



ADAPTATION FUND

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

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



## ADAPTATION FUND

# PROGRAMME ON INNOVATION: SMALL GRANT PROJECT PROPOSAL

## PART I: PROJECT INFORMATION

Country:	Uganda
Title of Project:	Enhancing resilience to climate-induced flooding and drought through the deployment of a water-filled barrier
National Implementing Entity:	Ministry of Water and Environment Uganda
Executing Entity/ies:	Ministry of Water and Environment Uganda
Amount of Financing Requested:	250,000 U.S. Dollars

### Project Background and Context:

1. Uganda is a landlocked country that occupies a total area of 241,038km<sup>2</sup>. Agriculture is a critical part of Uganda's economy; it accounts for 25.8% of Gross Domestic Product (GDP)<sup>1</sup>, employs 72% of the population<sup>2</sup> and accounts for over 50% of total export<sup>3</sup>. Half of the agricultural labour force is female farmers, focusing mainly on their families' food security rather than the production of cash crops. 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.<sup>4</sup> Average daily temperature is around 28°C, but varies with altitude (temperatures can reach 0°C in the highlands).<sup>5</sup> Uganda faces several developmental constraints, including high population growth (3.3%), post-conflict conditions in the north, soil erosion and degradation, and pernicious impacts of malaria and HIV/AIDS.
2. Due to Uganda's poverty, low rural incomes, lack of income diversity and heavy dependence on rainfed-agriculture, the country and its people are very vulnerable to climate change. Uganda is the 14th most vulnerable country and the 48th least ready

<sup>1</sup> <https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS>

<sup>2</sup> <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS>

<sup>3</sup> CIA (2015). The World Factbook – Uganda. Available via <https://www.cia.gov/library/publications/the-world-factbook/geos/ug.html>

<sup>4</sup> Draws heavily from: Uganda Climate Change Findings, USAID, ARCC brief, 2013 <https://www.climatelinks.org/resources/uganda-climate-change-vulnerability-assessment-report> and USAID Climate Change Adaptation Plan, June 2012 <https://www.usaid.gov/sites/default/files/documents/1865/Agency%20Climate%20Change%20Adaptation%20Plan%202012.pdf>

<sup>5</sup> 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)

country – meaning that it is very vulnerable to, yet unready to address climate change effects.<sup>6</sup>

### **Impact of climate change**

3. Changes in sea surface temperatures in the distant tropical Pacific, Indian and Atlantic Oceans strongly influence annual rainfall amounts and timing in Uganda. Year to year variations in annual rainfall can be considerable, and the onset of seasons can shift by 15 to 30 days (earlier or later). In some locations, the length of the rainy season can also change by 20 to 40 days from year to year. Rising temperatures and shifting or increasingly unpredictable rainfall patterns can reduce the amount of agricultural land, shorten growing seasons, hamper crop production, undermine the water resources and alter the occurrence and distribution of pests.
4. The warming trend is projected to continue with some models projecting an increase of more than 2°C by 2030. A warming ranging between 1.4°C and 4.2°C is projected for the end of the century.<sup>7</sup> 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. 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.
5. If temperatures rise and the frequency and intensity of extreme droughts and floods increase, it can reduce crop yields and cause a loss in livestock, which will have important implications for food security. The increase in rain during dry seasons could have a significant impact especially on perennial crops and post-harvest activities such as drying and storage. An overall decrease in the predictability of rainfall intensity and onset of the rainy season increases the chance of crop failure.
6. It has been suggested that climate change significantly contributes to conflicts in Uganda. It is anticipated that as extreme weather events, e.g. floods and droughts, become more frequent due to climate change there will be an increasing risk for conflicts, potentially also due to rising food prices.

### **Project Objectives:**

7. The overall goal of the project is to increase the resilience of communities to the risk of floods and droughts at the Obongi district through the deployment of a scalable water-filled barrier to prevent flooding and simultaneously store and harvest water.

The specific objectives of the project are to:

---

<sup>6</sup> GAIN index summarizes a country's vulnerability to climate change and other global challenges in combination with readiness to improve resilience. <http://index.gain.org/country/uganda>

<sup>7</sup> 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)

- Increase the resilience of people, ecosystems and agricultural landscapes by developing and implementing a flood and drought response strategy / process that centers around the innovative SLAMDAM-technology.
- Generate awareness and capacity building of stakeholders at different levels of society on techniques and processes to mitigate the risk of floods and drought.
- Validate the SLAMDAM-technology, being a water-filled flood barrier, as an innovative climate adaptation measure that can be scaled-up across Uganda.

## **Project Components and Financing:**

8. The project, with its three components, will combine both policy and practice for resilience to climate change at national and local community levels. The project components include:
  1. Assessment of flood and drought risk profile and the development of the framework and SLAMDAM-technology to manage the identified risks
  2. Building climate change adaptive capacities of institutions and communities and managing knowledge
  3. Promoting the SLAMDAM-technology as an effective climate-resilient measure

Table 1 shows components and expected outputs of the proposed project.

**TABLE 1: PROJECT COMPONENTS AND FINANCING**

<b>Project Components</b>	<b>Expected Outcome</b>	<b>Expected Concrete Outputs</b>	<b>Amount (US\$)</b>
1. Assessment of flood and drought risk profile and the development of the framework and technology to manage the identified risks	1.1 Thorough identification and understanding of the flood and drought risks of the Obongi District	1.1.1 Single source of critical infrastructure, agricultural landscapes, housing etc. at the Obongi District that are at risk of flooding	3,600
		1.1.2 Flood and drought risk assessment at the Obongi District	11,400
		1.1.3 Centralized flood and drought monitoring plan to include the SLAMDAM-technology	3,600
	1.2 Flood and drought risks are managed following an appropriate flood and drought response strategy and framework	1.2.1 Flood and drought response strategy for the Obongi District to include the SLAMDAM-technology	11,700
		1.2.2 Flood and drought response framework (plan, processes and governance structure) for the Obongi District to include the SLAMDAM-technology	11,700
	1.3 Flood and drought risks are managed at the Obongi District using the developed SLAMDAM-technology	1.3.1 Design of the SLAMDAM-technology is to manage the identified flood and drought risks at the Obongi District	6,000
		1.3.2 Manufactured water-filled barriers are in accordance with the pre-defined specifications	72,000
		1.3.3 Stored mobile flood barrier in Uganda	10,000
	2. Building climate change adaptive capacities of institutions and communities and managing knowledge	2.1 Upskilled community having an increased understanding of the root cause and impact of climate change	2.1.1 Attended workshops on climate change by local communities and other stakeholders
2.2 Adaptive capacity of communities and other stakeholders to climate change impacts by using the SLAMDAM-technology strengthened			3,600
2.2 Adaptive capacity of communities and other stakeholders to climate change impacts by using the SLAMDAM-technology strengthened		2.2.1 Customized training material and program for stakeholder involved in flood response at the Obongi District	7,500
		2.2.2 Well-trained flood response team, and other stakeholder, on how to adapt to climate change using the SLAMDAM-technology	7,500
3. Promoting the SLAMDAM-technology as an effective climate-resilient measure	3.1 Strengthened adaptation benefits mechanism for climate resilient technology	3.1.1 Comprehensive adaptation benefits methodology	18,000
		3.1.2 Monitoring and evaluating plan	6,000
	3.2 Increased resilience to floods and droughts using a scalable innovative climate adaptive solution	3.2.1 Dry run demonstration of the scalable technology held by trained local flood response team	10,000

		3.2.2 Real-life demonstration of the innovative technology during a real-life flood situation at the Obongi District	2,500
		3.2.3 Ex-post benefit analysis of the real-life demonstration	15,600
		3.2.4 Scale-up plan technology Uganda including ex-ante benefit analyses for other areas across Uganda	16,800
4. Project Execution cost			15,393
5. Total Project Cost			235,393
6. Project Cycle Management Fee charged by the Implementing Entity (if applicable)			15,393
<b>Amount of Financing Requested</b>			<b>~250,000</b>

## Projected Calendar:

*TABLE 2: PROJECT CALENDAR*

Milestones	Expected Dates
Start of Project Implementation	September 2021
First Quarter Review	December 2021
Mid-Term Review	March 2022
Third Quarter Review	June 2022
Project Closing	September 2022
Terminal Evaluation	September 2022

### A. Adaptation measures and contributions to climate resilience.

9. The proposed adaptation measures by the project and their contribution to climate resilience are described below against the three components of the project.

**Component 1:** Assessment of flood and drought risk profile and the development of the framework and technology to manage the identified risks

#### ***Adaptation element***

- Adaptation to drought through water management
- Adaptation to floods through flood risk management

#### ***Increases resilience and decreases vulnerability***

- Information about flood and drought risks at the Obongi District
- Availability of a flood and drought response strategy and framework
- Availability of the SLAMDAM-technology in Uganda to manage flood and drought

**Component 2:** Building climate change adaptive capacities of institutions and communities and managing knowledge

#### ***Adaptation element***

- Adaptation to flood & drought through knowledge and capacity building

#### ***Increases resilience and decreases vulnerability***

- Improved awareness of communities on causes and impacts of climate change
- Skilled team knowing how to use the technology to adapt to flood and drought
- Gathering best practices and lessons learned for dissemination

**Component 3:** Promoting the SLAMDAM-technology as an effective climate-resilient measure

#### ***Adaptation element***

- Adaptation to flood and drought through the rapid deployment of an effective scalable climate-resilient solution across Uganda / Africa

#### ***Increases resilience and decreases vulnerability***

- No or less damage to people, crops, livestock, infrastructure caused by floods
- Improved water availability in times of drought
- Proven effective climate-resilient solution that can be scaled-up across Uganda
- Information about where to scale-up SLAMDAM across Uganda

---

<sup>8</sup> Parts II and III should jointly not exceed 10 pages.

## **B. Economic, social and environmental benefits of the project**

10. The project will enhance the communities' resilience to flooding and drought. It is anticipated that the community members will directly benefit in terms of better health, security, food security, access to transportation and employment creation which form the base for poverty alleviation in terms of shared prosperity and financial stability. People growing crops will benefit from this project; their crops are protected from floods and can be inundated in times of drought.
11. Women and youth will benefit most, because their safety and access to health care, education and economic activities is impacted most by flooding. The project will improve the livelihood of the local women through trainings and access to livelihood sources and health care. It will also improve the access of youth to education.

### **Economic benefits of the project**

- The project will prevent displacements of people needed to run the economy
- The SLAMDAM-technology will prevent loss crops and livestock
- The project will reduce damage to transportation such as the ferry to Adjumani
- The project will safeguard, often female-held, businesses from being flooded

### **Environmental benefits of the project**

- Biodiversity (incl. livestock) can flourish despite of floods and drought
- The agricultural landscape will not suffer foresee in food security
- The ecological system of the Obongi district will less impacted by climate change

### **Social benefits of the project**

- People, and women and children in particular, have better access to health care
- Improved food security leads to less diseases and less conflicts
- There will be better access to roads, homes and infrastructure (incl. schools)
- The nearby Palorinya refugee settlement camp will be protected from floods

## **C. Accelerating development of innovative adaptation solutions**

12. The newly developed SLAMDAM-technology is an innovative and low-cost technological solution to enhance resilience against floods and droughts. This technology, being a water-filled flood barrier, is highly scalable and is officially recognized as an effective solution by the Government of The Netherlands, The World Bank and the African Development Bank Group. By using this technology, awareness is created about the impact of climate change and the availability of measures to reduce these impacts. The innovation process allows for rapid scale-up of the technology across Uganda.



### **Innovation process and the outcome of the process**

- The technology will be developed to reduce the impact of (climate-induced) floods or drought meeting the local specific requirements.
- A demonstration of the technology will be held when there is no real-life threat of flooding. Financial donors and other stakeholders will attend the demonstration.
- An adaptation benefits mechanism will be developed to measure the impact of using the SLAMDAM-technology.
- An ex-post benefit analysis of the real-life demonstration will serve as evidence of the benefits / effectiveness of the technology.
- Ex-ante benefit analyses will be made to prove to (international) donors what the benefits are in relation to the required investment i.e. cost-benefit analysis.

### **Scalability**

- The technology is highly scalable due to its material and design. The mobile flood barrier is highly flexible and UV-resistant. The dams can store vapor-tight and can be used between temperatures of minus 35°C and plus 120°C. These characteristics allow for the technology to be used in a wide variety of conditions.
- The technology can be customized to meet local specific requirements
- The Government of The Netherlands has already expressed a willingness to support the roll-out of the SLAMDAM-technology across Uganda.

## **D. Consistency with Uganda's standards, strategies and plans**

13. The technology is made out of EPDM (Ethylene Propylene Diene Monomer), which is a synthetic rubber which is commonly used all over the world including Uganda. The product has a lifespan of 40+ years after which it is 100% recyclable.

### **Standards and Certifications**

- The technology is the only one in its kind that is TUV-certified.
- The SLAMDAM-technology has an ISO 9001 and ISO 14001-Certification
- The product is a highly environmentally friendly solution demonstrated by the granted Sustainability Certification and EPDM Durability Certification.

### **The project aligns with Uganda's National government strategies and policies**

- The project aligns with the *National Adaptation Programme of Action (NAPA)* of Uganda, which has prioritised the "Water for Production Project" and the "Drought Adaptation Project".
- The project aligns with the *Nationally Appropriate Mitigation Actions (NAMAs)* of Uganda that aims to enhance the production in agriculture. The technology helps control water availability and protect agricultural landscapes.
- This project also aligns with *The National Development Plan III (NDPIII, 2010-2025)*. The climate-resilient technology can contribute to this national plan that aims to improve climate-proof national development.

- This project contributes to *The National Vision 2040* of Uganda that prioritizes appropriate adaptation strategies, knowledge and information sharing on climate change and improved M&E regarding climate change intervention.
- The project is also aligned with Uganda's *Climate Change Policy* that aims to strengthen prediction and monitoring of climate change, supports integration of climate change issues in planning, decision-making and investments, and facilitates mobilization of financial resources to address climate change. This small-scale project demonstrates the effectiveness of the climate-resilient technology and implements an adaptation benefits mechanism to mobilize funds.
- The project is aligned with Uganda's *Nationally Determined Contributions (NDC)*. Uganda's focus is on climate adaptation and prioritizes the following sectors to which this project can effectively contribute: i) agriculture and livestock, ii) infrastructure, iii) water, iv) health and v) disaster risk management. The multi-purpose technology has a positive impact on the different sectors.

14. All these policies point to the implementation of several strategies, such as the management of water resources and protection from natural disasters.

15. The project will meet the environmental and social principles described in the latest Environmental and Social Policy of the Adaptation Fund.

## **E. Learning and knowledge management strategies of the project**

16. The project has considered capacity building and knowledge management and learning as one of its main components. The learning transfer model used consists in a combination of a "learning by doing" and a "learning by seeing" method. Lessons from project implementation will be properly documented and shared among stakeholders. The Obongi District will be used as a demonstration site for others to learn from experiences of the project.

### **Local knowledge capture and dissemination:**

- The project will enable onsite (learning) visits where the technology is stored and where they might be deployed in case there is a threat of flooding.
- The project will send reports to regions / communities that face similar challenges
- The project will teach local stakeholders how to monitor report and verify benefits from using the technology following a standardized process for Uganda.
- The project will develop a clear framework and governance structure specifying the roles and responsibilities of the people involved incl. communication lines.

### **National and international knowledge capture and dissemination:**

- The project will explore opportunities for collaboration with other countries that use the technology to share knowledge and experience.
- The project will share knowledge with national institutions such as researchers and governmental bodies involved in climate adaptation
- The project uses Adaptation Fund Community of Practice for knowledge share

- The project will hold a closeout seminar to present results and lessons learned

## F. The environmental and social impacts and risks of the project

**TABLE 3: ENVIRONMENTAL AND SOCIAL RISKS**

<b>Environmental and social principles</b>	<b>Assessment carried out</b>	<b>Potential impacts and risks</b>
<b>Compliance with the Law</b>	The program complies with the relevant national laws, regulations and policies; and complies with the country's relevant legal framework for water management and use, environmental protection and local rural development.	<b>Risk:</b> Very low <b>Potential impact:</b> High According to Environmental Impact Assessment (EIA) Regulation and Sectorial EIA Guidelines of Uganda most of the activities of the proposed project do not fall within the First Category of projects that require full EIA.
<b>Access and Equity</b>	The intervention logic of the project is to provide benefits in the most vulnerable communities, with fair and equitable access to activities, equipment, resources, and training throughout the planning and execution phases.	<b>Risk:</b> Low <b>Potential impact:</b> High Reducing access and equality would be detrimental to the project. The project will monitor the targeting of all beneficiaries to assure equal access of men, women youth and the most vulnerable.
<b>Marginalized and Vulnerable Groups</b>	The program focuses on marginalized and vulnerable groups and aims to help them improve their living conditions and quality of life.	<b>Risk:</b> Low <b>Potential impact:</b> Very high Marginalised communities must be protected, the project observes environmental and social safeguards.
<b>Human Rights</b>	Activities are in line with the established international human rights. Project objectives promote basic human rights for equitable access to service and water for irrigated agriculture and capacity building incl. access to information.	<b>Risk:</b> Very Low <b>Potential impact:</b> Very high All program activities within the framework of international and national human rights.
<b>Gender Equality and Women's Empowerment</b>	The activities of the project are oriented to promote a fair and equal access of men and women. The project promotes equal participation in decision-making processes by assuring women representation in flood and drought management activities.	<b>Risk:</b> Low <b>Potential impact:</b> Very high All project activities have been screened and analysed in order to take gender aspects into consideration. An in-depth gender analysis of the involvement of men and women will be undertaken in the initial project phase.
<b>Core Labour Rights</b>	The project respects the labour standards as identified by ILO.	<b>Risk:</b> Low <b>Potential impact:</b> Very high All project members must learn of and adhere to the practical ILO steps and follow the Ethical Trade Initiative guide.
<b>Protection of Natural Habitats</b>	The protection of wetlands and its natural habitats and bio diversity is a core objective of the project.	<b>Risk:</b> Low <b>Potential impact:</b> Very high During the implementation of all the activities related to protection and management of ecosystems shall be closely monitored to evaluate if the

		expected impact is achieved or if any unexpected negative side effects turn up.
<b>Conservation of Biological Diversity</b>	As per above	As per above
<b>Climate Change</b>	The project does not only increase the adaptation capacity of the local population and the resilience of the ecosystems, but also improves water availability for times when there is drought.	<b>Risk:</b> Low <b>Potential impact:</b> Very high The project will test and demonstrate the innovative technology and its climate adaptation potential. Indicators in this regard are included in the MRV-plan.
<b>Pollution Prevention and Resource Efficiency</b>	The project will contribute to efficient use of water and prevention of water pollution. Furthermore, the project will maximize resource availability.	<b>Risk:</b> Low <b>Potential impact:</b> High The project will help control water availability and therewith improve resource accessibility.
<b>Public Health</b>	The project will not have negative impacts on public health. On the contrary the project will contribute to improve health conditions of the communities by reducing water-borne diseases, improving living environment (healthy surroundings).	<b>Risk:</b> Low <b>Potential impact:</b> High The project will improve health conditions for the population; indicators in this regard are included in the MRV-plan
<b>Physical and Cultural Heritage</b>	The project will not have any activity related to affecting physical and cultural heritages.	

## G. Justification for funding requested

17. Assessments of indicate that the economic costs of climate change in Uganda could equal an annual loss in GDP of ~1.5-3% by 2030 under a business-as-usual scenario. In Uganda, climate change, water-related disasters, such as floods, landslides, windstorms and hailstorms, contribute well over 70% of the natural disasters and destroy annually an average of 800,000 ha of crops, resulting in economic losses of U Sh120 billion.
18. The budget requested for this project is US\$ 250,000. It is fully funded by the Adaptation fund to ensure all support is funnelled into the adaptation innovation.
19. The project targets building adaptive capacity and enhancing climate resilience of local communities through implementing concrete adaptation actions. The adaptation activities do not only increase the resilience of ecosystems and agricultural productions systems to the risk of floods, but also enhance the food security and the livelihoods in the Obongi District. (See section B for the benefits). The future benefits of carrying out this project are: i) economic prosperity, ii) improved health conditions, iii) higher level of education and iv) improved livelihoods.
20. Without the funding of the Obongi District's resilience to floods and access to water may remain transient, causing food shortages to vulnerable communities and agricultural landscapes. The Dutch Government has expressed willingness to support further scale-up but only when the project has been completed successfully.

## PART III: IMPLEMENTATION ARRANGEMENTS

### A. Project management arrangements

21. The project will be implemented by the Ministry of Water and Environment (Uganda) and executed by the Oxfam Novib in close collaboration with key stakeholders such as the participating local governments.

22. The role of the Ministry of Water and Environment (Uganda) as the implementing entity of the project is to bear responsibility for the overall management of the projects financed by the Adaptation Fund, incl. the monitoring and reporting.

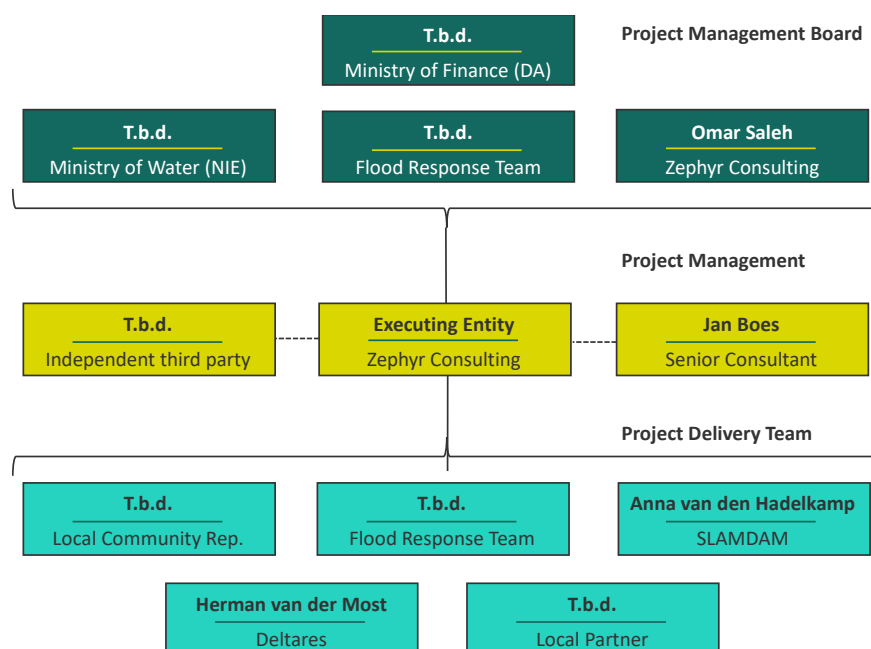


Figure 1: Project Organization

#### **Project Management Board (PMB)** (*convenes monthly*)

- Has final responsibility for the outcome of the project
- Ensures coherent steering of the project and delegates decisions & tasks

#### **Project Manager**

- Is central point for the project and is responsible for project execution
- Ensures collaboration between team members and communication with the PMB
- Heads project delivery team meeting and guides PMB meeting

#### **Project Delivery Team** (*convenes weekly*)

- Delivers project results according to planning
- Actively collaborates and adheres to decisions made by the PMB

## B. Monitoring and evaluation arrangements including M&E plan

23. The project will be monitored through the set of M&E activities and budget. The monitoring will be carried out by the dedicated project coordinator and will be based on targets and indicators set in the Project Results Framework. Below reports and evaluations will be developed throughout the project:

- **Monitoring Plan (MP)** – the PMB is in charge of approval
- **Quarterly Status Reports (QSR)** – submissions will be delivered every three months after the start of the project. These reports will monitor progress made towards: i) project objectives and outcomes, ii) project outputs, iii) lessons learned, iv) expenditures reports and v) reporting on risk management.
- **Project Completion Report (PCR)** – this report will be made after the real-life demonstration to assess whether the targets of component 3 have been realised.
- **Monthly PMB Report** – will be presented and discussed during the monthly PMB meetings for information and decision-making purposes
- **Weekly Project Delivery Report** – will be discussed on a weekly basis with the project delivery team to ensure progress on the identified and allocated activities
- **External Audit Report (EAR)** – an external audit report will be prepared in accordance with regulations by the Ministry of Water and Environment (Uganda).

24. The project team will undertake baseline surveys and prepare a detailed M&E plan that streamlines project objectives, indicators and methodologies of data collection.

**TABLE 4: PROJECT MONITORING AND EVALUATION WORK PLAN AND BUDGET**

<b>Deliverable</b>	<b>Responsible</b>	<b>Cost</b>
Monitoring plan, quarterly status reports, final report	Project Manager	USD 4,000
Monthly PMB reports and weekly project delivery reports	Project Manager	USD 4,000
External Audit Report	External	USD 1,000

## C. Project Results Framework including milestones, targets and indicators

**TABLE 5: THE RESULTS FRAMEWORK**

Result	Indicator	Baseline	Target	Means of verification
<b>Component 1 - Assessment of flood and drought risk profile and the development of the framework and technology to manage risks</b>				
1.1 Thorough identification and understanding of the flood and drought risks of the Obongi District	Availability of identified flood and drought risks are	No risks have been identified explicitly	Overview of the flood and drought risks of the Obongi District	Final flood and drought risk assessment report
1.2 Flood and drought risks are managed following an appropriate flood and drought response strategy and framework	Availability of a clear flood and drought response strategy	No flood and drought response strategy available	Disseminated flood and drought response strategy	Final flood and drought response strategy
	Availability of a ratified flood and drought response framework	No formal flood and drought response framework	Disseminated flood and drought response framework	Final flood and drought response framework
1.3 Flood and drought risks are managed at the Obongi District using the developed SLAMDAM-technology	Availability of a technical design of the mobile flood barrier	No technical design of the mobile flood barrier	Approved technical design of the mobile flood barrier	Technical design report
	Availability of a mobile flood barrier to manage flood and drought risk	No mobile flood barrier available	500 meters worth of mobile flood barrier available near the Obongi District	Shipping documentation of the mobile dams to the Obongi District
<b>Component 2 - Building climate change adaptive capacities of institutions and communities and managing knowledge</b>				
2.1 Upskilled community having an increased understanding of the root cause and impact of climate change	Numbers of workshops delivered (50% women)	0	4 (50% of recipients will be women)	Trainings and workshops delivered
2.2 Adaptive capacity of communities and other stakeholders to climate change impacts by using the SLAMDAM-technology strengthened	Numbers of trainings delivered to local flood response team and stakeholders	0	3	Trainings and workshops delivered
<b>Component 3 - Promoting the SLAMDAM-technology as an effective climate-resilient measure</b>				
3.1 Strengthened adaptation benefits mechanism for climate resilient technology	Availability of an adaptation benefits mechanism methodology and MRV-plan	No adaptation methodology and MRV-plan available	PMB-approved adaptation benefits mechanism methodology and MRV-plan	Quarterly and final reports
3.2 Increased resilience to floods and droughts using a scalable innovative climate adaptive solution	No of demonstrations to stakeholder to show the workings	0	4 (50% of recipients will be women)	Demonstration sessions held
	No of households protected from floods and drought	0	200	Ex-post analysis report

<b>Result</b>	<b>Indicator</b>	<b>Baseline</b>	<b>Target</b>	<b>Means of verification</b>
	Hectares of agriculture protected from floods	T.b.d.	T.b.d.	Ex-post analysis report
	No of facilities protected from floods	0	T.b.d.	Ex-post analysis report
	No of people whose health is protected from floods and drought	0	T.b.d.	Ex-post analysis report
	No of businesses protected from floods	0	T.b.d.	Ex-post analysis report
	No of jobs protected from floods	0	T.b.d.	Ex-post analysis report
	No of days traffic (roads / ferry) protected from floods	0	T.b.d.	Ex-post analysis report
	No of ex-ante analysis for other districts in Uganda	0	5	Scalable report



## D. Alignment of Project Objectives/Outcomes with Adaptation Fund Objectives/Outcomes

**TABLE 6: ALIGNMENT WITH ADAPTATION FUND OBJECTIVES**

Project Objective(s) <sup>9</sup>	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant (USD)
The project objective is to increase the resilience of communities to the risk of floods and droughts in a district through the deployment of a scalable water-filled barrier to prevent flooding and simultaneously store and harvest water.	<ul style="list-style-type: none"> <li>▪ Reduced impact of heavy rains through improved flood protection</li> <li>▪ Reduced impact of drought to food security</li> <li>▪ Reduced impact of floods in the district</li> </ul>	<b>Outcome 1:</b> Reduced exposure to climate-related hazards and threats	1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	41,400
		<b>Outcome 3:</b> 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	21,100
		<b>Outcome 6:</b> 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	Corresponds with below budget related to outcome 8
		<b>Outcome 8:</b> 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.	159,900
Project Outcome(s)	Project Outcome Indicator(s)	Fund Output	Fund Output Indicator	Grant Amount (USD)
<b>Outcome 1.1:</b> Thorough identification and understanding of the flood	Availability of identified flood and drought risks	<b>Output 1.1:</b> Risk and vulnerability assessments conducted and updated	1.1.1 No. of projects/programmes that conduct and update risk and vulnerability assessments (by sector and scale)	18,600

<sup>9</sup> The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

and drought risks of the Obongi District		<b>Output 1.2:</b> Targeted population groups covered by adequate risk reduction systems	1.2.1 Percentage of target population covered by adequate risk-reduction systems	
<b>Outcome 1.2:</b> Flood and drought risks are managed following an appropriate flood and drought response strategy and framework	<ul style="list-style-type: none"> <li>▪ Availability of a clear flood and drought response strategy</li> <li>▪ Availability of a ratified flood and drought response framework</li> </ul>	<b>Output 1.2:</b> Targeted population groups covered by adequate risk reduction systems	1.2.1 Percentage of target population covered by adequate risk-reduction systems	23,400
<b>Outcome 1.3:</b> Flood and drought risks are managed at the Obongi District using the developed SLAMDAM-technology	<ul style="list-style-type: none"> <li>▪ Availability of a technical design of the mobile flood barrier</li> <li>▪ Availability of a mobile flood barrier to manage flood and drought risk</li> </ul>	<b>Output 8:</b> Viable innovations are rolled out, scaled up, encouraged and/or accelerated.	8.2 No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated	88,000
<b>Outcome 2.1:</b> Upskilled community having an increased understanding of the root cause and impact of climate change	<ul style="list-style-type: none"> <li>▪ Numbers of workshops delivered (50% women)</li> </ul>	<p><b>Output 3.1:</b> Targeted population groups participating in adaptation and risk reduction awareness activities</p> <p><b>Output 3.2:</b> Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning</p>	<p>3.1.1 No. of news outlets in the local press and media that have covered the topic</p> <p>3.2.1 No. of technical committees/associations formed to ensure transfer of knowledge</p> <p>3.2.2 No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders</p>	10,000
<b>Outcome 2.2:</b> Adaptive capacity of communities and other stakeholders to climate change impacts by using the SLAMDAM-technology strengthened	<ul style="list-style-type: none"> <li>▪ Numbers of trainings delivered to local flood response team and stakeholders</li> </ul>	<b>Output 8:</b> Viable innovations are rolled out, scaled up, encouraged and/or accelerated	<p>8.1 No. of key findings on effective, efficient adaptation practices, products and technologies generated</p> <p>8.2 No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated</p>	11,100

<p><b>Outcome 3.1:</b> Strengthened adaptation benefits mechanism for climate resilient technology</p>	<ul style="list-style-type: none"> <li>▪ Availability of an adaptation benefits mechanism methodology and MRV-plan</li> </ul>	<p><b>Output 8:</b> Viable innovations are rolled out, scaled up, encouraged and/or accelerated.</p>	<p>8.1 No. of key findings on effective, efficient adaptation practices, products and technologies generated</p>	<p>24,000</p>
<p><b>Outcome 3.2:</b> Increased resilience to floods and droughts using a scalable innovative climate adaptive solution</p>	<ul style="list-style-type: none"> <li>▪ No of demonstrations to stakeholder to showcase the workings</li> <li>▪ No of houses protected from floods and drought</li> <li>▪ Hectares of agriculture protected from floods</li> <li>▪ Public facilities protected from floods</li> <li>▪ No of people whose health is protected from floods and drought</li> <li>▪ No of businesses protected from floods</li> <li>▪ No of jobs protected from floods</li> <li>▪ No of days traffic (roads / ferry) protected from floods</li> <li>▪ No of ex-ante analysis for other districts in Uganda</li> </ul>	<p><b>Output 1.2:</b> Targeted population groups covered by adequate risk reduction systems</p> <p><b>Output 8:</b> Viable innovations are rolled out, scaled up, encouraged and/or accelerated.</p>	<p>8.2 No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated</p>	<p>47,900</p>

## E. Detailed Project Budget

**TABLE 7: PROJECT BUDGET**

Activity	Unit	No of Units	Unit Costs (USD)	Total USD
<b>Component 1 - Assessment of flood and drought risk profile and the development of the framework and technology to manage risks</b>				
Engage a consultant to collect data pertaining to flood and drought risks such as number of floods, agricultural production	Consultancy Man days and reimbursables	3	1200	3,600
Engage a consultant to facilitate the flood and drought risk assessment	Consultancy Man days and reimbursables	3	1200	3,600
Organize stakeholder consultative workshops to perform risk assessment	1 training sessions and 1 workshops	2	4500	9,000
Finalise and disseminate the risk assessment report	Consultancy Man days and reimbursables	2	1200	2,400
Engage a consultant to collect data pertaining to existing flood and drought response strategy and framework (processes, governance structures)	Consultancy Man days and reimbursables	4	1200	4,800
Engage a consultant to facilitate the flood and drought response strategy development and framework revision	Consultancy Man days and reimbursables	4	1200	4,800
Organize stakeholder consultative workshops to develop and revise the strategy and framework	1 training sessions and 1 workshops	2	4500	9,000
Finalise and disseminate the risk response strategy and framework	Consultancy Man days and reimbursables	4	1200	4,800
Engage manufacturer to design customized solution to use the SLAMDAM-technology to manage flood and drought risk at the Obongi District	Man days and reimbursables	5	1200	6,000
Write-off costs manufactured dams	Monthly write-off	12	6000	72,000
Transport manufactured mobile flood barrier to Obongi District	Two-way door-to-door transportation	2	5000	10,000
<b>Component 2 - Building climate change adaptive capacities of institutions and communities and managing knowledge</b>				
Capacity building sessions for community members (50% women) to increase knowledge and awareness about climate change and the SLAMDAM-technology	Number of workshops	4	2500	10,000
Engage consultant to customize SLAMDAM-training material such as manuals to meet the requirements of Uganda / Obongi District	Consultancy Man days and reimbursables	3	1200	3,600
Train selected individuals and groups involved in flood and drought response on the workings of the SLAMDAM-technology	Number of 2-day training sessions	3	2500	7,500
<b>Component 3 - Promoting the SLAMDAM-technology as an effective climate-resilient measure</b>				

<b>Activity</b>	<b>Unit</b>	<b>No of Units</b>	<b>Unit Costs (USD)</b>	<b>Total USD</b>
Organize stakeholder consultative workshops to develop the adaptation benefits methodology	1 training sessions and 3 workshops	4	4500	18,000
Engage a consultant to develop and disseminate the adaptation benefits methodology	Consultancy Man days and reimbursables	5	1200	6,000
Hold dry-run demonstrations to showcase the workings of the technology	1-day demonstrations	4	2500	10,000
Video recording and editing of the deployment of the technology during a real-life flood event	Number of days of recording and editing	10	250	2,500
Engage consultant to perform ex-post analysis of the demonstration during a real-life flood event	Consultancy Man days and reimbursables	10	1200	12,000
Engage consultant to disseminate the ex-post benefit analysis	Consultancy Man days and reimbursables	3	1200	3,600
Engage consultant to perform ex-ante analyses, as part of the Uganda scale-up plan	Consultancy Man days and reimbursables	8	1200	9,600
Engage consultant to disseminate and promote the Uganda scale-up plan	Consultancy Man days and reimbursables	6	1200	7,200

## F. Disbursement schedule with time-bound milestones

**TABLE 8: DISBURSEMENT SCHEDULE**

Schedule Disbursement	Upon Signing Agreement	3 Months after start	Mid-term (6 months after start)	9 Months after start	Project Closing	Grand Total (USD)
Schedule date	1 March 2021	1 June 2021	1 September 2021	1 December 2022	1 March 2022	
Project funds (Components 1-3)	70000	73000	34800	36100	6000	220,000
Project Implementation Entity Fee (7% of project funds)	4900	5110	2436	2527	420	15,393
Project Execution Cost (7% of project funds)	4900	5110	2436	2527	420	15,393

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

**A. Record of endorsement on behalf of the government<sup>10</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>(Enter Name, Position, Ministry)</i>	<i>Date: (Month, day, year)</i>
---	---------------------------------

**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 (Vision 2040, National Development Plan (NDP-III), National Climate Change Policy (NCC, Green Growth Strategy, NDC 2015, Strategic Programme for Climate Change etc..) 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.	
<i>Name &amp; Signature</i> Implementing Entity Coordinator	
<i>Date: (Month, Day, Year)</i>	<i>Tel. and email:</i>
<i>Project Contact Person:</i>	
<i>Tel. And Email:</i>	

<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.

Telephone : 256 41 4707 000  
: 256 41 4232 095  
Fax : 256 41 4230 163  
: 256 41 4343 023  
: 256 41 4341 286  
Email : [finance@finance.go.ug](mailto:finance@finance.go.ug)  
Website : [www.finance.go.ug](http://www.finance.go.ug)



Ministry of Finance, Planning &  
Economic Development  
Plot 2-12, Apollo Kaggwa Road  
P.O. Box 8147  
Kampala  
Uganda

In any correspondence on  
this subject please quote No. ALD 79/251/02

THE REPUBLIC OF UGANDA

**23<sup>rd</sup> August 2021**

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 PROJECT CONCEPT NOTE: ENHANCING RESILIENCE TO CLIMATE INDUCED FLOODING AND DROUGHT THROUGH THE DEPLOYMENT OF A WATER FILLED BARRIER IN OBONGI DISTRICT.**

I have the honor to refer to the above mentioned subject. The objective of the US\$ 250,000 project is to increase the resilience of communities to the risk of floods and droughts at the Obongi District through deployment of a scalable water filled barrier to prevent flooding and simultaneously store and harvest water.

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.

Accordingly, I am pleased to endorse the project proposal for grant support from the Adaptation Fund. If approved, the project will be implemented by the Ministry of Water and Environment.

  
Matia Kasaija (M.P)

**MINISTER OF FINANCE, PLANNING AND ECONOMIC DEVELOPMENT**

Attachment: The project document  
Copy to: 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"*



