

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

(Attach this sheet to the front of your submission. *Please do not exceed one A4 side of paper.*)

<b>Project Title</b>	<b>AKANYARU WATERSHED PROTECTION PROJECT</b>
<b>Project Summary</b> <i>(In 75 words or less please summarise what your project intends to achieve and how)</i>	This project will introduce a range of watershed management measures aimed at increasing the resilience of Akanyaru watershed located in Gisagara District by preventing soil erosion and land-slides which silt Akanyaru river and its tributaries.  As a result, many potential outcomes may be achieved such as Akanyaru watershed protection in Gisagara District enhanced.
<b>Anticipated Start Date</b> <i>(DD/MM/YYYY)</i>	01/10/2014
<b>Project Duration</b> <i>(in months)</i>	39 months <sup>1</sup>
<b>Funding Requested</b> <i>(RWF)</i>	<b>2,125,218,593.5 RWF</b> (82% of the project total cost)
<b>Name of Lead Organisation</b>	Gisagara District
<b>Type of Organisation,</b> <i>which best describes the Lead Organisation</i> <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>	-MINAGRI - Gisagara Modern Farmers Ltd (GIMODERNFA Ltd) - CONSEP Ltd
<b>Full Office Address</b>	Gisagara District, P.o Box 219 Butare E-Mail: <a href="mailto:gisagaradistrict@minaloc.gov.rw">gisagaradistrict@minaloc.gov.rw</a>

<sup>1</sup> Normally it was 3 years but due to the preferable agroforestry trees plantation period in Q2 (October-December), The project will end in the Q2 of the year 2017-2018 which will be in December 2017. Indeed, those trees must be planted after the terraces are developed fully. And then comes the final evaluation in the same quarter ending.

<b>Website Address</b> (if applicable)	Website: <a href="http://www.gisagara.gov.rw">www.gisagara.gov.rw</a>
<b>Contact Person</b> (the person who will have ultimate responsibility and be accountable for delivering this project)	<p><b>Name:</b> HATEGEKIMANA Hesron</p> <p><b>Position:</b> Vice Mayor in Charge of Finance, Economic and Development in Gisagara District</p> <p><b>Email:</b> <a href="mailto:hesron69@yahoo.fr">hesron69@yahoo.fr</a></p> <p><b>Tel:</b> 0788484858</p>

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

Date Received: \_\_\_\_\_

PD Code: \_\_\_\_\_

Date Comments Sent: \_\_\_\_\_

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?

The total number of full-time employees in Gisagara District is 56 at the district level.

**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)?

The district has permanent staff in environment and natural resources management. There are also environment Committees in charge of environment and natural resources protection at Village, Cell, Sector and District levels.

Gisagara District has also a Task force in charge of forest which is experienced in forest Management. There are also Cooperatives already dealing with land, forest and water management.

In addition, our partners have experience related to the implementation of the activities mentioned in our project. For instance, CONSEP Ltd are experienced in trees planting, watershed protection as they did in Nyabarongo watershed protection referenced in their Company Profile document; while GIMODERNFA Ltd are experienced local farmers who already deal with erosion control methods such as radical and progressive terraces.

Furthermore, the District has experience in managing projects with support funds from its partners like Ministry of Agriculture (MINAGRI) which earmarks in agricultural oriented activities planned by the District in each fiscal year.

For example:

-In the fiscal year 2013-2014, Radical terraces were developed on 269 ha and progressive terraces on 282 ha in 11 sectors. One of those projects is the development and valorisation of radical terraces in Nyanza and Kigembe Sector under MINAGRI support.

-In 2013-2014 Fiscal Year, Gisagara District planted trees on 151.1 ha in 10 sectors under MINIRENA support and the monitoring and evaluation is done through supervision contract of 2years in partnership with the private sector.

Those funds from partners such as MINAGRI and MINIRENA are managed at the District level using the district BNR bank account for disbursement in paying services, materials and activities.

<b>Q 1.3</b>	<b>List</b> 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)
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The project will be lead by as follow:

**A. Project Executive Committee**

1. HATEGEKIMANA Hesron, Vice Mayor in charge of Finance, Economic and Development,  
Email: [hesron69@yahoo.fr](mailto:hesron69@yahoo.fr), Tel: 0788484858.

He will act as the President of Project Executive Committee.

2. MVUKIYEHE Innocent, District Executive Secretary and Chief Budget Manager:

Email: [mvukiyehi@yahoo.fr](mailto:mvukiyehi@yahoo.fr), Tel: 0788636754.

He will act as project Chief Budget Manager with coordination of technical activities to financial ones.

3. UWIZEYE Justin, Professional in Charge of Forests;  
Email: [aimejustin@hotmail.com](mailto:aimejustin@hotmail.com), Tel: 0788494425.  
He will follow up activities related to forest and Agro forest management.
4. DORICYUSA GABIRO Alain Michel, Professional in Charge of Environment and Water;  
Email: [dolicyusa@gmail.com](mailto:dolicyusa@gmail.com), Tel: 0788628895.  
He will act as a Permanent Secretary of Project Executive Committee and follow up activities related to the natural resources activities.
5. MUNYENGANIZI Aimable, Professional in charge of Infrastructure;  
Email: [aimable2001@yahoo.fr](mailto:aimable2001@yahoo.fr), Tel: [0783225985](tel:0783225985).  
He will conduct a follow up on 150 m<sup>3</sup> water tank construction at Nyaruteja Market, in Nyanza Sector and everywhere in surrounding schools.
6. HAKUZIMANA Eugene, Managing Director of GIMODERNFA Ltd,  
Email: [gimodernfa@gmail.com](mailto:gimodernfa@gmail.com), Tel : 0788415207.  
He will coordinate cooperative working in agricultural field located in the area concerned by the project and other tasks assigned by Gisagara District.
7. NSHIMIYIMANA Manasseh, Managing Director of CONSEP Ltd,  
Tel :0788649153.  
He will coordinate Bamboos and pennisetum planting to protect the buffer zone of Akanyaru river and other tasks assigned by Gisagara District.
8. GAHAMANYI Jean Pierre, REMA Environment Facilitator at Gisagara district;  
Email: [jipv21@yahoo.fr](mailto:jipv21@yahoo.fr), Tel: 0783579858.  
He will follow up activities related to the natural resources management.

The project Executive committee will act as Technical Assistant in regular monitoring of field activities and will provide technical advice in areas of forestry, Agroforestry, soil conservation, environment protection, terraces development and rainwater tanks construction. In addition, they will support the Project staff to analyse reports accordingly and ensure that project milestones/targets are being met.

## **B. Project Staff**

The District will hire project staff made up of a project manager experienced in natural resources

management and 2 technicians experienced in natural resources management or project management related background.

The project staff will coordinate field activities and be responsible of monthly and quarterly progress reports preparation and compile them for submission to the Mayor of Gisagara District. They will also coordinate daily field activities.

### **C. Steering committee**

The steering committee of the project will be made of the project executive committee's members plus the following persons:

1. NDIMURWANGO Jean Bosco, Director of Planning in Gisagara district,  
Email: [ndiniyade@gmail.com](mailto:ndiniyade@gmail.com), [Tel: 0788777171](tel:0788777171)
2. NYIRIMANZI GAKWANDI Vincent, Director of Finance in Gisagara District,  
Tel: 0787560014
3. MUNEZERO Clarisse, Professional in charge of Agriculture,  
Email : [clarisse.munezero@yahoo.fr](mailto:clarisse.munezero@yahoo.fr) Tel : 0788476681
4. HATEGEKIMANA Augustin, Professional in charge of Human Resources Management in  
Gisagara District, Tel : 0788801524
5. BEDE John, Executive Secretary of Mamba Sector,  
Tel : 0783597475
6. MUGAMBIRA Etienne, Executive Secretary of Gishubi Sector,  
Tel : 0788798730
7. KABALISA Jean Claude, Executive Secretary of Muganza Sector,  
Tel : 0788839376
8. NYIRIMANZI Gilbert, Executive Secretary of Mugombwa Sector,  
Tel :0788514834
9. NDUNGUTSE Moïse, Executive Secretary of Mukindo Sector,  
Tel :0788475255
10. RUTABURINGOGA Jérôme, Executive Secretary of Kansi Sector,

Tel :0788612293

11. BIGIRIMANA Augustin, Executive Secretary of Kigembe Sector,

Tel :0788432567

12. UWIMANA Jean Bosco, Executive Secretary of Nyanza Sector,

Tel : 0788757119

**Q 1.4** **Lead Organisational Finances. Provide a copy of these** 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.

The Annual financial report of the District is attached as an annex.

## SECTION 2: INFORMATION ABOUT THE PROJECT

**Q 2.1** **Why** is the project 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.*) ?

Gisagara District is located in the Southern Province of Rwanda and is one of the most populated Districts in Rwanda with 322,803 persons at a density of 475 persons / km<sup>2</sup> which is 14% higher than the national average of 416 persons / km<sup>2</sup>. In the 8 sectors touching on the Akanyaru river, there are 196,655 people whose 91,786 are men and 104,869 are women. The area has 437 km<sup>2</sup> with density of 458%. Among these population, 66,280 (33%) are in extreme poverty. (Gisagara DDP of June 2013)

The data indicate that the majority of the population is young with 53% aged less than 19 years and 81% under 40; people of 65 years old and above are 2%. Females are 52% in the district. Most of the people of Gisagara District depend on rain-fed subsistence agriculture (85%). (EICV 3 District Profile Gisagara)

The national average of soil losses is about 94t/ha/year and 15 billion tons per year, which can contribute to survival of 40,000 persons per year ([www.devpartners.gov.rw](http://www.devpartners.gov.rw)).

In fact, in recent years, rainfall has become more erratic and less predictable because of the climate change and that leads to more floods, landslides and erosion. Because of these problems, reducing vulnerability to climate change has become a national priority in EDPRS 2 and Environment and Natural Resources Sector Strategy (2013-2018). There are soil erosion due to lack of sufficient infrastructure for soil erosion control, along Akanyaru river, Mamba, Gishubi, Muganza, Mugombwa, Mukindo, Kansi and Nyanza are sectors that slopes directly fall in the Akanyaru river.

This region is characterized by high slopes that have caused high erosion. The soil productivity especially for crops such as maize, cassava, beans and rice has been refrained. The 2013-2014 Imihigo report that where terraces have been developed potential maize productivity per ha is 3.7T for maize and 1.5T for beans while actually the production is estimated by the district agronomist at 3,3T and 1,1T respectively nearby the river.

The impact of raindrops on the soil surface broke down soil aggregates and dispersed the aggregate material. Lighter aggregate materials such as very fine sand, silt and organic matter were easily removed by the raindrop splash and runoff water.

Soil erosion at the Akanyaru river watershed is increased by the sloppy watershed lacking vegetation and erosion control techniques such as radical and progressive terraces and trees. The field's topsoil is eroded and sediments are transported into the river.

The soil is detached, moved and deposited. Topsoil, which is high in organic matter, fertility and soil life, is relocated elsewhere "on-site" where it builds up over time or is carried "off-site" where it fills in drainage channels. That soil erosion reduces cropland productivity and contributes to the pollution of adjacent watercourses, wetlands and Cyamwakizi lake.

Soil movement by rainfall (raindrop splash) is usually greatest and most noticeable during short duration, high-intensity thunderstorms. Although the erosion caused by long-lasting and less intense storms at the Akanyaru watershed is not as spectacular or noticeable as that produced during thunderstorms, the amount of soil loss can be significant, especially when compounded over time. Runoff can occur whenever there is excess water on a slope that cannot be absorbed into the soil or trapped on the surface. The amount of runoff can be increased if infiltration is reduced due to soil compaction.

Akanyaru watershed management is one of Gisagara critical ecosystem which must be protected as indicated in Gisagara District Development Plan (DDP) which is being implemented from 2013 to 2018.

The Akanyaru marshland is an area of great biodiversity, particularly of birdlife. There are records of at least 54 bird species with wetland habitats in the swamp region. These include migrant Malagasy Pond Heron, Pallid Harrier and Great Snipe. Lesser Kestrel have been seen. The near-threatened Papyrus Gonolek is present as is the vulnerable Papyrus Yellow Warbler. The Sitatunga, an antelope, is found in the swamps. Currently, RDB is preparing the touristic corridor among which Akanyaru river's birds species are one the attractive spots. Thus, the buffer zone protection of Akanyaru river would benefit many sectors such as the biodiversity, tourism, river's hydrology purification.

Despite all this, the valley is not protected, and much of the land that is only flooded seasonally is cultivated at other times of the year. The local people also engage in fishing in the river and swamps. The wetlands are increasingly being used for agriculture. In the dry season the local people cut and burn the marsh vegetation, steadily destroying the habitat. In February 2011, the Minister of Lands and Environment told the people of the Gisagara District to make better use of the Akanyaru swamp, with more modern farming methods. According to Minister Kamanzi the *Nile Basin Initiative* Cooperative Framework did not debar use. He said, "There is no agreement that prevents our population from using the water...of course in a good way."<sup>2</sup>

Akanyaru river is surrounded with steep slopes lacking vegetation which then leads to soil erosion enhancing the siltation of water bodies nurturing the river. Akanyaru river contributes a lot in Akagera water body whose water will be used at Rusumo hydropower generation even though its conception is still in process. If the river is not protected, the siltation as mentioned above will have a negative impact at Rusumo Hydropower generation.

Apart from runoff arising from lack of vegetation, the local people raised a concern about the voluminous 150m<sup>3</sup> hole resulted from rainwater coming from the market's roof pouring polluted water along with soil eroded into the river and which is also a favourable proliferation site for disease vectors. Local rivers and marshlands in Gisagara District are a source of water used in irrigation of local agricultural activities. The construction of the **underground rainwater harvesting tank** (planned in this project) will be done at the same place where the dangerous hole was created by storm water and it will harvest the rainwater generated from the market's roof. The resulting benefit will be that the market's roof storm water will no longer neither erode soil causing siltation to the Akanyaru river nor stay a risk to public health. Instead, that water will be used for irrigation purposes in the nearby farms reducing overuse of nearby watercourses.

The above stated mainly soil erosion measures will be complemented at the river bank through plantation of protective and filtrating belt composed of bamboos and pennisetum and the development of radical and progressive terraces on 4800 ha surrounding the Akanyaru river.

In fact, as mentioned before, the Akanyaru watershed is sloppy and an easy target for soil erosion causing siltation in the river; the reason why radical and progressive terraces will be developed and reinforced by agroforestry and forestry trees reducing soil erosion patterns characterising that area. Then to complement that measure, the buffer zone will be rehabilitated by creating the mentioned protective and filtrating belt

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<sup>2</sup> [http://en.wikipedia.org/wiki/Akanyaru\\_River](http://en.wikipedia.org/wiki/Akanyaru_River)



of bamboos and pennisetum which will once again make it a favourable site for biodiversified species promoting tourism in Gisagara District.

This project will create jobs for local people among the eight Sectors touching on the riverside such as Mamba, Gishubi, Muganza, Mugombwa, Kansi, Mukindo, Kigembe and Nyanza. It will reduce soil erosion, provide an alternative to water bodies usage in irrigation, protect the Akanyaru and Cyamwakizi lake buffer zone and will improve agricultural yields, enhance sustainable food security and reduce flooding and landslides and people around Nyaruteja Market will have access to water for irrigation or other purposes. This project will create jobs for local people and increase their incomes.

**Q 2.2** **What** 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.*)?

The overall objective of the project is to enhance the protection of the Akanyaru watershed in Gisagara District. In addition, the project aims to reduce soil erosion, increase soil productivity and also diversify livelihoods beyond agriculture to reduce the vulnerability of the beneficiaries to climate change in line with Gisagara DDP 2013-2018, ENR Sector strategy, MDG objective 7, and EDPRS 2.

The project objectives will be achieved through the following outputs:

**Output 1: Soil erosion control increased through development of terraces and trees plantation in 8 sectors<sup>3</sup> on 4800 ha**

In order to reduce soil erosion on the steep slopes and enhance sustainable soil productivity in the Akanyaru watershed, this project will be developing radical terraces on 800 ha and progressive terraces on 4,000 ha based on slope variability. We will be planting various species including GREVILLEA ROBUSTA and CEDRELLA CERRATA (Soil and Nitrogen fixing) of agro forestry trees on 8,800 ha and forestry trees on 200 ha including EUCALYPTUS MICROCORYS, CALLITRIS ROBUSTA. This variety of species will help to reduce risks of disease extermination of one species. The agro forestry trees will be composed mostly of nitrogen fixing species to increase the potential of soil productivity and they will be

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<sup>3</sup> The concerned sectors are Mamba, Gishubi, Muganza, Mugombwa, Mukindo, Kigembe, Kansi and Nyanza

planted on both the radical and progressive terraces to strengthen the soil erosion control mechanism. There will be rehabilitation of seven ravines pouring into Akanyaru river by constructing gullies.

The following indicators will be measured: 1.1 Number of ha of terraces constructed (radical and progressive), 1.2 Number of ha of trees planted<sup>4</sup> a) agroforestry trees<sup>5</sup> b) forestry<sup>6</sup>

### **Output 2: Conservation and protection of Akanyaru river buffer zone strengthened**

Based on the fact that Akanyaru is among the Important Birds Areas (IBAs) in the tourism sector, this project will promote Conservation and protection of Akanyaru river buffer zone by planting bamboos and pennisetum on 45ha on Akanyaru riversides and around Cyamwakizi lake.

Livelihoods will be diversified through rational exploitation of bamboos promoting artisanal handicraft to be sold to tourists visiting the river to watch its various birds' species which will have proliferated due to protected ecosystem. The pennisetum planted will be used as fodder nutrients for livestock by local farmers. This will be a way to avoid conflicts between local people and the natural resources as they will be able to benefit rationally from the bamboos and pennisetum in a sustainable and controlled manner.

The indicator related to improved livelihoods will be measure by the number of green jobs created and the number of employees upgraded within the UBUDEHE categories. The UBUDEHE category refers to the categorization of people based on their level of living standards, there are 7 categories and the poverty increases in the descending order (the poorest are in the 1<sup>st</sup> category while the richest are in the 7<sup>th</sup>).

The following indicators will be measured:

2.1 Number of Ha of bamboos and pennisetum planted

2.2 Number of ravines with shrubs planted

### **Output 3: Rainwater harvesting tank installed in Nyaruteja market and operationalized**

The project will be constructing a 150m<sup>3</sup> rainwater harvesting tank to address the problem at Nyaruteja Market.

### **Outcome 1. Akanyaru watershed protection in Gisagara District enhanced**

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<sup>4</sup> The area used for agro forestry trees planting is the same as that of radical and progressive terraces

<sup>5</sup>

<sup>6</sup>

**Outcome Indicator 1.1.** Number of ha terraces constructed

**Outcome Indicator 1.2.**

a) Number of green jobs created (based gender, youth and Ubudehe categories)

b) Number of households upgraded within the UBUDEHE categories

**Outcome Indicator 1.3.** No. of Ha of akanyaru River and Cyamwakizi Lake buffer zone rehabilitated<sup>7</sup>

Other details and indicators can be found in the log-frame and M&E plan attached as annex.

**Q 2.3** **How** 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.*)?

### **Approach and methodology**

1. The project has already started adopting a participatory approach with the communities in Akanyaru watershed to promote local ownership and we are ensuring the local population's contribution in the better implementation of this project if funds become available
  - a. Local people were the first ones to approach the district due to the soil erosion problems and the huge dangerous dam caused by the Nyaruteja market's lack of rainwater harvesting tank.
  - b. Afterwards, series of consultations and meetings have been held with local communities and the private sector (such as Gisagara Modern Farmers Ltd and CONSEP Ltd) to reassess the problems, assess needs and define local interventions. They showed interest in the watershed management project as we explained the outcomes of this project. Some of the women consulted lead single headed families with financial issues especially their children's school fees and health insurance. Most of local population (especially youth and women who are the majority) welcomed the job opportunity, the potential artisanal handicraft and the long-term increased soil productivity eventually resulting from the top soil erosion reduction in the Akanyaru watershed through different methods planned in this project. Youth in particular are jobless and need to be

<sup>7</sup> Rehabilitation means having all the buffer zone covered by bamboos spaced by 1m instead of the original 5m realized while planting

able to sustain themselves (self-resilience as promoted by our Government) by starting to save money for their future families.

- c. We have already functioning environmental committees in all the sectors and in their cells which are coasted on the Akanyaru river. Those committees have started to raise public awareness and have promised full participation in the implementation of the project.
  - d. In order to help those environmental committees liaise with the district with local population; this project will increase the environmental awareness of the committees and the private sector partners by training each committee so that they can effectively oversee the interventions concerning the project.
  - e. Agreements specifying all the interventions will be drawn up and signed between the district authorities and the target communities to ensure commitment on all sides.
  - f. The Coordination, monitoring and evaluation of the project by Gisagara District will be done in collaboration with Gisagara Modern Farmers Ltd (GIMODERNFA Ltd) and CONSEP Ltd using measures related to Conservation and management of natural resources.
2. 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 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 District Forestry, Environment Officers and Environment Facilitator will visit each site on a weekly basis to verify the reports, and the permanent secretariat of project executive committee will analyse reports, conduct field verification no more than two time per week and provide advice accordingly.
  - b. Manpower recruitment will be based on the Ubudehe categories, land ownership at the first level, gender and youth oriented selection with high Labour intensity approach will be used.  
The project will disburse the funds for wages to the labourers every month through their bank accounts.

- c. Cooperatives, women and youth which are the majority of the population will be involved in trees planting and terracing development.
3. The project will outsource 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. Then the Contract negotiation and signing follows.
  - b. The contract implementation 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.
4. Livelihood support will be market-oriented and targeted towards viable, climate resilient income generating activities (IGAs).
- a. Opportunities will be identified with beneficiaries and market research will ensure only viable IGA's are supported.
  - b. The project will work through organised groups including cooperatives to extend its reach and provide cost effective support services.

To achieve the objectives, the project will deliver the following outputs:

1. In order to reduce soil erosion and enhance sustainable soil productivity in the Akanyaru watershed, This project will be developing radical terraces on 800 ha and progressive terraces on 4,000 ha based on

slope variability. We will be planting various species of agro forestry trees on 4,800 ha and forestry trees on 200 ha; this variety of species will help to reduce risks of disease extermination of one species. The agro forestry trees will be composed mostly of nitrogen fixing species to increase the potential of soil productivity and they will be planted on both the radical and progressive terraces to strengthen the soil erosion control mechanism.

2. There will be rehabilitation of seven ravines pouring into Akanyaru river by constructing gullies.
3. A rainwater harvesting tank of 150 m<sup>3</sup> constructed near Nyaruteja Market, in Nyanza Sector where there is a dangerous hole created by lack of proper rainwater harvesting system which pour its polluted water downside into the Akanyaru river while eroding the soil
4. Based on the fact that Akanyaru is among the Important Birds Areas (IBAs) in the tourism sector, This project will promote Conservation and protection of Akanyaru river buffer zone, we will plant bamboos and pennisetum on 45km on Akanyaru riversides and around Cyamwakizi lake (about 8km). In the long term, those bamboos will play a role in diversifying the livelihood of local people from the monopolist agriculture towards artisanal handicraft that will be sold to tourists visiting the river to watch its various birds' species which will have proliferated due to protected ecosystem.
5. Project grant efficiently managed and coordinated by an experience and qualified staff.
6. Monitoring and evaluation framework established and respected.

Details and sequencing of the specific activities are included in the attached work plan.

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

The project specifically targets the livelihood of women and youth which in fact are the majority of Gisagara district's population {as shown Q.2.1 on the page 6 where we indicated that the majority of the population is young with 53% aged less than 19 years and 81% under 40; people of 65 years old and above are 2%. Females are 52% in the district. Most of the people of Gisagara District depend on rain-fed subsistence agriculture (85%)}. (EICV 3 District Profile Gisagara)

- . Those groups will be involved in watershed protection activities as paid workers. As stated in the **log frame on the Outcome Indicator 1.2. a) and b)**; jobs will be created based on gender, youth and Ubudehe categories. In the process of employment, we will carry out a baseline survey to identify the status of all employees in order to have a baseline to be based on during the M&E process during the project implementation up to the end.

- The project will disaggregate measurement of results by gender, age and Ubudehe categories to track progress against stated targets for women and youth. This will be achieved by job offering selection of women and youth in majority.
- Strengthened and diversified livelihoods (artisanal handicraft) will raise household incomes for women and youth enabling them to afford more nutritious diets, subscribe to the medical insurance for improved access to health services. (Reference made to Q.2.3 on the Page 11 of this PD)
- The project will also ensure that women and youth also have an equitable representation on local watershed management committees through a quota of seats reserved for women headed households and youth.

**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**

### **1. Beneficiaries and Local community**

Some of the target beneficiaries have been directly affected by flooding and landslides losing property and possessions. Most of the communities living in the target area are poor subsistent farmers. They are highly vulnerable to climate change as they rely on farming for food supply. The erosion directly affects them, reducing production of food in the household. The wider community is also affected by high prices of food commodities in local markets. The increase in landlessness for many young people combined with the lack of non-farming jobs has led to high levels of youth unemployment and disaffection.

Local community were the first to identify raise the soil erosion issues because their agricultural productivity was decreasing excessively. They asked help to the local authority who in turn transmitted their concerns to the district. In designing this project the local community was consulted and via the local environmental committees, they participate actively in raising the public awareness and provide suggestions continuously.

### **2. District authority, MINAGRI, MINIRENA and MIDIMAR**

Those institutions have in common the loss of time; financial and material efforts spent in trying resolve or shrink the negative impact of disaster due to flooding and landslide around the target area.

In the project design, The district authority delegated a team among its technicians to prepare the project document and to follow up its progress at every step of the road. Those other institutions inspired for example MIDIMAR's National Disaster Management Policy was helpful, MINIRENA has also elaborated principles and regulations to manage natural resources exploitation which are helpful in the project design and also will be consulted during implementation. MINAGRI has also elaborated principles and regulations to manage and resolve problems related to land slide through anti – erosion practices.

## **STAKEHOLDERS INFLUENTIAL IN SOLVING THE PROBLEM**

### **1. Local community**

In the project delivery phase, the local environmental committees, composed of the local people, will continue to play a very important role in involving the entire local community in the implementation of the project. We are confident of the project sustainability because in the project conception phase the local people have been consulted and their suggestions were incorporated in this project document.

Furthermore, in the monitoring phase they will play a role for which incentives will be provided based on



their performance. Local environmental committees will supervise and mediate people with the natural resources through environmental awareness campaigns.

## **2. Private Sector (GIMODERNIFA Ltd and CONSEP Ltd)**

Gisagara Modern Farmers Ltd (GIMODERNFA) and CONSEP Ltd will be involved in the project implementation, monitoring and evaluation.

Gisagara Modern farmers Ltd (GIMODERNFA Ltd) and CONSEP Ltd expertise and experiences are described below:

i) CONSEP Ltd which is experienced in bamboos and pennisetum planting, radical terraces development and capacity building. They will intervene in designing of M&E data collection program and capacity building of the staff and workers but also in planting bamboos and pennisetum based on the fact they have carried out similar works elsewhere.

ii) Gisagara Modern Farmers Ltd (GIMODERNFA Ltd) has the experience of working closely with cooperatives which work in agricultural fields. GIMODERNFA Ltd will help in mobilization of farmers and agricultural cooperatives that possess land in the area concerned by the project.

GIMODERNFA Ltd will also participate in the monitoring and evaluation of the project implementation. Furthermore, Gisagara District, from its origin has regularly secured some funds from its budget in order to manage the natural resources including, tree planting, soil erosion control, rivers and lake protection and rainwater harvesting especially in schools, administrative offices and health centres.

## **3. District**

The district staff team will be responsible for the financial and technical management and coordinating all stakeholders. They will also ensure the long-term sustainability of the project through a well planned decentralized follow up plan.

## **4. MINAGRI**

MINAGRI will be involved in the project implementation by earmarking into activities related to erosion control and by providing technical support to radical and progressive terraces.

## **5. FONERWA**

They will provide Financial Support and reports of the monitoring and evaluation team will be provided to

them.

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

The participatory approach and job created for local communities of the project will ensure that positive outcomes are sustained by the community beyond the lifetime of the project. At the end of the project funding, the management will be assured mostly by the beneficiaries through management committees established and the monitoring of trees by local population sensibilized by the environmental committees. An advantage we have in Rwanda is the communal work (Umuganda) which will be organized on the target area of the project every time the local monitoring committee will deem necessary.

The District will remain responsible of the monitoring and proper project implementation and signing of MoUs with the partners. Key elements of the project are embedded in the District Development Plan and project targets will be included in District Performance Contract every year, thus district technicians in charge of environment and natural resources will supervise the project as much as possible to verify everything is going according to the plan.

The financial benefits will allow sustainability of the project:

- Reduced erosion and Improved soil fertility and will increase agriculture production enhancing food security and raising household incomes which can be invested in new technologies, such as fertilizer use and selection of new and appropriate crop varieties and livestock species.
- Increase of households income from livelihoods support will provide long-term financial security to some of the poorest households in Gisagara District (based on the Ubudehe categories) reducing dependence on VUP and other Government support.( Possibility to work mostly with 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> clusters of Ubudehe as poorest people in terracing activities and other paid works)
- Handicraft materials, capacity building on maintenance, grazing products, touristic area (IBA), fertilizing leaves

Employment opportunities and income generation activities will be created for some of the poorest households in the district especially following gender balance and youth participation principles. This project will be sustainable because we have started the public participatory and consultation approach with the locally based environmental committees in the 8 sectors and cells of the project implementation. These committees are already functional and will continue the mediation of peoples' interests to the natural

resources interests. In addition, the monitoring plan of planted trees will involve the local private landholders and incentives will be provided based on grown trees (Somehow similar to the carbon trading principles). Thus, they will participate actively in the monitoring and protection of planted trees.

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

The income will be generated by the project through:

1. Job creation for local people for the project implementation
2. selling of products made from bamboos and the artisanal handicraft made from them, surplus of food produced thanks to soil fertility increase
3. The pennisetum (imbingo) are valuable grazing fodders which will be rationally exploited by the local farmers in a way to reduce the natural resources overexploitation.
4. The sustainable increased agricultural yields from improved soil fertility (due to soil erosion control and nitrogen fixing agro forestry trees and also the leaves fertilizing capacity) will increase the incomes generation of the local community.
5. Increased water access of local people and better irrigation while reducing the risks of depleting Akanyaru watershed's water bodies.
6. In the long term, as Akanyaru is among the Important Birds areas (IBAs classification by RDB) tourists will be attracted and they will spent a considerable amount of money when the project will be fully completed.
7. In the long term, The buffer zone conservation and protection from soil erosion will reduce water siltation in the Akanyaru river thus the potential hydropower generation at Rusumo river will be increased.
8. Some of the agro forestry trees will be exploited rationally depending on their qualities (fuel wood products, timber ...)

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

Feasibility study not required for this kind of project.

<b>Q 2.9</b>	<b>Preparation:</b> Are there any outstanding regulatory or legal requirements that need to be met before the project can proceed ( <i>access to land, planning consent, use of new technologies</i> )?
No, there are no legal or regulatory requirements which are needed to be met before the project implementation.	
<b>Q 2.10</b>	<b>Preparation:</b> Has an Environmental Impact Assessment been conducted for the project ( <i>If yes, then please attach a copy to this PD</i> )?
The Environmental Impact Assessment is not needed for this project, reference made to the Organic Law N° 04/2005 of 08/04/2005 determining the modalities of protection, conservation and promotion of environment in Rwanda.	
<b>Q 2.11</b>	<b>How</b> will the performance of the project be monitored and evaluated ( <i>both during and after the project</i> )?
<p>During the project implementation period, the monitoring and evaluation will be done as follow:</p> <ul style="list-style-type: none"> <li>• The technicians hired to supervise the works at the field will quantify all activities and will report to the project manager every week;</li> <li>• After compiling reports from technicians, project manager will send a weekly consolidated report to the district coordination team ( Project Executive Committee)</li> <li>• The project Executive Committee Secretariat will weekly monitor and evaluate the progress of the project implementation according to the information provided in the weekly report by project manager.</li> <li>• The District coordination team will analyze reports, supervise the field activities and provide advises to the project manager.</li> <li>• Monthly progress reports of activities will be prepared by the project manager and submitted to the District Mayor for approval.</li> <li>• Quarterly progress reports will be prepared by the Project Manager by the District Authority who will submit them to FONERWA.</li> <li>• The project steering committee will quarterly assess the progress of the project implementation and provide advises to the project manager.</li> </ul>	

- At the end of each year an impact assessment will report the progress and analyze it based on the set targets in the log-frame. The results will be shared with all key stakeholders through workshops and community meetings to reinforce public participation and make adjustments where needed for an effective implementation.
- A Final evaluation will be conducted by an independent consultant who will present the findings to FONERWA, MINIRENA and the District.

Beyond the lifetime of the project the management committees and the District environment and natural resources officers will continue to monitor the ongoing operation and maintenance activities. But the main role will be played by the local environmental committees who will continue to raise public awareness through regular sessions in order to avoid the overuse of natural resources in the Akanyaru watershed.

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

The stakeholders of this project will be involved in monitoring and evaluation as follow:

- Local management committees will be elected among the beneficiaries; they will ensure that all activities go well as planned, and those committees will have responsibility for daily monitoring and weekly reporting as focal points at each zone;
- With the bamboos' potential to provide the artisanal handicraft materials, the project will facilitate the capacity building in a way to improve the artisanal skills of local people. The bamboos market is diversified with the possibility to produce various products such as non-metallic skewers<sup>8</sup> often made from bamboo, chairs, table mats, ... which are used daily on the country scale.

The problem is to come up with the products of good quality but products are always in need.<sup>i</sup>

- All stakeholders will participate in M&E through general assembly and validation of monitoring reports;
- The multi-disciplinary team from different stakeholders notably government agencies and private sector will annually assess the implementation approach and achievements and recommend

<sup>8</sup> <http://en.wikipedia.org/wiki/Skewer>

necessary amelioration steps and share the report with all stakeholders for further suggestions.

**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 directly contributes to the following FONERWA output 1:

Conservation and management of natural resources strengthened and sustained. and the following five indicators have been used in the project log-frame:

Indicator 1.1 : Area (ha) of land secured against soil erosion

Indicator 1.2: Area (ha) of forest and agro-forest cover (disaggregated by afforestation/restored forest/agro forestry).

**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 lessons will be disseminated using:

1. Progress reports to stakeholders and decision makers where challenges encountered will be raised and recommendations corresponding will be shared; thus all the stakeholders will be able to ask questions to understand better during monthly meetings.
2. Articles will be published regularly on the District website for all stakeholders including researchers, policy makers;
3. Radio broadcasting will be disseminated for local community who don't access internet on a daily basis;
4. Posters and leaflets in local language will be used for local community members;
5. Lesson learning meetings and workshops with all stakeholders will be organized;
6. Cross visits for observation and experience sharing with beneficiaries and other farmers in the District will be organized.

7. After this project, documents will be accessed because they will be saved electronically in the form of soft copies and other hard copies will be stored in the district's archives.

**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?

<b>Risks</b>	<b>Impact</b>	<b>Problem</b>	<b>Mitigation</b>	<b>Assumptions remaining</b>
Lack of funding	H	L	Well prepared PD and submitted on time	FONERWA accepts our PD
Money inflation	L	L	Miscellaneous prevision	FONERWA releases funds on time
Appropriate and qualified staff are not available when needed	H	L	Referring on the recruitment process in place, the project will put in place thorough evaluation criteria and competence check mechanism for making sure the right people are recruited at the right place	Competent staff are locally available and the recruitment process already in place is appreciated by the community.
Destructive and unpredictable rainfall during terracing and installation of infrastructures	H	L	Terracing activities and infrastructures installation will be developed during the dry season	The season will be favorable
Failure to create ownership and commitment to the project at the local level. Possible resistance to adopting proposed measures.	H	L	Involvement of the local community in the design, implementation, Monitoring and evaluation of the project to reinforce their ownership	Through the field visit during the project design the local community are aware of the proposed measures and from the experienced project in conservation area.

Delays in Disbursement of funds, procurement and institutional bureaucracy	H	M	Project manager and finance officer will have considerable experience at the District Level procurement and finance management and they will ensure timely mobilization of funds.	Experienced project manager and finance officer will be recruited
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**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?

Risks	Impact	Prob.	Mitigation	Assumptions remaining
In the first year of radical terraces development, there will not be any agricultural activities on that area	M	L	The activities will start in the third quarter of 2015 after the December harvesting of the local people and then the implementation activities will be Fast tracked.	The following years will be more productive than ever
Sickness, Morbidity or accident among workers	L	L	Health Insurance of workers, break time and at least 1 or 2 days off	Concerned persons will be concerted to adopt protection measures and ( Mutuelle de Santé)

### 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 total cost of the project 2,591,729,992 RWF.**  
 The Capital= **2,462,143,492.4 RWF (95%)** and recurrent expenditures = **129,586,499.6 RWF (5%)**  
 The first year total cost= 812,292,492 RWF  
 The second year total cost= 1,096,755,000 RWF  
 The third year total cost = 633,300,000 RWF  
 The Fourth year total cost = 49,382,500 RWF

**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 **2,125,218,593.5 RWF** (82% of the total cost)

**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*)

Gisagara district will provide **466,511,398.5 RWF** (18% of the project total cost)

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

Although, it is a priority for the District there are insufficient funds to address the soil degradation in the Akanyaru watershed. Funding is being sourced from FONERWA because it closely fits with its objectives and will contribute to its output 1: **Conservation and management of natural resources strengthened and sustained as a result of the Fund.**

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

FONERWA can support the project in the following:

- Lesson learning events (with other FONERWA supported projects)
- Technical support during project implementation (Monitoring and Evaluation Reporting).
- Structured reviews.

**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)

i) ) Inputs will be procured using the Rwandan Government Procurement Procedures as outlined below:

- 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 tender committee evaluates the bids and recommends the successful bidder
- v. the provisional result is communicated to all the applicants,

- vi. the applicants have 7 days to appeal the decision, and then a final notification is sent to all the applicants;
- vii. if a guarantee is required, the successful bidder has 15 days to secure it,
- viii. Then the Contract negotiation and signing follows.

Different procurement procedures will be applied depending on the nature of the tender.

ii)

<b>OUTPUT INDICATOR</b>	<b>QUANTITY</b>	<b>TOTAL COST</b>	<b>UNIT COST</b>
<b>Number of ha of terraces constructed</b>			
a) Radical terraces	800	960,000,000	1,200,000
b) Progressive terraces	4,000	920,000,000	230,000

**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)?

i) The right inputs to produce the high quality of the outputs will be procured. The project team will ensure that those inputs are processed efficiently to generate the desired outputs

ii) NPV= 6,224,332,947 RWF

BCR= 3.975

**Q 3.8 Value for Money (Effectiveness):**

How does your project demonstrate effectiveness:

- How will it show the outputs meet the project objectives?
- Which indicators will you measure to demonstrate effectiveness?

- The overall objective of the project is to enhance the protection of Akanyaru River in Gisagara District and the four outputs formulated under this project, each contribute directly to this objective. The set output indicators are quantifiable and easy to verify.
  - The following outcome indicators will be measured to demonstrate effectiveness: Number of ha terraces constructed and the number of Ha of Akanyaru River and Cyamwakizi Lake buffer zone rehabilitated (reference made to the log-frame in the section of OUTCOME INDICATOR 1.1 and 1.3).
- As the value for money refers to economy, efficiency and effectiveness of a given project; this project

justifies the value for money considering the estimated results to be achieved and money allocated to each output.

This money has been calculated economically, means to use project inputs efficiently and effectively.

For example, the cost of terracing 1 Ha or planting trees on 1Ha has been estimated taking reference to MINAGRI's cost and the number of man days to be engaged to accomplish a concerned activity.( e.g: 1 Ha of radical terracing for 800,000Frw; the man days involved are estimated at 600 to 650).

The estimated number of green job to be created (6,380) justifies also how this project will be effective.

### **Annexes attached:**

- Log-frame
- Work Plan
- Budget
- Cost-Benefit-Analysis
- Financial Audit Report
- District Staff and partners' CVs

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<sup>i</sup> National Bamboo Policy (2011).