

AFB/PPRC.28/37 30 September, 2021

Adaptation Fund Board Project and Programme Review Committee Twenty-Eighth Meeting Bonn, Germany (Virtually held) 11-13 October 2021

Agenda Item 11 b)

## PROPOSAL FOR INNOVATION SMALL GRANT FOR UGANDA

## Background

1. At its thirtieth meeting, having considered document AFB/B.30/5/Rev.1, the Adaptation Fund Board decided:

- (a) To adopt the medium-term strategy as amended by the Board, as contained in the Annex 1 of the document AFB/B.30/5/Rev.1 (the MTS); and
- (b) To request the secretariat:
  - (i) To broadly disseminate the MTS and work with key stakeholders to build understanding and support;
  - (ii) To prepare, under the supervision of the MTS task force, a draft implementation plan for operationalizing the MTS, containing a draft budget and addressing key assumptions and risks, including but not limited to funding and political risks, for consideration by the Board at its thirty-first meeting; and
  - (iii) To draft, as part of the implementation plan, the updates/modifications to the operational policies and guidelines of the Adaptation Fund needed to facilitate implementation of the MTS, for consideration by the Board at its thirty-first meeting.

(Decision B.30/42)

2. Pursuant to decision B.30/42, subparagraph b (ii), the secretariat prepared a draft implementation plan for the MTS, including an assessment of assumptions and risks. The secretariat shared a version of the draft with the MTS task force for comments.

3. The draft implementation plan also contains suggestions for specific funding windows that might be opened under the MTS in complement of the Fund's existing funding windows for singlecountry and regional adaptation projects and readiness support projects. Following the approval of the implementation plan, the secretariat would present specific proposed details for each new funding window at subsequent meetings of the Board for its consideration, in accordance with the timeline contained in the implementation plan.

4. At its thirty-first meeting, the Adaptation Fund Board discussed the draft implementation plan for the MTS, and members of the Board proposed amendments to the document. The secretariat then presented a revised draft, in document AFB/B.31/5/Rev.1. Having considered that document, the Board decided:

- (a) To approve the implementation plan for the medium-term strategy for the Fund for 2018– 2022 contained in the Annex I to document AFB/B.31/5/Rev.1 (the plan);
- (b) To request the secretariat:

[...]

- (iii) To prepare, for each proposed new type of grant and funding window, a specific document containing objectives, review criteria, expected grant sizes, implementation modalities, review process and other relevant features and submit it to the Board for its consideration in accordance with the tentative timeline contained in Annex I to document AFB/B.31/5/Rev.1, with input from the Board's committees;
- (iv) Following consideration of the new types of support mentioned in subparagraph (b)(iii), to propose, as necessary, amendments to the Fund's operational policies and guidelines Fund to better facilitate the implementation of such new types of support; and

[...]

(Decision B.31/32)

5. At its thirty-second meeting, the Board considered document AFB/PPRC.23/4/Rev.2, *Program on Innovation: Small Grants Projects through Direct Access Modality,* and the Board decided:

(a) To approve the process for providing funding for innovation through small grants to National Implementing Entities (NIEs), as described in document AFB/PPRC.23/4/Rev.2, including the proposed objectives, review criteria, expected grant sizes, implementation modalities, review process and other relevant features as described in the document; and

(b) To request the secretariat to prepare the first request for proposals to NIEs for US\$ 2 million, to be launched at the twenty-fourth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change in December 2018.

(Decision B.32/4)

6. Subsequently, the first request for proposals to NIEs for US\$ 2 million was launched at the UNFCCC Conference of the Parties in December 2018.

7. The secretariat is submitting to the PPRC the summary and, pursuant to decision B.17/15, the final technical review of the project, both prepared by the secretariat, along with the final submission of the proposal in the following section. In accordance with decision B.25.15, the proposal is submitted with changes between the initial submission and the revised version highlighted or with track changes.



## ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: Innovation Small Grant

Country/Region:	Uganda		
Project Title:	Enhancing resilience to climate-induced flooding and drought through the deployment of a water-filled		
	barrier		
	Innovation/Disaster Risk Reduction		
AF Project ID:	Ministry of Water and Environment Uganda (MOWE) AFRDG00060		
IE Project ID:	Requested Financing from Adaptation Fund (US Dollars): 250,000		
2	t person: Alyssa Gomes Co-reviewer(s): Eleanor Saunders		
IE Contact Person:	r person. Aryssa Comes Co-reviewer(s). Eleanor Caunders		
Technical	The project aims to increase the resilience of communities to the risk of floods and droughts at the Obongi district		
Summary	through the deployment of a scalable water-filled barrier technology known as SLAMDAM to prevent flooding and		
	simultaneously store and harvest water. The project aims to increase the adaptation capacity of the pilot local		
	population and the resilience of the ecosystems, while improving water availability for times when there is		
	drought. This will be achieved through three main components:		
	<u>Component 1:</u> Assessment of flood and drought risk profile and the development of the framework and		
	technology to manage the identified risks (USD 130,000)		
	<u>Component 2</u> : Building climate change adaptive capacities of institutions and communities and managing knowledge (USD 21,100)		
	<u>Component 3:</u> Promoting the SLAMDAM-technology as an effective climate- resilient measure (USD 68,900)		
	Component 3. I forhoung the SEAMDAM-technology as an enective climate- resilient measure (OOD 00,300)		
	Requested financing overview:		
	Project/Programme Execution Cost: USD 15,000		
	Total Project/Programme Cost: USD 220,000		
	Implementing Fee: USD 15,000		
	Financing Requested: USD 250,00		

	The initial technical review found that in terms of innovation potential, it is unclear how this project differentiates itself from a direct technology transfer and application project (deployment), whereby a proven technology is rolled out in a new location. It is also not clear how local sensitivities are considered in the current design process. Overall, the proposal would benefit from - justifying the suitability of the technology for the target area; justify the cost-effectiveness of the chosen technology; how it will be developed; who will manufacture the technology; how the product will meet technical standards and finally strengthen its specifications on target group(s) including clarify gender considerations. A number of clarification requests (CRs) and a few corrective action requests (CARs) were raised by the technical review.
	The final technical review finds that a number of CRs were not adequately addressed in the proposal. The proposal needs to clarify the elements and sequence of the project (particularly the theory of change), provide clear descriptions of what is entailed under the expected outputs and the interlinkages between components. Majority of clarifications are addressed in the response sheet but not reflected in the proposal's main text.
Date:	21 September 2021

Review Criteria	Questions	Comments	Comments
Country Eligibility	<ol> <li>Is the country party to the Kyoto Protocol?</li> </ol>	Yes.	-
Project Eligibility	<ol> <li>Has the designated government authority for the Adaptation Fund endorsed the project/programme?</li> </ol>	<b>Yes.</b> Letter of endorsement dated 23 August 2021 has been submitted.	-

	2.	Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience? <sup>1</sup>	Yes. The project will enhance communities' resilience to flooding and droughts, thorough identification and understanding of these risks in the target district –(Obongi), and by subsequently implementing a customized technology (SLAMDAM) to safeguard vulnerable communities. The proposal states that the product is already well developed, endorsed by a number of international organizations, and already built and designed as a cost effective, scalable solution. The proposed activities are all undertaken by consultants at each stage of the project, categorizing it as direct technology application. However, it is not clear how local sensitivities are taken into account in the current design process. <b>CR1:</b> While the rationale for the selection of the Dutch technology SLAMDAM to decrease vulnerabilities to floods has been explained to some extent, the application of the solution to deal with water shortages due to droughts has not been sufficiently explained. Please clarify.	Overall, the revised project proposal is lacking a clear theory of change. The project components are missing clear descriptions of what is entailed under the expected outputs and the interlinkages between components has not been adequately clarified. Majority of clarifications are addressed in the response sheet but not adequately reflected in the proposal main text. <b>CR1: Cleared</b> , as per details provided on pages 8-9. The rationale for the technology is based on its dual functionality to strengthen resilience to floods and storage of water in times of drought. <b>CR2: Not cleared.</b> Cost effectiveness explanation also covers some of the rationale of why the technology was chosen for this demonstration. The comparison of the technology to other options is also highlighted in the responses providing more detail than previously available. However additional information mentioned in response sheet specifically related to how the technology is an effective solution and an economical solution
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	<b>CR2:</b> The proposal needs to provide a justification for the selection of this specific technology from the point of view of cost-effectiveness of the solution.	also compared to other products should be added to the main text. CR3: Not cleared
	<b>CR3:</b> The proposal would also benefit from strengthening the suitability of the chosen solution, inter alia alternative solutions (e.g., Comparing SLAMDAM to local and /or nature-based solutions that maybe existing or emerging).	The challenge previous identified in the innovation context of this project is the assumption that the SLAMDAM is ready to roll out in Uganda, and therefore not an innovation but an implementation project. The resubmission provides some support to resolve this challenge:
	<b>CR4:</b> It is unclear if a customized version of the technology will be developed by the Dutch company or whether this technology will be customized locally? As per the detailed budget, the project will "engage a manufacturer to design customized solution to use the SLAMDAM-technology to manage flood and drought risk at the Obongi District".	<ul> <li>The technology can be adapted if needed;</li> <li>There is possibility to change the manufacturing to suit local requirements and this is not expected to alter the project timeline or costs;</li> <li>The project is based around the community with a focus on working with the demonstration community to meet their needs.</li> </ul>
	<b>CR5:</b> Has a manufacturer been identified? Will the manufacturer be sourced locally or will the project work with the Dutch brand that ideated the SLAMDam technology?	In its redeveloped state this should be enough under the current understanding of a small grant as the demonstration is expected to yield possibilities for scale up and can also generate data and
	<b>CR6:</b> How will the project ensure that the technology meets the	information for future choices in the region (which may or may not

	technical standards and avoid maladaptation? <b>CR7:</b> Please clarify what the 'write off costs' refer to in the detailed budget of USD 72,000? <b>CR8:</b> Please clarify who exactly will set up the SLAMDAM prior to the onset of extreme events? (e.g., target communities, youth, local officials, village leaders?).	<ul> <li>include SLAMDAM). Please reflect details from the response sheet in the proposal main text.</li> <li>CR4: Not cleared</li> <li>Customization of the technology is possible and is the responsibility of the project as part of the existing budget, this is supportive of adapting the technology.</li> </ul>
	<ul> <li>CR9: Please describe the community level early warning systems that will be established to complement this solution.</li> <li>The Dutch model has very specific requirements for operating, managing and storing the SLAMDAM- technology to ensure longevity and proper maintenance. There is also a requirement to ensure that surface on which the barrier is operated meets optimal conductions.</li> <li>CR10: Please provide details in the proposal on the measures for managing, operating and storing the water-filled barrier technology.</li> </ul>	The broader context of the project has also been highlighted here in that the innovation is not only the SLAMDAM but also the collection of data and understanding the flood patterns and needs of the region. The answer here is supportive of a wider innovation process at play, not just a deployment of a technology, but as adaptation of a technology to local needs. In terms of Maladaptation, please clarify the removal mechanism if the technology is found to be unsuitable. Please include explanations in the proposal main text <b>CR5: Not cleared.</b> The response sheet has clarified that the project will work with the Dutch company that manufactures the innovative technology and the

	Dutch brand will work in collaboration with the Obongi District Local Government Technical Staff. However, this is not mentioned in the project main text. Please ensure that is specified in the main text in the next submission of the proposal.
	CR6: Not cleared.
	Please include the explanation provided in the response sheet in the proposal main text. Please also refer to CR4 above.
	CR7: Not cleared.
	As per the response sheet, the SLAMDAM-technology will be used for the duration of the project. Instead of actually purchasing the materials, it will be leased to acquire more SLAMDAM-units during the demonstration. This raises the following questions - At the end of the lease is the SLAMDAM on a continuing lease, gifted, sold or removed? How the intervention will be sustainable if it will be leased for demonstration only for the duration of the project?
	CR8: Not cleared.
	It is well noted that the technology is easy to set up, a flood response

	team will be responsible for deploying the flood barrier during a flood event and the project will also train community members to set up the dam. However further detail needed to include in the project main text on who will be included in the flood response team (local government staff, village officials, community members). Please include details in the proposal main text.
	<b>CR9: Not cleared.</b> Well noted that a basic warning via Twitter by the government will be sent out, the flood response team will set up the barrier and the project provide recommendations on how to enhance flood and drought early warning. However, this process is not explained in the proposal main text. Please also clarify the community level early warning system.
	<b>CR10: Not cleared.</b> It is noted that the barrier is easy to operate, however details are missing on who is included in the flood response team, and who will be in charge of maintenance and repair.

3	. Does the project encourage or	Yes.	CR11: Not cleared.
	accelerate development of innovative adaptation practices, tools and technologies?	The SLAMDAM technology itself is not new, it has been developed by the Netherlands. The project is a technology transfer innovation whereby an existing technology (SLAMDAM) is rolled out into a new country. It has potential for adapting vulnerable communities to the effects of drought and flood, and potential for scaling in Uganda and beyond. The project includes a research element to capture environmental factors of the regions, and demonstrations of the SLAMDAM to allow for knowledge sharing and future uptake. Both elements can form part of an innovation process, but in its current form it comes across as a deployment and showcase of an existing technology (not an innovation). <b>CR11:</b> In terms of innovation potential, clarify how this project differentiates itself from a direct technology transfer and application project whereby a proven technology is rolled out in a new location.	<ul> <li>The answer provided indicates that the development of the SLAMDAM in Uganda holds a lot of new potential: <ul> <li>Deployment through nonprofessionals</li> <li>Integration of the technology with flood data analytics</li> <li>Use in the context of drought The results of this project can influence the future development and deployment, and it is highlighted much more clearly in the responses. There is more innovation potential here.</li> </ul> </li> <li>The AMB tool mentioned in this response sheet could have future information to detail how it relates to the flood warning and thus 'at point of action' information for deployment. If it is for real time support, then the question of how this information is disseminated is again raised. Please include all details in the proposal main text.</li> <li>CR12: Not cleared.</li> <li>The sensitization, live demonstrations and capacity building efforts are well noted. However please describe relevant</li> </ul>

	<ul> <li>CR12: Clarify how the project will encourage uptake and adoption of the technology.</li> <li>CR13: Please clarify if the development and testing on the local pilot site will involve the ecosystem of different land users and gather their input on use and functionality.</li> <li>CR14: What mechanisms will be in place for monitoring its actual usage by local communities with the aim to capture and solve problems around adoption.</li> </ul>	elements under the project components in the main text. The project mentions a roadmap will be developed to scale-up this solution in other parts across Uganda. However, this idea is not developed further. <b>CR13: Not cleared.</b> Responses provided are adequate in terms of providing information that the project will be deployed as an innovation to show local use of the technology is developed and integrated, and that is can be a demonstration to a variety of user groups. Please include details in the main text. <b>CR14: Not cleared.</b> The response sheet has described a multi-disciplinary management team composed of experts to manage the project along with community-based associations, to monitor the operations SLAMDAM technology and report progress on usage and adoption. Please include details in the proposal main text.
<ol> <li>Does the project help generate evidence base of effective, efficient adaptation practices,</li> </ol>	<b>Yes.</b> The project has the potential for adapting vulnerable communities to	<b>CR15: Not cleared.</b> The response sheet explains possible routes for scaling of the project if proven to be effective.

products or technologies, as a basis for potential scaling up?	the effects of drought and flood, and also potential for scaling in Uganda and beyond.	These relate to public, commercial or hybrid pathways (both government and market actors) for scaling.
	The proposal approach is based on a combination of a "learning by doing" and "learning by seeing" method, where the Obongi District will be used as a demonstration site for others to learn from experience.	The options identified here are supportive to considering future roll outs or scaling and help to further develop the proposal. The time taken to move this project from
	<b>CR15:</b> Please clarify what financial considerations have been contemplated for the scalability of the project to other areas in the District and/or within Uganda, considering the need to customize the technology, each time. The proposal states that "The	demonstration stage (the current proposal) to a future scaling is not however clear. For a small grant it may not be necessary, and the current considerations do show a desire to further the work and thus scaling potential. However please reflect the above thinking in the proposal main text.
	Government of The Netherlands has already expressed a willingness to support the roll-out of the SLAMDAM-technology across Uganda".	<b>CR16: Cleared.</b> Government of the Netherlands is expected to financially support scaling up this solution and to provide guidance on how to scale- up efficiently and effectively.
	<b>CR16:</b> Please clarify the role of Government of Netherlands in the scale-up strategy.	<b>CR17: Not cleared.</b> Dutch team is expected to be part of
	<b>CR17:</b> Please specify the role of the Dutch Company that created this technology in the project.	the project team to manufacture and supply the technology and train local stakeholders. The roles of the Dutch company should be clearly described in the main text.

5.	Does the project engage, empower and/or benefit the most vulnerable communities and social groups?	<ul> <li>Needs further development.</li> <li>CR18: Kindly provide specifications and a justification on the selected demonstration site location.</li> <li>CR19: Please clarify how "people, and women and children in particular, have better access to health care", after the implementation of this technology.</li> <li>CR20: The project could benefit from providing additional detail of the groups that will benefit from these projects.</li> </ul>	CR18: Cleared, as per details on page 3. CR19 and CR20: Not cleared. Please include the explanations provided on the expected socio- economic benefits of the technology in the proposal main text in section II.B.
6.	Does the project advance gender equality and the empowerment of women and girls?	<ul> <li>Needs further development.</li> <li>CR21: As there is no description or details of the target groups. The proposal should better address how the project will ensure that the intervention is gender responsive and steps take to mitigate gender differentiated impacts.</li> <li>CR22: Please clarify the number of direct beneficiaries, disaggregated by gender.</li> <li>CR23: Please clarify how women and youth will benefit the most on this project.</li> <li>CR24: In the Results Framework, please include gender-responsive</li> </ul>	<ul> <li>CR21: Not cleared .</li> <li>Please include details in the main text</li> <li>CR22: Not cleared.</li> <li>The project will focus on Namsambya in Obongi Town Council with an estimated population of about 800 people of which 408 male and 392 are female in that 320 are children and about 360 are youth as well as about 50 persons are living with disability. Please include these details in the main text.</li> <li>CR23: Not cleared.</li> </ul>

		<ul> <li>indicators broken down at the different levels.</li> <li>CR25: For component 3, please provide details on different gender groups be included in the respective trainings.</li> <li>CR26: Please clarify the presence of ethnic minorities and other vulnerable groups, if applicable and how they will be included.</li> <li>CR27: Please clarify what percentage of female-held households/ businesses that intervention will safeguard</li> </ul>	<ul> <li>Please include details in the main text. The response sheet mentions mini irrigation infrastructure, however complementary measure are described nowhere in the proposal.</li> <li>CR24: Not cleared.</li> <li>The Results Framework needs to be developed further with clear quantifiable targets. Please clarify why majority of the targets will be decided through an Ex-post analysis report.</li> <li>CR25: Cleared, as per table 5.</li> <li>50% of the targeted beneficiaries of training will be women</li> <li>CR26-27: Not cleared.</li> <li>Please include details in the proposal main text.</li> </ul>
Resource Availability	<ol> <li>Is the requested project funding within the parameters for small grants set by the Board?</li> </ol>	No. (250,786 USD) CAR1: Kindly verify calculations, values given add up to: USD 250,786 in the 'Projects components and financing' and USD 250,686 in the Disbursement Schedule, while	CAR1: Cleared.

	2. Is the Implementing Entity Management Fee at or below	<ul> <li>cover page states USD 250,000. In the 'Disbursement Schedule' section -Project funds add to USD 219,900. The small grant for innovation limit is USD 250,000.</li> <li>Yes. (15,393 USD equivalent to 6.56% of the total project budget)</li> </ul>	-
	8.5 per cent of the total project budget before the fee?	Vac	
	<ol> <li>Is the project submitted through a National Implementing Entity accredited by the Board?</li> </ol>	Yes.	-
Implementation Arrangements	2. Is the timeframe for the proposed activities adequate?	Unclear. CR28: Kindy clarify if the expected timeframe of 1 year would be a feasible time to carry out all the objectives: assessment, manufacturing, training, ex-post benefit analysis and trainings, especially when considering a customized product.	<b>CR28: Not cleared.</b> The duration of 1 year is not justified. Considering that community involvement in co-deign, the unpredictability of the flood event, the duration should be reasonable to ensure that there is actually sufficient time to test the solution within the project time frame and such that lessons can extracted to inform further uptake and scaling up efforts.
	3. Is a summary breakdown of the budget for the proposed activities included?	Yes.	-



## ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: Innovation Small Grant

Country/Region:	Uganda		
Project Title:	Enhancing resilience to climate-induced flooding and drought through the deployment of a water-filled		
	barrier		
Thematic Focal Area	: Innovation/Disaster Risk Reduction		
Implementing Entity:	Ministry of Water and Environment Uganda (MOWE)		
AF Project ID:	AFRDG00060		
IE Project ID:	Requested Financing from Adaptation Fund (US Dollars): 250,000		
2	t person: Alyssa Gomes Co-reviewer(s): Eleanor Saunders, Claudia Lasprilla		
IE Contact Person:			
Technical	The project aims to increase the resilience of communities to the risk of floods and droughts at the Obongi district		
Summary	through the deployment of a scalable water-filled barrier technology known as SLAMDAM to prevent flooding and		
Guinnary	simultaneously store and harvest water. The project aims to increase the adaptation capacity of the pilot local		
	population and the resilience of the ecosystems, while improving water availability for times when there is		
	drought. This will be achieved through three main components:		
	alought. This will be achieved through three main components.		
	Component 1: Accomment of flood and drought risk profile and the development of the framework and		
	<u>Component 1:</u> Assessment of flood and drought risk profile and the development of the framework and		
	technology to manage the identified risks (USD 130,000)		
	Component 2: Building climate change adaptive capacities of institutions and communities and managing		
	knowledge (USD 21,100)		
	<u>Component 3:</u> Promoting the SLAMDAM-technology as an effective climate- resilient measure (USD 68,900)		
	Requested financing overview:		
	Project/Programme Execution Cost: USD 15,393		
	Total Project/Programme Cost: USD 235,393		
	Implementing Fee: USD 15,393		
	Financing Requested: USD 250,786		

	The initial technical review finds that in terms of innovation potential, it is unclear how this project differentiates
	itself from a direct technology transfer and application project (deployment), whereby a proven technology is
	rolled out in a new location. It is also not clear how local sensitivities are considered in the current design
	process. Overall, the proposal would benefit from - justifying the suitability of the technology for the target area;
	justify the cost-effectiveness of the chosen technology; how it will be developed; who will manufacture the
	technology; how the product will meet technical standards and finally strengthen its specifications on target
	group(s) including clarify gender considerations. A number of clarification requests (CRs) and a few corrective
	action requests (CARs) have been raised by the technical review.
Date:	30 August 2021

Review Criteria	Questions	Comments
Country Eligibility	2. Is the country party to the Kyoto Protocol?	Yes.
	7. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	Yes. Letter of endorsement dated 23 August 2021 has been submitted.
Project Eligibility	8. Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience? <sup>2</sup>	Yes. The project will enhance communities' resilience to flooding and droughts, thorough identification and understanding of these risks in the target district –(Obongi), and by subsequently implementing a customized technology (SLAMDAM) to safeguard vulnerable communities. The proposal states that the product is already well

 $<sup>^2</sup>$  A concrete adaptation project/programme is defined as a set of activities aimed at addressing the adverse impacts of and r)sks posed by climate change. The activities shall aim at producing visible and tangible results on the ground by reducing vulnerability and increasing the adaptive capacity of human and natural systems to respond to the impacts of climate change, including climate variability. Adaptation projects/programmes can be implemented at the community, national, regional and transboundary level. Projects/programmes concern activities with a specific objective(s) and concrete outcome(s) and output(s) that are measurable, monitorable, and verifiable. (Source: Operational Policies and Guidelines, amended October 2017)

	organizations, and already built and designed as a cost effective, scalable solution. The proposed activities are all undertaken by consultants at each stage of the project, categorizing it as direct technology application. However, it is not clear how local sensitivities are considered in the current design process.
	<b>CR1:</b> While the rationale for the selection of the Dutch technology SLAMDAM to decrease vulnerabilities to floods has been explained to some extent, the application of the solution to deal with water shortages due to droughts has not been sufficiently explained. Please clarify.
	<b>RR1:</b> The Obongi District including Obongi Town Council experiences floods on a regular basis e.g. due to expanding of the River Nile banks. When the water levels decrease, the water is lost even though it is very valuable. Therefore, SLAMDAM-technology will be adopted to strengthen resilience to floods and at the same time you can store the excessive water during floods in the dams. The water is stored vapor tight and the material of the dams is UV- protected. This means communities can store and reuse this water for various purposes including agricultural production during drought season. That's why we see SLAMDAM as a solution to enhance resilience to floods and drought.
	<b>CR2:</b> The proposal needs to provide a justification for the selection of this specific technology from the point of view of cost-effectiveness of the solution.
	<b>RR2:</b> There are several considerations with regards to the cost-effectiveness of the SLAMDAM-technology:
	• The SLAMDAM-technology is preferred mainly because it is an effective solution and an economical solution. The technology was compared to other products such as

	<ul> <li>Hydro-Response in New Zealand and Beaver-Dam in the U.S. and No Floods from Denmark. No Floods and BeaverDam are slightly more expensive than SLAMDAM. HydroResponse is lower in price, however these dams are for big projects for which you need heavy equipment to deploy the barrier. At the Obongi District it is more effective if communities with support by the Local Government Technical Staff can deploy the barriers by hand.</li> <li>Furthermore, the material of the dams by HydroResponse is not UV-resistant which is a problem in Uganda because of the sun exposure. The material of the SLAMDAM-technology is not used by the other suppliers who use rigid material such as PVC for their products.</li> <li>The EPDM material of SLAMDAM has a long lifespan of 40+ years; recently even confirmed a lifespan of 70 years. On the long run the costs are lower, even compared to the dams of HydroResponse.</li> <li>The SLAMDAM-technology is also 100% recyclable as opposed to the competing products. This means a low ecological footprint and no additional costs when disposing the barrier after it has run out.</li> </ul>
	<b>CR3:</b> The proposal would also benefit from strengthening the suitability of the chosen solution, inter alia alternative solutions (e.g., Comparing SLAMDAM to local and /or nature-based solutions that maybe existing or emerging).
	<b>RR3:</b> At the Obongi Town Council, and with floods in general, speed and effectiveness are important to prevent damages. With just 2 men and 1 pump, a barrier of 100 meter can be built in one hour with this technology. In comparison; to build a <u>10</u> -meter barrier of sandbags, you need 14 people and 2 hours. Another problem is that we cannot reuse the sandbags as opposed to the mobile flood

	<ul> <li>barrier which has a lifespan of 40+ years. Compared to our sandbags, the SLAMDAM-technology is a significantly more effective and cost-efficient solution.</li> <li>Nature-based solutions are also taken into consideration in Uganda's plan to reduce vulnerability to floods and drought for sustainable economic development. However, the envisioned nature-based solutions take 5 – 10 years to be fully effective, the mobile flood barrier can be used until the nature-based solutions are effective. When the nature-based</li> </ul>
	solutions are effective, the flood barrier can be used elsewhere or complementary to the nature-based solutions. As a short term measure, the project is proposing to build the capacity of the organized communities by providing knowledge to manage nature-based enterprises to increase sustainable and socio-economic development by undertaking climate smart enterprises that foster improved agricultural production such as fish framing, commercial nurseries for fruits and trees, mushroom growing. None of these enterprises has significant effect on the environment.
	<b>CR4:</b> It is unclear if a customized version of the technology will be developed by the Dutch company or whether this technology will be customized locally?
	As per the detailed budget, the project will "engage a manufacturer to design customized solution to use the SLAMDAM-technology to manage flood and drought risk at the Obongi District".
	<b>RR4:</b> The solution in this context is broader than "just" the SLAMDAM-technology. Even if the standard SLAMDAM-models can be deployed at the Obongi District, a local specific report has to be made specifying where the dams have to be deployed at the Obongi Town Council and how the designed flood barrier meets the local specific

	requirements. This will be a report specifically for the Obongi District.
	It is also possible that the SLAMDAM-technology itself has to be customized as described below.
	<b>Customization of the SLAMDAM-technology</b> Flood data will be collected through (1) global data sets and (2) field visits held locally. The collected data will be analyzed and synthesized using state-of-the-art 3Di hydrodynamic modelling software. Flood scenarios are developed to better understand and predict the floods in the future.
	The developed flood scenarios give insight in the required design of the flood barrier such as the required dimensions and how much pressure it should be able to withstand. The project will then know whether standard SLAMDAM modules can be used or whether customization is required. This input will be provided to the Dutch manufacturer who will have to develop the SLAMDAM-technology as per the requirements.
	<b>CR5:</b> Has a manufacturer been identified? Will the manufacturer be sourced locally or will the project work with the Dutch brand that ideated the SLAMDam technology?
	<b>RR5:</b> The project will work with the Dutch company that manufactures the innovative technology The Dutch brand will work in collaboration with the Obongi District Local Government Technical Staff. These include among others the district water engineer, staff surveyor, district engineer, environmental officer, community development officers throughout the project. The company in the Netherlands is the only manufacturer of this SLAMDAM-technology. The local partner supports with data collection, stakeholder

management, capacity building workshops, technology promotion etc.
<b>CR6:</b> How will the project ensure that the technology meets the technical standards and avoid maladaptation?
<ul> <li>RR6:</li> <li>The project collects as much reliable flood and drought data as possible; this will ensure that the designed technology meets the technical standards. The project will involve a supplier of flood and drought intelligence software who will be responsible for overseeing data collection and synthesis. Data will be collected through global data sets and field visits and possibly Digital Elevation Models (DEMs) using LiDAR drones. The software is used to analyse these data to perform risk assessments. The technology, and the solution as a whole, will be designed to meet the technical standards that follow from the analyses.</li> <li>The project ensures close collaboration between local and international stakeholders, whereby local stakeholders will take an ownership role in the project. We will ensure involvement and representation of women in the project organisation. To prevent maladaptation, the project will ensure institutional and communal capacity building workshops and trainings. The project will organize the flood prevention and response process for the Obongi District including the identification of the flood response team. Certified trainers will provide training sessions to the members of the flood response team onsite to ensure everyone knows their role and responsibilities and how to use the SLAMDAM-technology to prevent damage at the Obongi District due to floods. Demonstrations will be given by the flood response team so that they can showcase their ability to strengthen resilience to floods. The project will</li> </ul>

<ul> <li>be closed when flooding has been prevented during a real-life flood event.</li> <li>The project team members (national and international) will be notified of flood early warnings through regular weather forecast released by the Uganda National Meterological Agency (UNMA). They will contact the head of the flood response team to guide and support them in deploying the flood barrier.</li> <li>Monitoring and evaluation arrangements (see section B in Part III of this document) are made to that the flood barrier is deployed as agreed during the project.</li> </ul>
<ul> <li>CR7: Please clarify what the 'write off costs' refer to in the detailed budget of USD 72,000?</li> <li>RR7: The SLAMDAM-technology will be used for the duration of the project. Instead of actually purchasing the materials, we believe it's better to lease it so that we are able to get more SLAMDAM-units during the demonstration taking into account the budget cap. The longer the flood barrier we can use during the project. We based the lease amounts on the product write-offs.</li> </ul>
<b>CR8:</b> Please clarify who exactly will set up the SLAMDAM prior to the onset of extreme events? (e.g., target communities, youth, local officials, village leaders?).
<b>RR8:</b> One of the advantages of this technology is that virtually anyone can operate this. It is technically not difficult and you can carry one standard SLAMDAM unit with two people (men or women). We will help setup and organize a flood response processes and procedures and organize a flood response team and assign roles and responsibilities. The flood response team can consist of community

members. There is no need for people to have an advanced degree in crisis management or hydrology, however there have to be some members who have organizing skills. The flood response team will be responsible for deploying the flood barrier during a flood event. We will also train local community members on how to use the SLAMDAM- technology. Community members can help during a flood event under the guidance of the flood response team.
Our objective is for them to be, as much as possible, independently be prepared to flood events.
<b>CR9:</b> Please describe the community level early warning systems that will be established to complement this solution.
The Dutch model has very specific requirements for operating, managing and storing the SLAMDAM- technology to ensure longevity and proper maintenance. There is also a requirement to ensure that surface on which the barrier is operated meets optimal conductions.
<b>RR9:</b> In order to implement this project an early warning process has to be in place. However, it doesn't necessarily have to be the most advanced early warning system as long as there a trigger that initiates the flood response process for the deployment of the SLAMDAM-technology. It could be as basic as a warning via Twitter by the government. Part of the projects is also to provide recommendations on how to enhance flood and drought early warning. The flood response team will have to act when they have a received an early warning. Their response should include warning the community and deploying the flood barrier.
The technology is very straightforward and doesn't have many specific requirements to operate, maintain and store the barrier. The flood barrier is effective in a wide variety of

	<ul> <li>conditions, although there has to enough surface area available and access to water to deploy the flood barrier. The field visits will be used to assess where the barriers can and should be deployed.</li> <li>CR10: Please provide details in the proposal on the measures for managing, operating and storing the waterfilled barrier technology.</li> <li>RR10: Paragraph 13 in section C of Part II of the proposal describes in detail how the technology needs to be managed, operated and stored.</li> </ul>
9. Does the project encourage or accelerate development of innovative adaptation practices, tools and technologies?	Yes. The SLAMDAM technology itself is not new, it has been developed by the Netherlands. The project is a technology transfer innovation whereby an existing technology (SLAMDAM) is rolled out into a new country. It has potential for adapting vulnerable communities to the effects of drought and flood, and potential for scaling in Uganda and beyond. The project includes a research element to capture environmental factors of the regions, and demonstrations of the SLAMDAM to allow for knowledge sharing and future
	uptake. Both elements can form part of an innovation process, but in its current form it comes across as a deployment and showcase of an existing technology (not an innovation). <b>CR11:</b> In terms of innovation potential, clarify how this project differentiates itself from a direct technology transfer and application project whereby a proven technology is rolled out in a new location.

	<b>RR11:</b> The SLAMDAM-technology is "only" one component of the overall solution we want to implement at Obongi District. The solution we want to implement as part of this proposal is more comprehensive. It is an integration of (1) flood data analytics using advanced software solutions and (2) physical flood resilient measures in the form of the SLAMDAM-technology. This is combined with knowledge- sharing and data and technology transfer. Ultimately the people should have the knowledge and capacities to strengthen resilience to floods independently.
	The SLAMDAM-technology has been used in Western Europe for flooding, though not for drought. The SLAMDAM- technology is used by professionals in countries like the Netherlands. There were no projects that combined the implementation with the SLAMDAM-technology with flood data analytics, knowledge-sharing and data and technology transfer. Nor were none-professionals trained on using the SLAMDAM-technology.
	If this project proves successful, we aim to implement it all over Uganda as part of our national strategy to strengthen resilience to climate-induced floods.
	<b>One important note:</b> the manufacturer is currently developing a flood intelligence software tool called the ABM-tool, whereby ABM stands for Adaptation Benefits Mechanism. This Al-driven tool calculates and visualizes the optimal location for the deployment of the flood barrier and the anticipated benefits from deploying the barrier such as "prevented damage to agricultural land" or "number of houses protected from floods". The manufacturer believes the MVP (Minimum Viable Product) of the product will be ready 31 October 2021.

	<b>CR12:</b> Clarify how the project will encourage uptake and adoption of the technology.
	<b>RR12:</b> The project will work closely with the district management plus the beneficiary local communities. There will be deliberate effort to sensitize the communities on effects of climate change and the planned interventions to reverse the negative effects in the region. It is essential that representatives of relevant stakeholder groups are part of the project organisation and as such involved throughout the project to ensure ownership and sustainability SLAMDAM-technology. We will appoint the project management team including head of the flood response team as an executive in the project organisation. We want the head of the flood response team to take an ownership role in the project considering that he/she will also be responsible for the deployment of the SLAMDAM-technology after project completion.
	We will promote the solution throughout the duration of the project. Promotion will be done by demonstrating the products to relevant institutions and communities. For example, communities in other regions that are vulnerable to floods, such as communities in the Kasese District, will be invited to attend a demonstration. We will promote this project through other channels such as newspapers.
	Part of the project is also the development of a roadmap to scale-up this solution in other parts across Uganda. This encourages other institutions and communities to implement this solution once our project is completed.
	<b>CR13</b> : Please clarify if the development and testing on the local pilot site will involve the ecosystem of different land users and gather their input on use and functionality.

<b>RR13:</b> Yes, the pilot site involves the ecosystem of different land users. The pilot site covers, amongst others, agriculture land, commercial land and residential land. The input of the different land users will be incorporated in the design of the overall solution. Land use is an important metric to determine the success of the projects. The project formulates indicators such as "prevented damage to agricultural land", the same for other land uses. These indicators are expressed in monetary and non-monetary values.
We will design the solution using the input from the different land users. This allows us to design the best possible solution with the optimal location of the flood barrier. And this allows us to estimate the anticipated benefits from this project. The benefits will be monitored once an actual flood event has occurred during which the SLAMDAM-technology was deployed.
<b>CR14:</b> What mechanisms will be in place for monitoring its actual usage by local communities with the aim to capture and solve problems around adoption?
<b>RR14:</b> As indicated under RR12, there will be a project multi-disciplinary management team composed of experts to manage the project. In addition, there will be community based associations to monitor the operations SLAMDAM technologyand report progress on usage and adoption. The most important mechanism to monitor the actual usage of the SLAMDAM-technology is for the (national and international) project team members to be notified of any flood alerts. A flood alert is a trigger for the flood response team to deploy the flood barrier as per agreed and as per their training. When the project team members are notified of a flood alert, they will contact the head of the flood

	response team to ensure he/she follows the procedures and deploys the SLAMDAM-technology. Once a flood event has occurred, the benefits of the deployment of the SLAMDAM have to be monitored in accordance with the MRV-process. The realised benefits will be compared with the anticipated benefits to determine to what extent the targets have been realised. Lessons learned will be made to determine improvements for future deployment of the SLAMDAM-technology. Above ensures we have checks and balances in place to ensure actual usage and capture and solve problems around adoption.
10. Does the project help generate evidence base of effective, efficient adaptation practices, products or technologies, as a basis for potential scaling up?	Yes. The project has the potential for adapting vulnerable communities to the effects of drought and flood, and also potential for scaling in Uganda and beyond. The proposal approach is based on a combination of a "learning by doing" and "learning by seeing" method, where the Obongi District will be used as a demonstration site for others to learn from experience. <b>CR15:</b> Please clarify what financial considerations have been contemplated for the scalability of the project to other areas in the District and/or within Uganda, considering the need to customize the technology, each time. The proposal states that "The Government of The Netherlands has already expressed a willingness to support the roll-out of the SLAMDAM-technology across Uganda".

<b>RR15:</b> The technology doesn't necessarily have to be customized. The SLAMDAM-technology has standard modules that can likely be used the majority of the time. However, it is indeed true that for each catchment a flood and drought risk assessment have to be done using areaspecific analyses. Based on the analyses, a decision will be made whether standard units can be used or whether customization is required.
One of the advantages of the SLAMDAM-technology, as opposed to e.g. concrete dams, is that you can use it at different locations and at different points in time. You can therefore reduce costs by using the same barrier at different locations. Nevertheless, it requires funds to scale up this technology country-wide.
<ul> <li>We've considered the following options:</li> <li>There is already a national strategy / plan to strengthen resilience to floods. If this project is successful, we promote this solution and try to incorporate it in the national strategy / plan to mobilize funding.</li> <li>We apply for financial instruments provided by the Government of the Netherlands to finance upscaling of this solution across Uganda. The Government of the Netherlands works closely with SLAMDAM and they have expressed their support of this project. They noted that there are financial instruments available to finance such projects such as the DHI and DRIVE subsidies.</li> <li>The embassy of the Netherlands confirmed they have contacts within the EU to financially support scaling up of climate adaptive solutions across Africa. The Embassy has promised to promote this with their contacts at the EU to try and mobilize funds.</li> <li>We mobilize funds from public and private investors through the AfDB and their ABM-program.</li> </ul>

It is important that as part of the project, we will develop a scale-up Uganda roadmap. This roadmap gives insight in anticipated costs to scale-up this technology within Uganda. The innovative flood intelligence software tool, which is currently being developed, quantifies and measures the anticipated benefits from deploying the flood barrier in a certain area. Measuring anticipated benefits from deploying this tool will stimulate private sector engagements and investments. Private sector engagement will have a positive impact on the scalability of this solution.
<b>CR16:</b> Please clarify the role of Government of Netherlands in the scale-up strategy.
<b>RR16</b> : The role of the Government of the Netherlands is to financially support scaling up this solution and to provide guidance on how to scale-up efficiently and effectively.
The Dutch company has close ties with the government of the Netherlands. The Government provides financial instruments to support innovation and the implementation of projects aimed at adapting to climate change in developing countries. Two of these instruments are the DHI-subsidy and the DRIVE-subsidy. The government has also expressed a willingness to involve the University of Delft and/or the applied science institute Deltares to guide the scale-up process.
The government of the Netherlands has already provided a grant for the development of the innovative software mentioned under RR11.
<b>CR17:</b> Please specify the role of the Dutch Company that created this technology in the project.

	<b>RR17:</b> The Dutch company will be part of the project team and they will manufacture and supply the SLAMDAM- technology and they will train the local stakeholders. During the project, flood and drought risk analyses will be performed using state-of-the-art software and with the help of local stakeholders. The requirements of the flood barrier will follow from the flood risk analyses. These requirements will be communicated to the Dutch company who will then make the flood barrier accordingly. They will deliver the dams to the agreed location and they will train stakeholders including the local flood response team so that they are able to deploy the flood barrier independently. The Dutch company is also responsible for after care once the project is completed.
11. Does the project engage, empower and/or benefit the most vulnerable communities and social groups?	<ul> <li>Needs further development.</li> <li>CR18: Kindly provide specifications and a justification on the selected demonstration site location.</li> <li>RR18: The Obongi District and its residents are highly vulnerable to climate-induced floods. November 2020 there was a flooding of the River Nile that led the displacement of more than 23.000 people whose livelihoods have been destroyed. The District is poorly prepared to adapt to climate change leaving the residents, and especially vulnerable groups, exposed to flood risks.</li> <li>The Obongi District is impacted by riverine floods with suitable areas where the SLAMDAM-technology can be deployed; this increases the chance of a successful outcome of the project.</li> </ul>

	Other areas in Uganda that suffer from floods, e.g. Kasese and Kampala, can be very complex and densely populated. For a first project using this technology, we believe it's better to select a less complex and less densely populated area where the SLAMDAM-technology can be demonstrated.
	<b>CR19:</b> Please clarify how "people, and women and children in particular, have better access to health care", after the implementation of this technology.
	<b>RR19:</b> Women and other socially marginalized or excluded groups are more vulnerable to floods due to their roles and social structures. Strengthening resilience to floods and drought automatically benefits women and children more.
	In addition, we want to make sure schools, hospitals, infrastructure, businesses and roads are protected from floods. This allows for the lives of women and children to continue uninterrupted. Children can continue to go to school, which is also a safe haven for many children. Women can continue having access to healthcare facilities.
	The SLAMDAM-technology can be deployed manually by men and women. We want women to take a prominent role in adapting to climate-induced floods. They have to be part of the decision-making process where to deploy the flood barrier to ensure their interests are protected.
	Note that the innovative software under RR11 specifically measures the anticipated benefits for women compared to men. It also measures the benefits to different age groups; we can therefore measure the benefits to children.
	<b>CR20:</b> The project could benefit from providing additional detail of the groups that will benefit from these projects.

12. Does the project advance gender equality and the empowerment of women and girls?	<ul> <li>RR20: The whole of Obongi District is flood prone. However, there are hot spots which are mostly affected by the floods namely Waka Parish, Legu, Lereje in Itula Sub County, Andra, Iboa, Ibahwe, Palorinya East, Palorinya West, Ukuni East, Ukuni West in Palorinya Sub county, Rupo, Asamvu, Palio, Liwa South, Maduga South in Gimara Sub County, Namsambya, Kenya, Mundo, Yakinemiji and Kilaming in Obongi Town Council, Indilinga East, Odonga East in Aliba Sub County th Aliba sub county, Alibabito, Otubanga, Acimari East, Alibabito in Ewafa Sub County.</li> <li>The project will focus on Namsambya in Obongi Town Council with an estimated population of about 800 people of which 408 male and 392 are female in that 320 are children and about 360 are youth as well as about 50 persons are living with disability</li> <li>Needs further development.</li> <li>CR21: As there is no description or details of the target</li> </ul>
	<b>CR21:</b> As there is no description or details of the target groups. The proposal should better address how the project will ensure that the intervention is gender responsive and steps take to mitigate gender differentiated impacts. <b>RR21:</b> The project, is proposing to build the capacity of the targeted groups in Namsambya in Obongi Town Council as this cell/village is the most hit by recent flooding of river Nile where about 100 households were totally displaced and about 60 of them lost most of the household needs. To ensure equity amongst the groups, there will be deliberate effort to integrate vulnerable groups who include women, youth (boys and girls), Peoples with Disability (PWD) as well as the absolute poor (live on less than 1\$ a day) to directly benefit from project activities by providing incentives to enhance awareness and knowledge, access to safe and clean water, safeguards to health hazards, access to education facilities especially for children, engage in

agricultural production for food security and income, access to markets and establishing quality control mechanisms.
<b>CR22:</b> Please clarify the number of direct beneficiaries, disaggregated by gender.
<b>RR22:</b> The project will focus on Namsambya in Obongi Town Council with an estimated population of about 800 people of which 408 male and 392 are female in that 320 are children and about 360 are youth as well as about 50 persons are living with disability
<b>CR23:</b> Please clarify how women and youth will benefit the most on this project.
<b>RR23:</b> Through construction of mini irrigation infrastructure women and youth will directly benefit in the irrigation through employment, enhanced income as well as boost the production of vegetables and other nature based related activities, access to clean water will improve the general health and reduce time spent in accessing safe and clean water from other far sources as well as employment benefits both direct and indirect. The youth and women will be engaged in Environmental restoration programs for example planting trees along the flood prone areas, demarcating buffer zones that will eventually reduce negative effects of floods on the environment and in doing so they are paid (cash for works) that would boost their income
<b>CR24:</b> In the Results Framework, please include gender- responsive indicators broken down at the different levels.
<b>RR24:</b> Several gender-responsive have been in added in the results framework under Components 1.2, 2.1, 2.2 and 3.2. Note that a tool that is currently being developed measures many of the indicators included in the results
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		<ul> <li>communicating to small children will be challenging. But their interests will be represented in the solution design.</li> <li>CR27: Please clarify what percentage of female-held households/ businesses that intervention will safeguard</li> <li>RR27: The Intervention shall safeguard at least 60% of female-held households/businesses</li> </ul>
Resource Availability	3. Is the requested project funding within the parameters for small grants set by the Board?	<ul> <li>No. (250,786 USD)</li> <li>CAR1: Kindly verify calculations, values given add up to: USD 250,786 in the 'Projects components and financing' and USD 250,686 in the Disbursement Schedule, while cover page states USD 250,000. In the 'Disbursement Schedule' section -Project funds add to USD 219,900. The small grant for innovation limit is USD 250,000.</li> <li>RCR1: It seems the project execution and costs and implementation fees were incorrect. Corrections have been</li> </ul>
	<ol> <li>Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project budget before the fee?</li> </ol>	<ul> <li>made to the "Projects components and financing' and the "Disbursement Schedule". Both add up to USD. 250,000</li> <li>Yes. (15,393 USD equivalent to 6.56% of the total project budget)</li> </ul>
		Note that the correction has been made and now the Implementing Entity Management Fee is 15,000 USD which still falls within the 8,5%.
	4. Is the project submitted through a National Implementing Entity accredited by the Board?	Yes.
Implementation Arrangements	5. Is the timeframe for the proposed activities adequate?	<b>Unclear.</b> <b>CR28:</b> Kindy clarify if the expected timeframe of 1 year would be a feasible time to carry out all the objectives: assessment, manufacturing, training, ex-post benefit

	analysis and trainings, especially when considering a customized product.
	<b>RR28:</b> Yes, this is feasible. If a customization of the technology is required, there shouldn't come any delay from that. For example, if the dams should be 15cm higher than the standard models, it doesn't really impact the production time.
	However, there is a dependency on an actual flood occurrence. We selected a location that is prone to floods and we expect an actual flood event, during which the technology can be demonstrated. However, we are not 100% sure and we will therefore include this as a project risk and we will monitor this risk during project team meetings.
6. Is a summary breakdown of the budget for the proposed activities included?	Yes.

# AFB/PPRC.27/23

December 2018



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

REQUEST FOR PROJECT FUNDING FROM THE ADAPTATION FUND

1



# **PROGRAMME ON INNOVATION: SMALL GRANT PROJECT PROPOSAL**

#### **PART I: PROJECT INFORMATION**

Country: Title of Project:

Executing Entity/ies:

National Implementing Entity:

Amount of Financing Requested:

Uganda Enhancing resilience to climate-induced flooding and drought through the deployment of a water-filled barrier Ministry of Water and Environment Uganda Ministry of Water and Environment Uganda 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>, <u>Agriculture is a</u> 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.

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

#### Impact of climate change

- <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%20 Plan%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

<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

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- 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>/<sub>A</sub> 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.

6-7. The Obongi District is located in the West Nile Sub-Region of Northern Uganda. The complete district has 50,000+ inhabitants divided over 3 sub counties, 14 Parishes and 60 villages. Overflowing of the River Nile causes serious damage to the communities leading to displacements and loss of livelihoods. The vulnerability became apparent in November 2020 when flooding of the River Nile caused displacements of more than 23.000 residents of the Obongi District<sup>8</sup>. The whole of Obongi District is flood prone; however, there are hotspots that are least prepared for and most affected by the floods. This project will focus on one of those hot spots being Namsambya in Obongi Town Council, with an estimated population of about 800 people of which 408 male and 392 are female of whom 320 are children and about 50 persons are living with disability. There are also self-settled refugees from South Sudan who are vulnerable to floods. The area has a level ground surface and lacks structures to prevent flooding of the River Nile.

#### **Project Objectives:**

<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
<sup>8</sup> Source: https://allafrica.com/stories/202011160732 html

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7.8. The overall goal of the project is to increase strengthen the resilience and reduce vulnerability of communities to the risk of <u>climate-induced</u> floods and droughts at within the the Obongi district\_District through the deployment of a scalable water-filled barrier to prevent flooding and simultaneously store and harvest water that will be repurposed for a drought event.

The specific objectives of the project are to:

- 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:**

- 8.9. 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
  - 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.

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Project Components	Expected Outcome	Expected Concrete Outputs	Amount (US\$)
1. Assessment of flood and drought risk profile and the development of the framework	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
and technology to manage the identified risks		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; will be leased for the duration of the project.	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	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	10,000
knowledge	2.2 Adaptive capacity of communities and other stakeholders to climate change impacts by using the SLAMDAM-technology	2.2.1 Customized training material and program for stakeholder involved in flood response at the Obongi District	3,600
	strengthened	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	3.1 Strengthened adaptation benefits mechanism for climate resilient technology	3.1.1 Comprehensive adaptation benefits methodology	18,000
climate-resilient measure		3.1.2 Monitoring and evaluating plan	6,000

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	3.2 Increased resilience to floods and	3.2.1 Dry run demonstration of the scalable	10,000
	droughts using a scalable innovative climate	technology held by trained local flood response	
	adaptive solution	team	
		3.2.2 Real-life demonstration of the innovative	2,500
		technology during a real-life flood situation at	
		the Obongi District	
		3.2.3 Ex-post benefit analysis of the real-life	15,600
		demonstration	
		3.2.4 Scale-up plan technology Uganda	16,800
		including ex-ante benefit analyses for other	
		areas across Uganda	
<ol> <li>Project Execution cost</li> </ol>			<del>15,393</del> 15,000
5. Total Project Cost			235, <u>000</u> 393
6. Project Cycle Management Fee	charged by the Implementing Entity (if applicable	e)	15, <u>000</u> 393
Amount of Financing Requested			<mark>∼</mark> 250,000

# **Projected Calendar:**

#### TABLE 2: PROJECT CALENDAR

Milestones	Expected Dates
Start of Project Implementation	September October 2021
First Quarter Review	December 2021January 2022
Mid-Term Review	March <u>April</u> 2022
Third Quarter Review	June July 2022
Project Closing	September 2022
Terminal Evaluation	September 2022

## PART II: PROJECT JUSTIFICATION 9

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



10.11. 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.

11.12. 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. The interest of other vulnerable groups will be taken into consideration in the project. These groups include children, people with a disability, the elderly and the absolute poor. The self-settled refugees from South Sudan will be invited to attend trainings and demonstrations. The project will enhance the knowledge and awareness with regards to climate change and this project amongst these vulnerable groups.

#### 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

Note that an Al-driven flood intelligence tool is currently being developed that measures most of above benefits.

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

13. 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 seeing as it can be deployed in a wide variety of conditions 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 core function of the SLAMDAM-technology is to strengthen resilience to floods; however, it can also be used to strengthen resilience to drought. Water can be stored vapor-tight to be repurposed.

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14. This technology is more cost-effective compared to sandbags and other mobile barriers. The unique EPDM material of SLAMDAM has a long lifespan of 70+ years, meaning relatively low costs due to its longevity. The SLAMDAM-technology is also 100% recyclable as opposed to the competing products, which is cost-effective and better for the environment. The material is UV-resistant and can therefore be exposed to the sun without getting damaged as opposed to other barriers. 12 The Formatted: Font: 11 pt innovation process allows for rapid scale-up of the Formatted: No bullets or numbering, Tab stops: 3", technology across Uganda. Centered + 6", Right Formatted: Font: 11 pt 15. The SLAMDAM-technology is easy to operate, Formatted: Numbered + Level: 1 + Numbering Style: 1, 2, maintain and repair. It is therefore not 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0" + Indent at: 0.25", Tab stops: 3", Centered + 6", Right complicated to enhance the skillset of people involved in flood risk management through trainings and capacity building workshops. The technology is simple yet highly effective in flood prevention. Formatted: Indent: Left: 0" Figure 1: How Formatted: Indent: Left: 1.5", First line: 0.5" to operate the technology, Formatted: Font: 10 pt, Italic Formatted: Font: 11 pt 16. In order to develop the flood barrier, first flood data has to be collected through (1) global data sets and (2) field visits held locally to develop flood scenarios. The developed flood scenarios give insight in the required design of the flood barrier such as the required dimensions. This input will be provided to the Dutch manufacturer who will have to develop the SLAMDAM-technology as per the requirements; this can be their standard models or if needed customised models. Formatted: Bulleted + Level: 1 + Aligned at: 0.25" + Indent at: 0.5" 17. Innovation process and the outcome of the process Process that accelerates Formatted: Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0" + development usage of SLAMDAM Indent at: 0.25' The technology will be developed to reduce the impact of (climate-induced) floods or drought meeting the local specific requirements. A dDemonstrations of the technology will be held-given when there is no real-life threat of flooding. Financial donors and other stakeholders will attend the demonstration. The desired result is to have held 10 demonstrations each one attended by >25 people of whom at least two potential investors and two policy makers. An adaptation benefits mechanism will be developed to measure the impact of using the SLAMDAM-technology.An Al-driven flood intelligence tool measures the anticipated and Formatted: Font: 11 pt, Not Italic realised benefits from deploying the technology. Measuring anticipated benefits from Formatted: Font: 11 pt deploying the SLAMDAM-technology using this tool will stimulate private sector Formatted: Font: 11 pt. Not Italic engagements and investments. The desired result it to have done benefit analyses Formatted: Font: 11 pt using this tool for at least 10 flood prone catchments in Uganda. A roadmap will be developed to scale-up this solution in other parts across Uganda. The Formatted: Bulleted + Level: 1 + Aligned at: 0.25" + Indent at: 0.5' desired result is to have at 10 high priority locations across Uganda for which business cases have been made using the software tool mentioned above. The roadmap should describe these locations and what the costs and benefits would be from deploying the

SLAMDAM-technology. The desired result is also to have investment commitments for 20% of the projects in the roadmap.

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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 inveThe project will track the amount and speed of investments by public and private donors to scale-up the SLAMDAM-technology across Uganda\_tment 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.

#### <u>18.</u>

#### **Standards and Certifications**

- The technology meets Uganda's technical standards. Important Uganda-recognized certifications are in place such as: TUV-certification, PAS-certification, ISO 9001 and 14001 Certification.
- 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 an <u>highly environmentally friendly solution deonstrated shown</u> by the granted Sustainability Certification and EPDM Durability Certification <u>that meet Uganda's</u> technical standards.
- <u>19. The project willadheres to-meet the environmental and social principles described in the latest Environmental and Social Policy of the Adaptation Fund.</u>

The project aligns with Uganda's National government strategies and policies<u>All these</u> policies point to the implementation of several strategies, such as the management of water resources and protection from natural disasters.

20. The project aligns with Uganda's National government strategies and policies related to the implementation of climate strategies including flood and drought management.

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<ul> <li>The project aligns with the National Adaptation Programme of Action (NAPA) of Uganda,</li> </ul>	
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which has prioritised the "Water for Production Project" and the "Drought Adaptation	()
Project".	
<ul> <li>The project aligns with the Nationally Appropriate Mitigation Actions (NAMAs) of Uganda</li> </ul>	
that aims to enhance the production in agriculture. The technology helps control water	
availability and protect agricultural landscapes.	
<ul> <li>This project also aligns with The National Development Plan II (NDPII, 2015-2020). The</li> </ul>	
climate-resilient technology can contribute to this national plan that aims to improve	
climate-proof national development.	
<ul> <li>This project contributes to <i>The National Vision 2040</i> of Uganda that prioritizes</li> </ul>	
appropriate adaptation strategies, knowledge and information sharing on climate change and improved M&E regarding climate change intervention.	
<ul> <li>The project is also aligned with Uganda's <i>Climate Change Policy</i> that aims to strengthen</li> </ul>	
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.	
<ul> <li>The project is aligned with Uganda's Nationally Determined Contributions (NDC).</li> </ul>	
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 <del>multi-purpose</del> technology has a	
positive impact on the different sectors.	
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#### 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

	NENTAL AND SOCIAL RISKS	Detential impacts and risks	(
Environmental and social principles	Assessment carried out	Potential impacts and risks	Formatted Table
Compliance with the Law	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.	Risk: Very low Potential impact: 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.	
Access and Equity	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.	Risk: Low Potential impact: 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 <u>, youth-children</u> and the mostvulnerable groups such as the elderly, people with disabilities and refugees from South Sudan. vulnerable.	
Marginalized and Vulnerable Groups	The program focuses on marginalized and vulnerable groups and aims to help them improve their living conditions and quality of life.	Risk: Low Potential impact: Very high Marginalised communities must be protected, the project observes environmental and social safeguards. When measuring the benefits of the deployment of the technology, we measure benefits for each vulnerable group separately.	
Human Rights	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.	
Gender Equality and Women's Empowerment	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.	Risk: Low Potential impact: 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 and when measuring the benefit from the deployment of the technology.	

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Core Labour Rights	The project respects the labour standards as identified by ILO.	Risk: Low Potential impact: Very high All project members must learn of and adhere to the practical ILO steps and follow the Ethical Trade Initiative guide.	
Protection of Natural Habitats	The protection of wetlands and its natural habitats and bio diversity is a core objective of the project.	Risk: Low Potential impact: 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.	
Conservation of Biological Diversity	As per above	As per above	
Climate Change	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.	Risk: Low Potential impact: 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.	
Pollution Prevention and Resource Efficiency	The project will contribute to efficient use of water and prevention of water pollution. Furthermore, the project will maximize resource availability.	Risk: Low Potential impact: High The project will help control water availability and therewith improve resource accessibility.	_
Public Health	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).	Risk: Low Potential impact: High The project will improve health conditions for the population; indicators in this regard are included in the MRV-plan	
Physical and Cultural Heritage	The project will not have any activity related to affecting physical and cultural heritages.		

# G. Justification for funding requested

18.22. 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.

- **19-23.** The budget requested for this project is **US\$USD** 250,000. It is fully funded by the Adaptation fund to ensure all support is funneled into the adaptation innovation.
- 20.24. 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)

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economic prosperity, ii) improved health conditions, iii) higher level of education and iv) improved livelihoods.

21.25. 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. Formatted: Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0" + Indent at: 0.25"

#### PART III: IMPLEMENTATION ARRANGEMENTS

#### A. Project management arrangements

22. 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.

23-26. The role of the Ministry of Water and Environment (Uganda) as the implementing entity of the project is to bears responsibility for the overall management of the projects financed by the Adaptation Fund, including- the monitoring and reporting.

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#### 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 cCollaborates and adheres tofollows decisions made by the PMB. Figure 2: <u>Project Organisation</u>

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

27. 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.

24.Below reports and evaluations will be developed throughout the project: 28.

- 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. There 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.

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- 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 and
   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).

25. The project team will undertake baseline surveys and prepare a detailed M&E plan that streamlines project objectives, indicators and methodologies of data collection. **Formatted:** Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0" + Indent at: 0.25"

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

29.

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

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

TABLE 5: THE RESULTS FRAMEWORK*				
Result	Indicator	Baseline	Target	Means of verification
Component 1 - Assessment of flood		elopment of the frame		
1.1 Thorough identification and	Availability of identified flood and	No risks have been	Overview of the flood	Final flood and drought
understanding of the flood and	drought risks are	identified explicitly	and drought risks of	risk assessment report
drought risks of the Obongi District			the Obongi District	
1.2 Flood and drought risks are	Availability of a clear flood and	No flood and	Disseminated flood	Final flood and drought
managed following an appropriate	drought response strategy	drought response	and drought	response strategy
flood and drought response strategy		strategy available	response strategy	
and framework	Availability of a ratified flood and	No formal flood and	Disseminated flood	Final flood and drought
	drought response framework	drought response	and drought	response framework
		framework	response framework	
	Availability of input provided by	No clarity on how	Flood and drought	Separate section(s) in
	female representative(s) of women	women in particular	response framework	the final flood and
	interest groups	are affected by	that specifies how	drought response
		floods and drought	women are protected	framework pertaining
			from floods and	to the impact and role
			drought	<u>of women</u>
1.3 Flood and drought risks are	Availability of a technical design of	No technical design	Approved technical	Technical design
managed at the Obongi District using	the mobile flood barrier	of the mobile flood	design of the mobile	report
the developed SLAMDAM-technology		barrier	flood barrier	
	Availability of a mobile flood barrier	No mobile flood	500 meters worth of	Shipping
	to manage flood and drought risk	barrier available	mobile flood barrier	documentation of the
			available near the	mobile dams to the
			Obongi District	Obongi District
Component 2 - Building climate char		s and communities a	nd managing knowledg	je
2.1 Upskilled community having an	Numbers of workshops delivered	0	4 (50% of recipients	Trainings and
increased understanding of the root	<del>(50% women)</del>		will be women)	workshops delivered
cause and impact of climate change	Number / percentage of women	0/0	<u>T.b.d. / &gt;50%</u>	Attendance lists
	who attended workshops			
2.2 Adaptive capacity of communities	Numbers of trainings delivered to	0	3	Trainings and
and other stakeholders to climate	local flood response team and			workshops delivered
change impacts by using the	stakeholders			
SLAMDAM-technology strengthened	Percentage of women involved in	<u>0</u>	<u>&gt;30%</u>	Governance and
	the flood response process (early			process documents
	warning team, advisory team, flood			
	response team, management)			

Result	Indicator	Baseline	Target	Means of verification
<b>Component 3 - Promoting the SLAMI</b>	DAM-technology as an effective clim	ate-resilient measure	1	
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- <u>10 <del>(50% of</del> recipients will be women)</u>	Demonstration sessions held
	No / percentage of women that attended demonstrations of the SLAMDAM-technology	<u>0 / 0%</u>	<u>T.b.d. / &gt;50%</u>	Attendance list demonstration sessions
	No of households protected from floods and drought	0	<del>200<u>150</u></del>	Ex-post analysis report
	Number of women benefited from the deployment of the flood barrier	<u>0</u>	200	Ex-post analysis report
	Hectares of agriculture protected from floods	<del>T.b.d.<u>0</u></del>	T.b.d.	Ex-post analysis report
	Percentage of female-held households/ businesses that will be safeguarded	<u>0</u>	<u>60%</u>	
	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 <u>10</u>	Scalable report

\*Note that a tool that is currently being developed measures many of the indicators included in the results framework. The tool specifically measures benefits male vs. female and for different age groups.

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

Project Objective(s) <sup>10</sup>	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant (U Formatted Table
The project objective is to ncrease the resilience of communities to the risk of floods and droughts in a	<ul> <li>Reduced impact of heavy rains through improved flood protection</li> <li>Reduced impact of drought to food security</li> </ul>	Outcome 1: 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
district through the deployment of a scalable water-filled barrier to prevent flooding and simultaneously store and harvest water.	<ul> <li>Reduced impact of floods in the district</li> </ul>	<b>Outcome 3</b> : Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	<ul> <li>3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses</li> <li>3.2. Percentage of targeted population applying appropriate adaptation responses</li> </ul>	21,100
		<b>Outcome 6:</b> Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	<ul> <li>6.1 Percentage of households and communities having more secure access to livelihood assets</li> <li>6.2. Percentage of targeted population with sustained climate-resilient alternative livelihoods</li> </ul>	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 dentification and understanding of the	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

TABLE 6: ALIGNMENT WITH ADAPTATION FUND OBJECTIVES

<sup>10</sup> The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

flood 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>Dutcome 1.2:</b> 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 Availability of a ratified flood and drought response framework	<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>Dutcome 1.3:</b> 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 Availability of a mobile flood barrier to manage flood and drought risk	<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>Dutcome 2.1:</b> Upskilled community having an increased understanding of the root cause and impact of climate change	•	Numbers of workshops delivered (50% women)	Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	<ul> <li>3.1.1 No. of news outlets in the local press and media that have covered the topic</li> <li>3.2.1 No. of technical committees/associations formed to ensure transfer of knowledge</li> <li>3.2.2 No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders</li> </ul>	10,000
<b>Dutcome 2.2:</b> 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	<b>Output 8</b> : Viable innovations are rolled out, scaled up, encouraged and/or accelerated	<ul> <li>8.1 No. of key findings on effective, efficient adaptation practices, products and technologies generated</li> <li>8.2 No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated</li> </ul>	11,100
<b>Dutcome 3.1:</b> Strengthened adaptation	-	Availability of an adaptation benefits mechanism methodology and MRV-plan	<b>Output 8</b> : Viable innovations are rolled out, scaled up, encouraged and/or accelerated.	8.1 No. of key findings on effective, efficient adaptation	24,000

benefits mechanism for climate resilient technology			practices, products and technologies generated	
Outcome 3.2: Increased resilience to floods and droughts using a scalable innovative climate adaptive solution	<ul> <li>No of demonstrations to stakeholder to showcase the workingss</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 pusinesses protected from floods</li> <li>No of jobs 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>	Output 1.2: Targeted population groups covered by adequate risk reduction systems Output 8: 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	47,900

# E. Detailed Project Budget

## TABLE 7: PROJECT BUDGET

Unit	No <del>of</del>	Unit Costs (USD)	T <del>otal U</del>	Formatted Table
			2,600	
	3	1200	3,000	Formatted Table
		1200	3 600	
	3	1200	3,000	
		4500	9,000	
	2	1200	2,400	
	4	1200	4 800	
	-	1200	4,000	
	4	1200	4.800	
reimbursables			.,	
1 training sessions and 1 workshops	2	4500	9,000	
Consultancy Man days and	4	1200	4,800	
reimbursables				
Man days and reimbursables	5	1200	6,000	
			70.000	
			1	
		5000	10,000	
	owledge	0500	10.000	
Number of workshops	4	2500	10,000	Formatted Table
Consultancy Man days and		1200	3 600	
	3	1200	3,000	
		2500	7 500	
Number of 2-day training sessions	3	2500	7,500	
mate-resilient measure				
	4	4500	18.000	Formatted Table
	7	4000	10,000	
	Evelopment of the framework and techn           Consultancy Man days and reimbursables           Consultancy Man days and reimbursables           1 training sessions and 1 workshops           Consultancy Man days and reimbursables           Consultancy Man days and reimbursables           Consultancy Man days and reimbursables           Consultancy Man days and reimbursables           1 training sessions and 1 workshops           Consultancy Man days and reimbursables           1 training sessions and 1 workshops           Consultancy Man days and reimbursables           Man days and reimbursables           Man days and reimbursables	UnitsUnitsVelopment of the framework and technology to mConsultancy Man days and reimbursables3Consultancy Man days and reimbursables31 training sessions and 1 workshops2Consultancy Man days and reimbursables2Consultancy Man days and reimbursables4Consultancy Man days and reimbursables41 training sessions and 1 workshops2Consultancy Man days and reimbursables4Man days and reimbursables5Man days and reimbursables5Monthly write-offlease amount Two-way door-to-door transportation s and communities and managing knowledgeNumber of workshops4Consultancy Man days and reimbursables3Number of 2-day training sessions3mate-resilient measure5	UnitsPrelopment of the framework and technology to manage risksConsultancy Man days and reimbursables31200Consultancy Man days and reimbursables312001 training sessions and 1 workshops24500Consultancy Man days and reimbursables21200Consultancy Man days and reimbursables21200Consultancy Man days and reimbursables41200Consultancy Man days and reimbursables41200Consultancy Man days and reimbursables41200Consultancy Man days and reimbursables41200I training sessions and 1 workshops24500Consultancy Man days and reimbursables41200Man days and reimbursables51200Man days and reimbursables51200Man days and reimbursables51200Monthly write-offlease amount Two-way door-to-door transportation reimbursables25000Mumber of workshops42500Consultancy Man days and reimbursables31200It makes and communities and managing knowledge1200Number of workshops42500Number of 2-day training sessions32500It mate-resilient measure32500	Unitsvelopment of the framework and technology to manage risksConsultancy Man days and reimbursables312003;600Consultancy Man days and reimbursables312003,6001 training sessions and 1 workshops245009,000Consultancy Man days and reimbursables212002,4001 training sessions and 1 workshops245009,000Consultancy Man days and reimbursables212002,400Consultancy Man days and reimbursables412004,800Consultancy Man days and reimbursables412004,800Consultancy Man days and reimbursables412004,800Consultancy Man days and reimbursables412004,8001 training sessions and 1 workshops245009,000Consultancy Man days and reimbursables512006,000Man days and reimbursables512006,000Monthly write-offlease amount reimbursables12600072,000Monthly write-offlease amount reimbursables12600072,000Mumber of workshops4250010,000Ons and communities and managing knowledge112003,600Number of 2-day training sessions325007,500mate-resilient measure325007,500

Activity	Unit	No <del>of</del>	Unit Costs (USD)	Total U( Fo
		Units		
Engage a consultant to develop and disseminate the adaptation benefits	Consultancy Man days and	5	1200	6,000
methodology	reimbursables			
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	Number of days of recording and	10	250	2,500
real-life flood event	editing			
Engage consultant to perform ex-post analysis of the demonstration during	Consultancy Man days and	10	1200	12,000
a real-life flood event	reimbursables			
Engage consultant to disseminate the ex-post benefit analysis	Consultancy Man days and	3	1200	3,600
	reimbursables			
Engage consultant to perform ex-ante analyses, as part of the Uganda	Consultancy Man days and	8	1200	9,600
scale-up plan	reimbursables			
Engage consultant to disseminate and promote the Uganda scale-up plan	Consultancy Man days and	6	1200	7,200
	reimbursables			

# F. Disbursement schedule with time-bound milestones

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 <del>March</del> <u>October </u> 2021	1 <del>June <u>Jan</u> 202<u>2</u>4</del>	1 <del>September</del> <u>April </u> 202 <u>2</u> 4	1 <del>December</del> July 2022	1 <del>March</del> <u>October </u> 2022	
Project funds (Components 1-3)	70,000	73,000	34,800	36,100	6 <u>,</u> 000	220,000
Project Implementation Entity Fee (7% of project funds)	4 <del>900<u>5,000</u></del>	<del>5110<u>5,000</u></del>	<del>2436<u>1,000</u></del>	<u>1,500<del>2527</del></u>	4 <del>20</del> 2,500	15, <u>000</u> <del>393</del>
Project Execution Cost <del>(7% of project</del> f <del>unds)</del>	<u>5,000</u> 4900	5 <u>,000</u> <del>110</del>	<u>1,000</u> 2436	<u>1,2500</u> 527	<u>2,500</u> 4 <del>20</del>	15, <u>000</u> 393

#### TABLE 8: DISBURSEMENT SCHEDULE

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

A. Record of endorsement on behalf of the government<sup>11</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:

(Enter Name,	Position, M	inistry)	Date: (Month,	day, year)

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

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (.....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 and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.</u>

Name & Signature<br/>Implementing Entity CoordinatorDate: (Month, Day, Year)Tel. and email:Project Contact Person:Tel. And Email:

<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
Website	: www.finance.go.ug

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



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

THE REPUBLIC OF UGANDA

# 23rd August 2021

The Adaptation Fund Board C/o Adaptation Fund Board Secretariat Email: <u>secretariat@Adaptation-Fund.org</u> 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 documentCopy to:The Permanent Secretary, Ministry of Water and Environment.

Mission