



## **ADAPTATION FUND**

### **PROGRAMME ON INNOVATION: SMALL GRANTS PROJECTS THROUGH DIRECT ACCESS MODALITY**

### **REQUEST FOR PROJECT FUNDING FROM THE ADAPTATION FUND**

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project must be fully prepared when the request is submitted.

Complete documentation should be sent to:

The Adaptation Fund Board Secretariat  
1818 H Street NW  
MSN P4-400  
Washington, D.C., 20433  
U.S.A  
Fax: +1 (202) 522-3240/5  
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## ADAPTATION FUND

# PROGRAMME ON INNOVATION: SMALL GRANT PROJECT PROPOSAL

### PART I: PROJECT INFORMATION

Country:	Uganda
Title of Project:	Climate Change Adaptation Through Operationalization of Vertical Shaft Brick Kiln Technology for Bricks Manufacturing and livelihood enhancement in Iganga District
National Implementing Entity:	Ministry of Water and Environment
Executing Entity:	Struggle Against Poverty
Amount of Financing Requested:	250,000 (in U.S Dollars Equivalent)

#### 1. Project Background and Context:

##### 1.1 Background

The 2016/17 Uganda National Household Survey data indicated that 74.8 per cent of people in Busoga Sub-region where Iganga district belong were considered poor and insecure against a national average of 63 per cent. The district lacks viable economic activities as compared to districts in other regions of the Country. This prevailing situation has encouraged majority of the people of Iganga district in particular to depend on natural resources to meet their basic needs. The insurgency in northern Uganda between 1990 and early 2000, caused an influx of internally displaced persons (IDPs) from northern Uganda to Iganga district. The IDPs settled in Iganga town, in the peri-urban areas and in the villages. Many of these IDPs have not gone back but have been integrated in the communities.

Despite the integration of IDPs with the communities in Iganga district and Busoga region as a whole, many are faced with livelihood challenges, such as lack of ownership of farm land. The result is that they have resorted to swamp reclamation for rice growing, bricks making and selling unskilled labour. These environmental degrading activities deepen the adverse effects of climate change in the district and Uganda as a whole.

Traditional methods of brick making such as the “one- time use” brick kilns for burning of the building bricks, has damaged and continues to damage the environment by producing gross carbon emissions, claim arable and fertile soils, and encourages frequent cutting of grass and trees. It is against this back ground that the Struggle Against Poverty programme is seeking for financial support to adapt to climate change through operationalizing of the vertical Shaft technology for brick manufacturing and livelihood enhancement in Iganga district.

##### 1.2 Project context

###### 1.2.1 Climate Change context

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. The average annual rainfall ranges from 800 mm to 1500 mm<sup>1</sup>, and average daily temperature is around 28 °C, but varies with altitude<sup>1</sup>. The country is endowed with significant portions of the world’s most spectacular biodiversity and rich natural resource base, which deliver numerous

ecosystem goods and services that are shared by millions of people across the country. With a total land area of 241,038km<sup>2</sup>, about 30% of Uganda's land 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 amidst a changing climate coupled with other stresses such as the increasing human population and a multitude of anthropogenic pressures presents an enormous challenge that undermines and threatens their capacity to provide ecosystem goods and services for local communities.

Currently, Uganda experiences significant impacts of climate change manifested in form of changing weather patterns, drop in water levels, increased frequency of extreme weather events such as floods, and droughts, whose social economic impacts render communities highly vulnerable<sup>2</sup>. Uganda's second national Communication 2014 presents IPCC models and Representative Concentration Pathways (RCPs) 4.5 and 8.5 that reveal temperature rises in all the Climatologically Homogenous Zones (CH) of Uganda<sup>3</sup>.

Iganga district is the largest of the three Districts that were formed out of the former Busoga District in 1974. It is situated in south-eastern Uganda and lies between latitudes 10 00' S - 10 06' N and longitudes 330 57' E 330 12' E. It borders with the Republic of Kenya on the eastern side (in Lake Victoria), the Republic of Tanzania on the south (in Lake Victoria), the districts of Mukono and Jinja on the west, Kamuli on the north and Tororo and Pallisa on the north-east. The district covers an area of 13,114 Km<sup>2</sup> out of which 4,823 Km<sup>2</sup> island and the rest is swamp and open water with a total population of 506,388 people during the 2014 Population and Housing Census. Iganga district has many forest reserves/plantations under well specified regulations. There are 22 plantation forests which provide fuel/poles and soft wood timber. Tree plantations cover an area of 4.3 Km<sup>2</sup> broad leafed 2.9 Km<sup>2</sup> and conifers 1.4 Km<sup>2</sup> Under natural forests, Tropical high forests cover 193.5 Km<sup>2</sup> but out of which 160.7 Km<sup>2</sup> is degraded. Today, swamps in most parts of Iganga district have been drained dry according to National Planning Authority of Uganda. Mass swamp reclamation for alternative sources of income such as rice and vegetable cultivation as well as hunting of clay for brick making for sale has greatly destroyed the swamp ecosystems in Iganga district. Worst still, these one-time-use energy inefficient brick kilns used to burn building bricks for sale, produce a lot of emissions that are dangerous to the environment. The process involves the use of too much firewood that has increased deforestation resulting into soil erosion, pollution of swamps, rivers and lakes.

### **1.2.2 Social-Economic Context.**

Uganda faces several developmental constraints, including high population growth of 3.3% p.a), post-conflict conditions in the north, soil erosion and degradation, among others. The increase in the population and upcoming developments is triggering pressure on natural resources reflected in deforestation and ecosystems degradation such as degradation of wetlands for rice cultivation, brick manufacturing, 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, unsustainable crop farming practices, overexploitation of natural resources in Iganga district, has led to: i) excessive abuse of

wetlands for bricks manufacturing ii) increased competition and costs for resources and land; and ii) use of traditional, inefficient and one time-use brick kilns for bricks burning which has side effects of increased carbon emissions. This climate change adaptation through operationalization of Vertical Shaft Brick Kiln technology for bricks manufacturing and livelihood enhancement in Iganga District fits within the scope and aspirations of Uganda's Vision 2040, NDP II and NDPIII and the Climate Change Policy, 2015. The country aspirations enshrined in such policy and planning frameworks focus among others on reducing the degradation of environment and natural resources and ensuring improved ecosystem services delivery as means of enhancing the resilience of vulnerable populations especially the youths. Globally, the project contributes to attainment of the Sustainable Development Goals (SDGs), specifically SDG 1, 13, 15 and 17 that aim at eliminating poverty, climate action life and land, and promoting partnerships for developing the knowledge base, and effective capacity development.

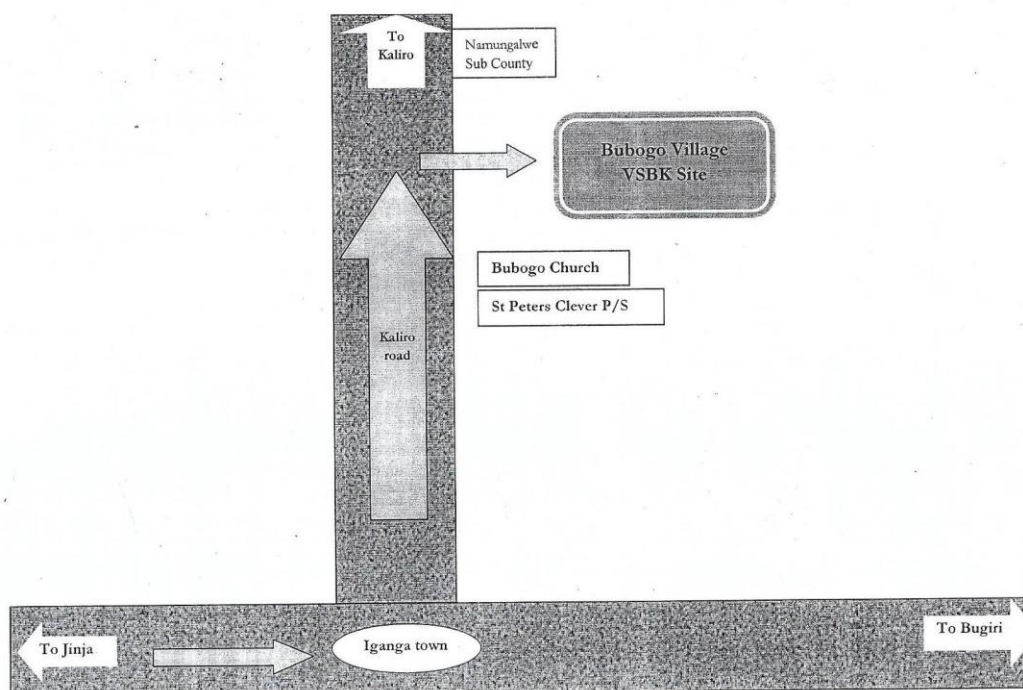
### **1.2.3 Environment Context.**

The environmental changes are influencing heavily on the people who rely on ecosystem goods and services for their livelihoods. The major issues related to environmental change in Iganga district include:- Wetland reclamation, prolonged droughts which are reportedly becoming severe due to climatic change effects, excessive deforestation, and forest degradation. They are associated with severe water scarcity, food insecurity, soil erosion, water stress, reduced pastures and overgrazing, school dropouts, wetland encroachment and wildfires. Unfortunately, even when faced with such climate change related risks and disasters, the climate change adaptation capacity of most vulnerable community members among grass root communities remains extremely limited due to inadequate interventional resources from Government and development partners as well as limited livelihood options at grass root level.

### **1.3 Project Site**

The project will target 9 pilot villages of Bubogo B, Walugogo, Nabikoote, Namufuma, Kawete, Nabitende, Nasunti, Nambale, and Namusala respectively. The vertical shaft brick kiln technology will be operationalized as a demonstration site along Kaliro road, 5 kilometers from Iganga town in Bubogo B village, Namukusu parish, Namung'alwe sub-county Kigulu north constituency while the other nature-based solutions will be located in other villages listed above of Iganga district, Uganda.

Location of VSBK demonstration site in Bubogo Village, Namukesu Parish, Namungalwe Sub County in Iganga District



## 2. Project Objectives:

*List the main objectives of the project.*

- To build community capacities to adapt energy efficient and carbon emission free technology for manufacturing of building bricks
- To promote nature-based solutions for improved community livelihoods.

### 2.1 Specific Objectives

- To operationalize the vertical shaft brick kiln technology on climate change adaptation by October 2023.
- To develop, share information and train project beneficiaries on climate change adaptation best practices by October 2023.
- To introduce nature-based solutions for improved community livelihoods by October 2023

### 2.2 Project Components and Financing:

*Fill in the table presenting the relationships among project components, activities, expected concrete outputs, and the corresponding budgets. If necessary, please refer to the INSTRUCTIONS FOR PREPARING A REQUEST FOR PROGRAMME ON INNOVATION: SMALL GRANTS PROJECTS THROUGH DIRECT ACCESS for a detailed description of each term.*

<b>Project Components</b>	<b>Expected Concrete Outputs</b>	<b>Expected Outcomes</b>	<b>Amount (US\$)</b>
1. Operationalization of a brick manufacturing technology that contributes to climate change adaptation.	1.1 A vertical shaft brick kiln (VSBK ) technology operational. 1.2 Vertical shaft brick kiln (VSBK ) technology construction and operation manual developed 1.3 Regulation for vertical shaft brick kiln (VSBK) technology developed and adopted	1.1 Reduction of greenhouse gas emissions from the current traditional, energy inefficient and one time-use brick kilns 1.2 increased employment among the youths of Iganga	95,000
2. Training and information sharing	2.1 Knowledge management and information sharing system developed. 2.2 Capacity building program for youths and key stakeholders established 2.3 IEC materials on climate change adaptation developed, printed and disseminated	2.1 Lessons and good practices shared and adopted.	50,000
3. Establishment of nature-based solutions for improved community livelihoods	3.1 Nature-based solutions (conservation of wetlands, afforestation, good agriculture practices, plastic wastes recycling, bee keeping, mushroom growing, commercial tree growing and making briquettes as fuel from wastes ) established 3.2 Market linkages of products from nature-based solutions developed 3.3 Entrepreneur skills of youths and key stakeholders enhanced	3.1 Enhanced ecosystem health	47,500

Project staff salaries	Secretary General, Monitoring & Evaluation Officer and Accountant recruited for 12 months	Committed and qualified project Staff	30,000
Project Execution cost			222,500
Project Monitoring and Evaluation Cost			3,750
Project Cycle Management Fee charged by the Implementing Entity (if applicable)			23,750
<b>Amount of Financing Requested</b>			<b>250,000</b>

### 3.0 Projected Calendar:

*Indicate the dates of the following milestones for the proposed project/programme*

Milestones	Expected Dates
A Notification of Project Start	September 01, 2022
A Project Monitoring Report 1	March 30, 2023
A project Monitoring Report 2	September 30, 2023
A Notification of Project Completion	December 31, 2023
A Project Completion Report	June 30, 2024

## PART II: PROJECT JUSTIFICATION <sup>1</sup>

### A. *Describe the project components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience.*

**Component one:** In 2018, Struggle Against Poverty secured funding from The United Nations Development Programme under the Global Environment Facility, small grants programme to establish a Demonstration on innovation of Energy Efficient Brick Kiln (Vertical Shaft Brick Kiln - VSBK) in Bubogo B Village, Namukusu Parish, Namungalwe Sub-County, Iganga District to mitigate environment damage arising from high energy, scattered, inefficient and one time-use brick Kilns. This was done successfully however, operationalization was not achieved due to limited funding and this is one of the reasons for this proposal. Therefore, operationalizing this innovation will contribute to climate change adaptation by strengthening the capacity of youths and key stakeholders to adapt and use the vertical shaft brick kiln technology that is emission free. The key stakeholders will include: grass-root brick makers, brick dealers (middle men), brick transporters, village local council leaders, sub-county leaders and environment committees, district environment officer as well as district NGOs monitoring team members and related private sector. Climate resilience will be achieved through; acquiring assorted machinery to complete and operationalize the vertical shaft brick kiln technology, developing the vertical shaft brick kiln technology construction and operation manual, getting and adapting a regulation on vertical shaft brick kiln technology from Iganga sub-county and district council leadership. This component will contribute to climate change adaptation by saving the cutting of various tree species and reducing greenhouse gas emissions that are

<sup>1</sup> Parts II and III should jointly not exceed 10 pages.

currently generated by the traditional, energy inefficient and one time use brick kilns used by the youths today.

**Component two:** Skilling and information sharing is expected to be achieved through developing knowledge management and information sharing systems and training of youths and key stakeholders in information management and sharing, and developing, printing and disseminating of leaflets, brochures calendars, T-shirts and caps with climate change adaptation information. This component will contribute to climate change adaptation by improving awareness on the existing climate change adaptation measures.

**Component three:** Establishment of nature-based solutions for improved community livelihoods which will be achieved through establishment of nature-based solutions for improved community livelihoods, conducting Market linkages of products from nature-based solutions developed and training of youths and key stakeholders in entrepreneur skills on nature-based solutions like conservation of wetlands, afforestation, good agriculture practices, plastic wastes recycling, bee keeping, mushroom growing, commercial tree growing, making briquettes as fuel from wastes. This component will contribute to climate change by having a prevailing healthy ecosystem.

**B. Describe how the project provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project will avoid or mitigate negative impacts, in line with the Environmental and Social Policy of the Adaptation Fund.**

**Economically:** From the layout of the project, it will provide economic benefits by directly contributing to improving the alternative livelihoods and incomes of the community members. This is possible especially considering the key interventions like establishing nature-based solutions such as conservation of wetlands, afforestation, good agriculture practices, plastic wastes recycling, bee keeping, mushroom growing, commercial tree growing, making briquettes as fuel from wastes and trainings are expected to engage the youths in such alternative livelihood options which will increase incomes that will be utilized to enhance production at household and community levels in addition to the operation of the vertical shaft brick kiln technology which will be manufacturing building bricks for sale a practice that is commercial in nature as well.

**Socially:** The project is designed to promote rights of the most vulnerable groups within communities and households by supporting them to engage in livelihood options that do not discriminate against cultural norms. The project is designed to promote governance and improved management of natural resources including land, water, forests, grass, soil and wind by proposing to capacitate the grass root resource management leadership frame works and engagement of key stakeholders. Also, the project interventions are geared towards improving the capacity of resource poor women, youth and people with disabilities by establishing, managing and benefiting from nature-based solutions without any form of discrimination. The memorandums of understanding between struggle against poverty and relevant partners like district environment office, ministry of water and environment, national forest authority, Iganga district commercial office, village and sub-county leadership will enhance social cohesion. Additionally, the trainings on gender roles and responsibilities, conflict sensitivity, accountability, managerial skills, group dynamics, conflict management, managing information, forest policies and other policies governing



other natural resources among others will all contribute to social cohesion, reduced conflicts, strengthened governance and leadership for natural resources and people.

**Environmentally.** The project supports acquisition of assorted machinery like clay cutters, clay carriers, clay compressors, clay mixer which are locally made from Uganda for the operationalization of the vertical shaft brick kiln technology. This technology does not lead to land expansion, emissions of any kind. Ecosystem restoration activities for wetlands, river banks and reforestation of degraded forest areas will be supported. Furthermore, nature-based solutions will be promoted. Therefore, beneficiaries will have adequate quantity and quality water for domestic use, wetlands restored, floods control will be improved, soil control especially in sloping areas will be reduced replenishment of ground and surface water sources achieved. In posterity, community members will be able to realise benefits in form of improved land productivity for crop and livestock leading to higher income, reduced greenhouse gas emissions and improved food security. Therefore, such proposed interventions will not only ensure water and food secure communities but also increasing resilience of the ecosystems, biodiversity and human populations against floods, erosion and pollution or contamination of water and soil resources in the project area. Although most of the project activities comply with all the relevant National and laws, regulations and standards as well as the relevant international laws and regulations, activities like 1.1 under component one that will involve acquisition of assorted machinery as well as Activities 3.1 under component three involving undertaking Income Generating Activities (IGAs) like bee keeping, commercial tree nurseries, Mushroom growing, that may require Environment Impact Assessment (EIA) depending on the size and the location of their implementation to determine their impacts and to comply with national and international standards, laws and regulations. However, for the identified project activities there is no need for mitigation measures since they generate no risks. In situations where, access and ownership of land and other related resources including finance is limited for Women, youth and other vulnerable groups and this may limit their participation, opportunities and benefits from project activities especially agricultural based activities and those that need reasonable amounts of money to start up like IGAs. Issues and proposed actions specific to each group have been captured and incorporated in the design of the project to 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 without discrimination. Overall, to mitigate negative impacts of the interventions highlighted among others in compliance with Adaptation Fund Environmental and Social Impact Assessments, Gender analysis supported by a complete gender action plan as well as a grievance redress mechanism have been undertaken into account. In order to sustain the benefits to vulnerable groups in the targeted communities, the project-monitoring plan as well as the Grievance mechanism shall incorporate gender equity and women empowerment issues for follow up during project implementation and ensure that project reports provide and emphasize gender-segregated data.

**C. Describe how the project encourages or accelerates development of innovative adaptation practices, tools or technologies and/or describe how the project helps generate evidence base of effective, efficient adaptation practices, products or technologies, as a basis for potential scaling up.**

The vertical shaft brick kiln technology operationalization will employ a hybrid model for its sustainability. This will be achieved through a commercial wing. In short, the project will produce much needed clay products which will be on very high demand not only in Iganga district but in Uganda as whole to support the construction industry. In order to scale this innovation, this project will employ a mix of donor/private/philanthropic and commercially generated funds. From the original vertical shaft brick kiln, there will be sales part of which will be used for scaling up. Aware that the target area is very large, it is necessary to obtain funding from donors and from the private sector. The project will generate its revenue from the nature-based solution products and sale of products from vertical shaft brick kiln technology like building bricks, floor tiles, decorative grilles, roofing tiles, walling and partitioning blocks, suspended floor units, maxi pans and facing bricks that are constantly on high demand. The revenue model is quite simple. It will involve the production of very good quality bricks and other products at a very minimal cost. The people of Iganga district and the neighbouring districts will feel proud of and will identify with the products as they will see them as 'their own'. In marketing, this cultural loyalty is very important and will boost the sales and therefore income of the project. Private property developers and educational institutions will be the main customers of this project. Struggle Against Poverty assumes that the demand for these products will rise based on their excellent quality and they will be affordable to customers as they will be locally made. Furthermore, the nature-base solutions will lead to increased economic security and less reliance on climate-sensitive activities.

**D. Please confirm whether the project meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and is in line with the Environmental and Social Policy of the Adaptation Fund.**

The project is expected to contribute to the various relevant National technical standards and policies; including the Uganda Vision 2040 whose goal is to transform Uganda from a predominantly peasant and low-income country to a competitive upper middle-income status country by 2040. It provides the overall leadership and policy direction for job creation and priority setting. The Uganda Vision 2040 sets out to the country's commitment for efforts to attain a green and clean environment. The project contributes to the Kyoto Protocol an international treaty which extended the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits state parties like Uganda to reduce greenhouse gas emissions, based on the scientific consensus that (part one) global warming is occurring and (part two) that human-made CO<sub>2</sub> emissions are driving it. The project strives to contribute to Uganda's vision 2040 and the Kyoto protocol, by creating clean and green jobs for the youths of Iganga and at the same time reduce carbon emissions through the operationalization of the vertical shaft brick kiln technology. The project contributes to Social Development Goals (SDGs) specifically SDG 1, 13, 15 and 17 that aim at eliminating poverty, climate action life and land, and promoting partnerships for developing the knowledge base and effective capacity development, Environment and social policies which the projects alludes to. The project is in line with the

Climate Change Policy (NCCP) 2015. The country recognizes that climate change is one of the greatest challenges facing humanity. The overarching policy objective is to ensure that all stakeholders address climate change impacts and their causes through appropriate measures, while promoting sustainable development. The project contributes to the Uganda NDC Partnership Plan For Climate Action 2018. The five priority areas for Uganda identified in its NDC Partnership Plan are: strengthened operational and gender-responsive policy and institutional frameworks for the effective governance of climate change; increased climate financing for planning and budgeting on the national and local levels; effective and institutionalized measurement, reporting and verification (MRV) systems to monitor greenhouse gas emissions and gender-responsive adaptation measures; strengthened capacity of government officials, civil society, the private sector and academia to effectively integrate NDC with gender lens. The National Environment Management Policy 1995. The National Environment Management Policy sets out the overall policy goals, objectives and principles for environmental management in Uganda. Its overall goal is sustainable social and economic development, which maintains and enhances environmental quality and resource productivity to meet the needs of present generations without compromising the ability of the future generations to meet their own needs. It recognizes that Uganda faces a number of environmental issues including: soil degradation, deforestation, loss of biodiversity, increasing pollution and environmentally related diseases. These problems are compounded by poverty, low amounts of environmental awareness and low levels of technology. The policy recognizes climate as a 'vital natural resource' that needs to be monitored in order to better direct land use, encourage sustainable economic development, and manage air pollution, and GHG emissions future programs; and accelerated project financing for NDC implementation. All the project components 1, 2, and 3 are in line with the objectives of this overarching policy. The National Forest Policy 2001. The key issues addressed by the Forestry policy include maintenance and enhancement of the Permanent Forest Estate, improve the management of forest resources on private and customary land, address the underlying causes of deforestation, including lack of policy support, market failure, weak regulation and rural poverty, capitalize on the economic, social and environmental opportunities in forestry without undermining the resource base, ensure the survival of forest biodiversity and to balance this with the pressing development needs of the country, how to rehabilitate and conserve key watershed forests, how to promote and maintain the greening of the urban environment, as well as ensuring improved tenure to land and trees that acts as an incentive for individuals, and women in particular, and communities to invest in forestry among others. Forestry plays a very important role in enhancing the resilience of ecosystems and some of the activities under component 3 are confirmed to be in line with this policy. Both men and women will participate and benefit from the project outcomes. In this regard the Uganda National Gender Policy 2007 as an integral part of the national development policies. is a framework for redressing gender imbalances as well as a guide to all development practitioners. The project is gender sensitive, as it emphasis and recognizes "gender" as a development concept useful in identifying and understanding the social roles and relations of women and men of all ages, and how these impact on development. This is applicable to all the three project components and efforts shall be made to ensure that all categories of people benefit from the project without discrimination. The National Environment (Noise Standards and Control) Regulations, 2003. Section 7 of these regulations requires that no person shall emit noise in

excess of permissible noise levels, unless permitted by a license issued under these Regulations. Section 8 imparts responsibility onto project developers to use the best practicable means to ensure that noise does not exceed permissible noise levels. This applies to sub-projects under components 1 and 3 that are confirmed to contribute to this specific regulation.

**E. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.**

The learning and knowledge management will involve a process of systematically documenting all aspects of the project implementation with a view to producing a prototype that will be appropriate, relevant and customized to the brick making needs and nature-based solutions in Iganga district in particular and Uganda in general. All the participants will be encouraged and supported to document the process of the project through writing, giving and receiving feedbacks, doing assessments, training, creating databases, performing demonstrations by comparing old and new technologies and nature based solutions, easy information package, creating clear channels of passing on information and audio-visuals; which will cater for all categories of the society namely literate, illiterate, and semi-literate. Furthermore, the learning and knowledge management will be characterized by developing a knowledge management strategy that will be revisited monthly to ensure that the strategy remains relevant and evolves the project objectives, rollout the knowledge management strategy through meetings and forums, foster broader knowledge sharing with relevant stakeholders, establish knowledge management team to promote engagement in the various knowledge management activities on a going basis with clear tasks and responsibilities as well as budget creation, publications, stories, videos, photo galleries, fact sheets will be developed, printed and disseminated in order to facilitate knowledge and achieve more exposure by sharing with relevant stakeholders, struggle against poverty website will be updated to serve as the primary knowledge engagement platform, social collaboration, use social media to openly share best practices. To achieve all these, there will be guiding principles like transparency, accountability, committed management participation and collaboration, flexibility and cost effectiveness all through.

**F. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project. Describe how the project will engage, empower and/or benefit the most vulnerable communities and social groups, including gender considerations, in line with the Environmental and Social Policy of the Adaptation Fund.**

More than 50,000 youths will have gainful alternative livelihood skills that do not destroy the environment. Deforestation will be reduced by 10% in Iganga district. Community organizing will be instituted with a view to revamp and revitalize the forests in Iganga district. An operational vertical shaft brick kiln demonstration site will be available in Bubogo B village of Namung'alwe Sub County of Iganga district, swamp reclamation will be eliminated in Iganga district. This will be done in partnership with relevant district authorities. District and Sub County local governments effectively enforce laws that protect the environment with a dynamic system of sharing ideas, plans and strategies with the other actors including communities. However, risks include:-

a)Willingness of the communities to change from their ‘traditional’ way of brick making and burning. We consider this a low level risk because the communities now recognize the high costs associated with one-time-use brick kilns which include: heavy demand of water, grass to cover green bricks and a lot of fire wood to fire the brick kilns. The vertical shaft brick kiln will be a very welcome innovation that the communities will aspire to have. A few will be hesitant yet this innovation will spread like a wild fire in the short to medium term. b) The rather high initial costs of establishing a vertical shaft brick kiln could lead to resistance from resource poor communities to change to the vertical shaft brick kiln technology from the traditional one-time-use brick kilns. It is estimated that a viable vertical shaft brick kiln costs about USD 35,000 to erect. Resource poor communities cannot afford such investment capital, aware that they may not even raise US\$ 800 annually. Struggle Against Poverty assesses this as a low level risk since the vertical shaft brick kiln was already put up with supported from The United Nations Development Programme (UNDP) under the global environment facility small grants programme. c) Lack of technical know-how in the operation and maintenance of the proposed technology. This is the reason for this proposal. With the support from The adaptation fund, Struggle Against Poverty assesses this as a low level risk factor that can be dashed by approval and funding from The adaptation Fund. d) Local politicians are reluctant to regulate the local brick making industry for a couple of reasons. Firstly, the unfounded fear that many young people will become unemployed. Secondly, because the politicians fear to lose their votes as a consequence of sanctioning regulations that put masses out of employment. Nothing can be further from the truth! The benefits of operationalizing the technology, in terms of environment, local employment, construction, industry, thus micro and macro economy, unity, peace and health in the community far outweigh the negative effects. In short, the introduction of technology and nature-based solutions will have wider multiplier benefits to the local and national economy in form of:

- Regular and all year round brick production which is not dependent on favourable weather as is the case presently. Thus more sales of high quality bricks resulting into more income for the brick makers. Hence, reduction in poverty levels. The Adaptation Fund - ESP requires that projects comply and respect the laws, people’s rights, gender equity, heritage, and biodiversity and environment management. Therefore, since most of the project activities have no adverse environmental and social impacts, the anticipated project impacts are few, reversible and can easily be mitigated

**G. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.**

The proposed project activities comply with full-cost of adaptation reasoning because are costs that are interpreted as “the costs associated with implementing concrete adaptation activities that address the adverse effects of climate change”, as specified in the OPG main text. This states that in the OPG annex 5 “the proposal should demonstrate that the project/programme activities are relevant in addressing its adaptation objectives and that, taken solely, without additional funding from other donors, they will help achieve these objectives.

Operationalization of a brick manufacturing technology that contributes to climate change adaptation: USD 95,000.

Traditional methods of brick making such as the “one- time use” brick kilns for burning of the building bricks, has damaged and continues to damage the environment by producing gross carbon emissions, claim arable and fertile soils, and encourages frequent cutting of

grass and trees. It is against this background that this project is proposing the support of acquisition of assorted machinery like clay cutters, clay carriers, clay compressors, clay mixer which are locally made from Uganda for the operationalization of the vertical shaft brick kiln technology. This technology does not lead to land expansion, emissions of any kind, Ecosystem restoration activities for wetlands, river banks and degraded forest areas will be saved. Additionally, the technology will be income generating to youths hence, improved livelihoods.

Training and information sharing: USD 50,000.

There is limited awareness and capacity on the risks and adaptation actions associated with the increasing frequency and intensity of environment abuses amongst stakeholders. Such limited capacity and awareness is not only leading to poor planning and responses to environment abuses but also impedes the ability of local communities and other stakeholder to cope and adapt to the impacts such as loss of assets, properties, lives, destruction of the general environment leading to ecosystem pollution and contamination thereby increasing waterborne diseases, water insecurity and food insecurity low incomes and limited livelihood options. Based on such challenges, the project will support knowledge management and awareness creation through documentation of good practices and lessons on environmentally friendly technologies, and best practices from project interventions will be generated, packaged and disseminated. The trainings, and information sharing component will allow generation, packaging and development of information materials on climate change adaptation.

Establishment of nature-based solutions for improved community livelihoods: USD 47,500.



The increase in the population and upcoming developments is triggering pressure on natural resources reflected in deforestation and ecosystems degradation such as degradation of wetlands for rice cultivation, brick manufacturing, 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, unsustainable crop farming practices, overexploitation of natural resources in Iganga district is rife. From the layout of the project, it will provide economic benefits by directly contributing to improving the alternative livelihoods and incomes of the community members. This is possible especially considering the key interventions like establishing nature-based solutions such as conservation of wetlands, afforestation, good agriculture practices, plastic wastes recycling, bee keeping, mushroom growing, commercial tree growing, and making briquettes as fuel from wastes are expected to engage the youths in such alternative livelihood options which will increase incomes that will be utilized to enhance production at household and community levels.

### **PART III: IMPLEMENTATION ARRANGEMENTS**

#### **A. Describe the arrangements for project / programme implementation.**

The overall project goal is Climate Change Adaptation through technology and nature-based solutions

The project implementation is arranged as below:-

<b>No</b>	<b>Organisation</b>	<b>Roles and Responsibilities</b>
1	Ministry of Water and Environment	 The accredited National Implementing Entity.  Oversee overall financial and monitoring aspects of the project

		<ul style="list-style-type: none"> <li>✚ Reporting of project consolidated results to the Adaptation Fund</li> <li>✚ Approval of project annual work plan and budget from the Executing Entity</li> <li>✚ Approval of annual financial and technical reports from the Executing Entity</li> <li>✚ Provide administrative and management support to the executing entity</li> </ul>
2	Struggle Against Poverty	<ul style="list-style-type: none"> <li>✚ The Executing Entity</li> <li>✚ Coordinate project management and implementation</li> <li>✚ Ensure that the project creates impact on the targeted beneficiaries</li> <li>✚ Project Monitoring and Evaluation</li> <li>✚ Ensure compliance of project interventions with the national frameworks</li> <li>✚ Prepare and submit quarterly, annual work plans and budgets to MWE.</li> <li>✚ Provide quarterly and progress reporting to MWE</li> <li>✚ Provide designated key personnel for coordination of project execution such as the Project Coordinator, Accountant and Monitoring, and Evaluation Officer</li> <li>✚ Ensure liaison on project activities among and between the MWE, target beneficiaries and key relevant key stakeholders</li> </ul>
3	Iganga District and Sub-county Environment and Commercial Offices	<ul style="list-style-type: none"> <li>✚ Participate in direct implementation of project interventions.</li> <li>✚ Participate in planning and implementation of project interventions</li> </ul>
4	Beneficiaries (Youths, Women, People with disabilities)	<ul style="list-style-type: none"> <li>✚ Participate in direct implementation of project interventions</li> </ul>

**B. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan.**














Struggle against poverty (SAP) will systematically utilize its integrated Monitoring, Evaluation, Accountability and Learning (MEAL) tool. This will enable improved inclusion of target beneficiaries through proactive participation in access and protection interventions from planning and reviews to a shared learning, information provision, feedback sessions and complaint redress mechanisms. Feedback loops will be strengthened between target beneficiaries, service providers and Struggle against poverty to collect, process and share information on the quality and relevance of the program

taking into account the needs of the targeted beneficiaries. Monthly reports: These shall outline the work accomplished in the preceding month, the work expected to be completed during the coming month, and where appropriate, comments and / or recommendations relating to any unforeseen conditions which may affect the progress or the quality of the work. These reports shall be for internal use only and their distribution shall be restricted to struggle against poverty. Quarterly reports: These will include summaries of the physical progress in project implementation with an explanation of variances from implementation targets. The Secretary General will prepare an annual summary report, based on information provided by other project implementation team. The report will clearly describe and assess each specific outcome and activity's progress against the overall aim and established work plan as well as provide an aggregate view of the project as a whole. Also, a database will be used to capture the details of beneficiaries and incomes or sales. During this program duration, the database will continuously be used to store, analyse and share knowledge. The Financial reporting as part of the project quarterly and annual progress reports will compare costs for actual activities for the current reporting period with the budget for the same period, and in the same currency. Evaluation of the project will be a continuous process. Internal evaluation arrangements for the project will be determined on a needs basis. The need to conduct internal evaluations will be discussed and agreed upon in project management meetings, and approved by the Secretary General. The review will generally be carried out by SAP team while the spot checks, mid and annual evaluation process of the project will be carried out jointly by SAP staff and its partners but spearheaded by the adaptation focal person from the ministry of water and environment.

**C. Include a simple results framework for the project proposal, including milestones, targets and indicators.**

Hierarchy of objectives	Indicators	Method of collection	Frequency of data collection	Person responsible	Frequency of reporting
<b>Overall Aim/Goal</b> Climate Change Adaptation through technology and nature-based solutions					
<b>Objective 1</b> Build community capacities to adapt energy efficient and carbon emission free technology for manufacturing of building bricks	<ul style="list-style-type: none"> <li>✚ 60% (30% women) adopt VSBK technology for brick making</li> <li>✚ Number of indirect beneficiaries (50% women)</li> </ul>	<ul style="list-style-type: none"> <li>✚ Training Reports with photos</li> <li>✚ Meetings with community members.</li> <li>✚ Articles in the local</li> </ul>	Daily	Secretary General	Monthly



	adopting VSBK technology for brick making.  %tage of greenhouse gas emission reduced.  Number of by-laws on VSBK technology adopted for brick making	Newspapers  IEC materials  Videos			
<b>Objective 2</b> To promote nature-based solutions for improved community livelihoods.	 Number of Market linkages identified for nature-based solutions  Number of youths adopting entrepreneur skills on conservation of wetlands, afforestation, good agriculture practices, plastic wastes recycling, bee keeping, mushroom growing, commercial tree growing, making briquettes as fuel from wastes, soil mulching	 Project implementation reports  Field visit reports  Interviews with local leaders and community members	Daily	Secretary General	Monthly
<b>Monitoring and Evaluation</b>					
Holding meetings with SAP community, staff and board members.	 4 meetings held with SAP staff, board and community members	 Minutes	Daily	Secretary General	Quarterly
Conduct joint project spot-checks	 At least 4 project joint spot visits conducted	 Spot visit Reports	Quarterly	Adaptation Focal Person	Quarterly

Mid-term evaluation	✚ One held in March 2023	✚ M and E Report	Bi-annual	Adaptation Focal Person	Bi-annual
Annual project evaluation	✚ One held in September 2023.	✚ M and E Report	Annually	Adaptation Focal Person	At Project end
Conduct financial audit of the project	✚ Unqualified audit report conducted	✚ Audit Report	Annually	Secretary General	At Project end
<b>Procurement of core administrative costs</b>					
Pay salaries to SAP staff	✚ Existence of reliable and committed SAP staff	✚ Staff contracts	Daily	Secretary General	Monthly

**D. Demonstrate how the project / programme aligns with the Results Framework of the Adaptation Fund. This is explained as per the reflections in the table below:-**

Project Objective(s) <sup>2</sup>	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Build community capacities to adapt energy efficient and carbon emission free technology for manufacturing of building bricks	<p>1.1 Proportion of youths and key stakeholders adapting VSBK technology as a climate change mitigation solution.</p> <p>1.2 Proportion of greenhouse gas emissions reduced</p> <p>1.3 Number of by-laws on VSBK technology adapted for brick making</p> <p>2.1 Number of Market linkages identified for nature-based solutions</p> <p>2.2 Number of youths adopting entrepreneur skills on</p>	<p><b>Outcome 3:</b>Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level people in targeted areas</p> <p><b>Outcome 6:</b>Diversified and strengthened livelihoods and sources of income for vulnerable people in</p>	<p><b>3.1.</b> Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses.</p> <p><b>3.2.</b> Percentage of targeted population applying appropriate adaptation responses</p> <p><b>6.1</b>Percentage of households and communities having more secure access to livelihood assets</p> <p><b>6.2.</b> Percentage</p>	

<sup>2</sup> The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

	nature-based solutions	targeted areas	of targeted population with sustained climate-resilient alternative livelihoods	
<b>Project Outcome(s)</b>	<b>Project Outcome Indicator(s)</b>	<b>Fund Output</b>	<b>Fund Output Indicator</b>	<b>Grant Amount (USD)</b>
1.1 Reduction of greenhouse gas emissions from the current traditional, energy inefficient and one time-use brick kilns 1.2 Regular employment among the youths	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,	<b>Output 2.1:</b> Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events	<b>2.1.1.</b> No. of staff trained to respond to, and adaptation impacts of, climate-related events (by gender)	95,000
2.1 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	<b>Output 3.1:</b> Targeted population groups participating in adaptation and risk reduction awareness activities <b>Output 3.2:</b> Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	<b>3.1.1</b> No. of news outlets in the local press and media that have covered the topic  <b>3.2.2</b> No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders	50,000
3.1 Enhanced ecosystem health	Proportion of ecosystems restored	<b>Output 5:</b> Vulnerable ecosystem services and natural resource assets	<b>5.1.</b> No. of natural resource assets created, maintained or improved to withstand	47,500

		strengthened in response to climate change impacts, including variability	conditions resulting from climate variability and change (by type and scale)	
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**E. Include a budget, including a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.**

Detailed Budget and timeframe	Unit	Budget		Timeframe			
		Unit Cost (US\$)	Amount (US\$)	Q1	Q2	Q3	Q4
<b>Component one: Operationalization of a brick manufacturing technology that contributes to climate change adaptation</b>							
Activity 1.1. Development of VSBK technology training manual	Annually	2,500	2,500	x			
Activity 1.2 Training youths and key stakeholders in VSBK technology construction and operations	Annually	4,500	4,500	x			
Activity 1.3. Acquire assorted VSBK Machinery (Clay cutters, clay carriers, clay mixer, clay compressor and second hand clay transportation truck)	Assorted	61,000	61,000	x			
Activity 1.4 Procure a piece of clay land deposits and certifications fees	Annually	25,500	25,500	x			
Activity 1.5. Engage relevant sub-county and district leadership on formulation of by-law(s) on VSBK technology adaption	Quarterly	500	1,500		x	x	x
<b>Sub-Total</b>			<b>95,000</b>				
<b>Component two: Training and information sharing</b>							
Activity 2.1. Support exchange visits for information sharing and cross-learning of innovative climate change adaptation interventions	Monthly	1,500	4,500		x	x	x
Activity 2.2. Organize learning forums on climate change adaptation	Quarterly	3,000	9,000		x	x	x
Activity 2.3. Document lessons and good practices on climate change adaptation and disseminate for replication and up-scaling	Monthly	1,000	12,000	x	x	x	x
Activity 2.4. Develop, print and disseminate various IEC materials on climate change adaptation measurers	Annually	24,500	24,500		x		
<b>Sub-Total</b>			<b>50,000</b>				

<b>Component three: Establishment of nature-based solutions for improved community livelihoods</b>							
Activity 3.1. Train youths in 8 nature-based solutions (conservation of wetlands, afforestation, good agriculture practices, plastic wastes recycling, bee keeping, mushroom growing, commercial tree growing and making briquettes as fuel from wastes)	Quarterly	6,750	13,500	x	x		
Activity 3.2. Procure necessary tools to establish 8 nature based solutions identified in 3.1 above	Annually	25,000	25,000	x			
Activity 3.3. Facilitate the identification of market for products from the 8 nature-based solutions identified in 3.1 above	Quarterly	3,000	9,000		x	x	x
<b>Sub-Total</b>			<b>47,500</b>				
Project staff salaries for Secretary General, Monitoring & Evaluation Officer and Accountant for 12 months	Quarterly	7,500	30,000	x	x	x	x
<b>Sub-Total</b>			<b>30,000</b>				
Monitoring, Auditing and operation Costs	Lump Sum	Lump Sum	3,750		x		x
<b>Sub-Total</b>			<b>3,750</b>				
<b>Total Executing Entity Costs</b>							
Management Costs for the implementing Entity	Lump sum	Lump sum	23,750	x	x	x	x
<b>Sub-Total</b>			<b>23,750</b>				
<b>Grand-Total</b>			<b>250,000</b>				

**F. Include a disbursement schedule with time-bound milestones.**

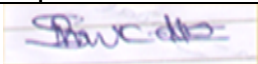
<b>Milestones</b>	<b>Disbursement schedule</b>	<b>Amount in %ages</b>
A Notification of Project Start	September 01, 2022	90%
A Project Monitoring Report 1	March 30, 2023	5%
A project Monitoring Report 2	September 30, 2023	5%
<b>Total</b>		<b>100%</b>

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

**A. Record of endorsement on behalf of the government<sup>3</sup>** *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:*

<i>James Kaweesi, Adaptation Fund Focal Person- Ministry of Water and Environment Email: jkaweesi11@gmail.com</i>	<i>Date: January, 27, 2022</i>
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**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 (capacity strengthening for adaptation to climate change, strengthening gender considerations ..list here.....) and subject to the approval by the Adaptation Fund Board, <u>commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund</u> and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
	
Mukaire Rashid, Implementing Entity Coordinator	
Date: January 27, 2022	Tel. and email: Apstruggle@gmail.com
Project Contact Person: Mukaire Rashid	
Tel. And Email: +256752105725	

1 Climate Service Center Germany (2015). Climate-fact-sheet. Uganda. Updated version 2015.[http://www.climate-service-center.de/products\\_and\\_publications/fact\\_sheets/climate\\_fact\\_sheets/index.php.en](http://www.climate-service-center.de/products_and_publications/fact_sheets/climate_fact_sheets/index.php.en)

2 Uganda Climate Action Report, 2016. Resilience and Economic Inclusion Team. Irish Aid 2017.

3 Anonymous 2021. <https://climateknowledgeportal.worldbank.org/country/uganda/climate-data-projections?variable=p>

<sup>6</sup>. 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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In any correspondence on  
This subject please quote No. ALD 141/221/01



Ministry of Finance, Planning &  
Economic Development,  
P.O Box 8147  
Kampala, Uganda

4<sup>th</sup> October 2022

The Adaptation Fund Board  
C/o Adaptation Fund Board Secretariat  
Email: [secretariat@Adaptation-Fund.org](mailto:secretariat@Adaptation-Fund.org)  
Fax: 202 522 3240/5

**ENDORSEMENT FOR A PROJECT PROPOSAL: CLIMATE CHANGE  
ADAPTATION THROUGH OPERATIONALIZATION OF VERTICAL  
SHAFT BRICK KILN TECHNOLOGY IN IGANGA DISTRICT**

I have the honor to refer to your call for proposal under the Small Grant project proposals to support innovations and enhanced direct access.

With the support of the Struggle Against Poverty, Uganda has developed a project proposal aimed at building community capacities to adapt to manufacturing of energy efficient and carbon emission free building vertical shaft brick kiln.

The Project aims at:

- 1) Operationalizing of a brick manufacturing technology that contributes to climate change adaptation;
- 2) Knowledge management and information sharing system development; and
- 3) Establishment of nature-based solutions for improved community livelihood

In my Capacity as the appointing Authority of the Designated Authority for the Adaptation Fund in Uganda, I confirm that the above project proposal is in accordance with the National Climate Adaptation Priorities of the Government of Uganda.

**Mission**

*"To formulate sound economic policies, maximize revenue mobilization, ensure efficient allocation and accountability for public resources so as to achieve the most rapid and sustainable economic growth and development"*

Accordingly, I am pleased to endorse this project proposal for support from the Adaptation Fund. If approved, the project will be executed by the Struggle Against Poverty and Implemented by the Ministry of Water and Environment.



Henry Musasizi (MP)

**MINISTER OF STATE FOR FINANCE, PLANNING AND ECONOMIC DEVELOPMENT (GENERAL DUTIES) ALSO HOLDING THE PORTFOLIO FOR MINISTER OF FINANCE, PLANNING AND ECONOMIC DEVELOPMENT**

Copy:     -The Permanent Secretary/ Secretary to the Treasury  
              -The Permanent Secretary, Ministry of Water and Environment

*Mission*

*"To formulate sound economic policies, maximize revenue mobilization, ensure efficient allocation and accountability for public resources so as to achieve the most rapid and sustainable economic growth and development"*