in formal employment because of project activities is anticipated. Local community members will be employed preferentially to implement the project activities. Livelihoods will be developed at project sites to improve the local communities' resilience to the effects of climate change.
- Does the project include measures to avoid forced or child labour?	Yes	The LDCF project conforms to all national and international guidelines and laws regarding forced labour. Extensive community engagement will prevent the use of forced labour. In addition, all required labour – which will consist only of short-term employment for meeting specific objectives – will be provided through community engagement and will be remunerated in accordance with national law.
- Does the project include measures to ensure a safe and healthy working environment for workers employed as part of the project?	Yes	All workers will be employed in accordance with all national and international guidelines and laws regarding health and safety in the work environment. In addition, local communities will be trained on health and safety regulations.
- Will the project cause impairment of recreational opportunities?	No	Areas currently used for recreation are not included in the project intervention sites.
- Will the project cause impairment of indigenous people's livelihoods or belief systems?	No	The LDCF project was developed through consultation with local communities and in accordance with local belief systems. Additionally, all on-the-ground activities will be community based. The project will improve local communities' livelihoods by increasing the number of livelihood options available that are climate-resilient. Consequently, the climate risk for local communities will be reduced.
- Will the project cause disproportionate	No	The LDCF project will help reduce the exposure of

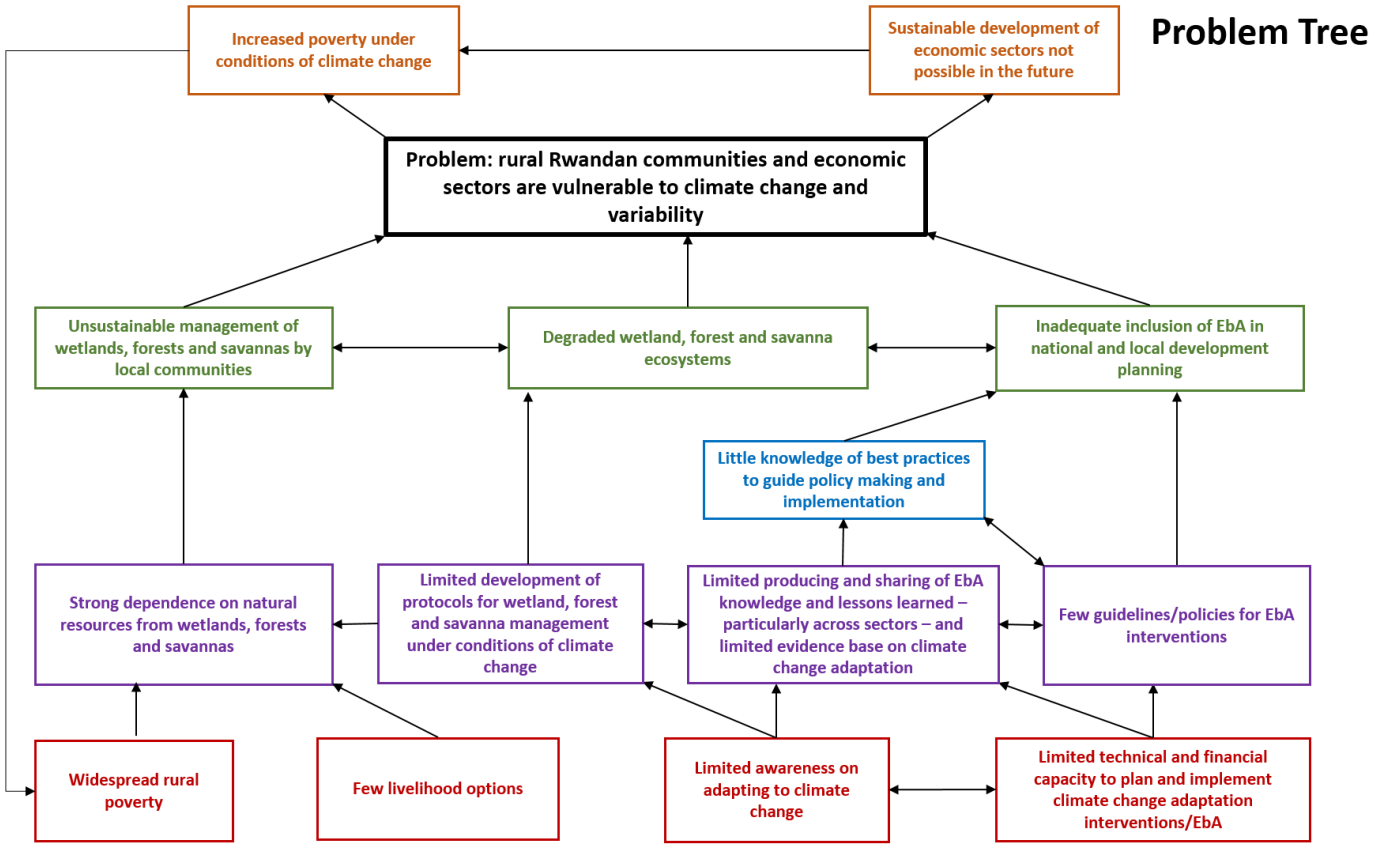
impact to women or other disadvantaged or vulnerable groups?		climate-vulnerable groups including women, children and farmers.
- Will the project involve and or be complicit in the alteration, damage or removal of any critical cultural heritage?	No	No cultural heritage will be damaged by project operations.
- Does the project include measures to avoid corruption?	Yes	As per UNEP norms and standards, all project disbursements will be monitored by UNEP administrative structures. Regular reporting by the project management team will promote financial and administrative transparency throughout the project's lifetime.
Only if it can be carefully justified that any negative impact from the project can be avoided or mitigated satisfactorily, both in the short and long-term, can the project go ahead.		

Section D: Other considerations

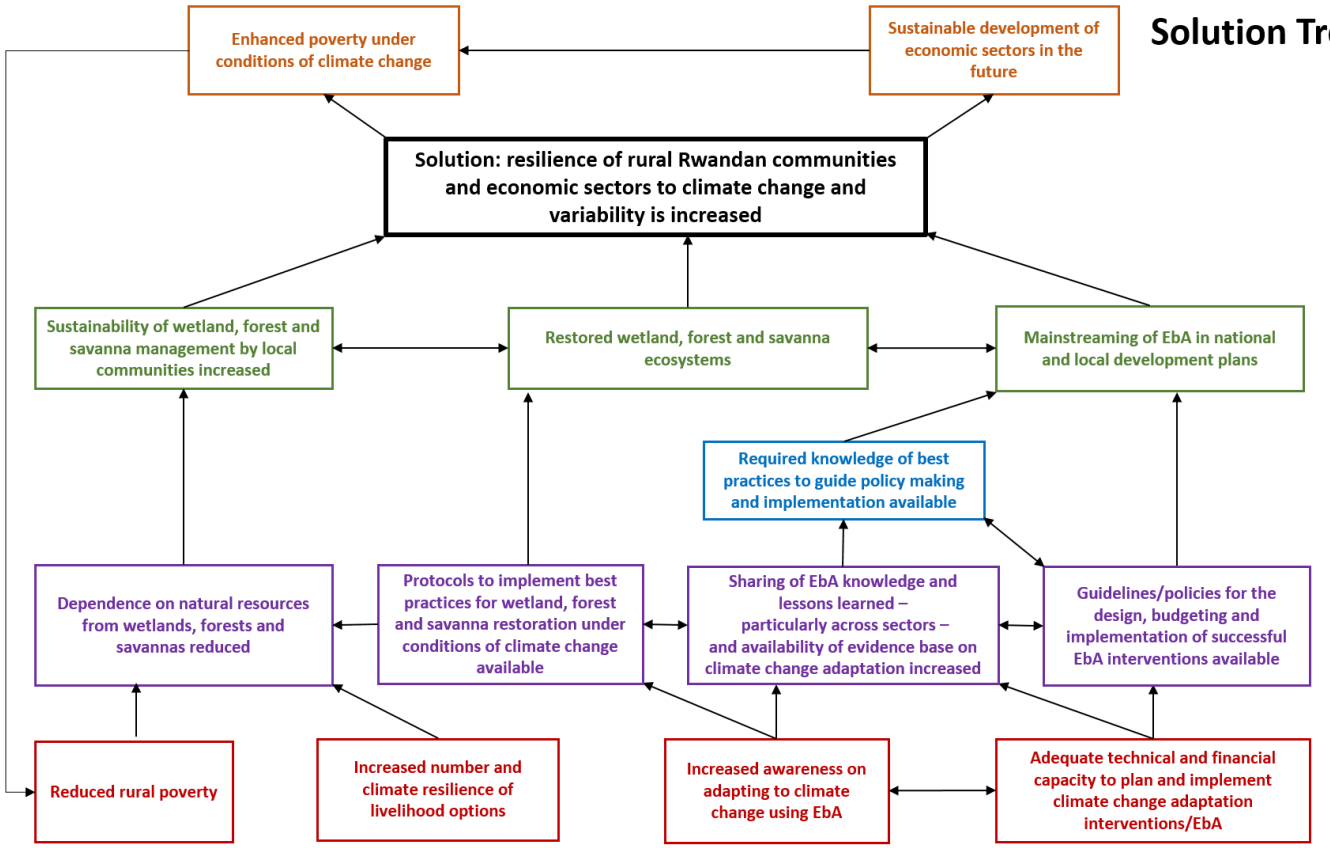
If a negative impact is identified or anticipated, the Comment/explanation field needs to include: i) the stage of the proposed project in which the problem will be addressed; ii) who is responsible for addressing the issue; iii) budget implications of addressing the problem; and iv) other comments.

	Yes/No/N.A.	*Comment/explanation*
- Does national regulation in affected country require EIA and/or ESIA for this type of activity?	Yes	EIAs and SEAs will be conducted at the start of the project implementation phase.
- Is there national capacity to ensure a sound implementation of EIA and/or SIA requirements present in affected country?	Yes	EIA and SIA responsibility and capacity is located under the executing agency partner (REMA). Authorised experts in EIAs and SIAs are designated every year by the GoR. To assess the impact of the project activities, national experts will be selected from this list.
- Is the project addressing issues, which are already addressed by other alternative approaches and projects?	No	The project management teams of other adaptation projects were consulted during the PPG phase to: i) prevent replication of the activities; and ii) maximise the complementarity of the activities. This collaboration will be maintained throughout the project implementation phase.
- Will the project components generate or contribute to cumulative or long-term environmental or social impacts?	No	The LDCF project will enhance climate resilience of ecosystems and local communities. No negative impacts are anticipated and positive impacts will accrue.
- Is it possible to isolate the impact from this project to monitor E&S impact?	Yes	Indicators were developed during the PPG phase to monitor the E&S effects of the project. Additional indicators will be developed during the project implementation phase to support the monitoring of relevant aspects of the project.

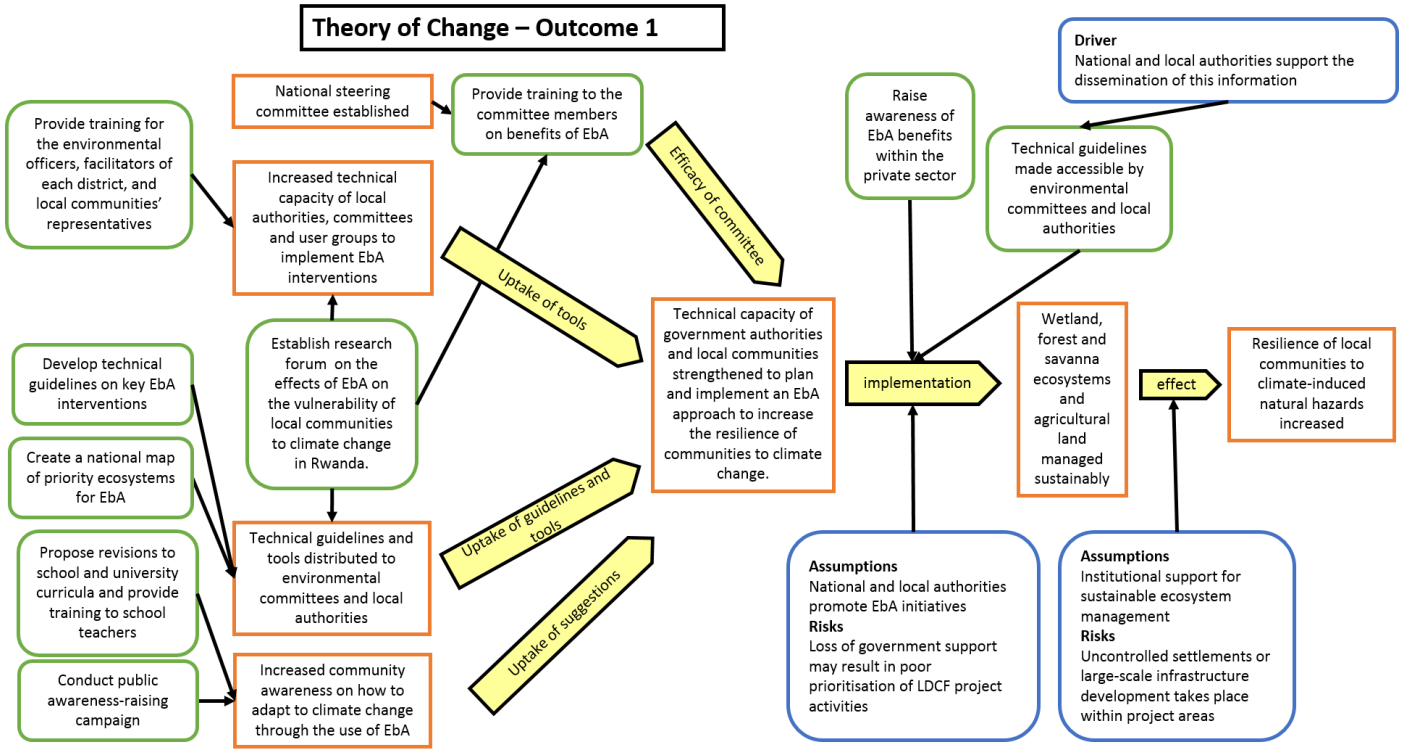
ANNEX N: THEORY OF CHANGE

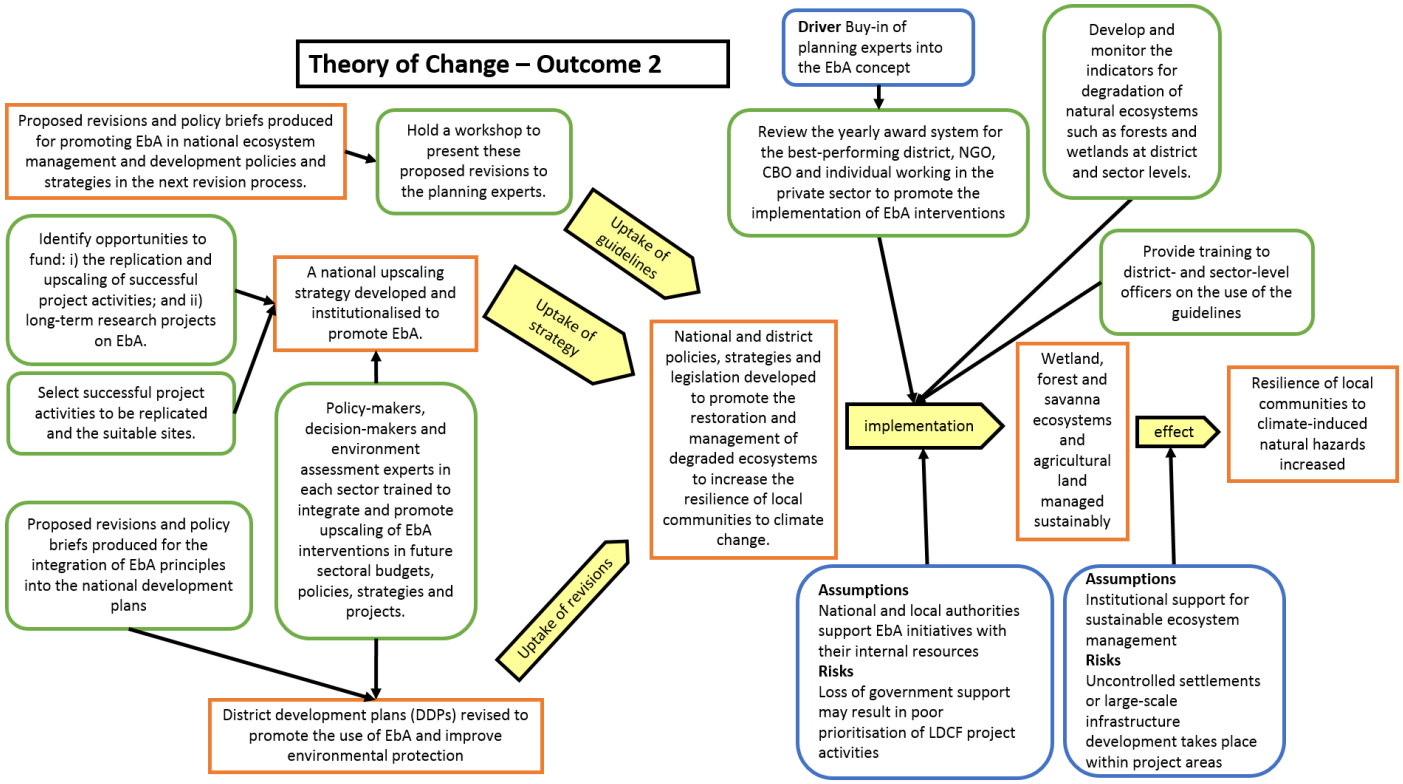


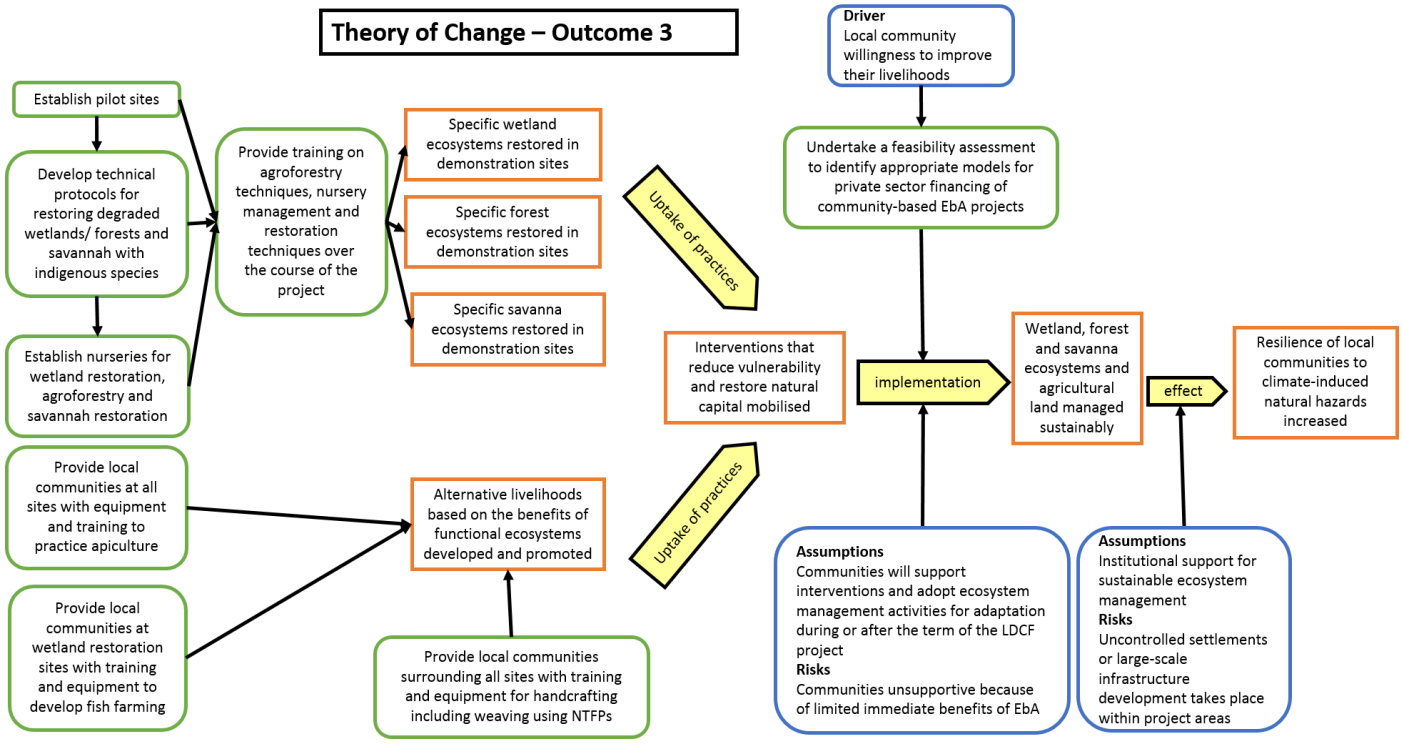
Solution Tree



Theory of Change – Outcome 1




Theory of Change – Outcome 2
Proposed revisions and policy briefs produced for promoting EbA in national ecosystem management and development policies and strategies in the next revision process.
Hold a workshop to present these proposed revisions to the planning experts.
Uptake of guidelines
Identify opportunities to fund: i) the replication and upscaling of successful project activities; and ii) long-term research projects on EbA.
A national upscaling strategy developed and institutionalised to promote EbA.
Uptake of strategy
Select successful project activities to be replicated and the suitable sites.
Policy-makers, decision-makers and environment assessment experts in each sector trained to integrate and promote upscaling of EbA interventions in future sectoral budgets, policies, strategies and projects.
Proposed revisions and policy briefs produced for the integration of EbA principles into the national development plans
Uptake of revisions
District development plans (DDPs) revised to promote the use of EbA and improve environmental protection
National and district policies, strategies and legislation developed to promote the restoration and management of degraded ecosystems to increase the resilience of local communities to climate change.
Driver Buy-in of planning experts into the EbA concept
Review the yearly award system for the best-performing district, NGO, CBO and individual working in the private sector to promote the implementation of EbA interventions
Develop and monitor the indicators for degradation of natural ecosystems such as forests and wetlands at district and sector levels.
Provide training to district- and sector-level officers on the use of the guidelines
implementation
Wetland, forest and savanna ecosystems and agricultural land managed sustainably
effect
Resilience of local communities to climate-induced natural hazards increased
Assumptions
National and local authorities support EbA initiatives with their internal resources
Risks
Loss of government support may result in poor prioritisation of LDCF project activities
Assumptions
Institutional support for sustainable ecosystem management
Risks
Uncontrolled settlements or large-scale infrastructure development takes place within project areas


Theory of Change – Outcome 3
Establish pilot sites
Develop technical protocols for restoring degraded wetlands/ forests and savannah with indigenous species
Establish nurseries for wetland restoration, agroforestry and savannah restoration
Provide training on agroforestry techniques, nursery management and restoration techniques over the course of the project
Specific wetland ecosystems restored in demonstration sites
Specific forest ecosystems restored in demonstration sites
Specific savanna ecosystems restored in demonstration sites
Uptake of practices
Provide local communities at all sites with equipment and training to practice apiculture
Provide local communities at wetland restoration sites with training and equipment to develop fish farming
Alternative livelihoods based on the benefits of functional ecosystems developed and promoted
Uptake of practices
Provide local communities surrounding all sites with training and equipment for handcrafting including weaving using NTFPs
Driver
Local community willingness to improve their livelihoods
Undertake a feasibility assessment to identify appropriate models for private sector financing of community-based EbA projects
Interventions that reduce vulnerability and restore natural capital mobilised
implementation
Wetland, forest and savanna ecosystems and agricultural land managed sustainably
effect
Resilience of local communities to climate-induced natural hazards increased
Assumptions
Communities will support interventions and adopt ecosystem management activities for adaptation during or after the term of the LDCF project
Risks
Communities unsupportive because of limited immediate benefits of EbA
Assumptions
Institutional support for sustainable ecosystem management
Risks
Uncontrolled settlements or large-scale infrastructure development takes place within project areas

ANNEX O: ACRONYM LIST

ACNR	Association for Nature Conservation in Rwanda
ARCOS	Albertine Rift Conservation Society
ARECO	Association Rwandaise des Ecologistes
AMAT	Adaptation Monitoring and Assessment Tool
AMFN	African Model Forest Network
CBD	Convention on Biological Diversity
CBO	Community-based Organisation
CCA	Climate Change Adaptation
CTA	Chief Technical Advisor
DDP	District Development Plans
DEF	District Environment Facilitator
DEMP	The Decentralisation and Environmental Management Project
DEO	District Environment Officer
EA	Environmental Audits
EbA	Ecosystem-based Adaptation
EDPRS	Economic Development and Poverty Reduction Strategy
EIA	Environmental Impact Assessment
EWS	Early Warning System
FFS	Farmer Field School
FONERWA	National Fund for Environment and Climate Change
GEF	Global Environment Facility
GoR	Government of Rwanda
HDI	Human Development Index
IA	Implementing Agency
ICRAF	World Agroforestry Centre
LAFREC	The Landscape Approach to Forest Restoration and Conservation
LDCF	Least Developed Country Fund
LVEMP	Lake Victoria Environmental Management Project
LWH	The Land Husbandry, Water Harvesting and Hillside Irrigation Project
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MIDIMAR	Ministry of Disaster Management and Refugee Affairs
MINAGRI	Ministry of Agriculture and Animal Resources
MINECOFIN	Ministry of Finance and Economic Planning
MINICOM	Ministry of Trade and Industry
MINEDUC	Ministry of Education
MININFRA	Ministry of Infrastructures
MINISANTE	Ministry of Health
MINIRENA	Ministry of Natural Resources
MoU	Memorandum of Understanding
MYICT	Ministry of Youth and Information and Communication Technology
NAPA	National Adaptation Programme of Action
NEA	National Executing Agency

NGO	Non-Governmental Organisation
NLUDMP	National Land Use and Development Master Plan
NTFP	Non-timber Forest Products
NUR	National University of Rwanda
PAREF	Project d'Appui à la Reforestation au Rwanda
PEI	Poverty and Environment Initiative
PIR	Project Implementation Review
PM	Project Manager
PMU	Project Management Unit
PPG	Project Preparation Grant
PSC	Project Steering Committee
RCAA	Rwanda Civil Aviation Authority
RDB	Rwanda Development Board
REMA	Rwandan Environmental Management Authority
RFLRI	Rwanda Forest Landscape Restoration Initiative
RNRA	The Rwandan Natural Resource Authority
RSSP	The Rural Sector Support Project
SACO	Saving Cooperative
SEA	Strategic Environmental Assessment
SNC	Second National Communication
SPIU	Single Project Implementation Unit
SWAp	Sector-wide Approach
TM	UNEP Task Manager
UNCCD	United Nations Convention to Combat Desertification
UNFCCC	United Nations Framework Convention on Climatic Changes
VIA	Vulnerability Impact Assessment
VRA	Vulnerability Risk Assessment
WACDEP	The Water, Climate and Development Program
WCS	Wildlife Conservation Society