Project concept submitted for Adaptation Fund

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category:	REGULAR
Country/ies:	UGANDA
Title of Project/Programme:	ENHANCING RESILIENCE OF COMMUNITIES AND FRAGILE ECOSYSTEMS TO CLIMATE CHANGE IN KATONGA CATCHMENT, UGANDA
Type of Implementing Entity:	NATIONAL IMPLEMENTING ENTITY (NIE)
Implementing Entity:	MINISTRY OF WATER AND ENVIRONMENT
Executing Entity/ies:	MINISTRY OF WATER AND ENVIRONMENT IN PARTNERSHIP WITH GLOBAL WATER PARTNERSHIP EASTERN AFRICA
Amount of Financing Requested:	USD $ 2,249,000

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A. Project Background and Context:

A.1 Introduction

Uganda is endowed with significant portions of the world's most spectacular biodiversity and rich natural resource base, which deliver numerous ecosystem goods and services shared by millions of people across the country. Uganda has total land area of 241,038km^2, most of which is suitable for agriculture. Uganda's economy, therefore, fundamentally depends on the careful management of a delicate balance between safeguarding the integrity of the environment and natural resource base and meeting the increasing economic needs of land users particularly the rural vulnerable poor. Striking this balance, however, is being undermined by the increasing population and a multitude of anthropogenic pressures that threaten their capacity to provide goods and services for local communities.

In response to these challenges, Uganda has made important visible strides in bringing environment into the development agenda. Thus, subscribing to the principles of sustainable development as illustrated in the National Development Plan II (NDP II) and the National Environment Management Policy.

Also, notable of Uganda's efforts, is the overall devolution of power by the center to the lower levels of government including decentralization of environmental and natural resources management to the districts and lower levels of local government. Subsequently, the Ministry of Local Government through the local Government Development Programme and other natural resource sectors have made various efforts towards improved Environment and Natural Resources Management (ENRM). To further ensure that the communities' benefit from water and environment related interventions, the Ministry of Water and Environment (MWE) has a clear management structure from the MWE Headquarters to Water Management Zones (WMZ) that are made up of catchment and sub catchment management Committees. This structure is comprehensive to the extent that the stakeholders at the lowest units benefit from government and other project interventions in their localities. However, despite these government innovative initiatives, progress on the ground remains deficient, visibly parch and generally weak as well as lacking in many aspects. This background justifies a deliberate intervention of enhancing resilience of communities and fragile ecosystems in Katonga catchment.

A.2 Katonga catchment

Katonga catchment lies in the south-central part of Uganda, about 0°13'N 30°39'E near the Katonga wildlife reserve. The catchment is surrounded by a multitude of ecosystems, ranging from lakes, rivers, swamps, wetlands, among others. These ecosystems comprise the fragile ecosystems in the catchment. Katonga river acts as a channel connecting Lake Victoria and Lake George, reflecting that its catchment previously drained into Lake George. However, the regional uplifting events between the two lakes (the Albertine rift) caused the swampy region to southwest of Lake Wamala. The catchment is generally flat, allowing satellite wetlands to dominate, which cover an area of about 2,478km^2. The principal mouth of the river enters L. Victoria near Lukaya in Kalungu district (coordinates: 0°07.3'S 31°54.8'E). Figure 1 shows the location of Katonga catchment.

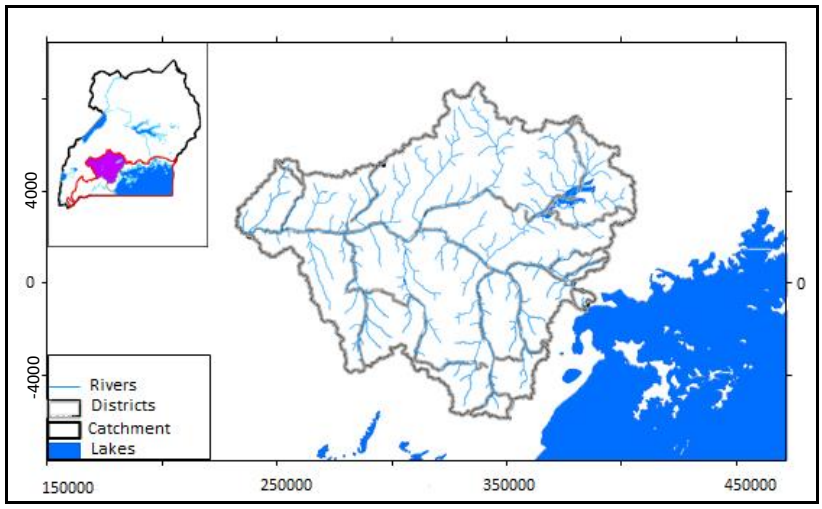

Fig. 1. **Location of Katonga Catchment** *(source: Ministry of Water and Environment, Kampala-Uganda)*

Katonga catchment has eight delineated sub-catchments. The primary purpose of delineating the catchment into smaller sub catchments was to ease basic understanding of its complexity from a hydrological perspective. Table 1 shows the sub-catchments in Katonga Catchment.

Table 1: Katonga sub catchments

Code Name	Sub-Catchment Name	Area size (SqKm)
KAT1	Nabakazi	2116.1
KAT2	Upper Katonga	1750.6
KAT3	Mid-Katonga	2211.9
KAT4	Kakinga	1129.2
KAT5	Bwogero	806.2
KAT6	Wamala	2575.6
KAT7	Kyogya	1497.9
KAT8	Nabajjuzi	1749.5

A.3 Environmental context

There is rapid development within the Katonga catchment and thus, reflecting socio-economic and political stability, and there is widespread environmental change within the catchment. The environmental changes are impacting heavily on the people who rely on ecosystem goods and services for their livelihoods. As agriculture is the economic mainstay in the Katonga catchment, crop farming is widely practiced and while subsistence farming is predominant. Commercial agriculture also exists with crops like maize planted at large scale in some areas. The increase in land use for agricultural practices is impacting heavily on the ecosystems in the catchment. The major issues related to environmental change in the Katonga catchment include among others;

- *Deforestation and forest degradation;* excessive loss of forest cover evidenced by the reduction in the spatial extent of the forested area from 63% (8,739km2) in 1999 to 5% (734.3km2) in 2017, of the total land area in the catchment.
- *Wetland reclamation;* excessive drainage of wetlands, riverbanks and lakeshores in the catchment through agriculture, mechanized industrial scale sand mining, plantation of eucalyptus, and brick making among others.
- *Soil erosion;* rampant soil erosion especially in hilly parts of the catchment such as Kalungu, Lyantonde, Mubende, etc., from lack of soil and water management infrastructure.
- *Water Stress;* Severe water stress characterized by domestic and agricultural water demand deficit. Water stress underlined by prolonged droughts that lead to drying up of surface and ground water sources such as boreholes, valley tanks, valley dams, streams, etc., leaving people and livestock desperate.
- *Prolonged droughts;* as part of the cattle-corridor, the catchment is characterized by droughts. Droughts are reportedly becoming severe due to climatic change effects and excessive deforestation and forest degradation. They are associated with severe water scarcity, reduced pastures and overgrazing, school dropouts, wetland encroachment and wildfires.

- *Food insecurity;* due to poor agricultural harvests leading to decline in yields of staple foods, or even total crop failure. Major drivers of food insecurity are animal and crop pests and diseases, prolonged droughts, and human diseases.

A.4 Socio-economic context

Katonga catchment is composed of 16 districts. The population demographic for the districts indicate an increasing population with a prediction of about 4,156,774 people expected in 2040 (UBOS, 2014). The highest population growth (946,483) is expected in areas of Mubende while the lowest population growth (26,159) is estimated for areas in the catchment within Kyenjojo District. The trend suggests that the population could even double by 2040 with more than half of the population below the age of 14 years. In addition, the rising living standards, together with rapid population growth, are creating new trans-boundary challenges to the catchment in terms of water and river basin management, livelihood options and sub-national migration flows. There are currently major initiatives being implemented and planned throughout the Katonga Catchment to promote further regional economic growth and employment. Such initiatives include the development of more roads, railways, dams (mainly for hydropower) and other infrastructure, particularly in areas previously dominated by natural resources and agriculture-based livelihoods. The increase in the population and upcoming developments is triggering pressure on natural resources reflected in deforestation and degradation of wetlands for food and water. With a young population, pressure on water and related resources is likely to escalate.

The effects of agricultural expansion coupled with intensive land fragmentation, crop and thus, overexploitation of natural resources in Katonga catchment, has led to: i) increased competition and costs for resources and land; and ii) a growing number of ecological constraints. Consequently, agricultural livelihoods and food security in the Katonga catchment, are expected to be threatened in future. Similarly, the amount of water required for food and energy production, as well as for domestic and industrial use, is increasing exponentially. The overexploitation and degradation of ground and surface water sources are, therefore, common. Such transformations in the food-water-energy relationships worsens livelihood challenges for agrarian communities throughout the catchment.

In addition, majority of the farmers in Katonga catchment are small scale farmers with land holding ranging between 0.5ha and 1ha. Annual crops grown include mainly millet, maize, beans and sweet potatoes. Land fragmentation is common due to high population density especially in hilly areas thus, severe degradation of shallow soil areas. The catchment population depends on the natural environment for their livelihoods and most especially for food and biomass energy. The communities have also drained wetlands in some areas for cultivation and others have cleared the shrubs

and thickets, especially in drier areas for charcoal burning. Some activities in the catchment have directly impacted on the availability and sustainability of water resources especially land use change for agricultural production through deforestation and forest degradation, and reclamation of wetlands.

A.5 Climate change context

Katonga catchment is amongst the most climate-vulnerable regions in Uganda. The catchment traverses' part of the dry Ugandan cattle corridor, which is affected with a wide range of climate change effects. Climate change is expected to exacerbate the impacts of existing threats to the catchment's inhabitants and ecosystems. Climate change effects in the catchment include, more extreme and frequent periods of intense rainfall, erratic on-set and cessation of the rainy season as well as more frequent episodes of drought.

At a broad scale, Uganda is facing drastic reduction in woodland and tropical-High at an alarming rate, due to deforestation and forest degradation. This is through pitsawing/logging and burning to access high value timber, and to create more land for agriculture, industrial development and settlement (MWE, IUCN, 2016). Recent studies show that Uganda's forest cover has over a 25-year period (1990-2015) reduced from 4.9 million hectares 1.8million hectares in 2015. This translates into a loss of 3.1 million hectares in just 25 years or an average annual forest loss of about 122,000 hectares (MWE, 2015). These practices have worsened the effects of climate change in Uganda.

Katonga catchment is faced with a plethora of issues and admittedly, water lays at the intersection of all the challenges. Paradoxically, while improved agricultural productivity implies improvement in the quality of life especially given that it is the economic mainstay, it also demonstrates an increased strain on the environment and already scarce water resources. Generally, water stress is widespread in the catchment, although the extent of severity differs between and within sub catchments. For instance, stakeholders in Bubanda Parish, Kigando S/C reported having spent 3 years without rain. According to the Water Supply Atlas, only 45% (18,798) of the population of 41,943 in Madudu S/C, Mubende have access to safe water. What is clear is that the catchment is entirely confronted with severe climate change effects, associated with declining agricultural production and severance of water and environmental resources which either collectively or individually undermine prospects of long-term stability and sustainable growth.

Climate change continues to exacerbate the impacts of existing threats on the catchment's communities and ecosystems with water stress mostly rooted in prolonged droughts. Water resource assessment results show that wet months (March–June) have

well sustaining water flows to averagely meet the domestic and Industrial water requirements. It is further observed that over 80% of the domestic water demand is met for most of the sub-catchments most of the time in a year except during the dry season. The situation in sub catchment hotspots shows that domestic water demand deficit is presently widespread. Most crucially, agriculture water demand is the most severely affected by water stress.

A.5.1 Climate Rationale

Uganda lies within a relatively humid equatorial climate zone, but the topography, prevailing winds and water bodies cause large differences in rainfall patterns across the country. Average annual rainfall ranges from 800 mm to 1500 mm (USAID 2013), and average daily temperature is around 28 ºC, but varies with altitude (Climate Service Center Germany (2015).

Global projections downscaled to Uganda for the 2015-2045 period indicate that there may be an increase in **precipitation** during December, January and February, which has historically been the dry season across the country. However, rainfall patterns are expected to change – leading to a potentially less favourable rainfall distribution over the year and an increase of projected precipitation ranging between -2% and +22%. The **warming** trend is projected to continue with some models projecting an increase of more than 2 ºC by 2030, and a warming ranging between 1.4 ºC and 4.2 ºC is projected for the end of the century. (Climate Service Center Germany, 2015).

The mean annual rainfall for Katonga Catchment based on data measured in the period 1950-2004 ranges between 800mm-1300mm (MWE, 2018). The Lake victoria basin projected changes in the annual and seasonal rainfall for the 2050s are largely similar to those for the 2030s with minor exceptions. Thus, the annual rainfall is projected to increase by 5–25% over the eastern, southern, and north central (Katonga catchment) sections of the Lake Victoria basin. The mean annual maximum temperature is projected to increase throughout the Lake Victoria Basin (LVB) by about $1.0–1.5^0$ C by 2030, and $1.2–1.8^0$ C by year 2050, while the mean annual minimum temperature is projected to increase over the basin by $1.2–1.9^0$ C by the 2030s, and $1.5 –2.4^0$ C by year 2050 (Lydia *et al*. 2019).

As a result of the warming trend, there is a potential for an increase in the frequency of **extreme events** (e.g. heavy rainstorms, flooding, droughts, etc.). Uganda has experienced an increase in the frequency and intensity of droughts and floods in recent years. The percentage of rainfall coming in the form of heavy precipitation events is anticipated to increase, which would escalate the risk of disasters such as **floods** and **landslides.** Therefore, the Katonga population live in an uncertain weather circumstances which sometimes cause extremities leading to economic losses of crops and animals depriving them of a better livelihood.

PROJECT OBJECTIVES

The overall goal of the project is strengthening the resilience of communities and fragile ecosystems to climate change impacts through promoting appropriate water infrastructure investments and nature- based solutions.

The specific objectives of the project are to:

1. Strengthen the capacity of key grass root stakeholders for climate change adaptation
2. Promote appropriate water storage technologies for increased water and food security
3. Support establishment of nature-based enterprises for improved community livelihoods
4. Support knowledge management and information sharing

Project Components and Financing

The project has four components which include:

1. Strengthening the capacity of key grass root stakeholders for climate change adaptation
2. Promoting appropriate water storage technologies for increased water and food security
3. Supporting establishment nature-based enterprises for improved community livelihoods
4. Supporting knowledge management and information sharing

Project components, outcomes, outputs and budget

Table 2: Components, outcomes, outcomes and budget

Project/Programme Components	Expected Concrete Outcomes	Expected Outputs	Amount (US$)
1. Strengthening capacity of key grass root stakeholders	1.1 Capacity of key grass root stakeholders in implementing climate resilient development initiatives strengthened	1.1.1Capacity building program for key grass root stakeholders established	122,362
	1.2 Governance of natural resources strengthened	1.2.1 Community group leadership structure orientated in leadership and management	179,464
2. Promoting appropriate water storage technologies	2.1 Increased water and food security	2.1.1 Innovative and agreed upon multi-stakeholder water storage technologies adopted	657,057
3. Supporting nature-based enterprises for sustainable socio-economic development	3.1 Increased income for improved stakeholder livelihoods	3.1.1 Nature-based enterprises promoted	510,075~~487,075~~
		3.1.2 Market linkages of products from nature-based enterprises established	128,000~~105,000~~
		3.1.3 Entrepreneur skills of stakeholders enhanced	88,000~~65,000~~
	3.2 Enhanced ecosystem health	3.2.1 Fragile ecosystems conserved	139,315~~116,315~~
4. Supporting knowledge management and information sharing	4.1 Lessons and good practices shared and adopted	4.1.1 Knowledge management and information sharing system developed	220,272~~197,272~~
Total activity budget			**1,929,545**
~~5. Monitoring and Evaluation~~			~~115,000~~
6. Project Execution cost (1.5%)			30,668
7. Total Project Cost			2,044,545
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable) 8.5%- (This includes project monitoring and management, furniture, computer and its accessories) and one project vehicle to support in coordination of field activities)			173,786
Amount of Financing Requested			**2,249,000**

Projected Calendar

Table 3: Project calendar

Milestones	Expected Dates
Start of Project/Programme Implementation	Oct 2020
Mid-term Review (if planned)	Mar 2022
Project/Programme Closing	Aug 2023
Terminal Evaluation	Nov 2023

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Project Components and concrete adaptation activities

The Enhancing Resilience of Communities and Fragile Ecosystems to Climate Change in Katonga Catchment, Uganda (RECOFE project) has proposed four components with clear adaptation measures that will contribute to resilience to climate change of communities and fragile ecosystems in the Katonga catchment. These are:

Component 1: Strengthening the capacity of key grass root stakeholders for climate change adaptation

Baseline situation

Climate change affects people and ecosystems through its impacts and therefore, requires a concerted effort by all including the grass root stakeholders. It disrupts ecological systems and has serious negative consequences on agricultural production and productivity, forests, water supply, health systems and overall human development. The objective of strengthening the capacity of key grass root stakeholders for climate change adaptation is to ensure that they can address climate change impacts and causes through appropriate measures, while promoting sustainable development. Human-induced global warming is caused primarily by an increase in the atmospheric concentration of GHGs, including water vapour, carbon dioxide (CO_2), methane, and nitrous oxide. Of these, the increase in CO_2 is of major concern because it is linked to widespread human activities, primarily fossil fuel burning and deforestation. Grass-root communities are dependent on natural resources for their livelihoods, and this is impacting on the invaluable natural resources, and therefore an increasingly complex task of incorporating climate change into their socio-economic activities. The capacity of grass root stakeholders affects their ability to anticipate, prepare for, detect, and respond to climate change impacts in their respective areas. This component therefore focuses on capacity development, encompassing actions that increase grass root stakeholders' ability to effectively enact climate adaptation.

This component is expected to strengthen the capacity of key grass root stakeholders to adapt to climate change in Katonga catchment. The key grass root stakeholders include: grass-root (lower level- communities), duty bearers (Catchment and sub catchment management committees, Sub county extension staff, Local council secretaries of Environment, & Representatives from Environment committees), Civil Society Organisations (CSOs) and private sector. Its noted that similar interventions have been done in the project entitled *"Enhancing Resilience of Communities to Climate Change through Catchment Based Integrated Management of Water and related resources in Uganda"* (EURECCCA/OSS) project. The lessons learned in the EURECCCA/OSS project are critical to ensure successful implementation of interventions in the Katonga project. The project will benefit from the developed guidelines under EURECCCA/OSS for mainstreaming climate change into the catchment management plans by using the guidelines to update the Katonga CMP. Further, the EURECCCA/OSS project is the first of its kind to operationalize the catchment management structures from catchment, sub-catchment to micro catchment levels, an approach that will be adopted during the implementation of this project. This will also help to manage the cost-effectiveness of interventions as it will eliminate re-inventing the wheel.

Outcome 1.1: Capacity of key grass root stakeholders in implementing climate resilient development initiatives strengthened

Output 1.1.1: Capacity building program for key grass root stakeholders established

Activity 1.1.1.1 Undertake capacity needs assessment in relation to climate change for key grass root stakeholders. The assessment will support to collect the needs, priorities and challenges of the stakeholders to focus the intervention.
Activity 1.1.1.2 Induct and empower grass root-duty bearers with knowledge in climate change. Induction will contribute to preparing the stakeholders to the project activities before actual interventions start. While, empowering stakeholders will contribute to skilling them with the necessary knowledge. This will ensure ownership and hence, contribute to sustainability
Activity 1.1.1.3 Training in roles and responsibilities of the duty bearers at the grass-roots. This is aimed at capacitating the targeted stakeholders to improve their management capability.
Activity 1.1.1.4 Facilitate tool kit development for mainstreaming climate interventions in development initiatives. The tool kit will provide reference and guide the climate change interventions.
Activity 1.1.1.5 Integrate Climate change issues into the Catchment Management Plan (CMP). Katonga catchment has an already existing CMP, however, climate change issues have not been integrated into the plan. Similar interventions have been done in the EURECCCA/OSS project. The lessons learned from the EURECCCA/OSS project will be used to integrate the climate change issues in the Katonga project.

Outcome 1.2: Governance of natural resources strengthened

Output 1.2.1: Community group leadership structure orientated in leadership and management

Activity 1.2.1.1 Facilitate the mainstreaming of Human Rights Based Approaches in climate change initiatives.
Activity 1.2.1.2 Facilitate communities in advocacy, lobbying and public relations through creation of dialogue platforms and conducting of climate change campaigns/dialogues. This task will aim at building the capacity of the targeted stakeholders to communicate and advocate for their concerns to the responsible bodies on a regular basis. For example, engaging with National Forestry Authority, Wetlands personnel and officials from the National environment Authority (NEMA) among others.
Activity 1.2.1.3 Facilitate resource use negotiations and development of Management plans, Memorandum of Understanding (MoUs) between the communities and duty bearers of the natural resources. This task will concentrate on facilitating negotiations with communities and MWE, National Forestry Authority as well as wetlands personnel. Consultative meetings to initiate the application process to access resources and lodging their application to access the resources
Activity 1.2.1.4 Develop and Strengthen the governance and leadership frameworks (By-laws, ordinances, guidelines). This task will focus on training new and existing groups in the following: general roles & responsibilities, gender & conflict sensitivity, and stakeholder relationships to improve resource use management; Integration of cross-cutting issues for example, gender equality and HIV/AIDS; Internal governance of resource use committees (where they exist) to ensure equity and accountability in their operations through building capacity for: Accountability, managerial skills, group dynamics, conflict management, managing information, forest policies and policies governing other natural resources.

Component 2: Promoting appropriate water storage technologies for increased water and food security

Baseline situation
The Government of Uganda through the Ministry of Water and Environment (MWE) has been establishing water supply schemes across the country to provide water for multipurpose use. The water has been majorly serving domestic, industrial, institutional and commercial demand, and to a smaller extent agricultural demand. This has been mainly due to the over reliance on rain fed agriculture that has become unsustainable due to escalating climate change effects. Government, through the Water for Production Programme, has been able to create a total storage volume of 38.865 million cubic meters through construction of surface reservoirs in the form of valley tanks and earth dams to store rainwater harvested for use especially during the dry seasons.
A number of feasibility studies and detailed designs for potential medium and large sized irrigation scheme projects are also being carried out across the country, to enable the establishment of irrigation infrastructure in a bid to boost agricultural production, food security and climate resilience.
The water demand for the different users within the Katonga catchment shows that three main categories of water users are considered, including; domestic, industrial, and agricultural water use. Agricultural water use, as a broad category, includes water demands for Livestock, Irrigation, and Fish.
During stakeholder engagement in the catchment, as per the catchment management plan, among the identified issues, water stress was top on the list for most of the sub-

catchments alongside. Water demand expressed as a percentage of the total demand, showed that domestic water use drew more water than all the other three categories, primarily because the current farming practices are reliant on rain and the irrigation requirements are minimal, only supplemental in nature. Industrial water demand in the Katonga catchment only demands a very small percentage (0.21%) of the total water demand. Water demand for fisheries is seen to be much more than the other demands aggregated under agriculture water demand, and irrigation demanding only 0.2% of the total agricultural requirement.
The current combined water demand in the Katonga Catchment was found at 53.71MCM with Domestic, Agriculture, and Industry demanding 41.9%, 57.9%, and 0.2% of the total demand respectively. The projected combined water demand for the year 2030 is 80.64MCM, an increment of about 50% from the baseline, while that of the year 2040 is 110.16MCM, an increment of about 105% from the baseline.

Outcome 2.1: Increased water and food security

Output 2.1.1 Innovative multi-stakeholder water storage technologies adopted

Activity 2.1.1.1 Construct/rehabilitate agreed upon low cost and appropriate physical water storage facilities.
Activity 2.1.1.2 Facilitate development of simple biophysical water harvesting technologies for crop and livestock production. Consideration will be made to ensure that the technologies don't lead to land expansion that may encroach on the natural capital by increasing production per unit area.
Activity 2.1.1.3 Facilitate construction of micro-irrigation schemes as learning centres. Project funds for construction of micro-irrigation schemes in Katonga catchment are catalytic and as such the micro irrigation structures will not be constructed in the entire catchment. Therefore, the project will establish small-irrigation schemes in identified sites within the catchment to act as demonstrations for stakeholders to learn innovative irrigation techniques in water harvesting, storage and use (water use efficiency. This is useful to stakeholders (community groups, associations) who will be able to construct similar structures for sustainability.
Activity 2.1.1.4 Procure appropriate seed and improved pastures for increased crop and livestock production respectively. To increase crop and livestock production, communities will be supported to manage land in a better way using improved crop husbandry practices, climate smart practices (mulching, minimum tillage etc.), irrigation, use of improved breeds, improved post-harvest handing technologies. This will increase the productivity of the land per unit hence, maximizing the land utilization without necessary expansion of the land).

Component 3: Supporting nature-based enterprises for sustainable socio-economic development
Baseline situation
The main sources of livelihood in Katonga catchment is subsistence farming with cattle keeping in the drier areas of the catchment. The overwhelming majority (76.2%) of the households in the catchment directly derive their livelihood on subsistence farming. Based on the 2014 National Population and Housing Census, access to remittances from people working outside the catchment is also one of the primary alternative source

of livelihood available for the households. Most of the farmers in Katonga catchment are small scale farmers with land holding ranging between 0.5 and 1 ha. Annual crops grown include mainly millet, maize, beans and sweet potatoes. Land fragmentation is common due to high population density especially in hilly areas thus, severe degradation of shallow soils areas. The catchment population depends on the natural environment for their livelihoods and most especially for food and biomass energy. The communities have also drained wetlands in some areas for cultivation and others have cleared the shrubs and thickets especially in drier areas for charcoal burning. These have directly impacted on the availability and sustainability of water resources especially land use change for agricultural production through deforestation and forest degradation, and reclamation of wetlands. This unsuitable utilization of natural resources mainly through indiscriminate cutting of forests and woodlands for both domestic and commercial uses and agriculture expansion as well as wetland degradation have reduced the resilience of these ecosystems, their resilience or ability to withstand the adverse effects of climate change. Land and livestock productivity have reduced results in low crop yields and reduced livestock products leaving the farmers with little to eat and sell reducing their coping capacity to the impacts of climate change. There is therefore, need to support the communities to undertake climate smart agriculture and improved livestock production for improved yields, incomes and livelihoods. The proposed project will: build the capacity of community groups and institutions to undertake climate smart agriculture and income generating activities; Undertake studies to establish the right package of household based incentives that foster positive attitude and practices for climate smart agriculture and improved livestock management in the Katonga sub-catchment; support communities and Local governments in formulation of by-laws to address environmental problems which negatively impact livelihood improvement.

The RECOFE project will support the development of business plans in atleast four enterprises i.e. bee keeping, commercial fruits and tree nurseries, Mushroom growing, incense sticks, bamboo and agri-waste biomass. For enterprises such as bee keeping (honey production), the project will support value addition including branding and blending. The project will support establishment of resource user groups. Each resource user group will be facilitated to develop a business plan as part of a capacity building strategy aimed at enhancing their sustainability. In addition, the project will support the implementation of the proposed plans. The project, therefore, is proposing to build the capacity of the organized stakeholders (resource user groups) by providing incentives to manage nature-based enterprises, enhancing access to markets and establishing quality control mechanisms. Also, the project will focus on promotion of good governance by fostering good leadership skills with clear accountability and transparency. By acquiring the above-mentioned skills, the targeted groups will have the ability to get an income from their nature- based enterprises hence, this will lead to less pressure to the fragile ecosystems. This approach is essential as, it will ensure that the community groups will effectively participate in their activities and manage natural

resources sustainably. To ensure equity amongst the groups, there will be deliberate effort to integrate vulnerable groups who include women, youth (boys and girls), Peoples with Disability (PWD) as well as the absolute poor (live on less than 1$ a day) to directly benefit from project activities The nature -based enterprises to be promoted by the project in include: bee keeping, commercial nurseries for fruits and trees, Mushroom growing, incense sticks, bamboo and agri-waste biomass. None of these enterprises has significant effect on the environment. However, environmental briefs will be prepared were need arises. This will be determined during the baseline assessment. The project will promote value chain analysis which will ensure resource efficiency by undertaking selection of right quality affordable materials and applying the correct silvicultural and agro-economic practices to produce the desired products that fetch high premiums for the stakeholders including the vulnerable groups

The activities will help the groups in identifying complementarities, synergies and opportunities that will increase their effectiveness in managing forest/wetland/water resources sustainably and benefiting from them thus, enhancing the people's livelihoods. Emphasis will be put on increasing income from the established business through quality control and massive production and all these will be linked to conservation, improved group performance, operational effectiveness and long-term sustainability.

The challenge faced by communities in enterprise development

The communities have been practicing the small-scale enterprises however, they face a range of challenges. For example, they are susceptible to fluctuations in market conditions. Other problems encountered by communities in enterprise development are: insecure market due to low incomes, seasonality of production, poor market information, lack of access to urban markets, and external competition, lack of access to appropriate technology in the form of suitable tools and equipment with which to improve productivity as well as managerial weakness, which serve to worsen all the other problems. The project proposes to promote and strengthen these nature-based enterprises as one of the ways to reduce the rampant degradation of the forest and other natural resources. The project will address and link the three pillars of sustainability i.e. environmental, social and economic development.

Proposed selection criteria of beneficiaries for the enterprises

The Katonga Catchment Management Plan was developed through a highly stakeholder consultative process that is informed by data on natural resources in the area. The stages to develop the CMP include: catchment situational analysis; water resources analysis; stakeholders' engagement; strategic social and environmental assessment; development of vision, objectives and strategies; scenarios and options analysis; and preparation of the CMP. During the various stages, detailed assessments and mapping are carried out including hydrological and water balance assessment and the results are presented in form of maps showing locations where the key issues occur. Thus, a lot of hydrological modelling work and mapping of highly vulnerable or degraded areas requiring interventions is undertaken as part of the development of the

CMP. Maps showing vulnerable or degraded areas requiring interventions regarding environmental degradation etc. are prepared and presented in the CMP. All this information is synthesized and presented into a CMP. The CMP consist of several agreed investments in infrastructure and other interventions, and various water management interventions and actions meant to help/resolve conflict, conserve and protect the catchment and its natural resources, and ensure equitable access and use of water resources.

Reconnaissance visits are undertaken by the various stakeholders namely, Catchment Management and environment committees and other stakeholders. This ensures that the actual interventions that are required are confirmed.

The communities in the identified micro-catchments will be targeted considering the following selection criteria:

Criterion 1: Vulnerability
The most vulnerable groups will be considered, for example, women, youth (boys and girls), Peoples with Disability (PWD) as well as the absolute poor. The vulnerable communities are struggling to survive and therefore, they seek for the closest option. Natural resources are considered open, as such are a culprit.

Criterion 2: Proximity to the fragile ecosystems
People in the most degraded areas will be targeted because these are frontline people that interact with the fragile ecosystems daily. They are affected and affect the resources. So, it is these communities that own the land or are most responsible for its degradation. In this case community members will be selected to participate in interventions for the natural resourcesThis approach will help in protecting the resource.

Criterion 3: Resource users
Even among the communities that are in proximity of the natural resources, it is important to target the resource users. The people using the resources are the best people to restore them as they understand the resource better.

Criterion 4: Gender
Deliberate effort will be made to ensure that at least 50% of the target RECOFE project beneficiaries are women. This will be done in consultation with local leaders and sub catchment management committees. For the case of engaging in enterprise development 80% of women and women groups will be targeted by the proposed project.

Outcome 3.1 Increased income for improved stakeholder livelihoods

To increase community's income, enterprise development e.g. honey production, commercial fruit and tree nurseries, mushroom growing, incense sticks, bamboo and agri-waste biomass must be supported. This will provide financial rewards to

communities and is expected to result into less pressure (in form of degradation and less pollution) being exerted to the natural resources in the catchment. For example, the project will encourage innovations such as eco-labelling of naturally produced honey. The project will link the honey producers to the market. It's in the interest of the project to promote the whole value chain (including production, handling processing and marketing) amongst the communities to meet the required standards and be able to access high premiums. These enterprises also play key role in acting as substitutes or complements to some of the community needs e.g. fuel wood and poles.

Output 3.1.1 Nature-based enterprises promoted

Activity 3.1.1.1 Establish Income Generating Activities (IGAs) like bee keeping, commercial fruits and tree nurseries, Mushroom growing, incense sticks, bamboo and agri-waste biomass
Activity 3.1.1.2 Procure necessary tools to improve productivity of the nature-based enterprises
Activity 3.1.1.3 Procure viable high value germplasm
Activity 3.1.1.4 Establish value chains for key agreed upon nature-based enterprises (including production, processing, handling/storage, packaging/ eco-labelling
Activity 3.1.1.5 Identify and establish probable Sources of funding (in-kind and credit) for vulnerable communities (women, elderly, youth, People With Disabilities-PWDs) to scale -up nature-based enterprises

Output 3.1.2 Market linkages of products from nature-based enterprises established

Activity 3.1.2.1 Facilitate stakeholders to participate in business forums, trade fairs & exhibitions
Activity 3.1.2.2 Facilitate business tours and business plan plans to the private sector
Activity 3.1.3.3 Facilitate establishment and operation of a market information systems
Activity 3.1.3.4 Develop promotional materials for marketing of products

Output 3.1.3 Entrepreneur skills of stakeholders enhanced

Activity 3.1.3.1 Facilitate registration of small-scale businesses
Activity 3.1.3.2 Train entrepreneurs in business management skills
Activity 3.1.3.3 Develop business plans for translation into functioning businesses

Outcome 3.2 Enhanced ecosystem health

Output 3.2.1 Fragile ecosystems conserved

Activity 3.2.1.1 Undertake ecosystem restoration activities (wetlands and river- –bank restoration, Reforestation etc.)
Activity.3.2.1.2 Sensitize stakeholders in sustainable utilisation of natural resources (e.g. appreciation and importance of the natural ecosystems)

Component 4: Knowledge management and information sharing

Baseline situation

Overall, in Uganda, there is a general weakness in documenting lessons and good practices from project, including climate change projects. Besides, the little that is documented is not adequately disseminated and read by the recipients. Learning and adopting climate change solutions by the most affecting communities (vulnerable) can be enhanced by cross-exchange and touring successful innovate adaptation projects. However, limitation of funds to execute such a venture hinders taking forward the planned activities. The project is proposing to take steps to improve the situation though engaging the key stakeholders in the catchment with aim of ensuring that a large mass receives the message/information through the various channels ranging from electronic to print and direct engagements as well as production of documentaries, sign posts, leaflets. This will be possible and can be successful through localizing the information to stakeholder's understanding.

The Project will coordinate among different stakeholder's needs and capacities in collecting, generating, analyzing and disseminating relevant project information and implementing local adaptation actions. The project will reach a wider audience for the purpose of creating impact and ownership. Target group for the project interventions will include: Catchment and sub catchment management committees, environmental committees, CSOs/NGOs, private sector and communities including the vulnerable groups and other populations.

The project proponents (MWE and GWPEA) have the confidence that the proposed project has clear support from key stakeholders and will contribute to addressing climate resilience needs which are priority in the catchment. The proposed project will consider such priorities to respond to the stakeholders' needs.

Outcome 4.1 Lessons and good practices shared and adopted

Output 4.1.1 Knowledge management and information sharing system developed

Activity 4.1.1.1 Facilitate experience sharing and cross-learning of innovative climate change adaptation interventions

Activity 4.1.1.2 Organize learning events in climate change adaptation

Activity 4.1.1.3 Document lessons, good practices and disseminate for replication and up-scaling

Activity 4.1.1.4 Document climate related case studies

Activity 4.1.1.5 Packaging existing and generated information into usable forms including policy briefs, flyers and leaflets

Activity 4.1.1.6 Popularise existing frameworks (i.e. policies, Ordinances and by-laws)

Alignment of project objective with Adaptation Fund expected outcomes and outputs

Project Objective(s)	Fund Outcome
Strengthen the resilience of communities and fragile ecosystems to climate change impacts through promoting appropriate water infrastructure investments and nature- based solutions	**Outcome 2:** Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses
	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level
	Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets
	Outcome 5: Increased ecosystem resilience in response to climate change and variability induced stress
	Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas
	Outcome 7: Improved policies and regulations that promote and enforce resilience measures
	Outcome 8: Support the development and diffusion of innovative adaptation practices, tools and technologies
Project Outcome(s)	**Fund Output**
Outcome 1.1 Capacity of key stakeholders in implementing climate resilient development initiatives strengthened	**Output 2.1:** Strengthened capacity of national and regional centre's and networks to respond rapidly to extreme weather events
Outcome 1.2 Governance of natural resources strengthened	**Output 7:** Improved integration of climate-resilience strategies into country development plans
Outcome 2.1 Increased water and food security	**Output 4:** Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability
	Output 8: Viable innovations are rolled out, scaled up, encouraged and/or accelerated
Outcome 3.1 Increased income for improved stakeholder livelihoods	**Output 6:** Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability

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Outcome 3.2 Enhanced ecosystem health	~~**Output 4:** Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability~~ **Output 5:** Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability
	Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities
Outcome 4.1 Lessons and good practices shared and adopted	**Output 3.2:** Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning

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Compliance of vulnerable groups with the Environmental and Social Policy of the Adaptation Fund.

The Human Rights Based Approach has been proposed as one of the ways to ensure that gender sensitive approaches, and particularly recognize the women who are the most impacted by climate change. In addition, the project will incorporate gender-related issues in stakeholder consultations and other participatory forums. According to the Uganda Bureau of Statistics (UBOS, 2014), the population of Katonga is 2,553,020 people. The expected beneficiaries of the project 13,000 representing a percentage of 0.5% of the total population of the catchment. Important to note is that there are no minority groups and indigenous communities in the proposed project area. However, for the other existing groups, the participatory forums and structures will be constituted by different groups, including women, youth, elderly and people with disabilities to integrate their needs into planning and decision making. The project ensures promotion of equity and equality especially for marginalized groups as a crucial factor for social, economic, and environmental sustainability. The approaches designed will therefore, respond to the stakeholder needs, thus building their resilience to climate change impacts. The Project has requested for a PFG to dig deeper in the socio-economic and environmental aspects and how they link into the gender aspects as well as other vulnerable communities. Particular attention will be put towards the connections of these and how they comply with ESP of the AF.

B. Cost-effectiveness of the proposed project.

In designing of the proposed project, cost-effectiveness has been put into consideration. Moreover, the budgeting and costing of the proposed project will be informed by the experience and lessons drawn from related interventions, for example from the EURECCCA/OSS project, which is being executed by MWE. The proposed project has analysed the cost-effectiveness in several perspectives. ***First,*** there are available structures of the executing entities that will support in execution of the planned activities. The MWE has a well streamlined structure from the centre to the water management zones and to the catchments. This structure is perfect in terms of reaching the masses. Moreover, it does not require significant resources because the involved stakeholders in the structure are employed by the local governments. Therefore, no new project staff will be required. Utilising the existing technical manpower will significantly reduce/minimise costs of recruitment and conducting field activities. The MWE zonal staff work hand in hand with local government staff in the project area. This will ensure that the project interventions are absorbed into the local government development plans as the project exits, promoting sustainability. ***Secondly,*** the project is built on a strong foundation of stakeholder participation and consultative approach. This enables ownership of the project interventions. ***Thirdly,*** the interventions selected like the nature-based enterprises are expected to generate income. Therefore, the stakeholders participating in the enterprises are expected to benefit during the project execution and even beyond the project lifetime. With regards to the adaptation measures, the project is proposing an approach that utilises appropriate local adaptation practices such as: rain-water harvesting, briquettes making, reforestation with commercial native and diverse tree species, wetland

restoration, energy demand management (fuel saving technologies) to restore degraded areas and river banks as well as mini irrigation. Other cost-effective adaptation measures include: ensuring that the by-laws incorporate climate adaptation actions to be implemented by the targeted communities.

C. Consistency with National or Sub-National Sustainable Development Plans and Strategies

The proposed project is in line with the existing national frameworks. Particularly, the project is consistent with Uganda's national development strategies such as the ***National Development Plan II (NDP II)*** that highlights climate change impacts as bottleneck to the country's economy and socioeconomic transformation. The NDP II proposes mainstreaming climate change in the development planning so that the climate change impacts are addressed.

The proposed project will also complement and align with the ***Nationally Determined Contribution (NDC 2018)***, the ***National Adaptation framework*** that was launched in June 2016 that defined priority adaptation actions at sectoral level. In addition, the project will also address key components of the ***National Climate Change Policy (NCCP)*** **and implementation Strategy in 2013** which ensures that all stakeholders address climate change impacts and their causes, while promoting sustainable development and a green economy. The other key national priorities, action plans and programs and these include: **The Uganda Vision 2040** that recognizes that climate change affects all sectors of the economy and emphasizes capacity enhancement to respond to climate change related challenges through adaptation and mitigation strategies; **Sustainable Development Goals (SDGs)** to which the proposed project specifically contributes to the attainment of SDGs,1 on ending poverty, SDG 2 on ending hunger, SDG 6 on water and sanitation and SDG 13 on climate action among others.

D. Alignment with national technical standards

Environmental sustainability is considered as core area of the RECOFE project. The RECOFE project is expected to have positive environment impacts because it will support interventions in water and other natural resources management that will enhance climate resilience and environmental rehabilitation. However, the water infrastructure development will consider minimal environmental and social aspects. After identifying priority infrastructure, initial social and environmental impact screening will be carried out as part of pre-feasibility studies. This will help to identify potential adverse environmental impacts if any. Moreover, the participatory process will be able to address social and economic issues. To ensure compliance with environmental and social good practices, an analysis of the available standards has been made and are listed hereunder:

For Water, the standards include:

- Environmental Impact assessment regulations (1998)
- Water resources regulations (1998)

- Water (waste discharge) regulations 1998.
- Guidelines for protecting water source (2013)
- EIA guidelines for water projects
- Wetland restoration guidelines (
- Tree planting guidelines (2009)
- Drilling and borehole construction guidelines
- Community tree planting guidelines (2009)

For Agriculture, the available standards include:
- Guidelines for mainstreaming climate change adaptation and mitigation in agricultural sector policies and plans
- Animal diseases (control of bee diseases rules (2004)
- Ethical code of conduct for agricultural extension and advisory service guidelines
- Extension guidelines and standards (2016)

In all the above cases these standards will be consulted during project execution from time to time to ensure that that compliance is abided with.

E. Complementarity with other funding sources

There is no duplication of project intervention by other partners in the catchment, instead, the project will be additional. The local government (sub-national) is implementing some initiatives but the funding levels are low to realise meaning full impact. Therefore, this project is timely to support these initiatives. However, the most recent initiative in the Katonga catchment area is Lake Victoria Environment Management project (LVEMP II) funded by World Bank from 2010-2017. One of the major objectives of the project was environmental management of targeted hotspots and selected degraded catchments. It's through this project that Katonga CMP was developed. This project will be the first funding for the implementation of the Katonga CMP. Furthermore, the RECOFE project will be implemented by building on the existing national systems of enhancing resilience to climate change. This will help the project to be well designed within the available frameworks. The implementation arrangement will be through the existing national systems and institutions that are responsible for climate change- namely the Directorate of Water Resource Management (DWRM) in the Ministry of Water and Environment. The RECOFE project will be executed through DWRM, the same department undertaking the EURECCCA/OSS project. Therefore, the lessons learnt from the implementation of the EURECCCA/OSS will directly be informing the implementation of this project. For example, participatory planning and involvement of grass-root communities in project interventions creates ownership and smoothness of activity implementation which leads to adoption of project interventions/new technologies, catchment protection and ecosystem restoration among others. Also, most important to note is that the EURECCCA/OSS project aims to increase the resilience of communities to the risk of floods and landslides in Awoja, Maziba and Aswa catchments through promoting catchment based integrated, equitable and sustainable management of water and related resources. Some of interventions in this project are good for experiential learning and sharing.

F. Learning and knowledge management component to capture and disseminate lessons learned

The RECOFE project has considered knowledge and information sharing as one of its main components. With respect to knowledge management and learning, important processes and lessons from project execution will be properly documented and shared among stakeholders. To ensure sustainability, the activities will be included in the Monitoring and Evaluation component of the project. To further add value, joint learning and experiential sharing will be done amongst stakeholders. Moreover, within the Katonga sub catchments, demonstration sites will be established as learning centres for the critical mass of population. The demonstrations will comprise of the water harvesting and storage structures as well as the nature-based enterprises. The project has an opportunity to learn from other on-going small-scale community/individual interventions, for example, nature-based enterprises such as honey production is implemented in some places in the country but in a fragmented way. Despite that, there are good lessons that can be captured from these fragmented establishments. Therefore, the project will identify model farmers practicing this intervention for the purpose of documenting lessons and best practices. Also, case studies in some of the enterprises exist and will be documented. This offers good learning avenues to promote and sustain the proposed interventions. For marketing of community products, there are significant gaps that require fixing. Documenting market processes and designing market approaches of specific products will be done. The project will develop a knowledge management approach as a way of supporting the sharing and sustaining the project interventions. During the full proposal preparation of the RECOFE project, detailed knowledge management approach with full consultation of stakeholders will be developed.

G. Consultative process during project preparation

The concept ideas were derived from the Katonga Catchment Management Plan (CMP) that was developed in 2017/2018. The development of Katonga CMP was done through a detailed participatory and consultative process at all levels from grass-root to Catchment as well as national level by a consultant. The Ministry of Water and Environment organized the final consultative workshop held on December 21st, 2017 in which the consultant presented the final Draft Katonga CMP to stakeholders. Participants in the draft CMP review included members of the Katonga Catchment Management Committee, Leadership of the sixteen districts making up the Katonga catchment (Bukomansibi, Butambala, Gomba, Kamwenge,Kiboga, Kiruhura,Kyegegwa, Kyenjojo, Lwengo, Lyantinde, Masaka, Mityana, Mpigi, Mubende, Rakai, Sembabule), stakeholders from the public institutions at the national and district levels, Lead Agencies such the National Forest Authority, National Environmental Management Authority and Non-Governmental Organizations among others. The basis of stakeholder consultations was to ensure that views of all stakeholders are captured, considered and integrated into the CMP.

During the development of this concept, additional stakeholder consultations were conducted, to re-affirm and add any emerging issues and strategic interventions outlined in the Catchment Management Plan. ~~In addition, the consultations generated commitment and ownership amongst stakeholders of the proposed actions. Participants for the stakeholder consultations included political leaders from sixteen districts, Ministry of Water and Environment officials, government officials from affected agencies and departments, community level representatives and Non-governmental Organizations.~~ These consultations were limited in nature, but generated commitment and ownership from the stakeholder representatives. The consultative process for this concept started in June 2019 and it has been an on-going process. The stakeholders consulted included the National Designated Authority, the Ministry of Water and Environment i.e. staff of the Directorate of Water Resources Management (DWRM) at national and zonal level, political and community representatives from Katonga Catchment. The political leaders and community representatives from selected districts within Katonga catchment were consulted through interviews as key informants. Representatives from the following NGO's/CBO- Community Based Organisations were also consulted. These include: VI agroforestry, Uganda Youth Livelihood Program, Friendly Water, Suubi Center Education and Health, BOTIFA Youth Empowerment Group, MAMDEP Tree Planting Association, and Gomba Environmental Protection Association.

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Further detailed grass-root level consultation process will be undertaken during the proposal formulation process. The IE has requested for a Project Formulation Assistance grant (PFA). This is intended to undertake detailed consultations with the critical mass of persons in the catchment. Its proposed that the consultations will cover a wider stakeholder base including: the catchment management committees, Civil Society Organisations (CSO), private sector, resource users and vulnerable communities. Women and other disadvantaged groups will be targeted for the consultation as they interact more with the natural resources. The project will generate a detailed consultation report with all the key issues from stakeholder emanating from the Katonga catchment. The consultations will be done in compliance with the the Environmental and Social Policy of the Adaptation Fund.

H. Justification for funding requested, focusing on the full cost of adaptation reasoning

The communities within Katonga catchment face several challenges due to climate change impacts. The communities find it hard to cope with the adverse conditions due to poverty. Poverty is one of the underlying drivers of deforestation and forest degradation, wetland reclamation (fragile ecosystems) and generally low standards of living among the local population. As agriculture is the economic mainstay of the catchment, any shocks to agricultural production bear a knock-on effect on the economic situation and general wellbeing of the catchment population. Agriculture is

however undermined by prolonged droughts and water stress which directly affect the people's incomes, livelihoods and even education system. The poverty condition is a major cause school dropout especially the girls. Parents struggle to get basic needs and as such see it as a luxury to spend on scholarstic materials despite education being free. The proposed project is targeting to address the current adaptation deficits of communities through the identification of appropriate adaptation activities including income generation through nature- based enterprises. These enterprises are an entry point to support the communities to adapt to climate change impacts. In addition, the water infrastructure proposed will enhance the community capabilities to utilize the harvested and stored water efficiently for domestic and agriculture production.

I. Sustainability of the project outcomes in the project design

The projects sustainability aspects are classified through the following categories: Socio-economic, environmental, technological, financial and Institutional. These are summarized below;

Socio-economic sustainability: The project will promote socio-economic sustainability through supporting existing and or new community resource use groups to undertake nature-based enterprises. The community resource use group approach presents several merits like promoting social cohesion which enhances learning and sharing economic information (prices etc.)

Environmental sustainability: The project will ensure environmental sustainability through supporting sustainable environmental interventions including restoration of degraded areas through tree planting, wetland restoration activities etc. Periodic monitoring and evaluation to track any changes that could have adverse impacts to the environment and ensuring timely mitigation measures are implemented. The Monitoring and Evaluation of tree planting and wetland restoration activities will be participatory and will be done by key stakeholders in the project. The government officials will oversee the M&E function which is under the Policy and Planning department at MWE. All f stakeholder groups will be represented during the M&E activities of the project. The essence of involving key stakeholders in M&E is to create a sense of ownership and continuity of project activities and promote sustainability. In addition, the project activities will be fused into the government development plans that will take over project activities when the project ends.

Technological sustainability: The project will build the capacity of extension staff within the Katonga catchment. The extension staff will be trained in the water and appropriate irrigation technologies, use of modern tools in enterprise development etc. This will ensure resident capacity to continue with the technologies when the project ends.

Financial sustainability
Currently, there are no adequate financing resources for investment in water security and enterprise development. The project will collaborate with various partners in

Katonga and other catchments to mobilize resources, streamline project interventions into national and sub-national work plans and lobby the government (national and local) to allocate financial resources towards nature-based enterprises and investment in appropriate water technologies for increasing resilience of communities and fragile ecosystems to impacts of climate change. This will ensure that these initiatives continue to get funding after the project ends.

Institutional sustainability

The project is envisaging that the Project Steering Committee will support enhancing investment in water security, enterprise development and climate resilience beyond the project lifetime. Also, the project is expected to strengthen the capacity of key institutions. The project implementation arrangement being linked to existing frameworks at the national level is the other factor that will contribute to institutional sustainability as it creates ownership. The project will be promoted through capacity building of key staff within the catchment and interventions will be executed through the existing structures

The MWE and its partner, Global Water Partnership Eastern Africa have experience of learning from the past to improve its future programs. For example, the experiences gained during preparation of the EURECCCA/OSS project, also funded by the adaptation fund provided a very good basis in designing of this project concept. Results and experiences from the new project will also be consolidated and used in future programs and operations of MWE. The project will train CMC and Sub CMC in water security and nature-based enterprises.

J. Overview of the environmental and social impacts and risks identified as being relevant to the project

An analysis of the checklist of environmental and social principles with regards to the RECOFE project indicate that the project falls in category B., because the activities have no adverse environmental and social impacts. The anticipated project impacts are few, reversible and can easily be mitigated

However, during the full proposal preparation, an Environment and Social Management Plan (ESMP) for the project will be developed. This will critically analyse all the RECOFE project activities with a view of ensuring that environmental and social good practices are enforced. The quick review of Uganda's Environment Impact Assessment regulations (1998), will place most of the project activities not to warrant Environment Impact assessment because they are of very low or no magnitude. Table 4 provides an assessment based on the guiding environmental standards for the country.

Table 4: Checklist of environmental and social principles

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law	X	Project complies with the country's relevant national laws and regulations as well as the relevant international laws, guidelines and regulations
Access and Equity		There is a potential risk if selection criteria of the beneficiaries is not fairly done. This could be a barrier to accessing the benefits and marginalize other stakeholders. In order to address this detailed stakeholder mapping, consultations and assessments shall be undertaken during the proposal development stage. Special focus will be given to vulnerable groups including the elderly, youth and women. Issues and

		proposed actions specific to each group shall be captured and incorporated. This will ensure equitable participation in the project activities and access to project benefits by all groups including men women, elderly, youth and any other vulnerable and marginalized groups: A project ~~Grievance redress~~Grievance redress mechanism shall also be developed to handle any reported issues on equity and access to project benefits
Marginalized and Vulnerable Groups	X	This will be addressed through detailed stakeholder mapping, consultations and assessments shall be undertaken during the proposal development stage. Special focus will be given to vulnerable groups including the elderly, youth and women. Issues and proposed actions specific to each group shall be captured and incorporated. This will ensure equitable participation in the project activities and access to project benefits by all groups including men women,elderly,youth and any other vulnerable and marginalized groups: The assessment shall also produce desegregated data that will feed into the project monitoring system to enable tracking the participation by these groups during project implementation. A project Grievance redress mechanism shall also be devolved to

		handle any reported issues on equity and access to project benefits by vulnerable and marginalized groups for redress
Human Rights	X	The project is proposing to use the Human Right Based Approach (HRBA) to ensure that the rights of vulnerable groups are significantly considered. No violation of human rights is envisaged during the design and implementation of this project. The project shall promote the rights of all in the project area
Gender Equity and Women's Empowerment	The project emphasizes gender equity and women empowerment	The project is proposing equal participation of the gender (both men and women). Furthermore, Women will be empowered in decision making through having more representation on management committees of the investments and enterprises. During the full project preparation, a detailed gender analysis will be presented to confirm gender equity and equality. The project monitoring plan as well as the Grievance mechanism shall incorporate gender equity and women empowerment issues such that they are closely followed during project implementation
Core Labour Rights	X	The design of the project is such that it respects the labour standards according to ILO. All entities involved in the project implementation including local contractors shall conform to all applicable national and international labor laws.

		Where applicable they will be encouraged to use local labour
Indigenous Peoples	X	The project area does not have indigenous peoples and minority groups
Involuntary Resettlement	X~~.~~	Project activities will not result in involuntary resettlement of communities.
Protection of Natural Habitats	X	The project activities will have no impact on natural environment but are aimed at restoring the degraded areas. Therefore, the no risk
Conservation of Biological Diversity		Output 2.1.1 under component 2 will involve will construction or rehabilitation appropriate physical water storage facilities as well as micro-irrigation schemes. These issues shall be addressed during the development of a detailed Environmental and Social management plan (ESMP) for the project at full proposal development stage
Climate Change	X	The proposed activities are intended to reduce the vulnerability due to climate change and vulnerabilities
Pollution Prevention and Resource Efficiency	~~X~~	Output 2.1.1 under component 2 will involve ~~will~~ construction or rehabilitation of appropriate physical water storage facilities as well as micro-irrigation schemes. Also, Output 3.1.1 under component 3 shall involve undertaking of Income Generating Activities (IGAs) like bee keeping, commercial fruits and tree nurseries, Mushroom growing,

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		incense sticks, bamboo and agri-waste biomass as well as establishment of value chains for nature-based enterprises (including production, processing, handling/ storage, packaging/ eco-labelling). These ~~will involve~~ activities that will bring about potential water and air pollution and ~~as well as~~ resource use efficiency issues will include ~~during~~ pumping and utilization of water resources as well as value addition processes.. These ~~issues~~ identified shall be addressed during the development of a detailed Environmental and Social management plan (ESMP) for the project at full proposal development stage
Public Health		Construction activities for water infrastructure may cause air and water pollution and stagnant water in storage facilities may pose health risks such as Malaria. These shall be addressed through awareness and implementation of pollution and disease control measures to be detailed in the ESMP
Physical and Cultural Heritage	X	The proposed project activities shall not interfere or affect the Physical and Cultural Heritage of the project area
Lands and Soil Conservation	X	The project activities will enhance soil management for example restoration activities in the catchment

K. Gender Analysis

During this concept development stage, no detailed gender assessment has been done. Detailed study on gender will be undertaken at the proposal development phase. Infact, the project has requested a PFA to support in this exercise that is expected to generate an in-depth analysis of the gender related issues in the Katonga catchment. However, to provide a feel of the expected situation on gender, this brief has been prepared based on available information from various sources e.g. Catchment Management Plan among others.

Gender equity and equality is essential for the environment and natural resource sector to develop and to contribute effectively to the managing climate change situations. However, in Uganda, climate change projects either do not or consider negligibly gender issues both during project development and execution. Unless gender issues are taken to scale, the climate change actions cannot be gender responsive or transformative and will therefore, exacerbate gender inequalities. Projects require to consider gender mainstreaming as a corner stone to the development agenda of projects/programe and to the country at large. Gender equality comprising of inclusion of both men and women is crucial and therefore, a pre-requisite during the execution of concrete adaptation actions. As an example, in Uganda, in most areas, women are less involved in project designs and decision-making processes, leaving the exercise incomplete. In so doing, the value addition of women and youth in livelihood activities is skipped. This creates a big gap, yet the women hold the mantle in raising up families in African society. Within the Katonga project design, gender equity and equality will be emphasized. The project proposes to undertake gender related activities to ensure that gender inclusiveness and responsiveness is attained. The activities planned to be carried out in this respect include: sensitizing the target populations on gender issues to ensure gender equality is incorporated in nature-based enterprises; ensure that there is stronger representation of women and youth in all type of meetings including in monitoring and evaluation; ensure there is a complaint redress system that can be used by women and youth. To actionalise the above activities, the project will develop a gender action plan that will detail the roles and responsibilities of the various gender groups.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Arrangements for project implementation

Implementing entity
The project will be implemented by the Ministry of Water and Environment (MWE) who will serve as the National Implementing Entity (NIE) and will oversee all financial, monitoring and reporting aspects to the Adaptation Fund. The MWE is an accredited entity with the Adaptation Fund.

Executing Entities
The project execution will be undertaken by the Ministry of Water and Environment in partnership with the Global Water Partnership Eastern Africa (GWPEA). The MWE has experience in executing similar activities, for example, a project entitled Enhancing Resilience of Communities to Climate Change through Catchment Based Integrated Management of Water and related resources in Uganda (EURECCCA)" worth USD$7.7Million from the Adaptation Fund. While GWPEA is a partner to the EURECCCA project and is providing technical support and executing component 3 of the project on capacity building and knowledge management. Both institutions (MWE and GWPEA) will be responsible for the management of the project per the arrangement outlines Table 5. It is expected that the project will raise the profile of Environment and Natural Resource Management and will also lay the foundation for establishing a structure that will be responsible to strengthening of key stakeholders, facilitate water security and promote nature- based enterprises in the Katonga catchment. This will increase the resilience of communities and fragile ecosystems to climate change impacts and variabilities.

The ***implementation arrangement*** is summarized in the following Table below

Table 5: Implementing and execution entity role

	Implementing Entity	
N	**Organization**	**Roles and Responsibilities**
1	*Ministry of Water and Environment (National Implementing Entity)*	• Oversee overall financial and monitoring aspects of the RECOFE project • Reporting of project consolidated results to the Adaptation Fund • Approval of project annual work plan and budget for the partner Executing Entity (EE) • Approval of annual financial and technical reports for the partner EE • Provide administrative and management support to the partner executing entity
	Executing Entity/ies role	
N	**Organization**	**Roles and Responsibilities**
1	*Ministry of Water and Environment*	• Support project management and execution at the national level, • Ensuring the project creates a positive impact on the beneficiaries • Consolidation the results from the project sites • Ensure cross-fertilization of project interventions and increase their ownership • Monitoring and evaluation

		• Ensure compliance of project interventions with the national frameworks The MWE will designate key personnel as project coordinator. s/he will ensure liaison on project activities among and between the MWE, the catchment management committees, the field offices, local governance structures and other stakeholders.
2	*Global Water Partnership Eastern Africa*	• Execution selected project interventions • Provide Technical Advice, guidance and support to the project • Support in policy influencing • Monitoring and evaluation • Providing technical and financial reports to MWE • Will be constituted by a Project Implementation Unit (PIU) composed of a Project Manager, Finance Officer, Communication Officer, Monitoring, and Evaluation Officer. For all these positions, they exist at the GWPEA. The project will contribute atleast 35% of their staff time. The detailed roles of the PIU will enumerated in the full proposal.

N.B The project will be implemented within the government/ministry framework to avoid duplication. Also, the project interventions are directly contributing to the government overarching goal, therefore, this structure ensures ownership.

The ***coordination arrangement*** will be as follows:
The lead executing entity will have a National Steering Committee (NSC), which will be the highest decision-making body of the RECOFE project. The NSC will be composed of representative stakeholders from the following institutions*:* Executing Entity (secretary to the committee), National Designated Authority (NDA), National Environment Management Authority (NEMA), Ministry of Agriculture Animal Industry and Fisheries (MAAIF), Climate Change Directorate (CCD), GWPEA, Ministry of Trade, private sector, CSOs/NGOs. Involvement of the private sector on the NSC is targeted towards attracting support of private sector players in the project interventions. Gender is a very important aspect of the project. As such, the project has targeted at least 50% of the NSC members being women. This will be an opportunity for the women to be empowered in decision making.

Table 6: Coordination arrangements

N	Entities	Role and functions
1	*National Steering Committee* (to be composed of MWE, NDA, NEMA, MAAIF, Ministry of Trade, GWPEA, International Organization, Private Sector and CSOs/NGOs). *Expected to meet twice in a year.*	• Provide strategic direction for the project • Meetings will be organized back-to-back with other technical meetings
2	*Project Technical Committee*	• To advise on the technical aspects of the project • Support to review technical documents

**Overall, the National Steering Committee will be composed of Nine members while the project technical committee will have Seven members.*

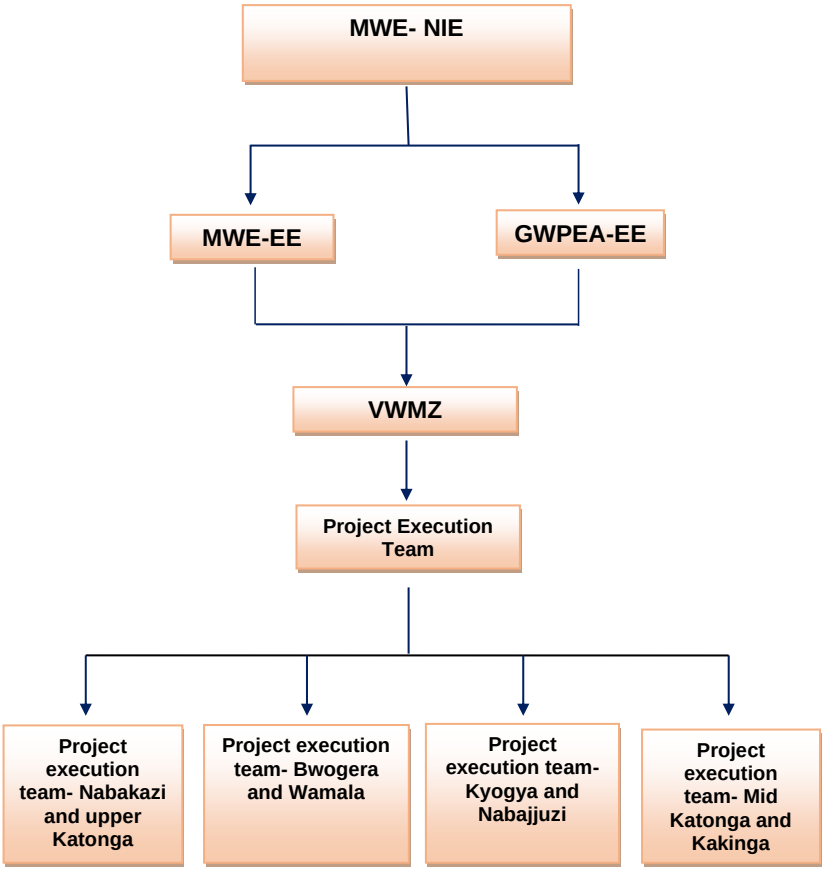

Figure 2: Project implementation arrangements

B. Project risk and mitigation measures

Table 7: Risks and mitigation measures

No	Risk	Type of Risk	Rating	Proposed Risk Mitigation Measure
1	Climate change could lead to reduced water availability and changes in community demands	Climate	High	This will be mitigated by focusing on long-term adaptation measures through the Project.
2	High expectations by stakeholders from the project	Social	Low	Gauge the level of expectation by raising awareness and seeking political support
3	Low collaboration amongst the relevant stakeholders in the landscape	Social	Low	Conduct stakeholder analysis to identify interests and roles of each stakeholder
4	Limited capacity, especially in areas of water security and enterprise development	Social/financial	Medium	Capacity building components within the program to have aspects of water security and enterprise development
5	Inadequate commitment from communities undermines the effectiveness of the project interventions	Operational	Medium	The project will avoid a 'top down' approach and seek to create community ownership of the interventions through community training and encouraging participation in project activities.
6	Resource capture	Political	Low	Politicians at sub-national level/district wanting project activities to be implemented in their own specific sites will be deflected by ensuring there is active community participation from project start
7	Changes in political environment/ e.g. electing a new politician mid-way during project implementation may lead to lack of support of the Project's activities.	Political	Medium	The project´s actions are aligned to national priorities and strategic plans e.g. Climate Change National Policies, and National Development Plan. Therefore, project activities are will be implemented to meet national priorities and frameworks.

C Measures for environmental and social risk management, in line with the Environmental and Social Policy of the Adaptation Fund

The measures for environmental and social risk management, in line with the Environmental and Social Policy of the Adaptation Fund will be comprehensively addressed during the full proposal preparation. This is because, the proposal preparation will provide an opportunity to interact with more stakeholder including the authorities in Environment management in the country.

D. Monitoring and evaluation arrangements and budgeted M&E plan.

Project Monitoring and Evaluation will be carried using the MWE standards. Quarterly and annual performance reports will be prepared. The Adaptation Fund's Results Tracker will be used in the reporting exercise.

To assess progress of activities and lesson learning, there will be independent mid-term and final evaluation.

The Ethics and Finance Committee (EFC) of the Adaptation Fund is the responsible committee for ensuring that projects comply with Monitoring and Evaluation. It's a requirement by the Adaptation Fund board for projects under implementation to submit annual status reports to EFC and ensuring that the Executing Entities have the necessary capacity to undertake Monitoring and Evaluation exercise.
is responsible

The MWE as an implementing entity has the necessary capacity to undertake M&E activities. The Ministry has designated officers within its structures to monitor field activities and ensure that the project targets are on track. In addition, the catchment staff (from the Victoria Water Management Zone (VWMZ) will undertake the evaluation and as well prepare annual reports. The MWE will assign a project manager who will be responsible to ensuring that the project interventions are implemented and are on track as proposed in the workplan.

The MWE will ensure that timely progress reports are prepared. These will indicate status of project implementation. The reports will include:

- Progress based on the submitted project results framework
- Lessons learned and good practices emanating from project interventions
- Accountability report
- Project risk management

The project has designed an M&E workplan and budget (Table 8) detailed the M&E activity to be performed and the corresponding budget.

Table 8: Project M&E workplan and budget

M&E activity	Responsible parties	Budget (USD)	Time frame														Notes
			Quarter		Quarter				Quarter				Quarter				
			3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inception workshop	MWE	~~20,000~~15,000															Within two months after signing the contract
Baseline study (to update the current baseline), Environmental, social and gender analyses	MWE and GWPEA	~~25,000~~25,000															
Field visits to measure and report on project results and targets (Quarterly and annual Reports)	M & E Officer, and Team Leader WMZ	Team support costs were included in the Project's implementation															To be done continuously-Will be undertaken quartery
Monitoring Project outputs by Project Team/MWE and reporting	Project Manager and MWE, GWPEA	Team support costs were included in the Project's implementation															Will be done Semi-annually
Visits to field sites for joint review of status and project progress and reporting	Project team/ MWE and GWPEA	15,000															Will be done yearly
Independent midterm evaluation	MWE Project team, Independent consultants hired to carry out the evaluations	~~20,000~~15,000															Will be done after One and half year
Independent final evaluation	MWE and GWPEA	15,000															Will be done at least two months before the end of the Project
Final project report	Project Manager/ MWE	None															Will be submitted at the end of the Project
Final project audit	MWE	20,000															Will be done at least two months before the end of the Project
Total M&E cost		**~~115,000~~ 105,000**															

E. Results framework for the project including milestones, targets and indicators

The Results Framework of the project defines the indicators the respective means of verification for project. Table 9 details the result framework

Table 3: Results Framework

Component/Outcome/ Output/Activities	Indicators	Baselines	End of project Targets	Means of verification	Responsible parties	Risks and assumptions
Component: Strengthening capacity of key grass root stakeholders for climate change adaptation						
Outcome 1.1 Capacity of key grass root stakeholders in implementing climate resilient development initiatives strengthened	〉 Number of Key grass root stakeholders who have acquired and demonstrate practical knowledge and skills of how well-designed climate resilient development measures can significantly and concretely contribute to economic development, poverty strategies and enhance fragile ecosystems 〉 Percentage increase of targeted communities undertaking climate change adaptation actions.	TBD	100 persons	• Project Reports • District workplans • Field visit	DNROs, DEO, DFO, CDO, District planner	• Political stability within the catchment ensures continuity • The persons trained will be retained in these positions within and beyond the project life time
Output 1.1.1 Climate change Capacity building program for key stakeholders developed	〉 No. of trainings conducted		Atleast 3 capacity building trainings conducted	Project reports		
	〉 capacity needs assessment conducted		A capacity needs assessment report			
	〉 No. of people empowered		• 200 persons to be empowered			

Component/Outcome/ Output/Activities	Indicators	Baselines	End of project Targets	Means of verification	Responsible parties	Risks and assumptions
	〉 No of people trained (segregated by gender and age)		Atleast 200 people trained (atleast 50% women)	-Participants lists, -Evaluation forms, Certificate of completion of training	• Commisioner MWE • Project coordinator • Team Leader VWMZs	Selection of participants for the trainings is well streamlined
	〉 Domesticated tool kit developed		One tool kit			
Outcome 1.2 Governance of natural resources strengthened	〉 Presence of gender specific measures in the catchment arrangements and integration thereof into climate change initiatives and/or economic development strategies 〉 Number of rights holders (custodians) engaged in accessing information		Atleast 30% of leadership roles/responsibilities are spearheaded by women	Knowledge Attitude and Practices (KAP) survey Stakeholder mapping Community reflection meetings		Existing Enabling environment in support of climate change adaptation and policy frameworks
Output 1.2.1 Community resource use group leaders orientated in leadership and management	〉 Number of key duty bearers and right holders trained who display basic knowledge and take corrective actions about their communities' rights over territories and natural resources		100 persons	KAP survey		
Component 2: Promote establishment appropriate water harvesting and storage technologies						
Outcome 2.1 Increased water and food security	〉 Percentage increase of households with suitable daily water & food and fodder consumption for livestock	TBD	30%	Project reports		

Component/Outcome/ Output/Activities	Indicators	Baselines	End of project Targets	Means of verification	Responsible parties	Risks and assumptions
Output 2.1.1 Innovative multi-stakeholder water harvesting and storage technologies adopted	〉 No. of households with demonstrated water harvesting enhancing options to reduce water scarcity for domestic and agricultural production within the catchment		100	Project reports -field visits		Priority settings in NDP 3 being developed being in tandem with climate change adaptation measures
Component 3: Supporting nature-based enterprises for sustainable socio-economic development						
Outcome 3.1 Increased income for improved stakeholder livelihoods	〉 %age increase in income for project beneficiaries in targeted project sites	TBD	〉 By end of year 3, income for project beneficiaries increased by at least 30%	Household surveys		Persons enjoying superior intellectual or social or economic status easily exert influence
Output 3.1.1 Nature-based enterprises promoted	〉 Number of households taking up new interventions as a result of the project		〉 50			
	〉 Number of demonstrated livelihood enhancing options to reduce poverty and environmental degradation in the catchment					
Output 3.1.3 Market linkages of products from nature-based enterprises established	〉 Number of producers linked to existing or new value chains	TBD	100	District reports		
Output 3.1.4 Entrepreneur skills of stakeholders enhanced	〉 Number of producers trained in crucial aspects for inclusion in VC: management, negotiation, identification of partnership opportunities, market outlooks, etc.		200			
Sub-total						

Component/Outcome/ Output/Activities	Indicators	Baselines	End of project Targets	Means of verification	Responsible parties	Risks and assumptions
Outcome 3.2 Enhanced ecosystem health	〉 By end of project, Sediment load within rivers in the catchment is maintained below average threshold		<7%	Surveys		
Output 3.2.1 Fragile ecosystems conserved	〉 Area of fragile ecosystem restored	TDB	2000 ha	Surveys Reports		
Component 4: Supporting knowledge management and information sharing						
Outcome 4.1 Lessons and good practices shared and adopted	〉 Number of development plans incorporating climate change resilience issues 〉 Good practices and lessons from the project are documented and influence policy		At least 50% of the district developing plans incorporate CC resilience issues At least one policy brief produced by end of the project			

F. Alignment with Adaptation Fund Objectives

Table 10 shows the alignment of project objectives/outcomes with that of Adaptation Fund.

Table 10: Alignment with Adaptation Fund Objectives

Project Objective(s)[1]	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
The overall objective of the project is strengthening the resilience of Communities and fragile ecosystems to climate change impacts through promoting appropriate water infrastructure investments and nature- based solutions	• Percentage increase in the targeted population (men and women) with access to water for domestic and productive use • Percentage area of degraded fragile ecosystems restored	**Outcome 2:** Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	2. Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased	**2,249,000**
		Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses 3.2. Percentage of targeted population applying appropriate adaptation responses	
		Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets	4.1 Responsiveness of development sector services to evolving needs from changing and variable climate 4.2 Physical infrastructure improved to withstand climate change and variability-induced	

[1] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

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			stress	
		Outcome 5: Increased ecosystem resilience in response to climate change and variability induced stress	5. Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress	
		Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	6.1 Percentage of households and communities having more secure access to livelihood assets 6.2. Percentage of targeted population with sustained climate-resilient alternative livelihoods	
		Outcome 7: Improved policies and regulations that promote and enforce resilience measures	7. Climate change priorities are integrated into national development strategy	
		Outcome 8: Support the development and diffusion of innovative adaptation practices, tools and technologies	8. Innovative adaptation practices are rolled out, scaled up, encouraged and/or accelerated at regional, national and/or subnational level.	
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**
Outcome 1.1 Capacity of key stakeholders in implementing climate resilient development initiatives strengthened	〉 Number of Key stakeholders/ decision makers who have acquired and demonstrate practical knowledge and skills of how well-designed climate resilient development measures can significantly and concretely contribute to economic development, poverty strategies	**Output 2.1:** Strengthened capacity of national and regional centre's and networks to respond rapidly to extreme weather events	2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender) 2.1.2 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale)	**122,362**

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	and enhance fragile ecosystems 〉 Percentage of targeted communities undertaking climate change adaptation actions. 〉 District development plan mainstream climate change adaptation innovations; 〉 Projects and other development initiatives integrated climate change adaptation measures			
Outcome 1.2 Governance of natural resources strengthened	〉 Presence of gender specific measures in the catchment arrangements and integration thereof into climate change initiatives and/or economic development strategies 〉 Number of rights holders (custodians) engaged in accessing information	**Output 7:** Improved integration of climate-resilience strategies into country development plans	7.1. No. of policies introduced or adjusted to address climate change risks (by sector) 7.2. No. of targeted development strategies with incorporated climate change priorities enforced	**179,464**
Outcome 2.1 Increased water and food security	Percentage increase of households with suitable daily water & food and fodder consumption for livestock	**Output 4:** Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	4.1.1 No. and type of development sector services modified to respond to new conditions resulting from climate variability and change (by sector and scale) 4.1.2 No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by sector and scale)	**657,057**
		Output 8: Viable innovations are rolled out, scaled up, encouraged and/or	8.1. No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated	

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		accelerated.		
Outcome 3.1 Increased income for improved stakeholder livelihoods	Percentage increase in income for project beneficiaries in targeted project sites	**Output 6:** Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	6.1.1.No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies 6.2.1. Type of income sources for households generated under climate change scenario	**726,075**~~**487,530**~~
Outcome 3.2 Enhanced ecosystem health	By end of project, Sediment load within rivers in the catchment is maintained below average threshold Acreage of forest restored	~~**Output 4:** Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability~~ **Output 5:** Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	~~4.1.2. No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by sector and scale)~~ 5.1. No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale)	**139,315**~~**116,315**~~
Outcome 4.1 Lessons and good practices shared and adopted	〉 Number of development plans incorporating climate change resilience issues 〉 Good practices and lessons from	**Output 3.1:** Targeted population groups participating in adaptation and risk reduction awareness activities	3.1.1 No. of news outlets in the local press and media that have covered the topic	**220,272**~~**197,272**~~

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	the project are documented and influence policy			
		Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	3.2.1 No. of technical committees/associations formed to ensure transfer of knowledge 3.2.2 No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders	

G. Detailed budget with budget notes, and a breakdown of the execution costs

Table 11: Detailed budget

Component/Outcome/ Output/Activities	USD	Budget notes
Component: Strengthening capacity of key grass root stakeholders for climate change adaptation		
Outcome 1.1 Capacity of key grass root stakeholders in implementing climate resilient development initiatives strengthened		
Output 1.1.1 Climate change Capacity building program for key grass root stakeholders established		
Activity 1.1.1.1 Undertake capacity needs assessment in relation to climate change for key grass root stakeholders	16,315	This covers professional fees and reimbursables
Activity 1.1.1.2 Induct and empower grass root-duty bearers with knowledge in climate change	54,383	costs of 4 residential workshops full board at $68 per individual for 200 participants to cover transport refund for participants, Out of pocket, Facilitators allowances, Fuel costs for MWE
Activity 1.1.1.3 Training in roles and responsibilities of the duty bearers at the grass-roots	32,630	costs of 4 residential workshops full board at $68 per individual for 100 participants to cover transport refund for participants, Out of pocket, Facilitators allowances, Fuel costs for MWE
Activity 1.1.1.4 Facilitate tool kit development for mainstreaming climate interventions in development initiatives	19,034	Consultants fees and costs for meetings
Sub total		

	122,362	
Outcome 1.2 Governance of natural resources strengthened		
Output 1.2.1 Community resource use group leaders orientated in leadership and management		
Activity 1.2.1.1 Facilitate the mainstreaming of Human Rights Based Approaches in climate change initiatives	32,630	costs of 2 residential workshops full board at $68 per individual for 100 selected participants to cover transport refund for participants, Out of pocket, Facilitators allowances, Fuel costs for MWE
Activity 1.2.1.2 Facilitate communities in advocacy, lobbying and public relations through creation of dialogue platforms and conducting of climate change campaigns/dialogues	32,630	Facilitatation for conducting two dialogue events by end of project
Activity 1.2.1.3 Facilitate resource use negotiations and development of Management plans, MoUs between the communities and duty bearers of the natural resources	32,630	Costs to cover meetings for development of four management arrangements
Activity 1.2.1.4 Develop and Strengthen the governance and leadership frameworks (Bye-laws, ordinances, guidelines)	81,574	Facilitation of community meetings, relevant sub county and district sub and district natural resources members council meetings
Sub-total	**179,464**	
Component 2: Promoting establishment of appropriate water harvesting and storage technologies		
Outcome 2.1 Increased water and food security		
Output 2.1.1 Innovative multi-stakeholder water harvesting and storage technologies adopted		
Activity 2.1.1.1 Construct/rehabilitate agreed upon low cost and appropriate physical water storage facilities	56,000	Cost equivalent constructing 80 large rainwater tank (20,000 litres) that may last for up to 30 years, using Interlocking ~~Stabilised~~Stabilized Soil Bricks (ISSB) at a Unit cost of $680 .
Activity 2.1.1.2 Facilitate development of simple biophysical water harvesting technologies for Agriculture and livestock production	371,057	Four demonstration sites established each at an estimate of 117330 USD for a total of 500 households
Activity 2.1.1.3 Facilitate construction of micro-irrigation schemes as learning centres	200,000	4 (200acres each) Low cost trickle irrigation systems established at an estimated cost of $250 per acre

Activity 2.3.1.4 Procure appropriate seed and improved pastures for increased Agricultural and livestock production respectively	30,000	Purchase~~nce~~ of 10000 kg of appropriate seed equivalent at a cost of $3 per kilogram
Sub-total	**657,057**	
Component 3: Supporting nature-based enterprises for sustainable socio-economic development		
Outcome 3.1 Increased income for improved stakeholder livelihoods		
Output 3.1.1 Nature-based enterprises promoted		
Activity 3.1.1.1 Establish Income Generating Activities (IGAs) like bee keeping, commercial fruits and tree nurseries, Mushroom growing, incense sticks, bamboo and agri-waste biomass	134,545	This covers cost of modern bee hives, and support to capacity building/training of targeted stakeholders
Activity 3.1.1.2 Procure necessary tools to improve productivity of the nature-based enterprises	150,000	To purchase at least two briquette machines each at $10000, nursery tools for two nurseries, appiary tools and inputs for mushroom growing
Activity 3.1.1.3 Procure viable high value germplasm	40,000	Purcha~~s~~se an ~~asortment~~assortment of tree seed, Fruits and mushrooms
Activity 3.1.1.4 Establish value chains for key and agreed upon nature-based enterprises (including production, processing, handling/storage, packaging/ eco-labelling,	~~60,000~~83,000	Value chain analysis and ~~establshment~~establishment of processes
Activity 3.1.1.5 Identify and establish probable Sources of funding (in-kind and credit) for vulnerable communities (women, elderly, youth, PWDs) to scale -up nature-based enterprises	102,530	Startup capital and trainings in Establishment of revolving fund models
Sub-total	**510,075~~487,075~~**	
Output 3.1.2 Market linkages of products from nature-based enterprises established		
Activity 3.1.2.1 Facilitate stakeholders to participate in business forums, trade fairs & exhibitions	20,000	Covers costs of producing exhibition materials, travel costs, hire for exhibition and ~~up keep~~upkeep for participants
Activity 3.1.2.2 Facilitate business tours and pitches of business plans to the private sector	~~15,000~~38,000	Covers local travel costs and upkeep for key stakeholder representatives
Activity 3.1.2.3 Facilitate establishment and operation of a market information systems	30,000	Covers consultancy costs and tools/inputs
Activity 3.1.2.4 Develop promotional materials for marketing of products	40,000	costs for developing Print and social media marketing materials

Sub-total	~~105,000~~128,000	
Output 3.1.3 Entrepreneur skills of stakeholders enhanced		
Activity 3.1.3.1 Facilitate registration of small-scale businesses	20,000	Covers registration fees and processing costs
Activity 3.1.3.2 Train entrepreneurs in business management skills	~~20,000~~43,000	C~~o~~osts of two~~1~~ residential workshops full board at $68 per individual for 50 selected participants to cover transport refund for participants, Out of pocket, Facil~~l~~itator's allowances, Fuel costs for MWE
Activity 3.1.3.3 Develop business plans for translation into functioning businesses	25,000	C~~o~~osts of one~~1~~ residential workshops full board at $68 per individual for 50 selected participants to cover transport refund for participants, Out of pocket, Facill~~i~~tator's allowances, Fuel costs for MWE
Sub-total	~~65,000~~88,000	
Outcome 3.2 Enhanced ecosystem health		
Output 3.2.1 Fragile ecosystems conserved		
Activity 3.2.1.1 Undertake ecosystem restoration activities (wetlands and river bank restoration, Reforestation etc.)	~~90,000~~113,000	Restoration estimated at $250 per hectare of degraded wetlands
Activity.3.2.1.2 Sensitize stakeholders in sustainable utilisation of natural resources (e.g. appreciation and importance of the natural ecosystems)	26,315	Facilita~~ta~~tion for conducting two sensitization events by end of project
Sub-total	~~116,315~~139,315	
Component 4: Supporting knowledge management and information sharing		
Outcome 4.1 Lessons and good practices shared and adopted		
Output 4.1.1 Knowledge management and information sharing system developed		

Activity 4.1.1.1 Facilitate experience sharing and cross-learning of innovative climate change adaptation interventions	~~40,000~~63,000	Covers travel costs and up ke~~e~~p for up to 50 kee stakeholders
Activity 4.1.1.2 Organize learning events in climate change adaptation	37,272	Facilita~~ta~~tion for conducting one learning event by end of project
Activity 4.1.1.3 Document lessons, good practices and disseminate for replication and up-scaling	20,000	Covers costs for regular field visits and meetings with key stakeholders
Activity 4.1.1.5 Document climate related case studies	20,000	Covers costs for regular field visits and meetings with key stakeholders
Activity 4.1.1.6 Packaging existing and generated information into usable forms including policy briefs, flyers and leaflets	50,000	Costs for formating lay outs and printing in bulk information materials
Activity 4.1.1.7 Popularise existing frameworks (i.e. policies, Ordinances and by-laws)	30,000	Costs for formating lay outs and printing in bulk popular versions of the framework~~s~~
Sub-total	**220272~~197,272~~**	
Total Activity Budget	**20445451,929,545**	
~~5.0 M&E Executing/Implementing Entity Budgets~~	-	-
~~5.1 Monitoring the Implementation of the Project (extracted from activity budget)~~	-	-
~~Inception workshop~~	~~20,000~~	-
~~Baseline study (to update the current baseline), Environmental, social and gender analyses~~	~~25,000~~	-
~~Visits to field sites for joint review of status and project progress and reporting~~	~~15,000~~	-
~~Independent midterm evaluation~~	~~20,000~~	-
~~Independent final evaluation~~	~~15,000~~	-
~~Final project audit~~	~~20,000~~	-
~~Sub-total~~	**~~115,000~~**	-
5. 2 Executing Entity Budget		
Project execution cost (1.5%)	30,668	
Project Coordination & Management fees (8.5%)- This will also include management fees, buying equipment- Furniture, computer and its	173,786	

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accessories) and one project vehicle to support in coordination of field activities		
Sub–total ~~of~~ for executing entity	204,455	
Total Project Budget	**2,249,000**	

H. Disbursement schedule with time-bound milestones

Table 12: Summary of disbursement with percentages

Year	Disbursement (USD)	Percentage (%)
Year 1	684.345	30.4
Year 2	1,067,524	47.5
Year 3	497,131	22.1
Total	**2,249,000**	**100**

Table 13: Detailed disbursement schedule with time-bound milestones

Component/Outcome/ Output/Activities	Upon Agreement and Contract Signing	One year after Project start, and upon approval of Year 1 Report	Two years after Project start, and upon approval of Year 2 Report	Total (USD)
Component: Strengthening capacity of key grass root stakeholders for climate change adaptation				
Outcome 1.1 Capacity of key grass root stakeholders in implementing climate resilient development initiatives strengthened				
Output 1.1.1 Climate change Capacity building program for key grass root stakeholders established				
Activity 1.1.1.1 Undertake capacity needs assessment in relation to climate change for key grass root stakeholders	16,315			16,315
Activity 1.1.1.2 Induct and empower grass root-duty bearers with knowledge in climate change	54,383			54,383
Activity 1.1.1.3 Training in roles and responsibilities of the duty bearers at the grass-roots	32,630			32,630
Activity 1.1.1.4 Facilitate tool kit development for mainstreaming climate interventions in development initiatives		19,035		19,034
Sub total	**103,327**	**19,035**		122,362
Outcome 1.2 Governance of natural resources strengthened				
Output 1.2.1 Community resource use group leaders orientated in leadership and management				
Activity 1.2.1.1 Facilitate the mainstreaming of Human Rights Based Approaches in climate change initiatives	32,630			32,630
Activity 1.2.1.2 Facilitate communities in advocacy, lobbying and public relations through creation of dialogue platforms and conducting of climate change	10,000	22,632		32,630

campaigns/dialogues				
Activity 1.2.1.3 Facilitate resource use negotiations and development of Management plans, MoUs between the communities and duty bearers of the natural resources	10,000	22,630		32,630
Activity 1.2.1.4 Develop and Strengthen the governance and leadership frameworks (Bye-laws, ordinances, guidelines)	27,191	27,191	27,191	81,574
Sub-total	**79,821**	**72,452**	**27,191**	**179,464**
Total for component 1	**183,148**	**91,488**	**27,191**	**301,826**
Component 2: Promoting establishement of appropriate water harvesting and storage technologies				
Outcome 2.1 Increased water and food security				
Output 2.1.1 Innovative multi-stakeholder water harvesting and storage technologies adopted				
Activity 2.1.1.1 Construct/rehabilitate agreed upon low cost and appropriate physical water storage facilities	56,000			56,000
Activity 2.1.1.2 Facilitate development of simple biophysical water harvesting technologies for Agriculture and livestock production		146,798	224,259	371,057
Activity 2.1.1.3 Facilitate construction of micro-irrigation schemes as learning centres		200,000		200,000
Activity 2.3.1.4 Procure appropriate seed and improved pastures for increased Agricultural and livestock production respectively		30,000		30,000
Sub-total	**56,000**	**376,798**	**224,259**	**657,057**
Total for component 2	**56,000**	**376,798**	**224,259**	**657,057**
Component 3: Supporting nature-based enterprises for sustainable socio-economic development				
Outcome 3.1 Increased income for improved stakeholder livelihoods				
Output 3.1.1 Nature-based enterprises promoted				
Activity 3.1.1.1 Establish Income Generating Activities (IGAs) like bee keeping, commercial fruits and tree nurseries, Mushroom growing, incense sticks, bamboo and agri-waste biomass	134,545			134,545

Activity 3.1.1.2 Procure necessary tools to improve productivity of the nature-based enterprises	150,000			150,000
Activity 3.1.1.3 Procure viable high value germplasm	40,000			40,000
Activity 3.1.1.4 Establish value chains for key and agreed upon nature-based enterprises (including production, processing, handling/storage, packaging/ eco-labelling,		~~60,000~~83,000		~~60,000~~83,000
Activity 3.1.1.5 Identify and establish probable Sources of funding (in-kind and credit) for vulnerable communities (women, elderly, youth, PWDs) to scale -up nature-based enterprises			102,530	102,530
Sub-total	**324,545**	**~~60,000~~83,000**	**102,530**	**510,075~~487,035~~**
Output 3.1.2 Market linkages of products from nature-based enterprises established				
Activity 3.1.2.1 Facilitate stakeholders to participate in business forums, trade fairs & exhibitions		20,000		20,000
Activity 3.1.2.2 Facilitate business tours and pitches of business plans to the private sector		~~15,000~~38,000		~~15,000~~38,000
Activity 3.1.2.3 Facilitate establishment and operation of a market information systems		30,000		30,000
Activity 3.1.2.4 Develop promotional materials for marketing of products		40,000		40,000
Sub-total		**~~105,000~~128,000**		**~~105,000~~128,000**
Output 3.1.3 Entrepreneur skills of stakeholders enhanced				
Activity 3.1.3.1 Facilitate registration of small-scale businesses		20,000		20,000
Activity 3.1.3.2 Train entrepreneurs in business management skills		~~20,000~~43,000		~~20,000~~43,000
Activity 3.1.3.3 Develop business plans for translation into functioning businesses		25,000		25,000
Sub-total		**~~65,000~~88,000**		**~~65,000~~88,000**
Outcome 3.2 Enhanced ecosystem health				
Output 3.2.1 Fragile ecosystems conserved				

Activity 3.2.1.1 Undertake ecosystem restoration activities (wetlands and river bank restoration, Reforestation etc)		~~90,000~~113,000		~~90,000~~113,000
Activity.3.2.1.2 Sensitize stakeholders in sustainable utilisation of natural resources (e.g. appreciation and importance of the natural ecosystems)		26,315		26,315
Sub-total		**139,315~~116,315~~**		**139,315~~116,315~~**
Total for component 3	**324,545**	**~~346,315~~438,315**	**102,530**	**~~773,350~~865,390**
Component 4: Supporting knowledge management and information sharing				
Outcome 4.1 Lessons and good practices shared and adopted				
Output 4.1.1 K~~k~~nowledge management and information sharing system developed				
Activity 4.1.1.1 Facilitate experience sharing and cross-learning of innovative climate change adaptation interventions			~~40,000~~63,000	~~40,000~~63,000
Activity 4.1.1.2 Organize learning events in climate change adaptation		37,272		37,272
Activity 4.1.1.3 Document lessons, good practices and disseminate for replication and up-scaling		20,000		20,000
Activity 4.1.1.4 Document climate related case studies		20,000		20,000
Activity 4.1.1.5 Packaging existing and generated information into usable forms including policy briefs, flyers and leaflets		50,000		50,000
Activity 4.1.1.6 Popularizse existing frameworks (i.e. policies, Ordinances and by-laws)		30,000		30,000
Sub-total		**157,272**	**~~40,000~~63,000**	**220,272~~197,272~~**
Total for component 4		**157,272**	**~~40,000~~63,000**	**~~197,272~~220,272**
Total Activity Budget				**2,044,545~~1,929,545~~**
~~5.0 M&E Executing/Implementing Entity Budgets~~	-	-	-	-

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~~**5.1 Monitoring the Implementation of the Project (extracted from activity budget)**~~	-	-	-	-
~~Inception workshop~~	~~20,000~~	-	-	~~20,000~~
~~Baseline study (to update the current baseline), Environmental, social and gender analyses~~	~~25,000~~	-	-	~~25,000~~
~~Visits to field sites for joint review of status and project progress and reporting~~	~~7,500~~	~~7,500~~	-	~~15,000~~
~~Independent midterm evaluation~~	-	~~20,000~~	-	~~20,000~~
~~Independent final evaluation~~	-	-	~~15,000~~	~~15,000~~
~~Final project audit~~	-	-	~~20,000~~	~~20,000~~
~~**Sub-total**~~	~~**52,500**~~	~~**27,500**~~	~~**35,000**~~	~~**115,000**~~
5. 2 Executing Entity Budget				
Project execution cost (1.5%)	~~10,233~~10,223	10,223~~10,233~~	10,223~~10,233~~	30,668
Project Coordination & Management fees (8.5%)	57928.7	57928.7	57928.7	173,786
Sub -total of executing entity	**68,151** ~~**116,867**~~	**68,151** ~~**91,867**~~	**68,151** ~~**99,367**~~	**204,454** ~~**308,100**~~
Total Project Budget	**684,344.8**~~**684,344.8**~~	**1,067,524** ~~**1,067,524**~~	**497,131.3** ~~**497,131.3**~~	**2,249,000** ~~**2,249,000**~~

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PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government[2] *Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:*

Mr. Keith Muhakanizi Permanent Secretary/Secretary to the Treasury Ministry of Finance, Planning and Economic Development	Date: *(Month, day, year)*

B. Implementing Entity certification *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address*

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (National Development Plan II, Nationally Determined Contribution (2018), National Adaptation Framework, National Climate Change Policy (NCCP) and implementation Strategy (2013), Sustainable Development Goals and Uganda Vision 2040) and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.
Mr. Alfred Okot Okidi, Permanent Secretary, Ministry of Water and Environment (NIE) Implementing Entity Coordinator
Date: *(Month, Day, Year)* — Tel. and email:
Project Contact Person: **Mr. James Kawesi,** Ministry of Water and Environment
Tel. Email: +256 785800094 Email: jkaweesi11@gmail.com

[6] Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

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