

**National Climate Change and Environment Fund (FONERWA)  
Full Project Document (PD)  
COVER SHEET**

<b>Project Title</b>	<b>Karongi District Integrated Green Village Project</b>
<b>Project Summary</b> <i>(In 75 words or less please summarise what your project intends to achieve and how)</i>	The Karongi Integrated Green Village Project aims to reduce vulnerability to environmental challenges, build resilience to environment and climate related pressures to improve livelihoods of 854 vulnerable households in Gahabwa and Nyamuhebe Villages. These households are exposed to climate related pressures such as unsustainable land/water and soil management practices, flooding and landslides. Intense rainfall has led to loss of lives and property. In addition, it led to soil erosion since the land is bare resulting from deforestation. The overall objective of the project is to reduce the vulnerability of communities that are more exposed to environmental pressures and to build their resilience against these challenges and to improve their livelihoods by providing them with alternative income generating activities. This will be accomplished through interventions that promote integrated environment approaches that include: rainwater harvesting and biogas.
<b>Anticipated Start Date</b>	01/09/2014
<b>Project Duration</b>	24 months
<b>Funding Requested (RWF)</b>	<b>745,881,350</b> Rfw
<b>Name of Lead Organisation</b>	Karongi District
<b>Type of Organisation, which best describes the Lead Organisation</b> <i>(please select only one box)</i>	<input checked="" type="checkbox"/> Government Institution
	<input type="checkbox"/> Non-Governmental Organisation (NGO)
	<input type="checkbox"/> Private Sector Enterprise
	<input type="checkbox"/> Academic Institution
	<input type="checkbox"/> Other <i>(please specify)</i>
<b>Partner Institutions</b>	EWSA, MINIRENA, MINALOC, MINECOFIN, KARONGI JADF
<b>Full Office Address</b>	Karongi District - Western Province PO.Box 23 Kibuye
<b>Website Address</b>	<a href="http://www.karongi.gov.rw">www.karongi.gov.rw</a>
<b>Contact Person</b>	<b>Name: MUKASE Valentine</b> <b>Position:</b> Director of Planning, Monitoring and Evaluation <b>E-mail:</b> muvale2002@yahoo.fr <b>Tel:</b> 0788428702

**For Internal Purposes Only:** *To be Completed by the Fund Manager*

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Feasibility Study? (Y/N) \_\_\_\_\_

PPD Code: \_\_\_\_\_

Thematic Financing Window: \_\_\_\_\_

FONERWA Entry Point: \_\_\_\_\_

Technical Appraisal Score: \_\_\_\_\_ Rank: \_\_\_\_\_

## National Climate Change and Environment Fund (FONERWA) Full Project Document (PD)

(Please provide a complete answer to each question, even if the answer is duplicated elsewhere. This PD should not exceed 35 sides of A4 size paper.)

### SECTION 1: INFORMATION ABOUT THE APPLICANT

**Q 1.1** **What** is the Lead organisation's total number of full-time employees?

Karongi District has 379 full time employees working at the head office and different administrative Sectors, 628 Health Staff and 2306 Teachers.

**Q 1.2** **What** is your organisation's experience of managing similar projects or activities (please explain why you think your organisation and partners are capable of managing the project)?

Karongi District as a Government Institution has experience in managing large and small projects. Below are two examples of related projects that were successfully managed by Karongi District.

1. Nyabahanga and Muregeya River banks rehabilitation (228ha) in Rubengera, Bwishyura and Gitesi Sectors with a budget of 92,000,000 Rwf

INDICATOR	NYABAHANGA			MUREGEYA		
	Planned	Achieved	Rate of return	Planned	Achieved	Rate of return
Establishment of progressive terraces	150 ha	151.21 ha	100.8%	60 ha	60.2ha	100.3%
Plantation of agroforestry trees	36.42 ha	15.5 Ha	42.56%	15.7 ha	15.7	100%
Plantation of reeds	131.7ha	131.7Ha	100%	46 ha	46ha	100%
Plantation of Bamboo	7.67 ha	7.67Ha	100%	1.74 ha	1.74ha	100%
<b>Average project Performance</b>						

2. The second project executed by Karongi District is entitled "Land management by radical terracing (150ha) in Rwankuba Sector". The total cost of the project was 158,000,000 Rwf and the project ended successfully, since all planned targets were achieved (150 ha of radical terraces, planting agro forestry trees on 150 ha).

**Q 1.3** **List** the name, position, and email of key personnel involved in the project, such as the project executive, project manager, and core technical staff. (Provide a CV for each of the key personnel as an attachment to this PD)

1. **MUHIRE Emmanuel**

Position :District Executive Secretary

e-mail : [emutaj@yahoo.com](mailto:emutaj@yahoo.com)

phone :0788493959

4. **NYIRIMANZI Theoneste**

Position : District Veterinary Officer

E-mail :[nyiritheo@yahoo.fr](mailto:nyiritheo@yahoo.fr)

Phone :0788825467

<p><b>2. MUKASE Valentine</b>  Position :Director of Planning and M&amp;E  E-mail: <a href="mailto:muvale2002@yahoo.fr">muvale2002@yahoo.fr</a>  Phone: 0788428702</p> <p><b>3. HABYARIMANA Eric</b>  Position : District Environment Officer  E-mail : <a href="mailto:niyigena@yahoo.fr">niyigena@yahoo.fr</a>  Phone :0788352413</p>	<p><b>5. MUNEZERO Eric</b>  Position :Director of finance  E-mail : <a href="mailto:muricfr@yahoo.fr">muricfr@yahoo.fr</a>  Phone :0788 448308</p>
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<b>Q 1.4</b>	<b>Lead Organisational Finances. Provide a copy of these</b> from the most recent audited annual accounts (income and expenditure statement & balance sheet in RWF, as well as the main sources of funding) as an attachment to this PD.
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See annexe 3

**SECTION 2: INFORMATION ABOUT THE PROJECT**

<b>Q 2.1</b>	<b>Why</b> the project is needed (clearly state the problem this project will address and the evidence base for its justification. Where possible, refer to international, national and/or sectoral strategies.) ?
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Karongi District is one of the seven Districts in the Western Province which borders Lake Kivu to the West. Karongi District stretches over an area of 993 km<sup>2</sup> with a population of 331,808 distributed into 73 326 households. Karongi District is characterized by high lands with steep slopes with an altitude estimated between 1470 to 2200 meters. Much of the land is prone to erosion due to the steep terrain and high rainfall found in this region. Karongi has a population density of 334 persons per square kilometer as reported in the Karongi District development plan 2013-2018. More than 90% of farming households cultivate less than 0.9 Ha of land and 53% cultivate less than 0.3Ha due to population pressure and land scarcity (EICV3).

According to the EICV3 (2010/2011) report, Karongi District has the third highest percentage of poor people in Rwanda. 22% of Karongi’s population is considered to be poor while 39.8% is extremely poor. In the Western Province, Karongi is the second poorest District after Nyamasheke. The EICV3 District profile- Karongi report indicates that 39% of the HH in Karongi District are headed by women as well as 25% of the district’s population has no access to clean drinking water.

More than 90% of farming households cultivate less than 0.9 Ha of land and 53% cultivate less than 0.3 Ha due to population pressure and land scarcity (EICV3). The same report shows that isolated rural housing is rated at 88.9% of households and this represent 68, 453 on a total of 73 326 households. These areas experience intense unpredictable rainfall patterns as a result of climate change; high erosion rate has led to declining soil fertility and reduced farm yields as well as siltation of water bodies. Moreover the increasing frequency of flooding and landslides has led to increasing expenditure on rehabilitation and resettlement of household from high risk zones. There is a high demand for firewood (99.9% of households in Karongi District use wood as fuel) which depletes forest reserves along the district.

During a consultation meeting with the population organised in the project design phase, residents in these Villages (Gahabwa and Nyamuhebe) highlighted the following challenges:

1. Inaccessibility to clean water (people of Gahabwa and Nyamuhebe communities walk long distances of 2 Km every day to fetch water);
2. High steep terrain of the landscape; leading to low agricultural productivity;
3. Soil erosion often caused by unpredictable rainfall and strong winds ;
4. Absence of greening activities at village level;
5. Lack of water catchment facilities;
6. Deforestation: use of firewood for cooking (ESI Kirinda High school uses tonnes of firewood);
7. Insufficient land and infertile cultivatable land;
8. Farmers in these areas have big harvests of sweet potatoes but lack market so they end up rotting;
9. Lack of common cowsheds to enable Biogas supply;
10. Absence of alternative livelihoods and income generating activities which then contribute to poverty in this area.

Therefore, the District seeks to solve most of these problems through different interventions in Gahabwa and Nyamuhebe Villages which will help the population to reduce their vulnerability to environmental challenges, and hence building resilience to environment and climate related pressures. More so, the Integrated Karongi District Green Village Project's interventions will help to improve their livelihood.

<b>Q 2.2</b>	<b>What</b> change is this project intended to achieve (state specific objectives, expected results/impact and long-term legacy? To address the core environment and climate change objectives of the project, it would be helpful to refer to national and sectoral climate change and environment objectives. Provide measurable indicators, within a log-frame matrix. In addition, make a note of the expected impacts on employment and poverty reduction, as well knowledge and technological transfer.)?
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The project intends to reduce vulnerability of 854 households to environmental challenges, build resilience against environment and climate related pressures and Improve their livelihoods. The project targets poor households living in Gahabwa Village in Murambi Sector and Nyamuhebe Village in Bwishyura Sector.

Specifically, the project seeks to achieve the following:

- The issue of soil erosion will be tackled by introducing soil erosion control measures in two villages. These will include radical terraces as well as afforestation and agro- forestry. This links to the district's targets of 2500 ha of terraces, 100% of land protected against erosion and 6000 ha covered by agro-forestry trees;
- The project will provide alternative sources of renewable energy which will reduce pressure on

forestry resources in the area. 262 biogas digesters will be installed (97 in Gahabwa and 175 in Nyamuhebe) and 495 cooking stoves will be constructed (263 in Gahabwa and 232 in Nyamuhebe). These interventions align with the District target for 54, 5% of households to use biogas and for 40 000 households to use improved cooking stoves.

- In order to address the issue of access to clean and safe water, the project will construct 15 Rainwater Harvesting systems in Gahabwa and Nyamuhebe villages (5 rainwater harvesting in Gahabwa and 10 in Nyamuhebe Villages). This water will be filtered and used for cooking and drinking. Water catchment will be used both as a Climate Change adaptation measure as well as a measure to provide the community with clean and safe water to meet EDPRS II targets as well as District targets for 100% of the population to have easy access to clean water and for 77% of households to have rain water harvesting management;
- Cooperatives will be put in place and strengthened to serve as channels of improving livelihood. They will be involved in nursery bed preparations (youth), **goat-keeping and poultry (elderly women)**, and youth cooperative **to maintain installed infrastructures**. Availability of cows will provide milk and manure. The milk will help in combating malnutrition among families and some of it will be sold and used to produce different dairy products. The cow dung will be used for the biogas digesters and the organic manure produced will be used to improve soil fertility and increase yield productivity. Agro forestry will contribute to micro climate and provide fruits which will be sold in local markets. Small micro enterprises will be created and will carry out the above mentioned activities (selling of; milk, dairy products, fruits)

As a result, reliance on wood will be reduced and agricultural productivity will increase. The project is expected to provide livelihood support to the poorest households in the District. Soil erosion control measures will also have a positive impact on households' income in target areas.

<b>Q 2.3</b>	<b>How</b> will the project objectives be achieved (include a detailed Work Plan as an appendix highlighting key deliverables and activities and responsibilities. Clearly describe the approach and methodology to be followed and the sequence of activities planned.)?
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1. The project will adopt a participatory approach with the communities in the 2 Sectors to promote local ownership and ensure the interventions are supported and are sustainable.
  - a. A series of consultations and meetings will be held with local communities to ensure the ownership by the local communities during implementation of the project;
  - b. The community will elect committees in each village to represent them;
  - c. The project will build awareness and provide training to each committee so that it can effectively oversee the interventions and liaise with local people;
  - d. Agreements specifying all the interventions will be drawn up and signed between the District authorities and the target communities to ensure commitment on both sides;
  - e. The Coordination, monitoring and evaluation of the project (District) will be in collaboration with stakeholders using project indicators.
2. Targeting of support will prioritise vulnerable groups including the women and orphan headed households as well as the elderly.
  - a. The villages were selected on the basis of high numbers of poor households with vulnerability to climate change. Many of these households have recently been

- resettled from high risk zones (prone to flooding and landslides);
- b. The project will specifically target young people to reduce the high levels of youth unemployment;
- c. This targeting will be reflected in gender/age disaggregated monitoring of project progress and results;
- 3. The project will use local labour for project implementation to provide income for poor households.
  - a. In each area the elected management committees will be responsible for hiring and managing local labourers to complete the work in collaboration with the local authority. The project will disburse the funds for wages to the committee every two weeks and the committees will report on a weekly basis the number of people and days worked (this will be documented with signed timesheets) along with an update on activities completed. The project manager will visit each site on a weekly basis to verify the reports;
  - b. Manpower recruitment will be based on land ownership at the first level and High Labour intensity approach will be used;
- 4. The project will outsource renewable energy and water harvesting works to technical specialists.
  - a. The work will be tendered according to Government procedures.
    - i. A procurement plan is prepared;
    - ii. The invitation to tender is published for 30 days,
    - iii. The tenders are opened in a meeting with all the applicants and the Tender Committee;
    - iv. The provisional result is communicated to all the applicants;
    - v. The applicants have 7 days to appeal the decision, and then a final notification is sent to all the applicants;
    - vi. If a guarantee is required, the successful bidder has 15 days to secure it,
    - vii. Contract negotiation and signing.
  - b. The performance contract will be monitored by an independent third party hired by the project (using the above process) in close collaboration with the District Infrastructure Officer and the community committees.

The project is intended to achieve 4 outputs through the implementation of a number of activities as follows :

**Output 1:** Land protected against erosion in Gahabwa and Nyamuhebe Villages. Activities under this output are expected to be completed in the third quarter of the second year. Progress will be measured by the following indicators: “Ha of radical and progressives constructed in Gahabwa and in Nyamuhebe” and “Ha of forestry and agro forestry planted.” This output will be implemented through 13 activities:

1. Recruitment of manpower to work in terracing both in Gahabwa and Nyamuhebe Villages;
2. Procurement of 80 tons of lime to reduce the soil acidity. This lime will be used in Gahabwa

Village;

3. Procurement of 1000 tons of organic fertiliser to be used in Gahabwa Village to increase soil fertility
4. Works of constructing radical terraces (20ha) in Gahabwa Village with slope estimated between 35%-40%;
5. Construction of progressive terraces in Nyamuhebe Village (50ha) with slope estimated between 50%-55%;
6. Procurement and distribution of maize seeds (10ha/20ha in Gahabwa Village);
7. Procurement of cassava cuttings (10ha/20ha in Gahabwa Village);
8. Construction of 6 macro propagators for bananas seeds (FIA17,25) 3 in Gahabwa Village and 3 in Nyamuhebe
9. Procurement of seeds of forestry trees for 15 ha in Gahabwa Village with 35%-40% slope and Agro-forestry trees (45ha in Gahabwa Village and 52ha for Nyamuhebe with 50%-55% slope);
10. Procurement of Forestry and Agro forestry tree seedlings in Gahabwa and in Nyamuhebe Villages;
11. Procurement of fruit tree seedlings (360 HH in Gahabwa and 494 HH in Nyamuhebe Villages);
12. Forest tree planting (48249 seedling) including tree maintenance.

**The cost for output 1 is 137, 436, 350 Rwf (18.43 % of the total Budget).**

**Output 2:** Green technology introduced through alternative renewable sources of energy and rainwater harvesting system installation, in Nyamuhebe and Gahabwa Villages.

This output involves constructing bio-digesters (262 of 4m<sup>3</sup> each) and their operational system, rainwater harvesting (15 underground tanks) and their operation system as well as improved cooking stoves (495) reserved for households without bio digester. Activities under this output are expected to start by the second quarter of the first year and will be completed in the fourth quarter of the second year. It will be measured using the following indicators: “Number of biogas digesters system installed and operational in Gahabwa Village and in Nyamuhebe Village” and “number of rainwater harvesting facilities constructed”, and “number of improved stoves constructed.”

**The cost for output 2 is 445 585 000 Rwf (59.74 % of the total budget).**

**Output 3:** Population of Nyamuhebe and Gahabwa Villages engaged in alternative income generating activities. The activities involve mainly providing capacity building (training) of the community and provision of **160 goats and 400 chickens**. This will be measured using the following indicators: “Number of cooperatives created (agro cooperatives, goat, poultry and small income generating activities).”

This output’s activities are concerned with supporting the communities in improving their livelihood, is composed of 4 activities as indicated bellow;

1. Support of population to put in place 3 agro- cooperatives (2 in Gahabwa Village and 1 in Nyamuhebe Village). The support will involve training on creation and management of cooperatives, improved agricultural practices and principles of sustainability.

2. Support of youth to put in place 1 cooperative to work on maintenance of installed infrastructures (biogas digesters, rainwater harvesting tanks, improved cooking stoves) training to be provided by stakeholders. This support includes availing the community with welding and plumbing facilities to help the community to repair the installed infrastructure.
3. Four cooperatives of goat keeping and poultry will be initiated to support the elderly women.

**The cost for output 3 is 75,980,000 Rwf (10.2 % of the total budget).**

**Output 4:** Project grant will be efficiently managed and coordinated will be achieved through the establishment of a project team (Project Manager and Agronomist). This output will be measured using two indicators which are: the budget execution rate and the total number of reports produced and the level of the implementation of project activities.

**The Cost for output 4 is 86,880,000 Rwf ( 11. 65 % of the total budget)**

The project will adopt a participatory approach both in the community and District partners. The role of the communities in project implementation will be:

1. The local communities will be involved in nursery bed preparations, terracing, and maintenance of the installed systems (rainwater harvesting, bio digesters and cooking stoves);
2. All activities will be carried out through cooperatives;
3. Maintenance: a control committee will be set up and all members will contribute, a minimal fee to ensure maintenance;
4. Each project activity will have a sub-committee which will report to the overall committee which manages all the sub-committees;
5. The local community will provide land for some activity implementation (construction of barns).

**Q 2.4** How does the project address cross-cutting issues such as gender and youth?

The project targets households living in the two villages. The provision of rainwater harvesting systems and biogas plants will reduce the time women and youth spend collecting water and wood for fuel. Since women are the primary users and managers of energy resources, the adoption of biogas technology and other project benefits largely depends on their needs and interests. Even though men play the primary role in decision-making at the household and community level, the project outcome will be greatly hampered if the women are neglected. Hence, while planning for project interventions, women's needs and priorities will be taken into account. Ideally, women's active participation in alternative energy initiatives including planning and energy based socio-economic activities will help women both to become empowered and to sustain the whole biogas system.

The role of women in the biogas sector in Rwanda will be enhanced since they will be involved in the programs as decision makers, as individuals or through existing institutions. Hence, women will be involved for adopting the technology and selecting the appropriate site for a plant. As primary users,

women will be made familiar with the function of the biogas plant, the proper method of feeding dung and water, and the procedure for removing water from the pipeline, methods of cleaning stove components and how to conduct minor repairs. The project will reserve a quota of positions for women and youth so that they will assume a leadership role in the project.

**Q 2.5** Who are the stakeholders affected by the problem, and who are the stakeholders influential in solving the problem? How have they been incorporated and involved in project design and delivery?

**Stakeholders affected by the problem :**

Consultations with stakeholders affected by the problem were carried out on 27<sup>th</sup> and 28<sup>th</sup> February whereby the beneficiaries were involved in problem analysis, coming up with solutions and establishing their roles in project implementation. A participatory approach was used in both villages and the focus group included the following stakeholders: *Sector executive secretary; JADF President at Sector level; Cell executive secretary; Imidugudu leaders; Cell advisory council president; Youth and women representatives; Religious leaders; Representative of people with disabilities; Representative of Umurenge Sacco; Schools representative; Representative from Health Centers; IDP Coordination representative; Representative from security organs and Community households.*

**Roles of the Communities established during consultations:**

1. Members in the communities will participate in the different activities of the project say; preparing of nursery beds, terracing and maintenance of systems like rainwater harvesting, bio-digesters and cooking stoves.
2. Community members will carry out all the project activities through cooperatives. Through consultations the following recommendations were made to ensure that the built infrastructure is well protected and maintained.
  - a. Maintenance: a control committee will be set up and all members will contribute a minimal fee to ensure maintenance is done;
  - b. Established cooperative will be established at village levels.
3. To Provide land for some activity implementation (construction of youth centre in village by District partners because they want their village to be equipped with everything)

In addition, a consultation meeting was organized with influential stakeholders in solving the problem under the Joint Action Development Forum at the District-level. The following partners attended: **World vision, Action Aid, ADRA-Rwanda, AJEMAC, Caritas- Nyundo and TUBIBE AMAHORO Association.**

**Potential roles of partners discussed during meeting:**

1. Technical support like management of established cooperatives in the villages and Biogas set up. (World Vision);
2. Facilitate and support required trainings (Tubibe Amahoro);

3. Value chain addition for the agricultural products (AJEMAC, Nyundo Caritas);
4. Training agricultural cooperatives (ADRA-Rwanda);
5. Formation of credit and saving groups for vulnerable households.

There will be a provision of project Steering Committees (PSC) consisting of representatives of the main district actors in the project, to coordinate and guide its implementation, and to look after the policy and programme matters related to project implementation. The project steering committee (PSC) will be in place at the time of the start of the Project and will meet at least once quarterly and more often as the need arises. It will mainly be responsible for:

1. Approving quarterly plans and reports of the project programme;
2. Advocate for the project within their respective partners and towards their (national) partners;
3. Set and endorse sector wide quality standards and guidelines;
4. Plan and coordinate project related components and development;
5. Decide on programme related matters which are deviating from the approved plan;
6. Mobilise funds and liaise with donors; for extension in other sectors;
7. Monitor progress and evaluate the project.

The members of this committee are proposed as follows: 2 representatives from Karongi District (Executive committee), 1 representative of district consultative council, 1 representative of Joint Action development forum, 1 representative women council at district level , 1 representative of youth council at district level, District forest officer, District environment officer, District veterinary officer, 1 EWSA representative in charge of renewable energy, 2 representatives of Gahabwa and Nyamuhebe Villages, 1 representative of PSF.

In addition to steering committee the project involves Government institutions (MINAGRI, MINIRENA, MININFRA, MINALOC.....) which will provide technical support: Selection of appropriate design and development of quality standards for the construction of infrastructure such as biogas digesters, rainwater harvesting.

Specifically, MINAGRI through Rwanda Agriculture Board will provide selected seeds in project and the Ministry of Environment and Natural Resource will provide overall policy on Forest maintenance and guidance. EWSA (Energy water and Sanitation Authority) has provided technical support during pre-feasibility study. MINALOC with its overall role of coordination, monitoring and evaluation of local government facilitated consultation with the residents and to provide technical support and it will be involved in the monitoring and evaluation of the project achievements through Imihigo framework.

District and sector level staff will provide day to day support and oversight and technical assistance provided by the project including a full time project manager, consultants and technical specialist will support the community to implement the project.

The involvement of Private sector will provide support through business development centre in

Bwishyura Sector, support in providing quality seeds, proximity business consultants in each sector will provide support for enterprise development.

NGO's including World Vision can provide support on community based intervention and Local Cooperative have a lot of local knowledge and will be engaged in project implementation.

**Q 2.6** How will the benefits of the project be sustained after FONERWA funding comes to an end?

**Target community in project sustainability**

Target communities have shown ownership from the beginning of project design by providing their inputs on problem analysis, and proposed solution to overcome those problems. The involvement of direct beneficiaries and their commitment in maintenance of biogas digesters and planted trees will also ensure sustainability. To work under cooperative rather than working individually will be another aspect of ensuring the sustainability. To put in place a maintenance workshop to repair damaged asset is also perfect to ensure sustainability.

**District actors in project sustainability**

Partner's commitment in providing training and guidance to cooperative will build their capacity of understanding while working towards project sustainability. Provision of value chain addition from agriculture product as well as milk product can ensure the long-lasting of the project outcome. Strong commitment of Joint Action Development Forum is another sustainability aspect. Formation on loaning and saving to existing cooperative is very important in improving livelihoods while making project sustainable.

**Environment sustainability**

Radical and progressive terracing are among sustainable solution of soil erosion. Moreover, radical terraces when provided with fertiliser it can increase crop productivity up to 8 tone/ha/year (District data), the market value for 1 kg~250 Rwf which is of good interest for people who are improving their living standards. Rainwater harvesting component in the project will contribute to reduce flooding of the Nyabarongo River. In addition it will be used in various home activities hence implementing 3rd R (Reduce, Recycle, Reuse). Biogas digester will provide long term solution to wood which is used by a bigger population (99.9% in the District) for cooking. Planted forest (15 ha) will provide different ecosystem services (wood, biodiversity protection), while reducing carbon in the atmosphere.

**Q 2.7** What is the scope for income generation from the project?

The project is expected to bring a range of various benefits as summarised below:

Activity	Income generation
Land management by Terracing	Reduced soil loss by erosion at the same time creating jobs for 36 500 jobs with daily income of 1200 Rwf/day.
Fruit tree planting	Fruit tree planting will contribute not only to soil erosion control

	but also the market value of 1kg of fruit (orange) is approximately 1200 Rwf (District Agronomist Data).
Forest planting provision (15ha)	Forest provision to produce timber and charcoal. Local community will get benefit trough selling timber (5000 Rwf/stere) and 6000 Rwf/sac of charcoal).
Biogas installation	Manure produced by bio digesters will improve Agriculture productivity of managed land terraces (15ha). The productivity of one hectare of radical terraces produces 4 tons of maize/year. The market value of 1kg is approximately 400rwf.
Cows provision	The project expects to provide cows in order to make biogas operational, each cow is expected to produce about 12L of milk/day and the market value of milk is 300 Rwf/L.
Poultry keeping project component	Chicken provided in this project have a market value of 5000 to 6000 Rwf if sold; moreover eggs produced can also contribute to increase the economy of households, 1 egg market value is 100rwf.
Goat keeping provision	After a given period goats will give birth and the kids will be sold to generate money. The value of one goat is estimated at 35000 Rwf

**Q 2.8** **Preparation:** Has a feasibility or pre-feasibility study been conducted (*If yes, then please attach a copy to this PD*)?

Before the project Design, the District consulted different stakeholders and the CDKN FONERWA Capacity Building Project supported the District by availing technical expertise from the BIOGAS REC company to provide advice concerning biogas and rainwater harvesting systems. The consultant advised to construct collective tanks and biogas but after community consultation, it was observed that for sustainability concept it is better to consider individual infrastructures as advised by technical consultant from EWSA. Based on EWSA past experiences with communal bio digesters; it was found that some beneficiaries are more active in the maintenance and feeding of the bio digesters while others are not which then affects the functioning of the systems.

**Q 2.9** **Preparation:** Are there any outstanding regulatory or legal requirements that need to be met before the project can proceed (*access to land, planning consent, use of new technologies*)?

There are no outstanding regulatory or legal requirements relating to this project.

**Q 2.10** **Preparation:** Has an Environmental Impact Assessment been conducted for the project (*If yes, then please attach a copy to this PD*)?

According to the ministerial order n°004/2008 of 15/08/2008 establishing the list of works, activities and projects that have to undertake an environmental impact assessment it is clearly observed that this project “Karongi District Integrated Green Village Program” does not require EIA to be implemented. See annexe 4

**Q 2.11** How will the performance of the project be monitored and evaluated (*both during and after the project*)?

The causal-effect relationship between inputs, activities, outputs, outcomes and impact has and will be given a due consideration when carrying out monitoring and evaluation. In tracking these, indicators have been suggested in the project log frame that will track outputs delivered and whether and these contribute to the achievement of the outcome. The outcome indicators, have also been suggested to enable tracking of the project benefits to the beneficiaries, this outcome is linked to project impact statement that has been generated from FONERWA output 1 as from the FONERWA log frame. Also, milestones and targets have been set for each indicator and they will be tracked and reported against. The detailed project log frame has been annexed with entire components to guide the M&E process.

To evaluate the project performance the project has set:

1. Clear logframe;
2. Quarterly milestone;
3. Quarterly, Monthly and Annual report;
4. Mid - term evaluation and final evaluation of project activities;
5. Institutional arrangement: the project intends to hire project management team (Project coordinator; Agronomist)
6. At District level project activities will be coordinated in the department of Planning which is responsible of coordinating and implementing DDP and District Performance Contract (IMIHIGO).

Data collection: Data will be gathered as a routine part of the project implementation, thus, the type of data to be collected on inputs as guided by the procurement plan and quarterly plans.

Data collection will also be conducted on the activities detailed in the project work plan through field visits by the using interviews, document reviewing based on the activities executed and this will be tracked in the budget execution report, as linked to the Project outputs depending on the choice of output indicators suggested in the project log frame.

This will be done on a quarterly basis, and reports drafted, analysed and delivered on time to FONERWA, the District and other key stakeholders, using the project management information system such as the Ms-Excel and documented for record purposes. Notably, this will inform the project team, whether the project scope, budget are executed as planned and in time, without compromising with quality. In addition, data on whether the project has achieved its main purpose/outcome will be done annually through aggregation of quarterly reports to inform stakeholders whether the project is in line with its purpose and on whether the project is creating change to its intended beneficiaries as a result of the intervention. Conversely, the project impact contribution will be done through surveys with support from FONERWA in drafting terms of references jointly drafted for a mid-term evaluation as well as at the end of the project, in finding out the relevance, efficiency, effectiveness, sustainability and impact created by the project to the beneficiaries.

In achieving the above, stakeholders such as communities within the intervention areas will be engaged to enhance participatory approaches to Monitoring and evaluation by carrying out community meetings to allow voices of the voiceless such as the women. This will be done through the project manager facilitating the entire exercise. The intended benefits are to enhance ownership, accountability and sustainability of results envisaged.

Lastly, a project M&E plan and budget (see the annex) has been suggested and this suits the project work plan and budget which will be the guiding tool in the implementation process.

**Q 2.12** **How** will you involve the beneficiaries and other stakeholders in monitoring and evaluation?

Stakeholders involved in monitoring and evaluation include the communities in the project intervention area, Karongi District, District Actors (Joint Action Development Forum), MINALOC and FONERWA. These have been engaged in the design of the entire project and M&E and will continuously be engaged during the implementation of the project. The involvement will be done in participatory way through brainstorming sessions, workshops and meetings. The district will play the oversight role, NISR will guide the process of high level surveys at the end of the project and while FONERWA the funding stakeholder of the entire project including M&E budget. The project manager will play a role of reporting to the funder through Karongi District. This entire coordination and collaboration will enhance ownership, sustainability, and ensure effective use of lessons learned for informing the decision-making process.

**Q 2.13** **Which** Output from the FONERWA's overarching M&E framework will be contributed to in the project's M&E Framework (*if possible choose an indicator from FONERWA's M&E framework*)?

The project will contribute to FONERWA Output 1: Conservation and management of natural resources strengthened and sustainable as a result of Fund.

Output Indicators include: output indicator 1.1 and 1.2:

- Area (ha) of land protected against erosion;
- Area (ha) forest and agro-forest cover (disaggregated by afforestation / restored forest / agroforestry).

**Q 2.14** **Lesson Learning:** Please explain how the learning from this project will be disseminated and shared during (and at the end) of the project, and to whom this information will target (*e.g. Project stakeholders and others outside the project*)

The project outcomes will be disseminated through shared report of activities, mid-term evaluation, and final evaluation with recommendation to FONERWA, Karongi District and District Actors. The success of the project will be part of implementing government policy of community development by improving rural settlement and relocation of people from high risk zones to Model Villages.

- i) Establishment of the Community Development Committees (CDC) which will stimulate and promote the participation of local governments and communities in the choice of development priorities and monitoring-evaluation of their implementation;
- ii) Establishment of Joint Action Development Forum (JADF) which brings together all District development partnership; will lead to Successful dissemination of project outcome in other

villages.

Indirect beneficiaries: Urban populations is regarded as indirect beneficiaries because the project will contribute to providing them with domestic fuel in terms of charcoal and fire wood consumption as well as climate change impact in general.

**Q 2.15 Risk Management:** Please outline the main risks to the successful delivery of this project indicating whether they are high, medium or low. If the risks are outside your direct control, how will the project be designed to address them?

Risks	Impact	Probability	Mitigation	Assumptions
Lack good quality seeds on the market	Low	Low	- Maintain contact with past provider(RAB) - Tender process on time	Seeds dealers maintain operation
Lack of Post-harvest storage for the production	Medium	Medium	- Train in preservation techniques - stakeholders maintain commitment	Community implement trainings
Late procurement due to incompatibility of project implementation plan and Annual procurement plan in the District	Low	Low	- Early procurement implementation	Project funds available on time
Poor installation of tanks	Medium		- Work done will be certified by field technical assistant before payment	
Poor maintenance of installed infrastructures	Medium	Low	- Raise the ownership of the local authorities signing Contracts with beneficiaries for maintenance will be also used;	The maintenance guidelines are prepared

**Q 2.16 Risk Management:**What specific risks, if any, does your project pose to the environment, people or institutions affected by the project and how will these be managed and mitigated?

The project does not pose any risk to environment, population and institution because it brings different solutions to environment management and climate change by improving social livelihood status.

### SECTION 3: PROJECT BUDGET AND VALUE FOR MONEY

**Q 3.1** **What** is the total cost of the project (RWF; provide total cost for each year of the project disaggregated by capital and recurrent expenditure)?

The project total budget is 745, 881, 350 Rwf

Budget	Year 1	Year 2
Recurrent	31, 740, 000 Rfw	55,140, 000 Rfw
Capital	256, 924, 060 Rwf	402,077,290 Rfw
TOTAL	288, 664, 060 Rwf	457, 217,290 Rfw

**Q 3.2** **What** is the total amount requested from FONERWA (RWF; provide financing needs for each year of the project)?

The total amount requested from FONERWA is as follows:

Budget	Year 1	Year 2
Recurrent	31, 740, 000 Rfw	55,140, 000 Rfw
Capital	256, 924, 060 Rwf	402,077,290 Rfw
TOTAL	288, 664, 060 Rwf	457, 217,290 Rfw
TOTAL BUDGET Y1 and Y2	745,881,350 Rfw	

**Q 3.3** List all other sources of funding. Note whether the status of other funding sources (*i.e. Whether the money has been approved or is awaiting authorisation*)

None

**Q 3.4** Additionality: Explain why the project cannot be fully financed by other sources than FONERWA?

The District does not have partners to finance integrated environment project.

**Q 3.5** What non-financial support is needed to implement the project? What is the best way for FONERWA to deliver this support?

The non-financial support needed to implement the project is the continuous follow up and guidance from FONERWA during the execution phase of the project. Trainings are also needed specifically in projects design and implementation.

**Q 3.6** Value for Money (Economy):

- i) Briefly describe how the required inputs have been identified and how the GoR procurement procedures will be used to ensure they are obtained cost effectively
- ii) Provide identified unit cost measures or selected project outputs? (Please see VfM guidelines on how to determine these. Further guidance from the FONERWA Secretariat is available)

The right inputs have been identified to deliver the required outputs by gathering information from technical experts. During procurement of input the activity will be guided by the law n°05/2013of13/02/2013 Modifying and completing the law n° 12/2007 of 27/03/2007 on public procurement (see annexe 5). The steps that the process will go by will include tender documents preparation (technical specifications), advertise the tender, bidding, opening, evaluation, notification and signing of contract.

**Q 3.7** Value for Money (Efficiency):

- i) Briefly explain how the provision and operation of project inputs produce the expected outputs
- ii) What is the Net Present Value (NPV) and benefit cost ratio for this project (Please see VfM guidelines on how to determine these measures. Further guidance from the FONERWA Secretariat is available)?

The project has four outputs and their outputs indicators which will be monitored. The logical framework has already elaborated and should be a guiding tool to deliver outputs. It is for this reason the project will be managed by staff that will be hired for this to follow up day to day project activities. The M&E plan should be implemented and to provide quarterly report of progress activities.

The net present value (NPV) for the project is 1,348,178,865 Benefit cost ratio (BCR) is 2.13 (for the details see the annex Cost Benefit Analysis).

<b>Q 3.8</b>	<b>Value for Money (Effectiveness):</b> How does your project demonstrate effectiveness: - How will it show the outputs meet the project objectives? - Which indicators will you measure to demonstrate effectiveness?
<p>Vulnerability of communities to environmental challenges will be reduced, resilience of Gahabwa and Nyamuhebe residents to environment and climate related pressures built and their livelihoods improved. The combination of the achievement of the 3 main outputs of the project which are Protected land against erosion in Gahabwa (20 ha) and Nyamuhebe Villages (50 ha), Green technology introduced through alternative renewable sources of energy and rainwater harvesting system installation, in Nyamuhebe and Gahabwa Villages and Population of Nyamuhebe and Gahabwa Villages engaged in alternative income generating activities will meet the project objectives.</p> <p>The realization of the outcomes will be measured using the outcomes indicators which are</p> <ul style="list-style-type: none"> <li>• Area of land protected using radical, progressive terraces and agro-forestry trees</li> <li>• Number of Population involved in income generating activities</li> </ul>	

**ATTACH ANNEXES HERE TO THE PD APPLICATION**– *these can be accepted as separate files but clearly organise and identify the annexes so they are easy to refer to.*