THE REPUBLIC OF UGANDA
Ministry of Water and Environment

RESTORATION OF DEGRADED FORESTS TO ENHANCE ECOSYSTEM RESILIENCE & TRAIN LOCAL COMMUNITY GROUPS IN ALTERNATIVE LIVELIHOODS TO ENHANCE COMMUNITY RESILIENCE TO CLIMATE CHANGE IN RIVER RWAMBU-MPANGA ECOSYSTEM

INCEPTION REPORT
Submitted by

May, 2024

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ACRONYMS

CAO	Chief Administrative Officer
CDO	Community Development Officer
CSO	Civil Society Organization
DAO	District Agricultural Officer
DCDO	District Community Development Officer
DCO	District Commercial Officer
DFO	District Forest Officer
DNRO	District Natural Resources Officer
DPO	District Production Officer
EbAs	Ecosystem Based Adaptations
FGDs	Focus Group Discussions
FO	Farmer Organization
GDP	Gross Domestic Product
GoU	Government of Uganda
IPM	Integrated Pest Management
KIIs	Key Informant Interviews
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MoFPED	Ministry of Finance, Planning & Economic Development
MWE	Ministry of Water and Environment
NAADS	National Agricultural Advisory Services
NARO	National Agricultural Research Organization
NCCP	National Climate Change Policy
NDP	National Development Plan
NGO	Non-Governmental Organization
OWC	Operation Wealth Creation
PDM	Parish Development Model
PRA	Participatory Rural Appraisal
RPOs	Rural Producer Organizations
SWOT	Strengths, Weaknesses, Opportunities and Threats
TA	Technical Assistance
UGGS	Uganda Green Growth Development Strategy

1.0 ABOUT THE ASSIGNMENT

1.1 Background

Despite the importance of wetland and forests in Uganda, these ecosystems are currently experiencing high levels of degradation and deforestation driven largely by the country's rapid population growth and industrial development. The degradation of forests and wetlands is of concern as it reduces the ability of the ecosystems to provide valuable ecological and socio-economic goods and services, consequently, jeopardizes the livelihoods of dependent local communities.

Local communities living around these forests and wetlands are particularly vulnerable to this degradation because of their limited access to other sources of income to sustain their livelihoods. Predicted climate change, including variable rainfall patterns, precipitation amounts, high temperatures etc further affects the livelihoods of local communities living around wetlands and forests, and the ecosystems upon which they depend. In a bid to address this problem, the Ministry of Water and Environment in collaboration with United Nations Environment Program 'has obtained a GEF-LCDF of US $ 4,350,000 to implement a five-year project titled "Reducing the climate change vulnerability of local communities in Uganda through Ecosystem based Adaptation in forest and wetland ecosystems". The project is being implemented in four wetland and forest systems of Rwizi-Mburo-Nakivale, Rwambu-Mpanga, Enyau and Sironko.

The goal of this project is to reduce the vulnerability of communities living around wetlands and forests to climate change. This goal will be achieved through implementation of four project components namely; (i). enhancement of the technical and institutional capacity to initiate EbA interventions (ii). restore degraded wetland and forest ecosystems using an EbA approach, (iii). promote alternative livelihood strategies and climate-resilient agricultural techniques for local communities and (iv). increase knowledge and awareness of EbA and benefits provided by wetland and forest ecosystems.

This assignment seeks to restore degraded forests to enhance ecosystem resilience and train local community groups in alternative livelihoods to enhance community resilience to climate change. Restoration of the degraded forests and training of local communities in alternative livelihoods will be done in collaboration with, the local community leaders, district technical staff (DFOs, DNROs, DEOs, CDOs) and MWE technical staff. The consultant will develop recommendations to inform policy makers at local and national government level as regards local community restoration needs, appropriate restoration approaches, and prioritizing inclusiveness of the different gender categories as a measure for increasing success of forest restoration programs.

1.2 Purpose of the Assignment

This aim of this assignment is to restore degraded forests, wetlands and riverine forests, and increase capacity of local communities to adopt Alternative Livelihoods and Climate-

Resilient Agriculture Techniques to decrease their Vulnerability to Climate Change and Reduce Degradation of Wetlands and Forests.

1.2.1 Main objective of the project

The main objective of the assignment is to restore degraded forests to enhance ecosystem resilience and train local community groups in alternative livelihoods to enhance community resilience to climate change.

1.2.2 Specific objectives of the project

We have comprehensively reviewed the Terms of reference and confirm that the specific objectives of the assignment are to:

i. Identify, form and conduct a gender sensitive training of community groups on Ecosystems Based Adaptation and the benefits of this approach; and methods to implement and maintain Ecosystems Based Adaptation interventions, and climate-resilient agricultural techniques.
ii. Train and support the community farmer groups to establish alternative livelihoods options.
iii. Train communities (including targeted training to women's groups) at the project intervention sites on the identified alternative livelihoods strategies and climate-resilient agricultural techniques.
iv. Conduct gender awareness and sensitization workshops – in relation to climate change impacts – for communities at each of the project intervention sites.
v. Identify 10 model farmers and 8 community farmer groups per district and demonstrate appropriate soil and water conservation measures.
vi. Introduce appropriate drought- and flood-resilient crop varieties with selected model farmers at each project intervention site.
vii. Reforest degraded hill slopes, riparian forests, forests reserves and wetlands with multiuse tree species.
viii. Identify community members willing to implement agroforestry on their cropping and livestock grazing areas using climate-resilient and multi-use trees.
ix. Train and support farmer groups in the construction of efficient energy cook stoves and energy saving technologies.

This inception report has been prepared using information gathered through literature review and from data obtained during the initial visit to some of the project sites in the three districts of Ibanda, Kitagwenda and Kamwenge. The sections of this inception report presents what is to be done, how, when and by who. The first section presents the project management team while the second section presents comments in regard to the Terms of References (TORs).

The main activities that have been undertaken to date regarding implementation of this project are presented in section four. The proposed methodology that will be followed is detailed in a section that also presents the work plan of the assignment, and the

activities to be implemented. The deliverables of this component are given in a chronological order, and in the same section and this is followed by the risks and how they will be managed. The last section of this inception report provides preliminary conclusions and recommendations to guide the steps ahead.

2.0 LITERATURE REVIEW

In order to improve our understanding of the project and the tasks ahead, the team reviewed relevant literature on natural resources and agriculture sectors, districts in general and the project areas in particular and assignments which have been done in the past on natural resources management. In this section, the highlights of the literature review are presented.

2.1 Natural resource and climate change management in Uganda

Management of natural resources and climate change are critical to the minimizing disaster occurrence and associated losses, achievement of increased household incomes and improvement of quality of life of the population. With proper management of natural resources and climate change, sustainable exploitation of the key growth opportunities of agriculture, minerals, petroleum and tourism is realized, ultimately contributing to increase in incomes and improved quality of life.

Between 2016 and 2019 the forestry sub-sector contributed 3.5 percent of GDP per annum. Uganda's forests supply 88 percent of all its energy needs, provide 61% of Uganda's tourism income and provide jobs for about 1 million people according to NDP III.

According to Uganda Vision 2040, appropriate adaptation and mitigation strategies on climate change will be developed to ensure that Uganda is sufficiently cushioned from any adverse climate change impacts.

The poor management of natural resources including land, water, and environment coupled with the worsening effects of climate change result from poor land use and insecurity of tenure; limited capacity for climate change adaptation and mitigation; low disaster risk planning; rampant degradation of the environment and natural resources caused by low enforcement capacity, limited environmental education and awareness, limited alternative sources of livelihoods and limited research, innovation and adoption of appropriate technology as well as poor coordination and institutional capacity gaps in planning and implementation.

2.2 The importance of the agricultural sector

The agriculture sector accounts for over 70% of the country's employment, 25% of GDP contribution, and more than 40% of the export revenue. The sector is dominated by subsistence farmers accounting for over 90% of all the farmers. In spite of these contributions, agricultural productivity is declining, 75-80% of agricultural output is characterized by low-input/ low-output subsistence farming.

The Government of Uganda has formulated a number of sector policies to address challenges faced in management of natural resource and the subsistence nature of farming. Some of the policies include the Uganda Forestry Policy, the National Environment Act, the National Agricultural Policy (NAP), among others. Although all these policies are anchored onto the National Development Plan III (NDP III) and Vision 2040, there is limited operationalization of aspirations of these policy and regulatory frameworks.

2.3 Scope of work

The Terms of reference details the scope of work highlighted below;

The consultant is expected to prepare an inception report which includes scope of the assignment, stakeholder mapping and analysis; risk and mitigation measures and methodology and work plan.

The consultant will endeavor to involve the stakeholders including training and building capacity of communities on Ecosystem Based Adaptation (EBA) approaches, undertaking restoration efforts with key focus on hotspots such as riparian forest, degraded hill-slopes, forest reserves.

The consultant will develop a gender based training manual which will guide capacity building activities on Ecosystem based adaptation approaches, alternative livelihood options, drought and flood resilient crop varieties, climate change impacts, soil and water conservation and promotion of energy saving technologies. The consultant will also develop a restoration plan which will guide restoration activities including the restoration strategies, site selection, and species selection to ensure success of the restoration program.

Project activities will be implemented in selected sub-counties and parishes in the districts of Kamwenge, Ibanda and Kitagwenda for the period of 24 months effective the date of contract signature.

2.4 Expected Outputs

Whereas the Terms of reference detail the deliverables to those highlighted below, based on our experience in similar assignments, we shall include the Monitoring and evaluation strategy and project progress reports to ensure that the client is kept informed of the progress of work. Our proposed methodology clearly highlights our approach to realization of all the deliverables below;

i. Formation and training of 8 – 10 livelihoods farmer groups per district, each consisting of between 20-25 persons, 60% women on EbA approaches and practices, climate-resilient agricultural techniques, alternative livelihoods options, soil and water conservation measures etc.
ii. Build capacity and support 8 – 10 livelihoods farmer groups to implement alternative livelihoods options identified.
iii. Build capacity and support 8 – 10 livelihoods farmer groups in the construction of energy saving cook stoves and technology.

iv. Identify 10 model farmers per district, support and demonstrate appropriate soil and water conservation measures.
v. Support the introduction of appropriate drought- and flood-resilient crop varieties with the selected model farmers.
vi. Conduct gender awareness and sensitization workshops (one per district)– in relation to climate change impacts – for communities at each of the project intervention sites
vii. Restore 100 ha of degraded hill slopes, and forests using climate-resilient and multipurpose tree spp.
viii. Restore 100 ha of degraded wetlands using climate-resilient and multipurpose tree spp.
ix. Restore 100 ha of cropping land livestock grazing areas with relevant agroforestry tree species.
x. Restore 30 ha of degraded riparian forests using climate-resilient and multipurpose tree spp.

2.5 Our uunderstanding of the assignment

Following our comprehensive review of the terms of reference and based on our experience in the execution of the assignments of similar nature, below we provide our understanding of the assignment.

Due to the rampant deforestation and degradation which is happening in Uganda today, forest ecosystems and wetlands have heavily been affected; and this is mainly attributed to industrialization and high population growth in the country. The degradation of forests and wetlands is of concern as it reduces the ability of the ecosystems to provide valuable ecological and socio-economic goods and services, hence, jeopardizing the livelihoods of dependent local communities. This has also led to severe climate change impacts which in turn affects the survival and wellbeing of communities residing in areas in proximity to wetlands and forests and who derive their livelihood directly from these ecosystems.

This project intends to reduce the vulnerability of communities to climate change especially those living around wetlands and forests with the specific objective of increasing the technical and institutional capacity of government authorities and local communities in Uganda to implement EbA in wetland and forest ecosystems to reduce vulnerability of dependent communities to observed and anticipated effects of climate change. In particular, we understand that this assignment intends to capacitate communities residing around wetlands in alternative livelihood options and climate smart agriculture technologies. Increased awareness of local communities in climate smart agriculture technologies and livelihood options will protect will arm communities with knowledge, skills and abilities in conserving wetlands, forests and sensitive ecosystems.

We understand that a thorough review of the activities currently undertaken by these communities will be conducted to enable us devise alternative activities for each of the activities which will be found unfit for the environment. In addition, a thorough skills assessment of the communities residing around these areas will be conducted to determine understand whether some of the communities citizens can be engaged in s

skill-based hands-on activities such as carpentry and the like. We also understand that a thorough assessment of the gender divide in the area will be undertaken to ensure that we propose alternative activities which are adoptable to the existing vulnerable groups including women, youth, and the elderly, disabilities. This is aimed at ensuring that all the residing categories of people are effectively catered for under the project.

We also understand that this assignment will also require comprehensive training of the communities in the area in wise use of wetlands. These trainings will focus on good farming practices which do not impact the wetlands, tree planting activities and other related environmentally friendly initiatives which ensure that wetlands are conserved. In addition, the trainings will comprehensively identify the dangers associated with deforestation, this will act as an eye opener to the residents to desist from certain activities to ensure that the envisaged dangers are mitigated.

Furthermore, we understand that in addition to effective sensitization of the communities, we are also required to advise the authorities on the measures to be deployed to improve the livelihoods of people residing around the affected areas. This is aimed at advising government to support communities in improving their lives as they transform from their dependency on wetlands to other alternative livelihood options.

Our methodology highlights activities which will be undertaken to ensure effective realization of the set objectives of the project.

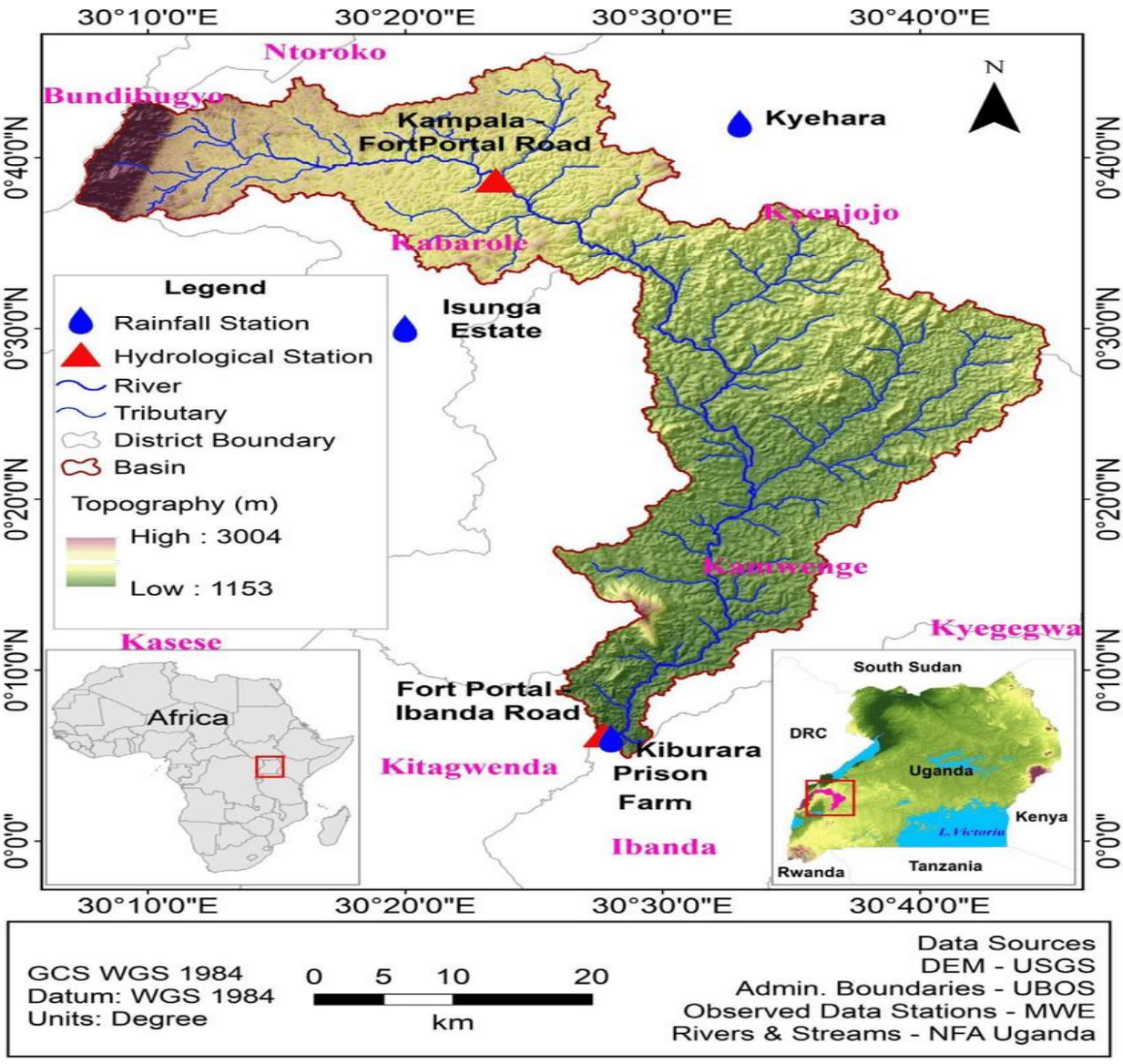
2.6 Project Implementation Area

The Local community-based organization in Rwambu-Mpanga ecosystem for the restoration of degraded forests to enhance ecosystem resilience & train local community groups in alternative livelihoods to enhance community resilience to climate change project will be implemented in the Mpanga catchment area. The Mpanga catchment area is estimated to cover approximately 4670 Km^2 and lies within the Albert Water Management Zone. It covers a network of unprotected and protected areas and the targeted projected districts of Ibanda, Kamwenge and Kitagwenda form part of the catchment area. The catchment area has several socio-economic/land-use activities being undertaken by both the public and the private sectors. These include subsistence to large scale commercial agriculture activities such as tea growing, cattle rearing, banana production; urbanization (towns and municipalities with resultant generation of sewage, solid waste and run-off from streets and garages); energy production (Hydro-electric power generation) and tourism activities in destinations such as Rwenzori Mountains Ranges. The major threats to the catchment include:

- Riverbank, lakeshore, and wetland degradation
- Weak governance for water and environment resources management
- Deteriorating quality and quantity of water in water bodies
- Invasive plant species
- Siltation of water bodies as a result of erosion and surface runoff and ppollution, both at commercial and community levels.
- Incomplete and unreliable data availability for wetland and forest resources management

- Increasing human population and high vulnerability of the population combined with a high dependency on ecosystems.
- Weak governance of the natural resources, poor and unsustainable land use practices (deforestation, overgrazing, agriculture) and overall ecosystem degradation.
- Weak institutional capacity for water and environment management

Figure 1: Map showing the project Implementation area



In addition, the water abstraction through gravity flow schemes, industrial groundwater

abstractions, small scale groundwater abstraction points and others undertaken without proper hydrological survey and studies is posing a threat to the Basin downstream. Besides these threats, there are cross cutting issues namely, climate change and variability, high illiteracy rate and rampant poverty and diseases that are posing additional threats to the catchment. The River Mpanga Catchment Management Plan (RM-CMP) identifies and proposes suggestions of the possible interventions using the integrated water resources management approach. The plan takes into consideration the natural resources in the basin, their economic potential and identifies conservation threats from catchment wide processes by participatory decision and consensus making. The table below briefly highlights the deliverables for each key scope area.

Table 1: Highlights of the deliverables for each key scope area

No.	Activity	Expected Deliverables
1.	Formation and training of 8 -10 livelihoods farmer groups per district, each consisting of between 20-25 persons, 60% women on EbA approaches and practices, climate-resilient agricultural techniques, alternative livelihoods options, soil and water conservation measures etc.	▪ Training manual ▪ Content /presentations and schedule ▪ Training delivery ▪ Training evaluation ▪ Training reports, ▪ Attendance sheets
2.	Build capacity and support 8 -10 livelihoods farmer groups to implement alternative livelihoods options identified.	▪ Identification of farmer groups ▪ Training needs assessment ▪ Identification of alternative livelihood options ▪ Develop capacity building program
3.	Build capacity and support 8 -10 livelihoods farmer groups in the construction of energy saving cook stoves and technology.	▪ Identify/select the beneficiary groups ▪ Carry out bench mark test such as boiling point test to determine amount of biomass saved when using an energy saving stove. ▪ Develop capacity building program ▪ Conduct hands on trainings in energy cook stove technology ▪ Carry out monitoring and evaluation to assess effectiveness of the training and usage of the technology ▪ Follow up of trainers of trainees to determine adoption rates of the energy saving stove technology
4.	Identify 10 model farmers per district, support and demonstrate appropriate soil and water conservation measures.	▪ Selection of the model farmers per district ▪ Assessment of the terrain and soil and water conservation issues including the type of soil in the area ▪ Identify relevant soil and water conservation measures ▪ Carry out field based training on the identified soil conservation measures.
5.	Support introduction of appropriate drought- and flood-resilient crop varieties with the selected model farmers.	▪ Selection of the appropriate drought and flood resilient crop varieties ▪ Train farmers on how these crops are grown and harvested. ▪ Monitoring the performance of these crop varieties ▪ Recommendations on drought flood resilient crop varieties.
6.	Conduct gender awareness and sensitization workshops (one per district)– in relation to climate change impacts – for communities at each of the project intervention sites	▪ Develop a gender training manual ▪ Schedule a gender awareness and sensitization training workshop ▪ Identify the venue for the workshop ▪ Identify and mobilize workshop participants. ▪ Disseminate information about the workshop ▪ Carry out the gender training putting climate change

		impacts into consideration
7.	Restore 100 ha of degraded hill slopes, and forests using climate-resilient and multipurpose tree spp.	▪ Develop a restoration strategy/plan ▪ Identify hotspots where restoration activities are to be carried out. ▪ Identify the tree/plant species to be planted ▪ Carry out site assessment and species site matching ▪ Plant or restore the areas with multipurpose tree species ▪ Carry out beating up a month after planting to improve seedling survival ▪ Train communities in tree establishment and management ▪ Carry out monitoring to determine of restoration program and write progress reports
8.	Restore 100 ha of degraded wetlands using climate-resilient and multipurpose tree spp.	▪ Develop a wetland restoration strategy/plan ▪ Identify hotspots where restoration activities are to be carried out. ▪ Carry out site assessment and species site matching ▪ Identify the plant/tree species to be planted ▪ Plant or restore the areas with multipurpose tree species ▪ Carry out beating up a month after planting to improve seedling survival ▪ Build capacity of communities on environment friendly practices ▪ Carry out monitoring to determine of restoration program and write progress reports
9.	Restore 100 ha of cropping land livestock grazing areas with relevant agroforestry tree species.	▪ Develop a farming system restoration strategy/plan targeting croplands and pasturelands ▪ Carry out site assessment and species site matching ▪ Identify the tree/plant species to be planted ▪ Plant or restore the area with multipurpose tree species ▪ Train communities on agroforestry tree management technologies ▪ Monitor the restoration program ▪ Progress reports on the status of restoration program
10.	Restore 30 ha of degraded riparian forests using climate-resilient and multipurpose tree spp.	▪ Develop a restoration strategy for the degraded riparian forest ▪ Carry out site assessment and species site matching ▪ Identify the trees to be planted ▪ Plant or restore the degraded areas with climate resilient and multipurpose tree species ▪ Monitor the restoration program ▪ Progress reports on the status of restoration program

2.7 Comments on the Terms of Reference

The Terms of Reference (ToR) for the proposed assignment has been thoroughly reviewed and described below are the comments:

Assignment start date: Whereas the ToRs indicated the estimated project execution period to be 24 months, the expected start date was not mentioned. For the purpose of developing the work plan, we have assumed the start date to be May 2024 factoring in the month of October to be the proposal evaluation period.

Deliverables: Whereas the Terms of reference mention a couple of deliverables, we propose to include the monthly project progress reports intended to keep the stake holders informed of progress on assignment the execution. In addition, for all restoration

activities to be undertaken, we shall develop the Monitoring and evaluation strategies to be used to monitor the status of the realizations of the intended objectives

Experts: Whereas the Terms of reference require five Experts including the Team Leader and four field officers, based on the magnitude of the work, we shall deploy other support staff to ensure timely execution of the assignment. These will be non-key experts and therefore shall not be costed.

2.8 A synthesis of the policy documents reviewed so far

Some of the policy documents reviewed so far and their linkages with the project are given below;

2.8.1 Uganda Green Growth Development Strategy (UGGDS 2017/18 – 2029/30)

The Government Of Uganda (GOU) developed the Uganda Green Growth Development Strategy (UGGDS) to operationalize green growth principles and accelerate the implementation of global development goals, Uganda Vision 2040 and the second National Development Plan (NDP).

The general objective of the UGGDS is to provide guidance on priorities, strategies and governance frameworks for implementing the green growth principles within the existing development frameworks towards the sustainable development of the country. Therefore, the strategy aims to ensure that the goals of the Uganda Vision 2040 and the NDP are attained in a sustainable manner. The UGGDS adopted the national vision statement (Vision 2040), which is for "a transformed Ugandan society from a peasant to a modern prosperous country within 30 years". The strategy will be implemented as an integral part of Vision 2040 and specifically the 10- year long-term national development plan for 2020/212030/31.

In the strategy, two out of the five UGGDS focus areas that are directly related to this project are sustainable agriculture production and value chains and natural capital management and development. Sustainable agriculture production will be achieved through upgrading the value chain of strategic commodities and enterprises with a focus on irrigation and integrated soil fertility management while natural capital management and development will focus on tourism development, sustainable forestry, wetlands and optimal water resources management.

Implementation of the UGGDS is expected to generate eight development outcomes by 2030 and among which is income and livelihoods enhancement, decent green jobs, climate change mitigation and adaptation as well as environment and natural resources management.

2.8.2 Action Plan for the UN Decade on Ecosystem Restoration, 2021 - 2030, Version April 2023

This Action Plan is the invitation for concrete action, to join forces, and take leadership to achieve the objectives set by the UN Decade on Ecosystem Restoration up to 2030. The plan aims to allow UN Decade partners to address the restoration challenges. Its The vision is a world where (for the health and wellbeing of all life on Earth and that of future generations), the relationship between humans and nature has been restored, where the area of healthy ecosystems is increasing, and where ecosystem loss, fragmentation and degradation has been ended.

There are three main goals that underpin the vision of this strategy: Goal 1: Enhancing global, regional, national, and local commitments and actions to prevent, halt and reverse the degradation of ecosystems. Goal 2: Increasing our understanding of the multiple benefits of successful ecosystem restoration. Goal 3: Applying this knowledge in our education systems and within all public and private sector decision-making.

In this plan, the restoration challenges aim to unite and mobilise partners and all stakeholders around ambitious thematic challenge targets, including calls to action for stakeholders, to achieve the outcomes of the Decade, contributing to the 2030 Agenda and other national, regional and international commitments.

There are twelve restoration challenges and those which are directly related to this project are biodiversity, climate, communities, education and youth.

The restoration challenge for biodiversity focuses on restoring ecosystems to prevent 60 per cent of expected species extinctions, contributing to halting the biodiversity crisis by 2030 while the goal of the restoration challenge for climate is to contribute to a third of climate mitigation needed by 2030 and to scale adaptation efforts to avoid damage and degradation of critical ecosystems and ecosystem services. The restoration challenge for communities focuses on indigenous peoples, women and local communities as pillars of conservation and ecosystem restoration across the world while the restoration challenge for education is vital to ensuring that future generations benefit from a greater understanding of nature and an appreciation of its value. The overall goal of the Education challenge is to educate the next generation of citizens to be aware of the value of nature, and to train a generation of professionals who can scale up restoration efforts while the restoration challenge for the youth points out that young people have enormous potential and play a crucial role in preserving biodiversity, conserving forests, and restoring ecosystems. In addition to having a desire and capacity to contribute with their own experiences to the outcomes of restoration.

2.8.3 The National Development Plan (NDP) III

The goal of this Plan is “To Increase Household Incomes and Improve Quality of Life of Ugandans”. The key objectives of the Plan are to enhance value addition in key growth opportunities; strengthen the private sector to create jobs; consolidate and increase the stock and quality of productive infrastructure; and to enhance the productivity and social wellbeing of the population. The key programmes out of the 18 programmes laid out in the National Development Plan (NDPIII) that are pertinent to this project are agro-

industrialization and management of natural resources, environment, climate change, land and water.

- **The natural resources, environment, climate change, land and water management programme** in the NDP III, aims to reduce environmental degradation and the adverse effects of climate change as well as improve utilisation of natural resources for sustainable economic growth and livelihood security. Some of the programme objectives which directly feed into this project aim to increase forest, tree and wetland coverage, restore bare hills and protect mountainous areas and rangelands and to increase incomes and employment through sustainable use and value addition to water, forests and other natural resources. Some of the key results to be achieved over the five years are to increase land area covered by forests from 9.1 percent to 15 percent and to increase land area covered by wetlands from 8.9 percent to 9.57 percent.

- **Agro-industrialization programme** in the National Development Plan (NDPIII)**,** aims to increase commercialization and competitiveness of agricultural production and agro processing. Key results include: increasing export value of selected agricultural commodities, increasing the agricultural sector growth rate, increasing labour productivity in the agro-industrial value chain, creating jobs in agro-industry, and increasing the proportion of households that are food secure.

2.8.4 The Uganda Forestry Policy, 2001

Uganda's forestry sector

The forestry sector contributes about **10%** to the nation's Gross Domestic Product (GDP). The sector contributes substantially to the nation's economic development and well-being and it is estimated that over 90% of the national energy demand is met from wood fuels. In addition, there are many opportunities for poverty alleviation, for economic development and for environmental improvement through forest sector development. The contribution from non-timber products derived from forests such as medicines, craft materials and food is also significant.

The forest sector creates significant employment, forest resources provide basic subsistence needs, whether from farm forestry or from natural forests and woodlands, forests provide a wide range of ecological services and biodiversity values, forests are reservoirs of the country's biodiversity, including its unique genetic resources and diverse ecosystems and tourism in Uganda is based on forests, woodlands and their constituent wildlife and natural beauty.

The goal of the Forestry Policy is, "An integrated forest sector that achieves sustainable increases in the economic, social and environmental benefits from forests and trees by all the people of Uganda especially the poor and vulnerable". The specific policy statements are set out as follows:

1) Policy Statement 1: forestry on government land
2) Policy Statement 2: forestry on private land
3) Policy Statement 3: commercial forest plantations
4) Policy Statement 4: forest products processing industries
5) Policy Statement 5: collaborative forest management
6) Policy Statement 6: farm forestry
7) Policy Statement 7: forest biodiversity conservation
8) Policy Statement 8: watershed management
9) Policy Statement 9: urban forestry
10) Policy Statement 10: education, training and research
11) Policy Statement 11: supply of tree seed and planting material

This project will directly contribute to realization of a number of policy statements (3,5,6,7 and 11) as indicated below

- Policy Statement 5: on collaborative forest management, collaborative partnerships with rural communities will be developed for the sustainable management of forests.
- Policy Statement 6: on farm forestry, tree-growing on farms will be promoted in all farming systems, and innovative mechanisms for the delivery of forestry extension and advisory services will be developed
- Policy Statement 7: on forest biodiversity conservation, Uganda's forest biodiversity will be conserved and managed in support of local and national socio-economic development and international obligations.
- Policy Statement 11: on .supply of tree seed and planting material (Innovative mechanisms for the supply of high quality tree seed and improved planting stock will be developed.

2.8.5 The National Environment Act, 2019

This Act was formulated to repeal, replace and reform the law relating to environmental management in Uganda. This project feeds directly into objectives which aim to provide for the management of the environment for sustainable development and to provide for emerging environmental issues including climate change.

Section 54 of the act provides guidelines for management and utilization of wetlands. It states that the relevant lead agency shall, in collaboration with the Authority, ensure that wetlands are conserved for the common good of the people of Uganda. It further points out that the management of wetlands shall comply with the principles which are directly related to this project such as utilization of wetland resources in a sustainable manner compatible with the continued presence of wetlands and their hydrological functions and service, wise use of wetlands shall be applied in national and local approaches to the management of wetland resources through awareness campaigns, dissemination of information and environmental literacy.

Section 56 of the act considers the identification of hilly and mountainous areas. The Authority shall, in collaboration with a lead agency, identify and map out hilly and mountainous areas to determine the hilly and mountainous areas at risk from environmental degradation, natural processes or natural disasters.

Section 57 of the act takes into consideration of restoration, reforestation and afforestation of hilly and mountainous areas. It states that a lead agency shall, in its environment action plan, specify which of the areas identified in accordance with section 56 shall be targeted for restoration, afforestation or reforestation.

Section 58 of the act advocates for sustainable use of hilly and mountainous areas.
(1) The Authority shall, in collaboration with the relevant lead agency, issue guidelines and prescribe measures for the sustainable use of hilly and mountainous areas.

(2) The guidelines issued and measures prescribed by the Authority under subsection (1) shall include— (a) appropriate land use practices; (b) carrying capacity of the areas described in subsection (1); (c) control of soil erosion, soil creep and landslides; (d) disaster preparedness in areas prone to landslides; (e) the protection of areas referred to in subsection (1) from human settlements; (f) the protection of water catchment areas; and (g) any other measures the Authority considers necessary.

(3) The lead agency shall be responsible for ensuring that the guidelines issued and measures prescribed under subsection (2) are implemented.

2.8.6 Ibanda District Development Plan III, (2020/21-2024/25

The goal of the five year plan is to increase household incomes and wellbeing of the population. Three objectives of this plan feed directly into the project activities and these are to mobilize and empower community for sustainable development, to increase agricultural production and productivity and to improve post-harvest handling and storage of agricultural products. In addition, the main investment priority areas for the plan that the council will focus on include job creation through agro-industrialization, value addition for increased household incomes and to provide support to community initiated income generating projects with due consideration to the marginalized groups like the Youths, Women, Persons with disabilities and the older persons.

The economy of the district is basically founded on agriculture. Majority of the population, over 85.5% is employed in the agricultural sector but at subsistence level. Few farmers are in commercial agriculture especially livestock farming. Farmers keep improved dairy cattle, indigenous cattle, sheep, pigs, goats and poultry. Few farmers rear rabbits. Coffee and bananas are the major cash crops. Other crops include maize, ground nuts, cassava, beans, potatoes, sweet potatoes, fruits, sorghum, finger millet and vegetables. Some fish farming is practiced in some sub counties and Town councils. Ibanda is a main source of dairy cattle breeding stocks for many other districts in Uganda. Other economic activities include, trade, fishing, mining, quarrying, forestry, brick laying, building and other construction, hotels and lodges.

It is indicated that climate change has had adverse impacts on agricultural production and food security. Agriculture production challenges were attributed to too much relying on rain, limited coverage of extension services, inadequate physical infrastructure to support the sector, limited access to quality inputs, inadequate production data and information, pests and disease burden as well as lack of value addition facilities.

Majority of the population in the district depend entirely on the environment and natural resources for their livelihood. Wood is the only source of energy for cooking in the district for both rural and urban dwellers and this puts a lot of pressure on the environment to provide energy for cooking. The high demand for firewood & charcoal contributes to high levels of deforestation and environmental degradation. In addition, wetlands contribute to the construction industry by providing building materials such as clay, sand and timber as well as providing water for livestock.

Causes of environmental degradation in the district

i) High population pressure
ii) High dependence on the environment and natural resources for livelihood
iii) Unsustainable harvesting and utilization of the natural resources
iv) High poverty levels
v) Low levels of environmental awareness at community levels
vi) Annual bush burning
vii) Over grazing and fishing
viii) Poor farming practices.

Source: Ibanda District Development Plan III, (2020/21-2024/25)

2.8.7 Kitagwenda, District Development Plan (DDP 1, 2020/2021 - 2024/2025)

With a mission, to provide effective and efficient equitable services to foster and stimulate socio-economic development to the people of Kitagwenda in conformity with national and local priorities", the goal is "Sustainable agro-industrialization and social-economic transformation for inclusive growth, employment and wealth creation".

Agriculture in the district, the backbone of Uganda's economy is dominated by small scale farmers and few modern commercial farmers who have recently adopted mechanization and improved crops especially coffee, maize, beans and some banana species.

The district is predominantly a peasant society with an estimated 5% of the population adopting modern farming methods in dairy farming, use of fertilizers and basic use of agriculture extension services. Agro-industrialisation which is associated with urbanisation are at a very slow pace due to low incomes in the community.

Value addition to crop produce is limited to maize mills and coffee hullers which are serving local communities with very little output in terms of value addition for home consumption and sale of coffee to processors on small scale.

The program has the following sub programs, which are anchored on the six objectives in the NDP III.

- Agricultural Production and Productivity
- Post-harvest handling and storage services
- Agro-Processing and Value addition
- Agricultural Market Access and Competitiveness
- Agricultural Financing
- Institutional Coordination

Agriculture is the dominant source of livelihood in Kitagwenda and offers great opportunities for increased household income to improve their quality life. The key agricultural enterprises are coffee, banana, maize, dairy, beans, groundnuts and few rice growers along the lakeshore area of Mahyoro in the Rift Valley. Storage, agro-processing and value addition of agricultural products is very low in the district. There are no gazzeted storage facilities of any of the products produced other than traditional commercial houses in trading centers used as stores. Only maize grain mills add value to maize and millet and coffee haulers that remove husks only.

Challenges in the agriculture sector at the district level

- The agricultural production is weakly supported by services (such as extension, entrepreneurial training, innovations, regulation of agricultural inputs, and reliable weather information
- Natural calamities (hailstone, draught, heavy winds)
- Pests, parasites and diseases.
- Failure to co-fund ACDP Micro-irrigation programmes.
- Failure to absorb ACDP budget and return funds to the treasury at the end of the financial year.

Natural resources, environment, climate change, land and water management

The high population growth has depleted forest cover, swamps and water catchment areas. Interventions for swamp restoration is ongoing in Kikoyo forest and sensitization programmes are ongoing. The National Forest Authority is protecting a key natural forest in Kakasi sub county in Kitaka – Kasyoha-Kitomi Forest Reserve. Other practices to conserve the environment in the district include growing of pine and eucalyptus plantations to reduce pressure on the dwindling natural forest estate. Efforts geared towards conservation of wetlands are ongoing along Kyarutanga - Rwambu river stream from Kigoto by the central government in collaboration with the district local government. Reports indicate that Ruhagura stream has been depleted and water flow from Kagazi hills has reduced due Nyabitoma gravity scheme.

2.8.8 Kamwenge District Local Government Five-Year Development Plan III 2020/2021-2024/2025

The goal of this five year development plan is to increase average household incomes and improve the quality of life of the people of Kamwenge district. In this plan, there are two key objectives which are directly related to this project. One is to enhance household income through promotion of small-scale enterprises, wealth creation program and agricultural productivity and the other is to promote sustainable land use settlements and proper utilization of natural resource endowments.

In order to achieve the objectives and goal of the plan, the district identified various priority interventions for implementation. Those that directly feed into this project are:

i) Promotion of climate smart agriculture and promotion of alternative energy sources
ii) Sustainable environment and natural resource management, proper land use planning and management as well as urban planning
iii) Agriculture value chain management, extension service delivery, post-harvest handling and value addition
iv) Strengthening farmer organizations
v) Agriculture technology promotion and innovations

Potentials in the district related to this project include:

- Existence of a wide range of natural resources such as; land, wetlands, forests, national parks, hills and rocks, rivers, streams, wild animals, good climate.
- Availability of arable land and suitable climate.
- Existence of organized farmer organizations engaged in post-harvest handling and value addition activities.
- Presence of Local Environment Committees at Sub County/Town Council level. These oversee environmental issues in their respective areas and do report on any negative interventions interfacing with the environment
- Enabling environment that provides for environment mitigation interventions including afforestation, introduction of alternative energy sources, capacity development for environment sustainability, waste management and budget provision for environment interventions

Challenges in the district related to this project include:

- High prevalence of pests and diseases
- Negative effects of climate change
- High cost of post-harvest handling and value addition facilities
- Weaknesses in enforcement environment laws thus some environmental issues end up unresolved.
- Managing existence of surviving fragile ecological systems
- Persistent drought due to environment degradation.
- High cost of investment Finance, Limited local market for locally manufactured products.

Majority, 85% of households in the district are engaged in subsistence agriculture and the district experiences extremes of weather conditions characterised by dry spells, hail storms and floods. Challenges of environment degradation are attributed to increase in population over the years, which has created competition for resources especially land for cultivation and animal grazing, settlement, vegetation for wood fuel including charcoal and firewood.

Some of the objectives of the natural resources, environment, climate change, land and water management program in the district are to:

- Increase Forest, Tree and Wetland Coverage and Restore and Protect Hilly and Mountainous Areas and Rangelands
- Maintain and/or Restore a Clean, Healthy, and Productive Environment
- Strengthen Land Use and Management, land security through demarcation and titling
- Assure availability of adequate and reliable quality fresh water resources for all uses

Interventions to increase forest, tree and wetland coverage and restore and protect hilly and mountainous areas and rangelands are to:

- Promote rural and urban plantation development and tree planting including the local and indigenous species
- Establish dedicated fuel wood plantations necessary to contribute to achieving or exceeding net biomass surplus levels
- Develop wetland management plans to support gazetting and demarcation of existing wetlands
- Restore the natural integrity of degraded wetlands to their ecological functionality

3.0 DESCRIPTION OF APPROACH AND METHODOLOGY

3.1 Approach to the assignment

A mixed methods approach of forest and wetlands restoration with an integrated approach to conservation will be adopted; that will promote sustainable livelihoods and create new socio-economic opportunities. This approach proposes restoration strategies that consider the natural ecological linkages, conserve degraded ecosystems, consolidate and protect remaining intact forests and safeguard conservation of the key natural resources. Restoration activities will be based on core principles provided for under the Uganda Forest Landscape Restoration Opportunity Assessment Report 2016.

i) Restore entire landscapes rather than sites to balance a mosaic of interdependent land uses.
ii) A forward looking approach to restore the functionality of the landscape.
iii) Aim to generate a suite of ecosystem goods and services from a range of restoration activities.
iv) Actively engage local stakeholders in decisions regarding restoration goals, implementation methods and trade-offs
v) Consider a wide range of eligible technical strategies for restoring trees on the landscape.
vi) Adapt restoration strategies to fit local, social, economic and ecological contexts.
vii) Adapt restoration strategies to changes in human knowledge and societal values.
viii) Address ongoing loss and conversion of primary and secondary natural forest.

The Consultant will review literature to appreciate the current situation, pick lessons from restoration assignments which have been undertaken in the country in the past, conduct map and engage key stakeholders including district technical staff, political leaders and local communities to ensure that the process is participatory in nature and propose appropriate approaches for restoration. The river bank will be mapped to identify hotspots and analysis done to determine the level of the restoration required, and the key alternative livelihood options to be considered. Both social and scientific approaches will be employed for carrying out this assignment. The process of restoring the catchment area will involve stakeholders from the lowest level to ensure wide participation and ownership and success in its implementation of the project.

3.2 Detailed project execution methodology

3.2.1 Preparation of Inception Report

The Consultant held inception meetings with Ministry and District Local Government officials. This was critical in providing legitimacy to the consultancy assignment and securing permission for engaging the stakeholders and guide in identification of key target groups. The inception report was prepared detailing how the consultancy will be executed and submitted to the Ministry. This report includes the updated methodology and workplan based on observations and information gathered from the field.

3.2.2 Literature Review

A comprehensive review of the existing documents related to the project was carried out to acquaint the consultant team with the project goal, objectives, activities and most importantly how this assignment contributes to achievement of project aspirations. This document review will also help the team understand the scope of the assignment and how it links with other consultancies that have been undertaken under the project. In addition, document review will also prioritize benchmarking and review of restoration publications and success stories done within and outside the country. This will help in identifying gaps, having an in depth understanding of degradation drivers, vulnerability of communities to climate change impacts, copying strategies and appropriate restoration measures.

3.2.3 Stakeholder mapping and engagement

The organization will map out key stakeholders with the aim of identifying and understanding the drivers of environmental degradation, consequences and impacts of this degradation to community livelihoods challenges. The stakeholders to be mapped out will include district technical staff, the farmer group representatives, political leaders, women, law enforcers, youth, elderly, people living with disabilities and civil society organisations doing similar assignments. In addition, stakeholders will be informed about the roles they have to play in achieving the restoration objective.

Stakeholders engagement will help us generate information on historical status of the vegetation and tree cover in the area, the areas most prone to degradation, and the most highly vulnerable people. This will be done in close collaboration with community members especially the elderly and district technical staff. In addition, the organisation will identify the activities currently undertaken by different categories of people in the region. This will guide in identifying alternative livelihood options which are environmentally friendly and effectively substitute the current activities.

The organization will employ focus group discussions and interview techniques to collect data from stakeholders. Stakeholders will be guided regarding the importance of restoration activities, benefits that could be accrued from these interventions. Stakeholders will be categorised according to their interests and the importance they attach to the different interventions; and analysis done to determine the appropriate intervention for each area.

3.2.4 Rapid ecosystem assessment

A rapid appraisal of the forests, hill-tops and wetlands under the project intervention area will be carried out to identify the hotspots, extent of degradation where restoration activities are to be carried out. Ecosystems provide crucial provisioning, regulating, supporting and cultural services and degradation of ecosystems compromises ability of the ecosystem to offer these services

During ecosystem assessment, the team will move along the wetlands, climb hill tops and

move around forests in the River Mpanga Catchment in order identify and map out hotspots such as the bare hills, patches of forest, wetlands and riverine areas which have been degraded. The focus of the interventions will be placed on hotspots because they are ecologically sensitive to degradation drivers such as flooding and runoff, soil fertility loss, degradation of hilltops, wetland degradation, and deforestation among others. Environmental issues and hotspots will be identified through field observation. In addition, hotspots will be georeferenced using GPS for purposes of ease of locating them and to guide monitoring activities.

The field observations will be further strengthened and/or confirmed by interviewing key informants about the current and past status of the ecosystems targeted for restoration as well as understand the challenges and barriers to ecosystem functioning and opportunities which can be tapped to maximize or upscale ecosystem benefits.

3.2.5 Identification of intervention measures

The organization will identify possible restoration strategies/measures to address specific degradation issues. The interventions could take the form of management of an income generating activity with a unit price attached to each intervention. The interventions could also include wetland restoration, forest restoration, restoration of bare hill tops, soil and water conservation measures e.g. fanya juu terracing, grass bands etc. Some of the stakeholders will propose specific restoration interventions through stakeholder engagements. The interventions will be broken down into cost per activity and unit price per activity derived. The unit price will be benchmarked basing on other assignments of similar nature in the region and the total price will be based on total acreage of the area where interventions are to be undertaken.

3.2.6 Capacity building and support to 8 - 10 livelihoods farmer groups to implement alternative livelihoods options identified.

The consultant will identify farmer groups which will be interviewed to identify their training needs. These farmer groups will consist of 20 to 25 persons; with 60% as vulnerable persons including women, youth among others. A capacity building manual will be developed in line with the training needs assessment and the training conducted about livelihood options to increase knowledge, skills and abilities of communities and stakeholders.

The consultant will map out the existing livelihood options for communities living around degraded wetlands and forests. Stakeholders will be engaged and they propose alternative livelihood options which are environmentally friendly and have potential for enhancing ecosystem functionality. This will help communities coexist with ecosystems in a more sustainable manner. In addition, the consultant intends to propose livelihood options to be incorporated into the training such as bee keeping, piggery, banana growing and coffee growing among others in addition to those proposed by the community.

Priority in terms of offering support will be given to farmer groups which border with

Rwambu-Mpanga river/wetland systems and have been degrading the ecosystem. Buiding capacity of these groups will could have great potential in improving the affected ecosystems.

Monitoring and evaluation will be conducted to assess effectiveness of the livelihood options and adoption by local communities and stakeholders. A training report will be written to document the activities undertaken, progress of the assignment, challenges and lessons learnt which will be submitted to the district local government and Ministry.

3.2.7 Capacity building and support to 8 - 10 livelihoods farmer groups in the construction of energy saving cook stoves and technology identified

The consultant will identify 8 - 10 livelihood farmer groups who will be organized to ease mobilization and communication of information about the planned cook stove technology construction training. A training needs assessment will be carried out. A capacity building manual will be developed in line with the training needs assessment and hands on trainings in construction and usage of energy cook stove technology conducted. The gender aspect of the training will be emphasized with a key focus on women as key training participants as they are the ones who cook meals in homesteads.

In the course of running the training, a boiling point test will be carried out to compare amount of biomass used while using the three stone stove and an energy saving stove. This is will be useful in demonstrating to the communities and stakeholders regarding the amount of biomass which can be saved in using energy saving stove compared to the three stone stove. This training will help in improving efficiency of energy use and reduce emissions which are released in the atmosphere due to combustion hence reducing climate change impacts.

A follow up exercise of trainers of trainees (TOTs) to determine adoption rates of the energy saving stove technology. Monitoring and evaluation will be conducted to assess effectiveness of the training and usage of the technology. A training report will be written to document the activities undertaken, challenges and lessons learnt which will be submitted to the district local government and Ministry.

3.2.8 Support and demonstrate appropriate soil and water conservation measures

The Consultant will identify 10 model farmers and 10 community farmer groups per district to be trained in soil and water conservation techniques. All the farmers and farmer groups selected for training and capacity building should be residents in project intervention sites and in close proximity to the areas where degradation is occurring.

A comprehensive assessment of the terrain, soil and water conservation issues, extent of soil degradation, including soil characteristic will be done. The consultant will go a long way to identify relevant soil and water conservation measures to address the identified soil and water conservation issues. Field based training will be conducted to build capacity of communities and stakeholders in soil and water conservation technologies

such as grass bunds, terraces, planting of nitrogen fixing tree species for soil fertility improvement, mulching among others.

This training will enhance the knowledge of communities in land management, improve land productivity and ensure that farming activities are conducted in a sustainable manner. A training report will be written to document the soil and water conservation issues, strategies promoted, targeted stakeholders, challenges and lessons learnt which will be submitted to the district local government and Ministry.

3.2.9 Conduct gender awareness and sensitization workshops

The consultant will identify and mobilize stakeholders with a plan to undertake a gender awareness and sensitization training workshop. A training needs assessment will be carried out to understand the gender gaps and the gender roles and responsibility of individuals in the community. A capacity building manual will be developed with detailed content on gender responsiveness, gender equity and equality, gender inclusiveness and how gender relates to climate change impacts.

Priority will be given to training communities on aspects such as Ecosystem Based Adaptations (EbA) and benefits of this approach. The consultant will also strive to equip communities with techniques and approaches of implementing and maintaining EBA interventions, and enhancing productivity of agricultural landscapes through climate smart agriculture technologies and use of resilient crops.

Local communities will be consulted and engaged in arriving or developing local interventions which can be implemented using locally available materials. Emphasis will be given to inclusion of youth and women in the groups or members to be trained as they are most vulnerable to climate change impacts as well ensuring sustainability of the interventions.

A monitoring and evaluation exercise will be conducted to assess effectiveness of the gender training and a training report will be written and submitted to the district local government and Ministry.

3.2.10 Restoration of 100 ha of degraded hill slopes, riparian forests, and wetlands

The consultant shall identify tree species with multiple benefits and high restoration potential for degraded wetlands and ecosystems. The consultant will develop a restoration strategy/plan for degraded wetlands, forests and hill-tops and submit the plan to Ministry project team for review.

Site assessment and tree species site matching will be carried out to determine suitability of the planting site for the trees to be planted. Trees will be planted at the onset of the rains when the soil moisture content is adequate to support seedling take off and establishment.

Restoration activities will be done in degraded patches of forest, wetlands and riverine areas in the project area using indigenous multiple use tree species. Priority will be given to restoring hotspots and ecologically sensitive areas in the degraded ecosystems. All the areas where restoration activities will be done shall be georeferenced using GPS technology. Monitoring will be done between 2 weeks and a month after planting to assess seedling survival. This will be followed by beating up or replacing of dead trees to ensure uniform stand growth.

Local communities will be equipped with basic knowledge in tree establishment and management with a key focus on planting technique, linning out, forest protection, pitting, pest and disease control among others. Monitoring will be carried out on a routine basis to determine performance of the restoration areas. The consultant will undertake monitoring in collaboration with the District local governments and Ministry staff. A progress report about the restoration exercise and will include information on areas restored, tree species utilized for restoration, restoration strategies, targeted beneficiary groups among others.

3.2.11 Sourcing of tree seedlings

Seedlings which will be used for restoration of degraded ecosystems will be sourced from implementing partners and civil society organizations within the project intervention districts which own and or supply seedling to local communities. Additionally, other seedlings will be sourced from National Forestry Authority under the tree planting program. The target project districts have signed memorandum of understanding with some implementing partners and civil society organizations who have over the years supported local communities with planting materials. The partners will be key in supporting restoration efforts.

Restoration activities will prioritise hotspots and ecologically sensitive areas within the targeted areas to be restored in degraded forests and wetlands. Other areas will be allowed to recover through natural regeneration and protection from degradation drivers.

3.2.12 Introduction of appropriate drought- and flood-resilient crop varieties with the selected model farmers

The consultant will identify model farmers and/or farmer groups to work with in promoting appropriate drought and flood resilient crop varieties. The farmers will be trained in establishment and management of the crop varieties including agronomic practices, pest and disease control and post-harvest handling to complete the agriculture value chain.

Local communities will be consulted on flood resilient and drought tolerant crops of their preference as they tend to be adapted to local soil and weather conditions. In addition, crops of preference by local communities provide staple food for the community. Priority will be given to crop varieties which produce high yields in the shortest possible time but also have potential for contributing household food security and income.

The Consultant will carry out monitoring of the crop varieties to determine performance of the crops. In addition, the Consultant will carry out recommendations on drought flood resilient crop varieties and appropriate agronomic practices.

3.2.13 Implementation of agroforestry in cropping and pasturelands using climate-resilient and multi-use trees

The Consultant will identify community members to work with in integrating agroforestry trees in livestock grazing areas and crop lands. Trees with multiple benefits such as soil and water conservation, wind and shelter break, nitrogen fixation, fencing, fodder will be preferred for integration into farming systems. Such trees include *Calliandra calothyrsus*, *Mangnifera indica, Arthocarpus hetrophyllus, Erythrina abbysinica, Macademia, Persea americana* etc. In addition, medicinal plants will be promoted because of their contribution to improving human health; such as *Prunus africana*, *Zanthoxyleumnchalybeum, Vernonia amygdalina*.

Agroforestry trees will be planted along land boundaries, in farmlands but in a scattered pattern and round homesteads to balance the land requirements for conservation and agroforestry needs. Integration of agroforestry trees will support enhancing if aesthetic characteristics of farmland, increasing tree cover, enhancing food security, and reducing land conflicts between neighbouring communities and maximize utilization of land through obtaining a range of products from the same land.

3.3 Assignment Reporting and Closure

Following the successful completion of all the project deliverables, we shall prepare the project completion reports which will be submitted to the Ministry's project office for review. These will show the activities undertaken throughout the project, achievements, lesson learnt, pending activities which may require ministry's intervention and other follow-up activities.

4.0 WORK PLAN

The Gantt chart below illustrates how the activities of the assignment will be structured and conducted. The assignment will be conducted in a period of 24 months as specified in our response to the Terms of reference.

Table 2: Project Implementation Plan

		2024										2025													
No	**Task**	**Feb**	**Mar**	**Apr**	**May**	**June**	**Jul**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**	
Phase 1. Planning and Inception																									
	Contract signature																								
	Kick off Meetings																								
	Obtaining lists of Key Stakeholders																								
	Compilation documents																								
	Preparation and submission of inception Report																								
Phase 2. Project Execution																									
	Document Review																								
	Key Stakeholder interview																								
	Comprehensive needs Assessment of current economic actions																								
	Formation and Training of 30 livelihood farmer Groups																								
	Train Formed groups in enterprise management using the Model farmer model																								
	Support Groups with enterprises																								
	Capacitate the of Energy Saving Cook stoves and Technology																								
	Develop soil and Water Conservation measures																								
	Introduction of appropriate drought and food resilient crop																								
	Conduct Gender awareness and sensitization through Radio talkshows																								

	Restoration of degraded hills and slopes																							
	Develop wetland restoration strategy																							
	Identify tree species																							
	Capacitate Community Environmental Friendly Services																							
	Develop crop and livestock restoration strategy																							
	Monitor restoration Program																							
	Develop Restoration strategy for degraded Forest																							
	Actual Planting of Trees																							
	Monitor the restoration Program																							
	Phase 3. Reporting and Project Closure																							
	Preparation and submission of Project completion report																							
	Exit meetings																							

5. 0 PROJECT MANAGEMENT

The Ministry of Water and Environment (MWE) is the implementing partner of the project. The Technical Assistance (the Consultant), Marianne Foundation for Youth Development has assembled a team of four Experts as requested in the terms of reference.

The technical team is headed by the Team Leader. The other experts on the team are; Agriculture Expert, Energy Expert, Restoration Expert and Sociologist. In addition to the key experts, there are also non-key experts with good knowledge of the local communities in the project area who will carry out monitoring activities.

6.0 PROJECT INCEPTION PHASE

The project contract document was signed in February 2024 and since then, a number of activities have been undertaken. These are recruitment of key experts, recruitment of non-key experts and an inception visit to the project area. The details of these activities are described below;

6.1 Recruitment and seeking commitment of the key experts

Currently, all the key experts have been confirmed and they have committed to dedicate time to work on the project by signing the statements on exclusivity and availability, and the contracts that spell out their roles and responsibilities. The team consists of five key experts with expertise in Agriculture economics, Agronomy, Forestry, Sociology, and Biomass mass energy conservation.

No.	Name	Responsibility	Area of expertise
1.	Ms. Lucy Aliguma	Lead consultant	Agriculture economics
2.	Mr. Kaluya Geoffrey	Team Member	Biomass energy conservation
3.	Ms. Ahabwe Mackline	Team Member	Gender, Social work and sociology
4.	Komushago Barbera	Team Member	Agriculture
5.	Abomeire Elia Samuel	Team Member	Forestry and restoration

6.2 Recruitment of the non-key experts

Marianne Foundation for Youth Development will identify non key experts in the districts of implementation who will support the process of mobilization of the stakeholders. The consultant will work will district technical staff (District forest officers, District natural resource officers, District community development officers), local leaders such as councils, sub-county

leaders to support mobilizing of local communities and ensure smooth execution of the assignment. The consultant will also engage with community based organization in target districts which are doing work of similar nature.

6.3 Preliminary findings from the inception visit

The team visited some of the project sites in Kitagwenda, Kamwenge and Ibanda districts during the period; 18th – 21st March 2024. The visit aimed at getting acquitted with the project area, formally introducing the project to beneficiaries and to collect information to enrich the inception report (IR). During the visit, using checklists, Key informant interviews (KIIs) were held with district and sub county officials namely the District Natural Resources Officers (DNROs), District Agriculture Officers (DAOs) and the District Community Development Officers (DCDOs) as well as the Agricultural Officers and District Community Development Officers at the sub county. Other key informants included the LC 1 Chairpersons of selected villages. Formation and strengthening of livelihoods farmer groups being one the project objectives, the team profiled some farmer groups to establish their capacity buildings gaps. Focus group discussions (FGDs) were held with leaders of selected farmer groups to obtain information for group profiling. The preliminary findings from the inception visit are presented in the sections below.

6.3.1 Ibanda District

The team held discussions with officials from the district and from Ibanda Municipal Council in Kagongo Division, Annex 1a presents a list of persons contacted. Focus Group Discussions (FGDs) were held with leaders of five farmer groups, including one group for youth and one for women, (Annex 1b contains a list of farmer groups interviewed).

Project Team at the Mayor's Office in Ibanda Municipality

FGD with members of Rwambu 111 Piggery Women's Group in Rwambu 111 Village, Rwambu Parish, Kijongo sub-county

Most degraded areas in the district

In Ibanda district, river Rwambu flows through six sub counties/Divisions namely Kijongo sub county, Kagongo Division, Ishongororo Town Council, Kanyarugiri Town Council, Rushango Town Council and Nyamarebe sub-county. The degraded hills include: Ibanda local forest

reserve, Bwahwa Hills, Kigunga Hills, Mabonwa Hills, Ibanda Hills, Nyarukika and Katembe. The crops commonly grown by communities in these hills are coffee and millet.

The potential sites for the project in Ibanda Municipal Council are the degraded hill tops comprising of Ibanda hill that covers Kagongo and Bisheshe Divisions as well as Kashangura hills in Kagongo Division. The most degraded wetlands are located in Katehe in Kagongo Division and they include Kafunjo wetland and Bigyera wetland.

Degraded wetland in Kagongo Division, Kasangura Ward, Ibanda Municipality

Farming practices in Ibanda district

Major sources of household income in Ibanda district include growing coffee, vanilla, maize, beans and bananas as well as rearing animals such as goats, cows and pigs. Coffee, maize and beans are grown as the major cash crops while the major food crops include cassava, bananas, beans, maize, sorghum and vegetables. Millet, sweet potatoes, groundnuts and sorghum are also grown on a small scale. Challenges faced by farmers are attributed to pests and diseases, variation and variability in weather conditions, poor seed varieties, lack of market, price fluctuations and post-harvest handling losses, lack of agro-processing technologies. Gender based violence during harvesting as well as limited capital to set up animal shelters were also mentioned.

In Ibanda Municipal Council, most households depend on agriculture as a major source of income specifically coffee and bananas. Other households are involved in retail businesses. Coffee, bananas and vanilla are the major cash crops grown in the area while the bananas, maize, millet, beans and groundnuts are the major food crops. Households mainly keep cattle (both local and exotic), pigs and goats.

Current interventions in place to reduce degradation of wetlands and forest ecosystems

The district is promoting awareness creation on proper use of wetlands and hill tops through environmental education. Several methods are being emphasized to reduce on the issue of soil erosion and these include

- *Sensitization of the community members to stop bush burning*
- *Replanting trees*
- *Training of communities on use of terraces*

- *Promoting agro-forestry through integrating trees such as Grevellia with arabica coffee and pasture.*

The soil and water conservation technologies currently being used by farmers include use of terraces, intercropping coffee and other trees such as avocados, oranges, mangoes and paw paws. The above interventions were constrained by limited funding to implement the activities, the high cost of seedlings and the limited accessibility to seedlings by the farmers. It was reported that, some community members burn bushes at night while others still harbor negative attitude towards government programs.

For wetland management, the district officials recommended activities which are environmentally friendly such as fish farming and bee keeping, in addition to physical enforcement of laws and policies and continuous environmental education for the affected community. Enforcement of laws and policies is done especially in areas that were demarcated by the ministry.

In Ibanda Municipal Council, fish farming, apiary and growing animal fodder such as Kikuyu grass are some of the examples of environmentally friendly and good farming practices which were being promoted. The major crops which were being produced in the area include vanilla, horticulture (fruits and vegetables). Coffee and cassava are some of the recommended crops which could be promoted among model farmers as they are drought and flood resilient. In addition these crops can offer farmers good market opportunities. There were no social, cultural or religious hindrances to crop production in the area.

Major challenges to farming (crop production and livestock keeping) in Ibanda Municipal Council were attributed to price fluctuation, climate change factors such as floods, drought, hail storms, drought. Poor soil fertility, pests and diseases, land fragmentation, poor storage facilities and lack of adequate fertilizer also affect farming enterprises. In Ibanda Town Council, there are social hindrances to production of some crops such as thieves due to many school drop outs in the area.

Marketing and value addition

In Ibanda Municipal Council, coffee and bananas are the major crops marketed especially in local communities, Ibanda town and other small towns around. There are no known marketing contractual arrangements between farmers and off-takers.

Majority of the farmers have not been adequately supported to boost their farming activities. Provision of storage facilities, transport means, value addition and capacity building in collective marketing and financial management, would empower them to meet the market requirements for various market outlets.

In Ibanda district, there are coffee hullers in some areas like Kasangura. Maize millers are located in different locations in the district with a producers packaging first grade maize flour. There are a few farmers who add value to millet, cassava and groundnuts. Major challenges

to value addition are attributed to inadequate knowledge and finances to develop value addition facilities.

Farmer group formation in Ibanda district

Formation of farmer groups is one of the key deliverables under this assignment. It was noted that Kagongo Division alone had 226 Parish Development Model Groups (PDM) with each group comprising between 15 and 25 members including males, females and youths. Majority of the farmer groups were registered, had Business Plans and few had received training on financial management and on market creation for their products. Most of these groups were involved in crop and livestock production enterprises. (Annex 1b contains a list of farmer groups interviewed in Ibanda district).

Livelihood strategies and climate resilient agricultural technologies

Livelihood strategies promoted in Ibanda district include agriculture i.e crop production, animal rearing (poultry, cattle) Apiculture was reported to be on the increase. The major challenges faced include climate change impacts, pests and diseases, counterfeit pesticides and acaricides, limited land, poverty and population increase which drives people to exert pressure on sensitive ecological areas such wetlands and hills. Communities also lack affordable sources of energy.

Environmentally friendly livelihood strategies including climate smart agriculture techniques (e.g. irrigation, water harvesting technologies and planting drought resistant crops are some of the on-farms practices which will be recommended for uptake by the communities. In addition, making art and crafts items, welding and motor vehicle mechanics are some of the off-farm activities which will be recommended to communities as alternative sources of income.

Knowledge on EbA, level of application and training needs of EbA

Ecosystem Based Adaptations (EbA) in place include tree planting in degraded areas and restoration of wetlands. The benefits of implementing EbA are protection of vulnerable communities against climate change shocks like floods, increasing carbon sinks, promoting sustainable utilization of natural resources and conservation efforts

Training on EbA approaches will focus on introduction to the concept of EbA strategy, significance of EbA, stakeholder roles in EbA and EbA implementation mechanisms. The training of communities in EBA approaches will also give attention to causes and consequence/effects of climate change as well as on means and mechanisms for climate change adaptation.

Possible challenges which could be faced while implementing the EbA approaches include inadequate funding, political interference, the rich and powerful individuals being the greatest degraders and difficult to confront as well as poverty in the communities and unwillingness to leave ecologically sensitive areas like wetlands.

Suggested solutions to the above mentioned challenges are to increase funding for ecosystems based adaptation programs, community sensitisation and legal support to local governments to deal with the affluent individuals who degrade environment.

Gender issues that affect the current livelihood strategies in the communities

The communities suffer from domestic violence/gender based violence, poverty, hunger and fuel/energy provision. Recommended gender strategy to enhance community resilience to climate change requires gender targeted training and sensitisation programs as well as climate change adaptation strategies targeting improvement of livelihoods.

Collaboration with other key stakeholders

Civil Society Organisations implementing related activities include Marriane Foundation, ICON, GEO Greening. These organisations are located in Ibanda, and are involved in livelihood programs, tree planting and community sensitisation.

6.3.2 Kitagwenda District

The team held discussions with the district and sub county officials as well as the Mayor of Kabujogera Town Council, Annex 2 presents a list of persons contacted. Focus Group Discussions (FGDs) were held with leaders of two farmer groups namely Nyabitooma Twetungure Farmers Group located in Kagazi Ward and Kyaiswarira United Farmers Group located in Kicheche LC1 Village, Kagazi Ward.

Project Team meeting with Technical staff at the district, Kitagwenda

Project Team after meeting with Mayor and Technical Staff at Kabujogera Town Council

Most degraded areas in the district

In Kitagwenda district, River Rwambu flows through four sub counties namely Nyabbani, Kanala, Ntara and Rwenjeza. The most degraded hills in the district include the Ninda hills in Kakasi sub county, where most people grow coffee, millet and onions on the hill tops. Other degraded areas include Kinyamugara in Kichenche sub county and Nyabaani sub county.

	
FGD with Leaders of Nyabitooma Twetungure Farmers Group	***Degraded area in Kabujogera Town Council***

In Kabujogera Town Council, the most degraded areas are found in Kabujogera Ward in the villages of Nyabutoma, Rwamushambo, Katego, Rwabujingo, Rwamasinde, Katonzi and Kiyagara. The degraded wetlands are along the boarders of Ruhagura, Kyarutanga and Kikoyo.

Cash and food crops grown in the district

In the whole district, coffee is the major cash crop grown and a major source of household income. Farmers also sell bananas and beans. Major food crops grown are cassava, millet, sweet potatoes, rice, groundnuts, bananas, beans and vegetables. Farmers also keep goats, cows and pigs. About 60% of the farmers on the hill tops cultivate on average 3 to 4 acres. In Kabujogera Town Council, household income is mainly from growing coffee and bananas. Some farmers sell cassava to get income. Rearing cattle, pigs, goats and poultry is also a lucrative venture practiced in the district. Majority of the farmers (about 80%) cultivate on more than 3 acres of land on which they grow bananas, cassava, maize and millet as the major food crops.

Environmentally friendly farming practices in Kitagwenda district

The district is promoting awareness on use of terraces especially on top of hills, tree planting especially *Grevillea*, *Mahogany* depending on community needs so as to control soil erosion. The district is ensuring awareness and enforcement is done especially to the areas that were demarcated. These areas were gazetted by the government through NEMA in 2023 and monitoring activities are done through radio talk shows. Community awareness meetings are constrained by limited resources and increased budget which hinder sustainability of activities.

Demarcation of wetlands was done in Kitagwenda district especially in Kabujjogera town council. Good farming practices have in the past been promoted in the area including fish farming, intercropping coffee with trees, bee keeping and pasture establishment. In addition, soil and water conservation technologies currently being promoted by farmers include contour

ploughing, manure application and mulching. Arabica coffee and dairy cattle are common enterprises among modern farmers. Beans, groundnuts, maize and millet are potential crops with good markets. Limitation is on availability of land to grow these crops.

At the district level, most of the farming challenges were attributed to high cost of seedlings and limited accessibility to seedlings by farmers, pests and diseases, weather changes, poor seed varieties, lack of market, limited post harvest handling as well as Gender Based Violence (GBV). On the other, farming in Kabujogera Town Council is constrained by prevalence of pests and diseases, lack of market during harvesting season, unstable prices for crops and other products as well as poor storage facilities. It was reported that some farmers sell their crops before maturity state while still in the garden.

Marketing and value addition

There are some marketing contractual arrangements between farmers and off-takers especially for large scale farmers of coffee, bananas and dairy. Although, there are coffee hullers and maize milling machines in Kanala and Mayoro, value addition to crop produce is limited in the district, In addition there is an Ethanol processing plant (Pharmacol Industries), for cassava and maize in Kanala.

In Kabujogera Town Council, major crops marketed by farmers include coffee, bananas, maize and groundnuts while livestock farmers sell pigs, bee hive products, goats as well as cattle and poultry products. Farmers sell their produce to fellow farmers while others market their produce in open daily markets and seasonal markets. Farmers do not have marketing contractual arrangements with off-takers and farmers have not received any support to market their products. Sensitization on how to access markets and communal training on marketing would help farmers meet the market requirements. Value addition is limited to coffee, maize, millet and groundnuts and majority of the farmers do not add value to their produce because of limited knowledge on value addition methods.

Recommended training needs for farmers

Majority of the farmers are thirsting for more knowledge especially on use of terraces, agro-forestry, zero grazing and sensitization on carrying capacity to reduce on numbers of animals grazing on the hill tops. Training is also needed on change of mind set as well as on setting a vision and mission in homes and on marketing and value addition.

Recommended livelihood strategies and climate resilient agricultural technologies

Livelihood strategies currently promoted in Kabujogera Town Council include poor farming methods leading to degradation of wetlands. Off-farm activities recommended for men, women and the youths as alternative sources of income include mat making, basket weaving, bee keeping, fish farming etc. Small cottages for making hand crafts for the youth and women are recommended although they need skilling. Youth groups should be formed and given machines for making brickets.

Climate resilient agricultural technologies recommended for these communities include fish farming, bee keeping and growing of taproot crops and vegetables. Also recommended is

promotion of agroforestry which involves integrating multiuse tree species with arabica coffee, bananas and beans. Model farmers should be assisted with seedlings to enable other farmers to learn and access them.

> ***Fish farming, bee keeping, agro forestry with fruit trees such as hass avocado, growing pineapples, making brickets for cooking, coffee, irrigation in wetlands and growing sweet potatoes and sell sweet potato vines for pigs were recommended by the Mayor, Kabujogera Town Council, as the best environmentally friendly enterprises which should be promoted in the communities.***

Farmer Institutions in Kitagwenda district

Kabujogera Town Council as one of the target areas in Kitagwenda district targeted for implementation already has over 130 farmer producer groups, 35 Village Savings and Loans Associations (VSLAs), and 5 Loan Associations for PDM groups; with each group size ranging between 10 and 30 persons. Most of these groups are registered at the Town Council level. Although most of the farmer groups are involved in farming and processing, they do not possess Business Plans (BP); and have not received adequate support in terms of capacity building. These groups have also bye-Laws and a constitution with executive committees to manage these groups.

Knowledge on climate impacts and training needs

Heavy rains and prolonged dry seasons were pointed out as climate change impacts. Training on climate change impacts for communities will focus on early planting and climate change preparedness. There is no use of efficient energy cook stoves and energy saving technologies in Kabujogera Town Council.

Knowledge on EbA, level of application and training needs of EbA

Planting of recommended trees indicates the level of awareness on Ecosystem Based Adaptations (EbA). Environmental restoration is the major benefit of implementing the EbA and communities need sensitization on ecosystem functions; although they do not have enough land and skills hence the need for training of the affected communities.

Gender roles and responsibilities of individuals in these communities and how it affects the current livelihood strategies in the communities.

Women do not own resources and in most cases women have inadequate access to credit facilities to implement agriculture activities. Mainstreaming of gender will enhance community resilience to climate change impacts and promote participation of vulnerable groups in decision making, planning, implementation and fair distribution of resources.

Opportunities for collaboration with other key stakeholders

- ECOTRUST is currently supplying tree seedlings in the district in a few sub counties and Town Councils including Kabujogera Town Council.
- CARE in partnership with Joint Effort is supporting restoration efforts in the district.
- COSIL has in the partnered with the district to undertake various environmental promotion programmes.

6.3.3 Kamwenge District

In Kamwenge District, the team held discussions with both the district and sub county officials, Annex 3 presents a list of persons contacted. Focus Group Discussions (FGDs) were held with leaders of two farmer groups namely Kebisingo 1 and 2 Fish Pond Group located in Kebisingo Village, Kebisingo Parish, Kabambiro sub-county and Kabambiro Bee Keeping Group located in Butanda Village, Kabambiro Parish, Kabambiro sub-county. Discussions were also held with the LC 1 Chairperson of Butanda Village Kabambiro sub county.

Most degraded areas in the district

In Kamwenge district, river Mpanga flows through six sub counties/Town Councils, Kabambiro sub County, Nkoma sub County, Kahunge sub county,Busiririba Sub county,Kamwenge Town council and Kabuga Town council. Most degraded hills include: Kabuga hills in Kabuga Town council. In Kabambiro sub county, the most degraded wetlands are situated along Mpanga River.

Farming in the district

Communities in Kamwenge district depend on agriculture as a source of income including growing of coffee, maize, beans, bananas, groundnuts, and cassava. Other crops grown in the district include millet and sweet potatoes. Households also rear goats, pigs and cattle. On hilltops, a farmer has an average land size of 4-5 acres. The major food crops are cassava, bananas, beans, maize, irish potatoes, peas and vegetables.

In Kabambiro sub county where implementation of some of these activities will take place, the major cash crops grown in the area are coffee, cocoa and bananas while the major food crops grown are beans, maize, banana, cassava and sweet potatoes. Livestock types kept in the area include goats, cattle (dairy), piggery poultry, fishing and apiary.

Environmentally friendly farming practices in Kamwenge district

The district is promoting awareness on tree planting especially Grevillea, mahogany, Musiizi depending on community needs so as to restore the environment. Farmers have in the past been advised to integrate trees with coffee, bananas, maize, sorghum and beans under agro-forestry systems.

In Kabambiro sub county, interventions in place to reduce degradation of wetlands and forest ecosystems are tree planting (agro-forestry), crop rotation, organic farming, cover crop

farming and permaculture. In addition, communities have been being sensitized on conservation of the environment and planting of environmental friendly trees although it is still on small scale.

The soil and water conservation technologies currently being used by farmers include cover crop farming, grass band cultivation and tree planting but still at a low scale.

Some of the crops which are being grown by farmers to conserve the environment include beans and soya bean. However**,** the recommended crop varieties most appropriate drought and flood resilient crop varieties to be grown by model farmers are beans ie. NAROBEAN 1, 2,6,7,16, soya bean, cassava (NAROCAS 1,2, 3) maize ie. Longe 10 H, Dk 88,777, and 89.

Other potential crops with good market opportunities that farmers could consider are water melons, coffee, macadamia and hass avocados. These crops are considered as high value crops in terms of high yields and high income.

There are no social, cultural or religious hindrances to production of some of the crops.

Challenges to faming

Challenges in farming in Kamwenge district include pests and diseases, climate changes especially too much sunshine, poor seed varieties, lack of market, Wild life and community conflicts around Queen Elizabeth, Kibale National Park and Katonga Game Reserve. Farmers also have a problem of post harvest handling as well as increased conflicts between men and women especially during harvesting.

Recommendation is to promote Smart Agriculture, UWA to put electric fence to guard wild animals from destroying gardens as well as promoting community dialogues.

In Kabambiro sub county challenges to farming (crop production and livestock keeping) in the area are attributed to pests and diseases, limited access to quality seeds, price fluctuations and unpredicted weather conditions. More training of farmers on modern farming practices and providing support to them with drought tolerant and flood crop varieties would help them overcome some of the above challenges.

Marketing and value addition

Maize, beans, coffee, cassava and bananas are the most common marketed crops by farmers in Kabambiro sub county in addition to livestock types such as goats, cattle and pigs. Farmers sell their produce in Kabambiro Market, Kamwenge Town Central Market and markets in Fort Portal, Kasese and Rwanda. Excess supply of marketed crop produce is experienced from December to March, while scarcity is experienced from May to September. Some farmers have a contract to supply Kakinga Millers from Ibanda.

The district has the following value adding activities

- Nine Coffee hullers in Busiriba sub-county
- Maize milling machines that pack for sale for example Garuga, Kaganga, Irembo and Ferdinand Companies.

- Yorghurt production in Nkoma sub-county by Nema Farm
- Diaries are in place in Kamwenge Town Council, Nkoma, Bihanga and Rwamwanja
- Hornbill coffee production by Kibale Association for rural and Environmental Development (KAFRED)

In Kabambiro sub county, value addition is limited to coffee and maize, through hulling and milling respectively. Limited access to value addition technologies and limited marketing skills are the major challenges to marketing and value addition. Recommended ways to overcome those challenges is by supporting farmers with value addition technologies and training in marketing skills and creating linkages for farmers.

Farmer Institutions in Kabambiro sub county

In Kabambiro sub county alone, there are 500 farmer groups, comprising of Farmer Field Schools, Farmer Producer Groups, Farmers Cooperatives, Village Savings and Loans Associations (VSLAs), Savings and Credit Cooperatives (SACCOs) and Parish Development Model Groups (PDM).

The size of these farmer groups averages between 10 to 30 members for the different groups and most of these groups are registered at Sub County/Town Council and cooperatives are registered with the district and registrar of companies. Most of these groups have bye laws and Constitution in place; a few farmer groups have Business Plans especially PDM groups. Most of them have received support in form of training on farming and a few were trained on group dynamics.

There are no socio norms, culture and practices affecting the performance of the farmer groups.

Livelihood Strategies and Climate resilient agricultural technologies

Livelihood strategies in Kabambiro sub county include goat rearing, piggery, bee keeping and tree planting. Challenges faced are attributed to limited skills as well as pests and diseases. Some current climate resilient agricultural technologies in these communities include irrigation, cropping of improved seed varieties but at small scale

Recommended livelihood strategies by the district

Fish farming and bee keeping are recommended as livelihood strategies in addition to continuous sensitization of the community members on proper usage of wetlands

Recommended livelihood strategies in Kabambiro sub county include bee keeping, cover crop growing and tree planting. Off-farm activities in these communities as alternative sources of income include VSLAs, candle and soap making, baking as well as seed processing and packaging.

C**limate resilient agricultural technologies recommended for communities** include use of quality seeds and planting materials of well adapted crop varieties, improved water use and management and cover crop farming.

Knowledge on Climate Impacts and training needs

- Climate change impacts include extreme weather, severe, change in rain fall patterns which result into floods
- Training needs on climate change impacts for communities should focus on climate smart agriculture in all the 5 modules
- Only 5% of farmers in the sub county are using efficient energy cook stoves and energy saving technologies

Collaboration with other key stakeholders

Current interventions in Kamwenge district

- Uganda Biodiversity Fund in partnership with Nature Uganda that supports wetland restoration and livelihoods.
- CARE in partnership with Joint Effort supporting communities in the district with planting materials.
- ZOA international is another organization which is working with the district to conserve and promote environmental conservation.
-

Awareness creation is being done by the technical team and the community leaders and enforcement is done in the areas that were demarcated.

6.3.4 Pre-selected enterprises, challenges faced and proposed solutions

Taking into consideration the aspect of environment conservation, results of the initial discussions with key stakeholders and some farmers, have recommended the following enterprises; bananas, coffee, aquaculture, bee keeping, growing vegetables as well as agro forestry and zero grazing. Other crops such as maize, beans, sweet potatoes were also mentioned. The rationale for this selection that was based on scoping and inception visits will be considered in the final selection of potential enterprises. The table below presents the challenges and possible solutions to challenges for these enterprises.

Table 3: Challenges faced by the pre-selected enterprises

	Enterprise	Challenges
1	Coffee	i) Poor agronomical practices due to limited knowledge ii) Limited access to on-farm extension services iii) Yields are low due to limited use of farm inputs (mainly fertilisers), which are expensive. iv) Climate change which has led to unpredictable rains v) Pests and diseases

2	Bananas	i) Limited availability of good quality planting materials (suckers, tissue culture plantlets) in time for planting ii) High cost of inputs (e.g suckers, manure and fertilisers) iii) Increased prevalence of pests and diseases iv) Limited knowledge of the appropriate agronomic and cultural practices, v) Low and fluctuation prices vi) Limited value addition due
3	Aquaculture	i) Lack of fingerlings that are of the desired quality, moreover, the available ones are expensive, leading to low growth rates. ii) Poor management, partly due to limited knowledge and skills as evidenced by poor sitting of ponds, iii) Limited feeds (they are costly, of poor quality, and not easy to access by all). This has led to low productivity iv) Poor extension services to reach out to the farmers regularly to guide them v) High cost of pond construction on the part of local fish farmers vi) Shortage and expensive nature of fish farming inputs like fertilizers, and seine nets.
4	Apiculture	i) Limited knowledge on bee keeping ii) High cost of bee hives
5	Agro forestry with fruit trees such as hass avocado	i) Limited access to seeds of preferred tree species ii) Inadequate knowledge of agro forestry farming practices
6	Fruits (specific ones will be identified during the study)	i) Lack of quality planting materials ii) Impact of pests and diseases iii) Poor agronomic practices iv) Expensive inputs (seeds, tools and chemicals) v) Inadequate extension services vi) Poor markets largely during the harvest periods
7	Maize	i) Pests (mainly armyworms and stem borers), ii) Unpredictable rains and drought iii) Low quality counterfeit inputs iv) Uneconomical scale operations v) Use of low yielding local maize seed varieties vi) Low and declining soil fertility vii) Low labour access to handle weeds (e.g striga), viii) Low prices
8	Vegetables (specific ones will be identified during the study)	i) High cost of inputs ii) Expensive nature of irrigation services and equipment iii) Limited awareness of the recommended agronomic practices iv) Pests and diseases v) Limited access to market information vi) High perishability level of products vii) High post-harvest losses *viii)* Poor transportation

Proposed solutions to address the above challenges

i) The project will inculcate the right mindset of farming as a business in people's minds, through training.

ii) District and sub-county extension staff to continue backstopping the selected model farmers even when the project is completed. There is need to link this project with Parish Development Model (PDM).

iii)The issue of declining soil fertility will be addressed by creating awareness on the importance of fertlisers, and training the farmers on sustainable soil and land use

managements approaches including sustainable agriculture practices such as crop rotation, mulching and soil and water conservation practices.

iv) One of the causes of low yields is poor agronomic practices. These challenges will be solved through the extension services with involvement of model farmers. At the end of the project, DLGs are expected to sustain this intervention.

v) The project will strengthen existing farmer groups and marketing groups in the project areas and their capacities will be built to implement project activities through training on group governance and dynamics, making business plans, financial management and collective marketing. The groups will contribute to accessing quality inputs on time, and benefit from discounts. Farmers will also be assisted to access reliable markets through bulking and collective marketing. If markets are readily available and remunerative, farmers will positively respond to them by investing in productivity enhancing inputs. This will also call for contractual arrangements with off-takers.

vi) Low prices offered for the produce is a major disincentive. Farmer groups will contribute to stabilizing the prices, through post-harvesting handling techniques and structures that will buffer the supply, and partly stabilize the prices, along with processing of products to make more products as well as collective marketing.

vii) Value addition prospects will be pursued to improve shelf life of products, contribute to stabilizing prices, tap into a wider range of customer base, and exploit different marketing channels, sub-markets and market segmentation and enable the farmers to fetch better prices.

viii) The challenge of limited access to finance will partly be addressed by strengthening farmer and marketing groups to access funds from banks and Microfinance institutions (MFIs) through group borrowing at lower interest rates.

6.3.5 Involvement of women and youth

The involvement of the youth and women in the proposed project activities is in adherence of The National Youth Policy and National Gender Policy that seek to promote the principle of equity in opportunities and in distribution of programmes, services and resources commensurate with ability, potential and needs of the youth. Off-farm activities recommended for the youths as alternative sources of income include brick laying and sand mining while women could get involved in mat making and weaving. Other recommended off-farm activities include candle and soap making, baking as well as seed processing and packaging. Small cottages for making hand crafts for the youth and women are recommended although they need skilling. Youth groups should be formed and be given machines for making brickets.

The youths and women will be:

i) assisted to form groups, through which capacity building and finance are delivered i.e. forming a group for lending, saving and marketing

ii) engaged as service providers with in the selected enterprises in the communities.

iii) be trained on the identification and diagnosis of pests and diseases in the selected enterprises and safe of pesticides

iv) involved in creating awareness through networking platforms to encourage women and youths to engage in commercial agriculture.

7. 0 RISKS AND RISK MANAGEMENT

Risks that are likely to disrupt implementation of project activities have been identified and contingency plans have been proposed with the aim of neutralizing or to prevent further damage. Key stakeholders will be encouraged to participate in the planning and implementation of contingency plans. The table 4 below summarizes the anticipated risks and associated mitigation measures in undertaking the assignment.

Table 3: Anticipated risks and associated mitigation measures

No.	Risk	Risk Management Strategy
1.	Risk of non-cooperation by affected communities	Reach out to stakeholders at the start of the project and sensitize them on how communities will benefit from the project interventions. Local Council I leaders will contribute a lot in this area.
2.	Uncontrolled changes in the initial intended project scope. These have extra cost implications	Constant communication with the client to adhere to the planned activities and scope
3.	Non-availability of representatives of institutions (due to competing priorities)	Outreach to stakeholders as early as possible and flexibility regarding data collection instruments (e.g. KII telephone or face-to-face interviews, focus group discussions, questionnaires in person or by email).
4.	Interviewees provide insufficient data during data collection phase	Meet as many stakeholders as possible using various instruments to collect data, including general observations during site visits, transect walks and triangulation.
5.	A tendency among respondents to under report socially	The team will use triangulation and cross-checking of information from multiple data sources to mitigate bias and ensure reliability. The data sources will be diverse.
6.	Availability of reliable and standardized national data and statistics, both real-time and historical	When the required data/ statistics are not available, the team will consider best practices for extrapolation and qualitative data collection from direct interviews and discussions with institutional staff and other beneficiaries.
7.	Level of management and coordination during training of communities	Managing allocated resources and the Team to ensure optimal assignment outcome. There will be excellent coordination mechanisms put in place, for the various levels of each activity to be coherently brought to bear, in an holistic coherent and focused manner.
8.	Health and safety risk can compromise the budget and speed of implementation of activities.	Regularly monitor health and safety of the all personnel.
9.	External hazards risk (such as floods, storms, civil unrest) could lead to project stalling or being discontinued.	Employ appropriate monitoring measures, to prevent such risks. There will be regular communication with team members, and client, and access to news
10.	Communication risk that may create mis-communication and project disruptions	Plan for effective and timely communication among team members and with the client. Plan for regular online and physical meetings.
11.	Time delays due to factors such as bureaucratic red tape at MWE including late feedback on submitted reports	Keep regular contact with the Project Coordination Unit to have the activities implemented on schedule

8.0 MONITORING AND EVALUATION FRAMEWORK FOR THE PROJECT

The Consultant has developed a monitoring and evaluation (M&E) plan, (Annex 4), to help track and assess the results of the interventions throughout the life of the project. The plan will be referred to and updated on a regular basis. The M&E plan includes monitoring indicators for the project. The M&E plan has been developed before beginning any monitoring activities so that there is a clear plan for what questions about the project need to be answered. It will help the Consultant decide how they are going to collect data to track indicators, how monitoring data will be analyzed, and how the results of data collection will be disseminated to MWE and other key stakeholders as well as internally among team members for improvement.

Accurate data will be gathered in a timely fashion using questionnaires and Key Informant Interview Guides as well as Focus Group Discussion Guides. The team will compile and analyze all the data that and results will be presented to MWE and other key stakeholders periodically.

9.0 CONCLUSIONS AND RECOMMENDATIONS

9.1 Conclusions

The contents of this inception report show our understanding of the assignment and the proposed methodology which will enable the Consultant to achieve the specified tasks and deliverables of the assignment within the agreed timeline. In addition a work plan is presented, along with an inventory of risks and how they will be mitigated. The inception report also highlights preliminary findings from literature review and scoping exercise that were undertaken in the project areas of Ibanda, Kitagwenda and Kamwenge districts.

Livelihood strategies for the venerable communities which are environmentally friendly were identified during the inception visit and these include growing bananas and coffee, aquaculture, bee keeping, growing vegetables as well as agro forestry and zero grazing. The youth will be engaged as service providers while others will be assisted to form groups for lending, saving and marketing. Off-farm activities recommended in these communities as alternative sources of income include businesses, crafts, wielding and motor vehicle mechanics.

Knowledge and skills gaps have been identified and training is needed on climate-resilient agricultural techniques, value addition, group governance and dynamics, making business plans, financial management and collective marketing. These training needs will to guide the development of training manuals and modules. Farmers will be trained to enhance their knowledge on climate-resilient agricultural techniques and be , able to add value and access remunerative markets for the products. Efforts will aim at having all the production, post-harvesting handling and marketing activities sustainable to ensure that communities benefit now and in the foreseeable future.

From the preliminary findings, it is clear that the assignment is very critical and timely to the achievement of the project goals and NDP III (Management of natural resources, environment, climate change, land and water and the Agro-Industrialization component). The Consultant has got adequate capacity to successfully accomplish the assignment. The participation of the local government will be very instrumental in ensuring achievement of the objectives of this assignment as well as the sustainability of the project activities amongst beneficiaries.

9.2 Recommendations

After submission of the inception report, it is therefore imperative to undertake the subsequent activities which include: presentation of the inception report, to agree on the methodology for conducting the assignment. The steps to follow these are: to train communities on the identified alternative livelihoods strategies and climate-resilient agricultural techniques, identification of model farmers and community farmer groups and demonstrate appropriate soil and water conservation measures. Appropriate drought and flood-resilient crop varieties will be introduced to selected model farmers, reforesting degraded hill slopes, riparian forests, forests reserves and wetlands with multiuse tree species and to identify community members willing to implement agro-forestry on their cropping and livestock grazing areas using climate-resilient and multi-use trees.

LIST OF ANNEXES

Annex 1a: List of persons contacted in Ibanda district

Ibanda District			
No	**Name**	**Designation**	**Tel. Contact**
1	Kirya Erry	Senior Natural Resources Officer	0772 621651
2	Kirabo Alex	District Community Development Officer	0779 102350
3	Juvinal Byarugaba	Senior Agricultural Officer, Ibanda Municipal Council	0773 067256
4	Robert Tumwesigye	Senior Natural Resources Officer, Ibanda Municipal Council	0782 961496
5	Tugabirwe Jovelet (Kyakwera)	Chairperson, Rwambu 111 Piggery Group, located in Kijongo Sub-county, Rwambu Parish, Rwambu 111 Village, Ibanda district	0775 539175
6	Byakatonda Emmmanuel	Chairperson, Birongo Minyeto Kweyamba Group located in Birongo Village, Rwambu Parish Kijongo sub-county	0788 314572

Annex 1b: List of farmer groups interviewed in Ibanda district

1) Kyarutanga 1 Coffee Growers, located in Kyarutanga 1 Village, Kyeikucu Ward, Kagongo Division
2) Nyamiswigwa Coffee Farmers Group, located in Nyamiswiga Cell, Kasangura Ward, Kagongo Division
3) Kyarutanga 11 Coffee Growers Association, located in Kyeikucu Ward, Kagongo Division in Ibanda Municipality
4) Birongo Minyeto Kweyamba Group located in Birongo Village, Rwambu Parish Kijongo sub-county
5) Rwambu 111 Piggery Group located in Rwambu 111 Village, Rwambu Parish, Kijongo Sub-county

Annex 2: List of persons contacted in Kitagwenda district

No	Name	Designation	Tel. Contact
1	Bashaija Moses	Senior Community Development Officer, Kitagwenda District	0782 949106
2	Nuwamanya Justus	Senior Agricultural Officer, Kitagwenda District	0772 467558
3	Karyegera Anthony	Natural Resources Officer	0779 215752
4	Tumwesige Lawrence	District Community Development Officer, Kitagwenda District	0782 451130
5	Katehangwa Judith Ann	Agricultural Officer, Kabujogera Town Council	0776 173337
6	Alituha Deo	Community Development Officer, Kabujogera Town Council	0782 920309
7	Ruhweza Buganda	Mayor, Kabujogera Town Council	0752617745

Annex 3: List of persons contacted in Kamwenge district

No	Name	Designation	Tel. Contact
1	Aliganyira Kassim	District Forestry Officer, Kamwenge District	0777 542191
2	Turyasingura Ambrose	Agricultural Officer, Kabambiro Sub County	0771 656322
3	Businge Richard	Community Development Officer, Kabambiro Sub County	0774 628281
4	Barugahare Charles	Chairperson, Kabambiro Bee Keeping Group	0772 662825

Annex 4: Monitoring and Evaluation Framework for the project

MONITORING AND EVALUATION SYSTEM FOR RWAMBU-MPANGA ECOSYSTEM FOR THE RESTORATION OF DEGRADED FORESTS TO ENHANCE ECOSYSTEM RESILIENCE & TRAIN LOCAL COMMUNITY GROUPS IN ALTERNATIVE LIVELIHOODS TO ENHANCE COMMUNITY RESILIENCE TO CLIMATE CHANGE

Project Summary	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Assumptions	Frequency How often will it measured	Responsible person Who will measure it	Reporting Where will it measured?
Project goal: Restoration of the degraded forests to enhance ecosystem resilience and train local community groups in alternative livelihoods to strengthen community resilience to climate change by Dec 2025. **Project purpose:** Restoration of the degraded forests, wetlands and riverine forests, and increase capacity of Local Communities to Adopt alternative livelihoods and climate-resilient agriculture techniques to decrease their vulnerability to climate Change and Reduce Degradation of Wetlands and Forests by Dec 2025.	• Enhanced ecosystem and community resilience to climate change. • Improved livelihood of Local communities living around these forests and wetlands along Mpanga-Rwambu catchment area. • Reduced degradation and encroachment along Mpanga-Rwambu catchment area. • 100 ha of degraded hill slopes, and forests restored using climate-resilient and	• End of Project Report. • Restoration reports. • Visible restored places.	• Timely release of all project funds.	Quarterly Annually	Project Manager. Team Leader	Permanent Secretary. Project Manager. Team Leader. Chief Admistrative Officer. District Technical Planning Committee Meetings. District Council. Project Review meetings.

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	multipurpose tree spp. • 100 ha of degraded wetlands restored using climate-resilient and multipurpose tree spp. • 100 ha of cropping land livestock grazing areas restored with relevant agroforestry tree species. • 30 ha of degraded riparian forests restored using climate-resilient and multipurpose tree spp.					
Outputs • 8-10 livelihood farmer groups of 20-25 members of 60% women formed and trained on EbA approaches and practices,climate-resilient agricultural techniques, alternative livelihoods options, soil and water	• 8 livelihood farmer groups (20-25 members) of 60% women formed and trained. • 8 livelihood farmer groups' capacities	• Training manual. • Content/presentations and schedule. • Training delivery. • Training evaluation. • Training reports. • Attendance sheets.	• Farmers' willingness to join groups. • Availability of experts. • Land	Monthly Quarterly Annually	Project Manager (MWE) Commissioner (MWE) Executive	Permanent Secretary. Project Manager. Team Leader.

Project Summary	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Assumptions	Frequency How often will it measured	Responsible person Who will measure it	Reporting Where will it measured?
conservation measures per district of Ibanda, Kamwenge, and Kitagwenda. • 8-10 livelihood farmer groups capacity built and supported to implement alternative livelihoods options identified per district of Ibanda, Kamwenge, and Kitagwenda • 8-10 livelihood farmer groups' capacity built capacity and supported in the construction of energy-saving cook stoves and technology per district of Ibanda, Kamwenge, and Kitagwenda. • 10 model farmers identified per district, supported to demonstrate appropriate soil and water conservation measures. • Introduction of appropriate drought- and flood-resilient crop varieties with the selected model farmers supported. • Gender awareness and sensitization workshops (one per district) about climate change impacts – for	built and supported to implement alternative livelihoods. • 8 livelihood farmer groups (20-25 members) supported in the construction of energy-saving cook stoves. • 10 farmer groups per district supported to demonstrate appropriate soil and water conservation measures. • 3 gender awareness creation works conducted in 3 districts. • 350 ha restored.	• List of farmer groups. • Training needs assessment report. • List of alternative livelihood options. • Capacity building training report. • Selection of the beneficiary groups for cook stoves. • Bench mark test results report. • Hands on trainings in energy cook stove technology. • Adoption rate report on the energy saving stove technology. • List of selected model farmers per district • Assessment report on the terrain and soil and water	owners' willingness to offer land for restoration. • Cooperation of land owners near wetlands. • Cooperation of key stakeholders at district & Sub-county level. • Timely release of project funds.		Director (Marianne) Project Staff/Team. District Technical Staff. District Executive Committee. RDC.	Chief Admistrative Officer. District Technical Planning Committee Meetings. District Council. Project Review meetings.

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communities at each of the project intervention sites conducted. • 100 ha of degraded hill slopes, and forests using climate-resilient and multipurpose tree spp restored. • 100 ha of degraded wetlands using climate-resilient and multipurpose tree spp restored. • 100 ha of cropping land livestock grazing areas with relevant agroforestry tree species restored. • 30 ha of degraded riparian forests using climate-resilient and multipurpose tree spp restored.		conservation issues. • Report on soil and water conservation measures. • Field based training report on identified soil conservation measures. • List of selected drought and flood resilient crop varieties • Report on farmers trained on growing and harvesting crops. • Performance reports on selected crop varieties. • Recommendation report on drought flood resilient crop varieties. • Gender training manual • Report on gender				

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		awareness training. • Restoration strategy/plan. • Restoration hotspots. • List of trees of trees to be planted. • Wetland restoration strategy/plan. • Wetland restoration hotspots.				
Activities • Formation and training of 8 livelihoods farmer groups per district, each consisting of between 20-25 persons, 60% women on EbA approaches and practices, climate-resilient agricultural techniques, alternative livelihoods options, soil and water conservation measures etc. • Building capacity and supporting 8-12 livelihoods farmer groups to implement alternative livelihoods options identified.		**… DO…**		Monthly Quarterly Annually		

Project Summary	Objectively Verifiable Indicators (OVI)	Means of Verification (MoV)	Assumptions	Frequency How often will it measured	Responsible person Who will measure it	Reporting Where will it measured?
• Building capacity and supporting 8-12 livelihoods farmer groups in the construction of energy saving cook stoves and technology. • Identification of 10 model farmers per district, supporting and demonstrating appropriate soil and water conservation measures. • Supporting introduction of appropriate drought- and flood-resilient crop varieties with the selected model farmers. • Conducting gender awareness and sensitization workshops (one per district) – in relation to climate change impacts – for communities at each of the project intervention sites. • Restoration of 100 ha of degraded hill slopes, and forests using climate-resilient and multipurpose tree spp. • Restoration of 100 ha of degraded wetlands using climate-resilient and multipurpose tree spp. • Restoration of 100 ha of cropping						

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land livestock grazing areas with relevant agroforestry tree species. • Restoration of 30 ha of degraded riparian forests using climate-resilient and multipurpose tree spp.						
Inputs • 5 Experts including the Team Leader and four field officers. • Other project support staff. • Project funds release.	5 project team of active experts in place. Project support staff in place. 100% timely release of project funds.	• Terms of Reference. • Payment Vouchers/sheets. • Timely implementation/ accountability. • Activity reports. • Bank statements. • Funds disbursement letters.	Availability of experts. Acceptance of Terms of Reference (ToR). Timely release of all project funds.	Monthly Quarterly Annually	Project Manager. Lead Consultat. Executive Director (Marianne)	Review Meetings. Project staff meetings. Monthly reconciliations