



ADAPTATION FUND

AFB/PPRC.35/Inf.1
17 March 2025

Adaptation Fund Board
Project and Programme Review Committee
Thirty-fifth Meeting
Bonn, Germany, 8-9 April 2025

PROPOSAL FOR MALAWI, TANZANIA



ADAPTATION FUND

ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY:

Countries/Region: Malawi and United Republic of Tanzania

Project Title: Promoting Resilience and Adaptation to Climate Change in the Songwe River Basin

Thematic Focal Area: Transboundary water management

Implementing Entity: United Nation Environmental Programme (UNEP)

Executing Entities: The Joint Songwe River Basin Commission (SONGWECOM)

AF Project ID:

IE Project ID: Requested Financing from Adaptation Fund (US Dollars): \$13,999,000

Reviewer and contact person: Alpha O. Kaloga

Co-reviewer(s): Tolu Olusina

IE Contact Person:

Technical Summary

The project "Promoting Resilience and Adaptation to Climate Change in the Songwe River Basin" aims to promote resilience to climate hazards and enhance climate change adaptation measures to the communities within the Songwe River Basin (SRB). This will be done through the three components below:

Component 1: Strengthen Institutional capacity and knowledge management for effective climate change adaptation in SRB (USD 1,555,000).

Component 2: Enhance institutional capacity for planning, designing, implementing and monitoring integrated Flood Early Warning systems (FEWS) (USD 1,500,000).

Component 3: Transfer concrete adaptation technologies, climate resilient WASH and catchment protection measures (USD 5,000,000).

Component 4: Small Grants programme to build SRB resilience through community implemented small scale Projects innovative adaptation practices, tools, and technologies (US\$,3,400,000)

Requested financing overview:

Project/Programme Execution Cost: USD 1,272,000

Total Project/Programme Cost: USD 12,727,000

Implementing Fee: USD 1,272,000

Financing Requested: USD 13,999,000

	<p>The proposal includes a request for a project formulation grant of USD 30,000</p> <p>The initial technical review some/several issues, such as the need for additional detail for the concept note stages, information on initial gender assessment, ESMP, strengthening the Theory of change among others, as is discussed in the number of Clarification Requests (CRs) and Corrective Action Request (CAR) raised in the review.</p>
Date	January 16, 2025

Review Criteria	Questions	First Technical Review Comments, January 16, 2025
Country Eligibility	1. Are all of the participating countries party to the Kyoto Protocol and/or the Paris Agreement?	Yes.
	2. Are all of the participating countries developing countries particularly vulnerable to the adverse effects of climate change?	Yes. The countries participating in the project “Promoting Resilience and Adaptation to Climate Change in the Songwe River Basin” are indeed developing countries especially susceptible to the negative impacts of climate change. Malawi and Tanzania, who are neighbors to the Songwe River Basin have multiple climate related threats like recurring floods, drought, rain fed agriculture which is highly impacted by weather changes. The project is designed to tackle such vulnerabilities through increasing climate resilience, facilitating integrated ecosystem management and sustainable livelihoods.
Project Eligibility	1. Have the designated government authorities for the Adaptation Fund from each of the participating countries endorsed the project/programme?	Partially. As per the Endorsement letter dated 29 th January 2024 for Tanzania and 29 th February 2024 Malawi.

	2. Does the length of the proposal amount to no more than fifty (50) pages for the project/programme concept, including its annexes?	Yes.
	3. Does the regional project / programme support concrete adaptation actions to assist the participating countries in addressing the adverse effects of climate change and build in climate resilience, and do so providing added value through the regional approach, compared to implementing similar activities in each country individually?	<p>Yes.</p> <p>However, more information is required.</p> <p>The regional project offers valuable adaptation strategies to address climate challenges in both Malawi and Tanzania. By taking a transboundary approach, the project brings added value beyond national efforts, as it enables more efficient resource use, reduces activity overlap, and fosters the development of integrated policies and practices to strengthen resilience across the entire basin. However, several of the elements are not sufficiently developed.</p> <p>In terms of Combination of Individual Projects and Overall Increase in Resilience, it is noted that while the proposal is designed as a cohesive regional program with interconnected components.</p> <p>CR1: To maximize resilience, please provide clearer connections between each individual project component and the overall program goals. By more explicitly linking each component to specific resilience outcomes, the proposal could better demonstrate how the entire program contributes to lasting climate resilience in the basin.</p> <p>In reviewing the current justification for integration (pages 10-12), we see that the proposal includes four essential components: capacity building, flood early warning systems, climate-resilient water and sanitation systems, and a community-based small grants facility.</p> <p>CR2: It would be helpful to see more detail on how their</p>

		<p>interactions lead to enhanced resilience across the region. For instance, the connection between the early warning system and community-level adaptation measures could be explained in greater depth to show how they work together to build capacity and achieve resilience outcomes. Please address.</p> <p>CR3: For the next version, please organize the proposal to show a logical flow that links each component directly to the project's overall resilience goals. Adding a diagram to illustrate how each part contributes to a unified climate adaptation strategy would make the proposal clearer. For example, showing how each component aligns with shared resilience metrics (like reduced flood risk or improved agricultural productivity) across communities in the Songwe River Basin would strengthen the case for regional integration.</p> <p>CR4: Please strengthen the proposal by providing a more direct cause-and-effect explanation linking Climate Scenarios with Interventions (pages 6-9): Each project component should be clearly linked to specific climate projections, showing why it was selected based on anticipated climate impacts. Including a table or matrix that aligns key climate threats (like increased flooding or reduced rainfall) with corresponding interventions would help illustrate how each action is targeted to address expected changes.</p> <p>CR5: Please ensure the next version includes a thorough analysis of how each project component also addresses non-climatic barriers. For example, expanding on how issues like deforestation, unsustainable land use, and population pressures worsen water scarcity and ecosystem degradation would provide a strong rationale for interventions like reforestation in Component 3. This</p>
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		<p>additional detail is required to clarify the project's approach to tackling both climate and non-climate challenges in a comprehensive way.</p> <p>on the Theory of Change (ToC) (pages 8-11): The proposal does list the project objectives, expected outcomes, and planned activities within each component. However, it currently presents these elements in a linear way without clearly showing how the activities are expected to lead to greater resilience.</p> <p>CR6: To enhance the clarity of the Theory of Change please add a diagram that connects each activity to the intended outputs, outcomes, and overall resilience goals. For example, to illustrate how activities like early warning systems, community capacity building, and ecosystem restoration contribute to resilience outcomes.</p> <p>CR7: Please also include key assumptions and any external factors (like the level of cooperation between Tanzania and Malawi) that may influence the project's success.</p> <p>CR8: With respect to Transboundary Approach, please further provide argument for a transboundary approach by illustrating how collaboration between Malawi and Tanzania adds specific benefits. For instance, shared data for flood early warning systems, cross-border resource management, and joint capacity-building efforts offer distinct advantages. In doing so, please also provide concrete examples of how outcomes might be less effective without this collaboration would reinforce the need for a regional intervention.</p> <p>CR9: in relation to alignment of project activities with Adaptation Fund Strategic Objectives, please indicate how each activity supports the Adaptation Fund's Strategic Objectives, such as reducing vulnerability, building</p>
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		<p>institutional capacity, and promoting innovation and technology transfer.</p> <p>CR10: Please strengthen section B by providing more information on the approach of the innovative solutions that the project will provide. Currently, the proposed innovative solutions are mostly listed with not sufficient detail to demonstrate effectiveness of the approach proposed.</p>
	<p>4. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy of the Fund?</p>	<p>Yes.</p> <p>However, additional information is required.</p> <p>The proposal provides a good overview of the expected beneficiaries in communities throughout the Songwe River Basin in Malawi and Tanzania. While it includes general information on target groups, the proposal would benefit from a more detailed and systematic approach to describing how benefits will be equitably distributed among vulnerable populations, in line with the Adaptation Fund's principles.</p> <p>CAR1: Please include an ESMP and identify specific initiatives, outputs and outcomes to promote gender mainstreaming and indications on how changing gender dynamics might drive lasting change.</p> <p>CAR2: Please;</p> <ol style="list-style-type: none"> 1. a section that clearly explains the project's approach to reaching the most vulnerable communities and households equitably, by including selection criteria or a vulnerability assessment that could prioritize - women-led households, elderly individuals, and low-income farmers- in the small grants program and community-based projects would enhance the proposal. Please undertake a more thorough identification of marginalized, vulnerable, and

		<p>indigenous groups in the Songwe River Basin and provide insight on how the project will tailor specific intervention, such as small grants program to meet their unique needs in an equitable manner.</p> <p>CR11: The proposal mentions the communities targeted for climate resilience improvements, however, please provide more detail on the specific benefits that marginalized and vulnerable groups, including any indigenous communities, will receive.</p> <p>CR12: Please provide specifics on how each project component will provide targeted support to these groups, in particular Component 4, please clarify the criteria for prioritizing small grants to ensure adequate support for marginalized groups to enhance their adaptive capacity.</p> <p>CR13: Please quantify the expected benefits across economic, social, and environmental dimensions such as economic gains (e.g., increased agricultural yield), social improvements (e.g., number of households with improved access to water), and environmental outcomes (e.g., hectares of land reforested).</p> <p>The proposal notes that women make up 50% of the population in the Songwe River Basin (p. 4), but it does not provide a full gender analysis. It lacks an initial assessment that identifies the different needs, capabilities, roles, and knowledge resources of women and men. There's also no clear plan for ensuring that project interventions address the specific needs of both genders.</p> <p>CR14: Please add concrete steps to ensure gender equity across all project components by setting clear targets for women's participation in decision-making processes, prioritizing women-led households in the community-based</p>
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		small grants (Component 4), and incorporating gender-sensitive indicators to monitor the impacts of project activities on both women and men.
	5. Is the project / programme cost-effective and does the regional approach support cost-effectiveness?	<p>Unsure.</p> <p>On cost-effectiveness, while each component is outlined individually, the proposal would be even stronger with a clear, integrated rationale showing how these elements together address the basin's unique climate risks and contribute to long-term resilience.</p> <p>CAR3: Please strengthen the cost effectiveness analysis and include project specific information based on the project outputs and activities including quantitative comparisons where possible.</p> <p>CR15: On pages 5-8, kindly provide a section that explicitly explains the logic of combining the different components into a cohesive strategy and also clarify how each component supports a shared resilience-building goal and how they work together to create lasting impacts.</p>
	6. Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments? If applicable, it is also possible to refer to regional plans and strategies where they exist.	<p>Yes.</p> <p>However, more information is required.</p> <p>The proposal already references does a good job of referencing some adaptation and development frameworks from both Malawi and Tanzania (pp. 5-8), and it acknowledges the importance of aligning with national and regional climate resilience goals. However, a more detailed outline of specific national adaptation plans and regional</p>

		<p>strategies would help clarify how the project aligns with each country's priorities. The cost-effectiveness section would be stronger if it compared the chosen activities to alternative approaches (pp. 10-12), demonstrating how these interventions provide sustainable, long-term benefits for the cost.</p> <p>CR16: please provide a section that explains the integrated approach of the selected components in addressing the Songwe River Basin's climate challenges. Please also clarify how each component contributes to a shared resilience-building goal and how they work together to create long-term impacts.</p> <p>CR17: Where possible, please quantify potential savings or avoided costs due to enhanced resilience. And also add a cost-effectiveness rationale for each major component, particularly in terms of reducing future vulnerabilities and maintenance expenses.</p> <p>CAR4: Please outline a sustainability framework that describes the project's financial, social, and environmental benefits over time, and link these benefits to potential reductions in future adaptation costs.</p> <p>CAR5: With regard to alignment with National and Regional Plans, please provide a summary table listing key national and regional adaptation plans, sectoral strategies, Nationally Determined Contributions (NDCs), and Sustainable Development Goal (SDG) targets that align with each project component would help reviewers quickly understand the project's strategic fit.</p>
	<p>7. Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the</p>	<p>Yes.</p>

	<p>Environmental and Social Policy of the Fund?</p>	<p>However, more information is needed.</p> <p>The proposal acknowledges the importance of meeting national technical standards in Malawi and Tanzania, including environmental and social safeguards. However, it could be strengthened by taking a more detailed and systematic approach to identifying specific national standards and showing how the project will ensure compliance.</p> <p>CAR6: Please specify the national technical standards that need to be complied with (construction codes, permits, specific regulations, quality standards etc) and outline how the project will ensure compliance, as required by the ESP of the AF.</p> <p>CAR7: In the next draft, please include a dedicated section that covers Environmental Impact Assessment (EIA) requirements, specifying which activities will undergo assessments and the standards and list the relevant technical standards (pp. 14-15) for each project component in both Malawi and Tanzania.</p> <p>CR18: Please also identify water quality regulations for WASH interventions, reference building codes for infrastructure development, and outline any sector-specific regulations related to land use or agricultural practices.</p> <p>CR19: please further elaborate the strategy for ensuring compliance with each identified standard, including the process for conducting EIAs, monitoring compliance, engaging stakeholders.</p>
	<p>8. Is there duplication of project / programme with other funding sources?</p>	<p>Partially but more information is required.</p>

		<p>The proposal lists some relevant projects but lacks detail on potentially overlapping initiatives in Malawi and Tanzania that also address climate adaptation and water management. A more comprehensive review of existing projects in the Songwe River Basin and related sectors in both countries would help avoid redundancy and ensure the proposed project complements ongoing efforts.</p> <p>CAR8: Please provide a comprehensive list or in-depth analysis (pp. 16-17) of national and regional programs that might have overlapping objectives, particularly in climate resilience, disaster risk reduction, and transboundary water resource management.</p> <p>CR20: Please thoroughly review ongoing and past projects in both Malawi and Tanzania that could contribute to the Songwe River Basin's climate adaptation goals. Key areas to consider include:</p> <ul style="list-style-type: none"> - GEF and AfDB Projects: Especially those focused on transboundary water resources, flood management, and climate resilience in Southern and East Africa. - National and Regional Water Management Initiatives: SADC framework projects, particularly those addressing shared water basins, may offer collaboration opportunities. - Community-Based Adaptation Programs: Other community-based or small-grant programs in both countries could provide best practices or serve as models for Component 4's small grants program. <p>CR21: Please present lessons learned from similar projects in the region, focusing on successes and challenges in</p>
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		transboundary cooperation, community engagement, and resource management.
	9. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?	<p>No.</p> <p>Partly but more information is needed.</p> <p>The proposal includes knowledge-sharing as an intended outcome but lacks a structured approach for managing and systematically disseminating lessons learned. A more explicit integration of knowledge management (KM)—either as a dedicated component or within the major project components—would strengthen the project’s impact on local, national, and global climate adaptation knowledge.</p> <p>CAR9: Kindly add a structured knowledge management framework that sets clear goals for capturing and sharing lessons learned throughout the project.</p> <p>CR22: Please include activities such as annual learning reports, case studies, and stakeholder workshops in both countries in order to facilitate effective knowledge capture and exchange and ensure the project’s experiences and insights are accessible and useful for a broader audience.</p>
	10. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	<p>The proposal does briefly mention stakeholder consultations but provides limited detail on the scope and inclusivity of this process, especially regarding gender considerations (pp. 18-19). A more detailed account of initial consultations, including how gender perspectives were integrated, would strengthen the proposal’s alignment with Adaptation Fund requirements for inclusive project design.</p> <p>CAR10:</p> <ol style="list-style-type: none"> 1. Please provide more details on the gender considerations which were followed paying particular attention to Environmental, Social and gender Risk policies of the Fund, and provide gender disaggregated consultation data if

		<p>available.</p> <ol style="list-style-type: none"> 2. Please include a dedicated section detailing the consultation process. Specify the types of stakeholders involved (e.g., local government, NGOs, community groups, marginalized and vulnerable groups, including Indigenous Peoples), the number of consultations held, and key outcomes. 3. Kindly explain how gender considerations were integrated, such as through separate focus groups for women or targeted outreach to women's organizations, to ensure the project design reflects gender-specific adaptation needs.
	<p>11. Is the requested financing justified on the basis of full cost of adaptation reasoning?</p>	<p>Yes.</p> <p>However, additional information is required.</p> <p>The proposal outlines activities to boost resilience in the Songwe River Basin, focusing on climate-smart agriculture, flood early warning systems, WASH improvements, and community-based small grants. However, it lacks detail on how each activity, when funded solely by the Adaptation Fund, will independently meet the adaptation objectives.</p> <p>CR23:</p> <ol style="list-style-type: none"> 1. Please strengthen the financing analysis and include a breakdown of specific financing needs for each expected output where possible. 2. Kindly provide a detailed explanation of how each activity will independently contribute to adaptation goals, particularly in reducing vulnerability to climate risks like flooding and drought (pp. 10-13). <p>CAR11: Please clarify whether each activity funded by the Adaptation Fund can achieve its expected outcomes without</p>

		<p>supplementary funding. A financial and operational breakdown showing the self-sufficiency of each component would be helpful in demonstrating this.</p>
	<p>12. Is the project / program aligned with AF's results framework?</p>	<p>Yes.</p> <p>However, more information is required.</p> <p>The proposal outlines key adaptation outcomes (pp. 15-18), including increased adaptive capacity, improved early warning systems, strengthened livelihoods, and enhanced ecosystem resilience. However, it lacks a clear mapping of these outcomes to the specific outcomes and outputs in the Adaptation Fund's Strategic Results Framework. For example, Outcome 1 of the Fund's framework—"Reduced exposure to climate-related hazards and threats"—aligns with the project's early warning systems, but this link is not explicitly established.</p> <p>CAR12: Please, include a table that demonstrates how the project/programme aligns with the Results Framework of the Adaptation Fund as required by the CN template.</p>
	<p>13. Has the sustainability of the project/programme outcomes been taken into account when designing the project?</p>	<p>Yes. However, more information is required.</p> <p>Issues of maintenance of water supply and sanitation infrastructure have not been addressed and financial sustainability post project can be strengthened at Part II Section K.</p> <p>CR24: Please amend to address the issue of water supply and sanitation infrastructure, including considering future climate impacts, and providing additional information on financial sustainability post project at Part II Section K.</p>

	<p>14. Does the project / programme provide an overview of environmental and social impacts / risks identified, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?</p>	<p>Yes.</p> <p>However, additional information is required.</p> <p>The proposal successfully completes a checklist for environmental and social impacts, identifies risks in line with ESP principles, substantiates its conclusions, and includes an initial gender assessment. However, the gender assessment would benefit from more detailed data to better capture the gender dynamics within the project area.</p> <p>Part II Section L contains an overview of potential environmental and social impacts and risks. However</p> <ol style="list-style-type: none"> 1. The project risk category is not provided. 2. Additionally, on "Compliance with the Law"- there is no mention of allowances to be made if a new legislation is passed in one or more of the participating countries. 3. On "Gender Equity and Women's Empowerment" the proposal indicates that SONGWECOM's Gender Mainstreaming Strategy and Action Plan (GEMSAP) will be one of the guiding tools in the implementation the project. However, the proposal does not provide detailed information on the GEMSAP, nor does it indicate specifically how the GESMAP will be incorporated and how gender considerations will be mainstreamed in the project outcomes/outputs. <p>This is not adequately reflected in the proposal particularly in the absence of an initial gender analysis. Please note that the risk assessment should reflect the potential risks and impacts of the current context, without including mitigation measures by the projects</p>
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		<p>CAR13:</p> <ol style="list-style-type: none"> 1. Please include a risk category for the project. 2. Please make allowance for possible new legislation that the proposal may be subject to. 3. Please amend table at section L which indicates that no further assessment is required for any of the <p>CAR14:</p> <ol style="list-style-type: none"> 1. Please include an initial gender analysis as is required for the CN stage. This should include providing qualitative and quantitative data for gender roles, activities, needs, and available opportunities and challenges or risks for men and women relevant to the project. 2. Please ensure that the findings are integrated as gender-responsive implementation and monitoring arrangements, including gender-responsive indicators. 3. Please provide more information on the GESMAP and strengthen gender equity and Women's empowerment throughout the proposal, paying particular attention to specific gender considerations in the project outcomes/outputs and CAR1 above.
	15. Does the project promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms?	<p>Yes.</p> <p>The project will support the implementation of innovative adaptation practices, tools, and technologies for communities within the river basin focusing on water-efficient technologies, Flood Early Warning Systems (FEWS), Climate Smart Agriculture, specialized agro-forestry technologies, digital climate information dissemination mechanisms and more.</p>
	Resource	<p>1. Is the requested project / programme funding</p> <p>Yes.</p>

Availability	within the funding windows of the regional projects/programmes?	
	2. Are the administrative costs (Implementing Entity Management Fee and Project/ Programme Execution Costs) at or below 10 per cent of the project/programme for implementing entity (IE) fees and at or below 10 per cent of the project/programme cost for the execution costs?	Yes.
Eligibility of IE	1. Is the project/programme submitted through an eligible Multilateral or Regional Implementing Entity that has been accredited by the Board?	Yes. UNEPs accreditation Expiration Date: 29 November 2025.
Implementation Arrangements	1. Is there adequate arrangement for project / programme management at the regional and national level, including coordination arrangements within countries and among them? Has the potential to partner with national institutions, and when possible, national implementing entities (NIEs), been considered, and included in the management arrangements?	n/a at concept stage
	2. Are there measures for financial and project/programme risk management?	n/a at concept stage
	3. Are there measures in place for the management of for environmental and social risks, in line with the Environmental and Social Policy and Gender Policy of the Fund? Proponents are encouraged to refer to the Guidance document for Implementing Entities on compliance with the Adaptation Fund Environmental and Social Policy, for details.	n/a at concept stage
	4. Is a budget on the Implementing Entity Management Fee use included?	n/a at concept stage

	5. Is an explanation and a breakdown of the execution costs included?	n/a at concept stage
	6. Is a detailed budget including budget notes included?	n/a at concept stage
	7. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators, in compliance with the Gender Policy of the Fund?	n/a at concept stage
	8. Does the M&E Framework include a breakdown of how implementing entity IE fees will be utilized in the supervision of the M&E function?	n/a at concept stage
	9. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework?	n/a at concept stage
	10. Is a disbursement schedule with time-bound milestones included?	n/a at concept stage



CONCEPT NOTE FOR REGIONAL PROJECT/PROGRAMME

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Promoting Resilience and Adaptation to Climate Change in the Songwe River Basin

Countries: Malawi and United Republic of Tanzania

Thematic Focal Area¹: Transboundary water management

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: United Nation Environmental Programme (UNEP)

Executing Entities: The Joint Songwe River Basin Commission (SONGWECOM)

Amount of Financing Requested: \$13,999,000.00 (in U.S Dollars Equivalent)

Project Formulation Grant Request: Yes (in U.S Dollars

Amount of Requested financing for PFG: 149,600 Equivalent)

Letters of Endorsement (LOE) signed for all countries: Yes ☒ No ☐

NOTE: LOEs should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: <https://www.adaptation-fund.org/apply-funding/designated-authorities>

Stage of Submission:

☐ This proposal has been submitted before including at a different stage (pre-concept, concept)

☒ This is the first submission ever of the proposal at any stage

In case of a resubmission, please indicate the last submission date: Click or tap to enter a date.

Please note that the Concept note proposal document should not exceed 50 pages, including annexes.

¹ Thematic areas are: Food security; Disaster risk reduction and early warning systems; Transboundary water management; Innovation in adaptation finance.

Project/Programme Background and Context:

The Songwe River is a valuable local and regional water course that is facing growing pressures by human and climatic stressors, placing both communities and natural habitats within the catchment at risk. The Songwe River Basin (SRB) covers an estimated area of 4,200 km² encompassing portions of two districts in Malawi (Chitipa and Karonga) and five districts in Tanzania (Kyela, Ileje, Mbozi, Momba, and Mbeya Rural). Originating from an upper Plateau Zone, the Songwe flows downward through a floodplain before reaching Lake Malawi/Nyasa and is part of the wider Zambezi River basin. The river forms part of the formal border between Malawi and Mainland Tanzania and has an estimated population of over 430,000 with 50% being women².

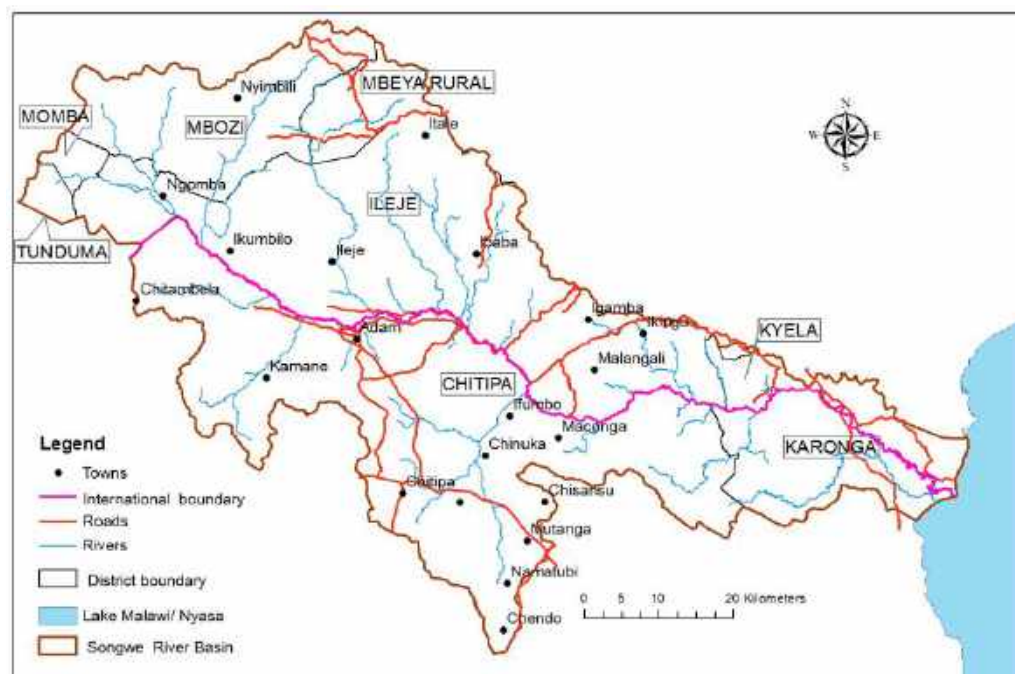


Figure 1. Map of the Songwe River Basin ³

The Songwe River Basin (SRB) is encountering escalating challenges due to the combination of a growing basin population and shifting climatic patterns. The interplay of both natural and human-induced stressors, such as a rapidly expanding population coupled with climate variability and unsustainable practices regarding natural resources, is exerting additional pressure on water resources, land, and the biodiversity within the catchment. There is a noticeable rise in environmental degradation, habitat destruction, and land-based pollution sources. It has become imperative to safeguard and improve the availability and quality of essential water, energy, agricultural, and ecosystem services. Addressing the intricate interconnections among these elements within the basin is crucial to meet the current and future human and environmental requirements⁴.

Some of the main environmental challenges in the Songwe River Basin are:

² www.africanwaterfacility.org/sites/default/files/AWF-Project-appraisal-report-MULTIN-SONGWE.pdf

³ GEF Strategic Action Plan (SAP) for the Songwe River Basin (SRB), THE JOINT SONGWE RIVER BASIN COMMISSION

⁴ https://www.researchgate.net/publication/370353157_Assessment_of_Climate_Change's_Impacts_on_River_Flows_in_the_Songwe_Sub-Basin

- Climate change and its impact: available data suggests a likelihood of a continuing decline in average rainfall, while extreme rainfall events will tend to increase in magnitude and frequency causing more frequent flooding.
- Recurrent flooding, especially in the lower basin, which destroys cropped areas, damages infrastructure, and causes loss of life and habitats;
- Increasing drought frequency and water scarcity.
- Growing population pressures due to growing food, water and energy needs, leading to land and forest degradation, declining water levels and quality;
- Deforestation, unsuitable fishing practices, bush burning, and unsustainable cultivation practices causing soil erosion, high sediment loads, and biodiversity loss;
- Deterioration of water quality, health and sanitation facilities plus disposal of waste into rivers and groundwater contaminate and deteriorate the environment and affect public health;
- Frequent shifting of the international border between Tanzania and Malawi in the river delta zone due to the constant and random meandering of the river, making district development planning difficult.

Due to these challenges in the basin, riparian countries signed a Convention that established a Joint Songwe River Basin Commission (SONGWECOM) on 18 May 2017 and came into force on 1st July 2018, resulting in Songwe River Basin Development Programme (SRBDP) which is designed to deliver a Shared Vision 2050 i.e., Utilizing the basin's natural resources for sustainable and inclusive socio-economic development, and reducing the adverse impacts associated with floods in the lower basin".

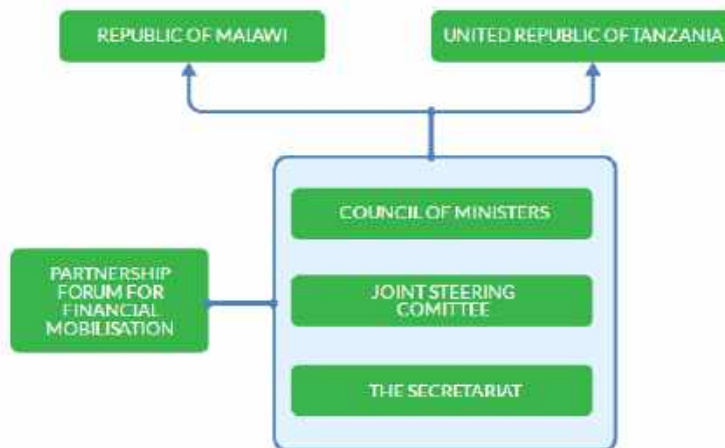


Figure 2. Organizational Structure of the SONGWECOM⁵

The Songwe River Basin Development Programme (SRBDP) is a bilateral initiative between Malawi and Tanzania on the trans-boundary Songwe River. The SRBDP seeks to implement a comprehensive, multi-sectoral approach to harness the potential within the basin, fostering climate change adaptation and mitigating its adverse environmental effects, particularly on food production. Aligned with the Southern African Development Community (SADC) Regional Strategic Action Plan for international water resource management, the program aims to promote collaboration and equitable sharing of benefits from shared watercourses in Tanzania and Malawi. The objectives of the SRBDP are framed within a broader context of sustainability and climate resilience for both nations. These objectives encompass contributing to economic growth, poverty reduction, improved health and livelihoods, enhanced food and energy security throughout the basin, and minimizing the socio-economic impacts of the meandering river on communities in the floodplain. The SRBDP interventions consist of significant multipurpose water resources and potential

⁵ SRBDP Final Project Report- DDIP 2013-2018

power infrastructure, which include: irrigated agriculture; water supply; fisheries; and tourism development Projects.

SONGWECOM carried out the GEF Transboundary Diagnostic Analysis, (September 2023) recognizing the climate change impacts and highlighting the need to balance natural resource preservation with improving residents' quality, requiring action on deforestation, resource degradation, poverty, education, infrastructure, and sustainable energy. Key recommendations of the TDA 2023 were

- a) Government Commitment: Both governments must commit to addressing transboundary governance issues, sustaining high-level political goodwill and resources for collaborative institutional frameworks.
- b) Integrated Management Plan: Develop and implement an integrated Ecosystem-Based Management Plan, harmonize policies and laws, and expand international and regional cooperation.
- c) Sustainable Land Use: Implement integrated watershed management, enhance land use planning, promote tree planting and protection, control livestock, and foster public-private partnerships.
- d) Community Participation: Engage communities in sustainable environmental management through monitoring and control of human activities, awareness campaigns, harmonized principles in national legislation, and increased environmental education.
- e) Water Security: Ensure clean and safe water access through standardized data collection, monitoring, and strengthening agreements related to the SRB.
- f) Biodiversity Conservation: Develop and implement biodiversity strategies with integrated Ecosystem-Based Management, preventing harmful human activities in ecologically fragile areas.

SONGWECOM further developed the Strategic Action Planning (SAP) for the Joint Songwe River Basin Commission, January 2024, to guide evaluation and prioritization of crucial transboundary issues identified in the TDA. The SAP outlines targeted interventions, establishes clear goals and objectives, and proposes strategic actions and approaches for sustainable management of shared water and water related resources. It will further guide bilateral cooperation of the two riparian countries in the sustainable management of the shared water resources for attaining sustainable and inclusive socio-economic development.

Thematic Areas	Key Transboundary Issues
Ecosystem services and biodiversity	1. Decrease of habitats and their values 2. Endangerment and extinction of species 3. Loss of aquatic and terrestrial biodiversity 4. Ecosystem degradation and biodiversity loss
Water Resources Analyses	5. Flooding 6. Water pollution and reduced water quality including sedimentation/siltation 7. Watershed and water resources degradation 8. Reduced environmental flow 9. Increased water demand with decreasing water availability 10. Insufficient engagement of stakeholders in the management of water resources 11. Untapped hydropower potential
Land degradation and soil erosion	12. Erosion and soil losses 13. Ecosystems and landscape degradation 14. Declining water quality 15. Deforestation and wetland/floodplain degradation
Climate Change Analyses	16. Scarcity, variability and poor quality of water 17. Vulnerability of agriculture and livelihoods
Socio-Economic Analyses	18. Unsustainable land uses and management 19. Unsustainable extraction of resources (forestry, fisheries etc.) 20. Deforestation 21. Loss of habitats for beekeeping 22. Overharvesting of some tree species for good charcoal
Governance	23. Environmental degradation

Addressing climate change impacts and challenges is important for SONGWECOM as these are a major hindrance in implementing the SRBDP that requires full commitment, participation and collaboration of a healthy community. Furthermore, implementation of the Promoting Resilience and Adaptation to Climate Change in the Songwe River Basin Project will contribute to Strengthening resilience and adaptive capacity to climate-related hazards and natural disasters in the basin as reflected under the SDG 13. Furthermore, the project aims at achieving universal, adequate, and equitable access with gender integration to safely managed water and sanitation systems that can withstand climate change as reflected under the SDGs 5, 6,8.

SOCIO-ECONOMIC CONTEXT

The Songwe River Basin (SRB) is predominantly an agricultural region, with limited industrial activity and few alternatives for income generation. Cultivation is predominantly favored in the hilly areas and foot zones, but the expansion of settlements has led to the intensive cropping of steeper slopes. These practices contribute to significant soil erosion, runoff, river siltation, and heightened flooding. Water scarcity is a daily challenge for a majority of household farmers. Preliminary estimates indicate a notable lack of access to safe water sources, with percentages of 30%, 40%, and 50% in the Lower, Middle, and Upper basin, respectively.

The basin exhibits heterogeneous soil quality, placing constraints on crop and food production. Reduced fallow periods have limited the opportunity for grass, bush, and woodland vegetation to regenerate and enrich the soil with organic matter and nutrients. The high variability of rainfall and inadequate access to water supplies have been identified as factors impacting various production and income activities, thereby influencing food security and ecosystem health. Significant challenges within the SRB include the loss of vegetation cover, widespread soil erosion, diminished water infiltration capacity, declining soil fertility, and increased sedimentation in the rivers.

The rivers in the region have witnessed a consistent decline in average discharge during dry seasons over the years, coupled with a rise in flash floods and heightened sediment transport during rainy seasons.

Surface water sources are experiencing pollution, while groundwater is being contaminated by intrusion. Water supply systems geared towards providing accessible and clean water are predominantly limited to urban areas. Unprotected point sources, such as boreholes, are susceptible to contamination, and some may dry up during the dry season. Sewer and sewage treatment systems are largely absent in the basin area.

In regions with higher population densities, the absence of sanitation infrastructure leads to bacteriological contamination of surface runoff, adversely impacting the quality of both surface and groundwater. The anticipated larger-scale mining of mineral deposits and artisanal mining activities in the upper and middle basin pose a potential risk of exacerbating water pollution over time. Agricultural intensification and increased reliance on agro-chemicals further contribute to the problem, as chemical residues are washed off into drainage lines, ultimately finding their way into the Songwe River and, consequently, into Lake Malawi.

The basin plays an essential role in supporting the livelihoods for the majority of the rural poor who depend on the ecosystem-based productive and extractive livelihood activities. The basin consists of diverse and richer ecosystem and biodiversity habitats including forests, arable land, waters, swamps, and grasslands that support a diversity of terrestrial and aquatic flora and fauna. This makes the basin the hotspot for ecosystem and biodiversity conservation ensuring continued flows of ecosystem services. The basin's ecosystem supports the local population that is engaged in various growth livelihood sectors including agriculture, livestock, forestry, beekeeping, and fishery.

However, the current livelihood activities are pursued unsustainably leading to degradation of the vital ecosystems and biodiversity. Such environmental degradation, apart from threatening the ecosystem health, it undermines socio-economic development in the basin. Thus, it is pertinent to reposition the local livelihoods on sustainable socio-economic development path. The transboundary nature of the shared water and related resources in the basin calls for jointly coordinated efforts between the two riparian countries

Climate Change Context

In a study conducted by Muganyizi et al. (2021)⁶ in Ileje district, Tanzania, it was found that climate change had a substantial impact on 36% of the total respondents' livelihoods. The increase in temperature and decrease in rainfall adversely affected farming and various socio-economic activities, thereby impacting incomes, food security, land productivity, natural capital, human capital, and biodiversity. A study carried out by USAID⁷ found illustrated a critical climate change effect on rice and maize, that of hot temperatures directly lowering yield. A large impact on rice was apparent after 2005 in various samples where yields in some sample stations were halved due to the impact of extreme temperatures. Frequencies of hot days is already increasing in all regions and will continue to become more frequent further affecting yields in the region. As vulnerability to climate change rises, livelihood options decrease, potentially leading communities to resort to unsustainable use of natural resources.

The analysis of the future climate in the SRB indicates a concerning outlook, with anticipated impacts on livelihoods, ecosystems, and overall socio-economic conditions. Projected temperature increases on both sides of the SRB suggest potential risks to the basin's primary resources and livelihoods. The associated rise in temperature is expected to lead to more frequent droughts. Haile et al. (2020), using the standardized precipitation-evapotranspiration index (SPEI), reported that droughts in East Africa are likely to increase by 36% under the RCP 4.5 climate change scenario by the end of the 21st century.

⁷ Impacts of Climate Change on Rice and Maize, and Opportunities to Increase Productivity and Resilience in Malawi, Global Center for Food Systems Innovation, 2017

Malawi is expected to become significantly warmer, with an increase between 1.5°C and over 3.5°C by 2050. Projected changes in precipitation points to a tendency for rain to fall more intensely, with negative impacts for food production and access to water.

Climate change is also anticipated to impact Lake Nyasa/Malawi and the Songwe River ecosystem in terms of water temperature (due to increased temperature), nutrient profile (due to riparian environmental degradation), and column depth, thereby affecting fish stock and composition. Elevated surface temperatures can lead to hypoxia (deoxygenation) in bottom waters. Droughts and receding water levels resulting from climate change will further affect fish species and catches. For example, Simmance et al. (2022) reported reduced catches of favourite fish species in Lake Chilwa, southern Malawi, due to increased drought and lake level recession in recent years, while catfish (*Clarius gariepinus*) catches remained unaffected.

The projected elongated seasonal rains in the SRB may also serve as a significant driver of frequent flash floods and fluvial floods in lowlands. Flooding issues have far-reaching consequences, affecting crops, infrastructure, and public health. Immediate triggers encompass intense rainfall, topography, drainage issues, blocked waterways, and sediment build-up. Underlying factors involve deforestation, land use shifts, poor floodplain management, lack of flood protection, and inadequate watershed strategies. Communities residing in flood-prone areas may be vulnerable to the loss of assets (housing) and the failure of infrastructure, such as access roads and sanitation. A study by Mikova and Ipyana (2019)⁸ reported that the annual flooding of the Songwe River in Kyela district causes outbreaks of water-borne diseases such as diarrhoea and typhoid as floodwaters wash through latrines, barnyards, and water sources.

Root causes encompass climate change, unsustainable land practices, and insufficient infrastructure and planning. The Songwe River Basin (SRB) faces significant land degradation challenges according to a study simulated for the period of 2022-2050 factoring in climate change. Analysis of land use and cover change reveals a 62% decline in woodland and a 200% increase in cultivated land. The study also indicates that about 31% of the basin experiences high to severe soil erosion risks, with 11% facing very severe to catastrophic erosion risks exceeding 10 tons per hectare per year. A study⁹ estimated mean soil loss rates of 15.22 and 15.81 tons/ha/year in Chitipa and Karonga, respectively. Recent data for Karonga suggests soil loss ranging from 4 to 30 tons/ha/year. Another study¹⁰ demonstrated upper catchment areas with a potential for over 25 tons per hectare per year. With the basin's steep slopes and variable rainfall, infrequent heavy rains predominantly transport sediment

⁸ Towards realization of nexus-doing at the grassroots level: Water-energy-food governance assessment in the Songwe River Basin (Tanzania and Malawi) : M Ipyana and K D Mikova 2019

⁹ Vargas and Omuto (2016): Soil loss Assessment in Malawi; Food and Agriculture Organization of the United Nations and the UNDP-UNEP Poverty-Environment Initiative and the Ministry of Agriculture, Irrigation and Water Development, Malawi

¹⁰ Munthali, K. G., Irvine, B. J., & Murayama, Y. (2011). Reservoir sedimentation and flood control: using a geographical information system to estimate sediment yield of the Songwe river watershed in Malawi. Sustainability, 3(1), 254-269.

Region	Climate change trend	Impacts	
		By 2025	By 2055
1	Precipitation variability	Continuing trend of seasonal and interannual variability in precipitation. A transition zone between areas where the annual rainfall is more likely to increase (to the north) and more likely to decrease (to the south). Any changes are most likely (but not definitively) in the range -10% to +10%. The possibility of increased rainfall rises with higher emissions.	Continuing trend of seasonal and interannual variability in precipitation, decreased winter rainfall and increased aridity, in combination with wind gustiness, drying out of seasonal wetlands/pans and ephemeral rivers. Variability in particular at boundary with southernmost extent of intertropical convergence zone (ITCZ). A transition zone between areas where the annual rainfall is more likely to increase (to the north) and more likely to decrease (to the south). Any changes are most likely (but not definitively) in the range -10% to +10%. The possibility of decreased rainfall is higher than around 2025. Water supply is challenged by increased temperatures (and associated evaporation), and more erratic rainfall patterns, leading to vulnerability of perennial river systems and decreased level of the groundwater table.
	Temperature variability	Continuing trend of increased mean annual air temperature (MAAT). Likely increase of MAAT by 0.5°C to 1.5°C, but lower/higher values cannot be excluded; some increase in length of warm spells and reduced frequency of cold periods.	Continuing trend of increased MAAT, aridity trend will reinforce decreased humidity especially under more erratic seasonal precipitation regimes; increased heatwaves; increased thunderstorm activity, heatwaves. Likely increase of MAAT by 0.5°C to 3.0°C, but lower/higher values not excluded; almost certain increase in length of warm spells and reduced frequency of cold periods.
	Extreme events	More erratic precipitation and temperature regimes, resulting in some likely increase in extreme flood/drought events.	More erratic precipitation and temperature regimes, resulting in an increased likelihood of extreme flood/drought events, both in severity and duration. This will have a multiplier effect in increasing vulnerabilities to other risk events and thus result in wider likely impacts.
	Agriculture	Food insecurity arising from political instability across the region and challenges to both food production and supply, climatic instability.	Increased overall drying trend and decreased winter rains result in decreased food production in total and land surface degradation and soil erosion due to increased aridity and soil moisture loss. Deforestation and loss of biodiversity an increasing issue. Aridification and spread of sand dunes in Sahelian areas. Rain-fed agriculture will be likely less reliable in many areas and irrigated agriculture will become more significant, but this poses problems for farmers' access to technology, investment and training (including provision of GM seeds).
	Health	Pockets of different disease types as a result of site-specific water/air pollution, amplified by incorrect water, agricultural and land management practices, and mining wastes. Low nutrition/health in some areas due to food insecurity.	Widespread health effects due to food/water insecurity, availability of potable water, water contamination by runoff, and low water quality due to biological diseases, pollution/sewage runoff into rivers, wastewater and groundwater contamination due to poor sanitation in informal settlements and due to industries such as mining.

TABLE 2. CLIMATE IMPACTS FOR THE SRB REGION ¹¹

Project/Programme Objectives:

The overarching goal of the project is to promote resilience to climate hazards and enhance climate change adaptation measures to the communities within the Songwe River Basin (SRB). This will consider key actions that contribute to the SRB Strategic Action Plan (2024) including:

- I. Cross-Border Cooperation: Foster collaboration, coordination and knowledge sharing among Malawi and Tanzania to address transboundary challenges related to climate change adaptation, water management, and disaster risk reduction in the SRB.
- II. Strengthening Community Resilience: Empower local communities through education, training, and resources to implement climate-resilient practices in agriculture, water management, and livelihood options
- III. Integrated Water Resource Management: Implement integrated water resource management strategies that consider the impacts of climate change on water availability, quality, and distribution. This will involve promoting water conservation, enhancing irrigation efficiency, improving access to clean water and developing sustainable water storage solutions.
- IV. Ecosystem Restoration and Conservation: Protect and restore natural ecosystems, such as wetlands and forests, which provide vital ecosystem services like flood regulation, water filtration,

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- and biodiversity preservation.
- V. Early Warning Systems: Establish and strengthen early warning systems to forecast and mitigate the impacts of climate-related hazards, such as floods, droughts, and landslides. This includes investing in weather monitoring infrastructure, community-based disaster preparedness, and communication networks.
- VI. Promoting Climate-Smart Agriculture and fisheries: Encourage the adoption of climate-smart agricultural practices that are resilient to climate variability and change. This may involve promoting drought-resistant crop varieties, conservation agriculture techniques, and agroforestry systems.

The objective of the project is to incorporate climate adaptation response strategies into local practices so that assets, livelihoods and ecosystem services are protected from climate induced risks associated with expected droughts, seasonal shifts and storm-related disaster events

The expected project outcomes are;

- a) Institutional Capacity of SONGWECOM enhanced to plan, design and implement transboundary IWLRM
- b) SONGWECOM, local governments and communities planning and decision making grounded on improved climate information and services through a user-centered integrated Early Warning Systems for drought and floods
- c) Increased uptake and use of concrete adaptation technologies, climate resilient WASH technologies and catchment protection measures
- d) Enhanced knowledge and capacity of communities, government and policymakers and exchange of best practices to promote climate resilient development

Project/Programme Components and Financing:

The Promoting Resilience and Adaptation to Climate Change in the Songwe River Basin Project is planned to cover all the seven (7) Districts of the SRB, which are Ileje, Kyela, Mbeya Rural, Momba and Mbozi in Tanzania and Karonga and Chitipa in Malawi. The project will cover only the Wards/Traditional Authorities and villages that fall under the Songwe River Basin. The proposed project components to be implemented are:

Component 1: Strengthen Institutional capacity and knowledge management for effective climate change adaptation in SRB

Component 2: Enhance institutional capacity for planning, designing, implementing and monitoring integrated Flood Early Warning systems (FEWS)

Component 3: Transfer concrete adaptation technologies, climate resilient WASH and catchment protection measures

Component 4: Small Grants programme to support the implementation of innovative adaptation practices, tools, and technologies at community level

The project targets aim to benefit 25 villages with an estimated population of 103,000 people living in the rural areas of the basin.

The project will aim at establishing and strengthening the capacity of the institutions at all levels in operation and management of the infrastructure. Furthermore, involvement of the communities and other stakeholders from inception to implementation of the project will be the key factor in ensuring sustainability of the project.

Project/Program me Components	Expected Outcomes	Expected Outputs	Countries	Amount (US\$)
1. Strengthen Institutional capacity and knowledge management to promote climate resilient development in the SRB	Institutional Capacity of SONGWECOM, local governments enhanced to plan, design and implement transboundary IWLRM	<ul style="list-style-type: none"> • Comprehensive assessments of groundwater resources, including quantity, quality, recharge rates, and aquifer characteristics and interaction with Songwe River • Detailed mapping of wetlands and floodplains to understand their current state, and analysis of floods risks and impacts • Develop/update policies and regulations for sustainable groundwater extraction and use • Climate sensitive land use and management plans developed/updated • Training provided to SONGWECOM, central and local governments and agencies, civil society and the private sector to address climate change-related challenges in transboundary water catchment management. • Communication strategy to share lessons learned from the project 	Tanzania & Malawi	1,555,000.00
2.Enhance capacity for planning, designing, implementing and monitoring integrated Flood Early Warning systems (FEWS)	Climate information dissemination mechanism strengthened to deliver climate information to national policy-makers, SONGWECOM technical officers and local communities.	<ul style="list-style-type: none"> • Improved observation networks and databases, drought and flood risk assessment tools which lead to user-centered integrated EWSs • EWS Web portal to support decision-making for regional, national, and community level agriculture, water, and energy stakeholders • Monitoring network of the Songwe Flood Forecasting Platform supported through Automated Weather Stations and Automated Hydrological stations. • Integration into FEWS and development of hydrological forecasting models • Capacity building to enhance widespread adoption, effectiveness, and reliability of FEWS 	Tanzania & Malawi	1,500,000
3. Transfer climate resilient	Climate resilient water supply and	<ul style="list-style-type: none"> • Water Harvesting and Management including rainwater harvesting through 	Tanzania & Malawi	5,000,000.00

Project/Programme Components	Expected Outcomes	Expected Outputs	Countries	Amount (US\$)
WASH	sanitation infrastructure promoted	<p>ponds and check dams for seasonal water and access and to increase soil moisture</p> <ul style="list-style-type: none"> • Introduce water-efficient technologies in crop, livestock and aquaculture production • Water Supply & Sanitation Infrastructure Developed and Rehabilitated • Build the capacity of smallholder irrigators and WUAs on efficient irrigation water management 		
4. Small Grants programme to build SRB resilience through community implemented small scale projects innovative adaptation practices, tools, and technologies	Improved Community resilience to climate change in the basin.	<ul style="list-style-type: none"> • Livelihood Diversification and Alternative Income Sources • Climate Smart Agriculture • Climate proof settlements and infrastructure 	Tanzania & Malawi	3,400,000.00
				11,455,000
5. Project/Programme Execution cost				1,272,000
6. Total Project/Programme Cost				12,727,000
7. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)				1,272,000
Amount of Financing Requested				13,999,000

Projected Calendar:

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

Milestones	Expected Dates
Start of Project/Programme Implementation	March 2026
Mid-term Review (if planned)	March, 2028
Project/Programme Closing	March, 2031
Terminal Evaluation	September, 2030

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Describe the project/programme components, particularly focusing on the concrete adaptation activities, how these activities would contribute to climate resilience, and how they would build added value through the regional approach, compared to implementing similar activities in each country individually. For the case of a programme, show how the combination of individual projects would contribute to the overall increase in resilience.

Promoting Resilience and Adaptation to Climate Change in the Songwe River Basin project aims to contribute to the Songwe River Basin Development Programme (SRBDP) through the Strategic Action Plan (SAP,2024) for the Songwe River Basin (SRB), which resulted from a detailed and comprehensive Transboundary Diagnostic Analysis (TDA) conducted in the Basin from 2022 to 2023. The Strategic Action Plan for the joint Songwe River Basin aims at contributing to the sustainable and inclusive socio-economic development through strategic cooperation in integrated management of transboundary natural resources between the United Republic of Tanzania and the Republic of Malawi, enabling them to systematically evaluate and prioritize crucial transboundary issues identified in the TDA. The SAP outlines targeted interventions, establishes clear goals and objectives, and proposes strategic actions and approaches for sustainable management of shared water and water related resources through collaborative and participatory processes – hence it is relevant locally, nationally, regionally relevant in the context of bilateral cooperation of the two countries

The project is to be implemented by SONGWECOM which is a bilateral transboundary river basin organization between the Governments of the United Republic of Tanzania and the Republic of Malawi established under a Convention signed on 18th May, 2017 and came into force on 1st July, 2018. Through SONGWECOM, basin natural resources are jointly managed and utilised by the two countries and climate change transboundary based challenges are addressed in an amicable manner. The structure of the Commission ensures all key sectors of water, energy, irrigated agriculture, lands, and local governments participate in governing the transboundary resources. The cooperation existing between the two countries guarantee protection of the basin ecosystem. The project will mainly focus on the following components and activities:

Component 1: Strengthen Institutional capacity and knowledge management to promote climate resilient development in the SRB

The SRB is presently confronted with the swift repercussions of climate change, impacting both water availability and users. It is vital for the SONGWECOM to devise and execute effective adaptation measures to alleviate these impacts, however, a capacity needs assessment showed gaps across core areas of IWRM, IUWM, and climate change adaptation implementation.

To address the challenges posed by climate change effectively, it is imperative to prioritize capacity-building for adaptation and establish robust coordination and collaboration with SRB stakeholders. This approach will facilitate the implementation of initiatives aimed at adapting to the impacts of climate change on water resources and communities livelihoods. By enhancing its capacity and fostering partnerships, SONGWECOM can adeptly confront the challenges of climate change and ensure the sustainable management of water resources across the entire basin.

The TDA 2023 further found that lack of integrated ecosystem-based approach to natural resource management and limited information and knowledge on ecosystems to the local communities and local governments were one of the major causes of ecosystem degradation. Given SONGWECOM is a knowledge-driven organization, it observes areas of research including, agriculture, IWR, EbA , that may be required in the course of implementation of the SRBDP.

The proposed activities are:

- Conduct Climate Change sensitisation and awareness trainings for SONGWECOM staff,
- Comprehensive assessments of groundwater resources, including quantity, quality, recharge rates, and aquifer characteristics and interaction with Songwe River
- Capacity building to communities and Water Users Groups in adaptation measures,
- Detailed mapping of wetlands and floodplains to understand their current state, and analysis of floods

risks and impacts

- Develop/update policies and regulations for sustainable groundwater extraction and use
- Develop integrated Ecosystem-Based Management Plan that harmonizes national policies and laws, and expand international and regional cooperation.
- Climate sensitive land use and management plans developed/updated
- Training provided to SONGWECOM, local governments and agencies, civil society and the private sector to address climate change-related challenges in transboundary water catchment management.
- Educate and engage, public and private sector engineers and hydrologists on sustainable groundwater use and conservation practices
- Foster learning and appreciation of integrating FEWS (Component 2) into climate-resilient WASH practices through exchange visits between the communities within the SRB targeting community leaders and members of catchment management committees. These visits are intended to provide firsthand exposure to successful climate-resilient WASH initiatives, facilitating knowledge transfer and inspiring best practices within the Songwe River Basin.
- Establish a forum of researchers and technical experts working on climate change adaptation to coordinate climate change research initiatives in the SRB,
- Develop communication strategy to share lessons learned from the project with relevant national and regional stakeholders, produce awareness raising materials and climate change adaptation best practices

Component 2: Enhance capacity for planning, designing, implementing and monitoring integrated Flood Early Warning systems (FEWS)

Flooding events in the Songwe River Basin have been significant and have had notable impacts on communities and ecosystems in the region. These events are primarily influenced by factors such as heavy rainfall, seasonal variations, and land use practices. The Integrated SONGWECOM capacity development programme and SRDP targets significant reduction of flooding, reduced damage to property and loss to livelihoods on the floodplain and optimized hydropower production in the SRB. This will require the development of integrated flood control and further build the capacity of vulnerable communities on early warning response systems. With the support of GEF through AfDB, SONGWECOM developed the Songwe Flood Forecasting System. However, due to the lack of monitoring stations across the basin, currently the platform is running on global satellite prediction models and global meteorological forecasting data as precipitation input to run hydrological forecasting models. These gaps highlight the need to develop and integrate strategic hydrometeorological monitoring network of stations in the Songwe River Basin for river flow and levels, rainfall and related meteorological data water quality and sediment transport data and insuring integration of data with parallel monitoring and warning initiatives within Malawi and Tanzania.

Flood modelling is a complement of forecasting and an important approach in flood control. Due to its ability to accurately anticipate and successfully mitigate the effects of floods Hydrologic modelling and hydraulic modelling are two crucial components of the evaluation and management of flood risk, with the potential to guide adaptation investments. Spatial, hydrological, meteorological, and projected climate data will be inputs that will be gathered to feed for example HEC-HMS or SWAT hydrological models which will be run for catchment management. The SWAT model will be used for modeling the effects of climate change on river streamflow and calculate the basin's hydrologic water cycle by integrating various spatial data, observed data, and anticipated climatic data which makes it valuable for catchment management.

Flood Forecasting and Early Warning Systems (FFEWS) report recommended the installation of six automated weather stations and 4 hydrological stations around the basin to assist in flood forecast and early warning systems.

The data monitoring stations and platforms will be complemented by the preparation and adoption of MoUs with MDAs for operation and maintenance of hydrometeorological networks and data acquisition and sharing responsibilities between SONGWECOM and national institutions. The MOU with national meteorological services will support data and information exchange, particularly for flood forecasting and early warning systems, and future dam operations as well as applications such as water allocation and pollution control.

To enhance the capacity of stakeholders engaged in the implementation of Flood Early Warning Systems (FEWS) and WASH technologies, a comprehensive approach involving assessing the specific capacity needs of stakeholders at, regional, district, and local levels will be undertaken. Based on these assessments, tailored capacity building plans will be developed to address identified gaps. Establishing/reactivating disaster management committees and development of comprehensive disaster management plan for the Songwe River Basin that integrates will enable timely access to FEWS alerts and warnings to and can significantly improve their disaster preparedness and response capabilities of flood-prone areas.

The proposed activities are:

- Develop and adopt MoU for data and information exchange for hydrometeorology, flood and early warning systems between SONGWECOM and national institutions
- Installation of six automated weather stations and 4 hydrological stations around the basin
- Improved observation networks and databases, drought and flood risk assessment tools which lead to user-centered integrated EWSs
- EWS Web portal to support decision-making for regional, national, and community level agriculture, water, and energy stakeholders
- Monitoring network of the Songwe Flood Forecasting Platform supported through Automated Weather Stations and Automated Hydrological stations.
- Integration into FEWS and development of hydrological forecasting models
- Capacity building to enhance widespread adoption, effectiveness, and reliability of FEWS
- Enhance EWS last mile options including establishment/activation of community disaster management committees and disaster management integrating community volunteers , mobile technology, radio stations and public address systems

Component 3: Transfer climate resilient WASH systems

The annual rate of deforestation in the SRB has witnessed an alarming increase, rising from 6,830 hectares per year during the period 1990-2000 to 9,638 hectares per year from 2010-2020. This concerning trend demands urgent attention to prevent the depletion of crucial land cover essential for the basin's environment and overall climate change mitigation. The shift from woodland to agriculture and bushland is ascribed to various factors, including the rise in human population, cultivation on steep slopes due to insufficient land, uncontrolled bush fires, farming along riverbanks, shifting cultivation practices, overgrazing in protected areas, and indiscriminate tree cutting for charcoal production. Immediate measures are imperative to address and curb this escalating trend for the preservation of the basin's environmental integrity and broader climate change mitigation efforts.

The Songwe River serves as a vital water source for domestic, agricultural, and socio-economic needs within the basin. It is complemented by various tributaries such as Mwega River, Luswisi, Itumba, Kija, and Lubangalala in Tanzania, and Hanga, Kasaya, Kakoma, Kyungu, and Makeye in Malawi, which contribute to overall water availability. These rivers' water flow corresponds to rainfall patterns, resulting in higher flows during the wet season and decreased availability in the dry season, which worsens during droughts and affects groundwater levels. Factors like irregular rainfall and human actions such as deforestation and cultivation on steep terrain further exacerbate water scarcity.

The Basin further suffers from the deterioration of safe water sources, health and sanitation facilities due to flooding and poor water management; a considerable part of the Basin Population is lacking access to

safe water supply: 30% in the Lower Basin, 40% in the Middle and 50% in the Upper Basin. Studies further noted that the annual flooding of the Songwe River in Kyela district causes outbreaks of water-borne diseases such as diarrhea and typhoid as floodwaters wash through latrines, barnyards, and water sources

To tackle these challenges and ensure steady water supply, sustainable land management, reforestation, and water conservation and sanitation options are crucial for ensuring a steady water supply throughout the year.

The proposed activities are:

-
- Promotion of water supply & sanitation infrastructure developed and rehabilitated taking into account provision of safe drinking water, improved access to clean, gender inclusive-sanitation facilities
- Water Harvesting and Management including rainwater harvesting through ponds and check dams for seasonal water and access and to increase soil moisture
- Promote secure livestock drinking points
- Introduce water-efficient technologies in crop, livestock and aquaculture production
- Construction of drainage systems,

Component 4: Small Grants programme to build SRB resilience through community implemented innovative small-scale projects

Climate-related risks disproportionately affect disadvantaged, rural, and impoverished communities due to their limited ability to adapt and heightened sensitivity to climate impacts. Most districts in the SRB exemplify this vulnerability, characterized by rural, economically disadvantaged populations and highly susceptible to climate variability and change. Consequently, addressing this challenge necessitates directing climate finance toward these vulnerable communities. However, accessing such funding is often hindered by their insufficient capacity

To tackle these barriers, the project proposes the establishment of a small grants program aimed at meeting the financial, capacity-building, and adaptation needs of these communities. The overarching objective of the SGP is to ensure that vulnerable rural communities in the targeted areas reduce their vulnerability and enhance resilience against anticipated climate impacts. This goal will be achieved by integrating climate adaptation strategies into local practices to safeguard assets, livelihoods, and ecosystem services from risks associated with droughts, seasonal changes, and flood-related disasters. The project is structured around four activities

- i) Empowerment of local institutions to identify and implement adaptation measures
- ii) Provision of small grants to vulnerable communities to deliver tangible and sustainable benefits such as establishment of specialized agro-forestry nurseries; fisheries restoration, stocking and fishing technologies; irrigation water management; beekeeping, aquaculture, fodder production, and horticulture, training in integrated soil and water conservation agriculture practices; riverine afforestation; and catchment conservation and integrated Water resources Management
- iii) Undertake monitoring and evaluation of small-scale projects
- iv) Compilation and dissemination of lessons learned to facilitate future scaling and replication of small grant financing approaches.

B. Describe how the project /programme would promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms.

Under component 1 & 2 the project will promote innovative data-sharing platforms to disseminate research findings and facilitate evidence-based decision-making for adaptation strategies. The platform will integrate assessments and maps of water resources and ecosystems and support public and private sector engineers and hydrologists on sustainable groundwater use and conservation practices that will be rolled out by the commission further strengthening regional cooperation through knowledge and data sharing. The integration of Songwe Flood Forecasting Platform with automatic weather stations in the basin and national meteorological services will increase capacity to produce relevant climate information and early warning system and support communities to prepare, respond, adapt to minimize adverse impacts of drought and floods. The project will assess most effective approaches to dissemination reaching communities who aren't digitally connected, making sure alerts are trusted and understood.

Component 3 will introduce innovative water harvesting and irrigation systems, including valley dams, rainwater harvesting techniques, and solar-powered boreholes and irrigation schemes. These systems are designed to enhance water availability and agricultural productivity in the basin.

Under Component 4, community-based adaptation will be encouraged through a small grants program that implements innovative adaptation interventions. The project will promote alternative livelihood options based on sustainable natural resource use and ecosystem-based adaptation practices. These include beekeeping, aquaculture, fodder production, and horticulture. By diversifying income sources and reducing reliance on traditional agricultural practices, these initiatives will help build climate resilience among local communities. The small-scale projects program is particularly suited to fostering innovation for three reasons. Firstly, these projects will address specific climate change threats in targeted communities by leveraging local and indigenous knowledge, thereby promoting innovative local ideas. Secondly, the local focus and moderate budget (under US\$50,000) of the small-scale projects offer a relatively low-risk opportunity to trial new and innovative adaptation approaches. Thirdly, successful projects can be scaled up, promoting an innovative approach to adaptation at the regional level.

C. Describe how the project/programme would provide economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project/programme would avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy of the Adaptation Fund.

Addressing climate change through both adaptation and mitigation actions is among the key strategic goals of the SAP (2024) for achieving sustainable socio-economic development in the basin. Ending poverty is crucial for achieving the SONGWECOM shared vision of sustainable and inclusive socio-economic development, particularly through key growth sectors.

In the basin, crop and livestock production are essential agricultural growth sectors that provide employment and sustain the livelihoods of most of the rural poor. Considering the link between poverty and environmental degradation, achieving sustainable and inclusive agricultural development will not only address poverty but also alleviate environmental pressures.

The project aims to employ Ecosystem-based Adaptation (EbA) which requires relatively modest investments compared to the substantial long-term social, economic, and environmental benefits it provides. The EbA options to be implemented will promote healthy ecosystems, diverse livelihoods, consistent water supply while highlighting importance of equity, gender considerations, and the value of local and traditional knowledge in ensuring effective adaptation efforts.

The project will further significantly enhance incomes and livelihoods by developing and implementing Flood Early Warning Systems (FEWS), climate-resilient Water, Sanitation, and Hygiene (WASH) technologies, and catchment protection measures. These initiatives are expected to greatly reduce the

loss of lives, property, and assets, decrease the incidence of waterborne diseases, and improve the quality and availability of water resources from protected sources and water points. Consequently, the financial burden associated with replacing lost properties, treating waterborne diseases, and other related expenses will be substantially reduced due to the implementation of FEWS, climate-resilient WASH technologies, and catchment protection measures.

A cost-effectiveness analysis carried out by CRIDF to assess improved water supply in Karonga District and Kyela district showed a number of benefits that will accrue from the investments made, including increased income to households, time saving for women and children who fetch water from distant sources, health improvement to the community in general especially the areas with no access to clean water sources. The expected upliftment of the existing livelihoods and micro-industrial avenues unlocking additional employment opportunities will raise the economic performance of rural Karonga and Kyela. The poorest of the rural populace will benefit from the local economic development that is anticipated to ensue from the amelioration of the existing water supply services with an increased overall income status that will enable improved access to other social services (e.g. health and education) and increased resilience to economic shocks from natural disasters such as floods and protracted droughts.

As part of achieving its objective, the project will integrate a small grants programme promoting the transfer, absorption and diffusion of best adaptation technologies and practices which provide outstanding opportunities to increase the resilience of vulnerable communities and the ecosystems in the SRB. This approach is based on the successful experience in the Adaptation Fund Lake Victoria Basin project that was implemented in the East African Community countries including Tanzania and where evaluations showed it addressed major drivers of environmental degradation and promoted sustainable development and improve livelihood throughout the participating communities.

Providing timely knowledge products, policy advice, and capacity enhancement is crucial for supporting Regional Member Countries support adaptive capabilities of local communities. Moreover, tailored training programs designed to strengthen local capacity in these areas are essential to ensure the ongoing and sustainable implementation of climate change interventions in a coherent way. 'Learning-by-doing' approaches to capacity building in the small grants programme will foster greater ownership of project outcomes and impacts. These initiatives aim to address both current and future gaps in knowledge and skills necessary for effective adaptation efforts.

The project shall ensure issues of gender equality and social inclusion (GESI) are addressed at all stages of project implementation. SONGWECOM has developed a five-year (2022-2027) Gender Mainstreaming Strategy and Action Plan (GEMSAP) which provides strategic direction for gender mainstreaming in all projects and programmes in the Songwe River Basin (SRB). Its main purpose is to increase the potential and capacity of SONGWECOM in addressing the requirements of women, men, and the youth in benefiting from and accessing opportunities created through projects under the Songwe River Basin Development Programme (SRBDP). The strategy will be one of the guiding tools in the implementation of the project where it is expected that Women and the youth will play a central role in designing, planning, implementing solutions and management so that the project responds to their specific needs. To promote gender empowerment, the project will ensure gender considerations are explicitly spelled out in any adaptation initiatives including adaptation technologies and practices where women are expected to be active members with well-defined livelihood opportunities and roles.

As the implementing entity for the project UNEP screens all its projects for environmental, social, and economic risks and impacts as established under the UNEP's Environmental and Social Sustainability (ESS) Framework. The Compliance Review and Grievance Redress processes provide a Stakeholder Response Mechanism that informs and guides staff, implementing and executing partners and people affected by UNEP projects in bringing and responding safeguard-related stakeholder responses concerning compliance review and dispute resolution in the context of the. The Stakeholder Response Mechanism provides a drink link for third parties or anonymous persons who are negatively affected by the projects to report their concerns directly to the Independent Office for Stakeholder Safeguard-related Response. Further information on UNEP ESS Framework and Stakeholder Response Mechanism is available at:

D. Describe or provide an analysis of the cost-effectiveness of the proposed project/programme and explain how the regional approach would support cost-effectiveness.

The project will be designed as an integrated initiative that values and considers the interconnectivity and interlinkages between climate information generation through Flood Early Warning Systems, adaptation and climate-resilient WASH technologies, and EbA based on catchment management measures. Implementing project activities in this integrated and holistic manner, rather than as independent projects, not only reduces the costs associated with duplicative interventions but also enhances various benefits to populations and the environment, making the entire project more cost-effective.

Component 1 is designed to strengthen SONGWECOM capacity to ensure long term sustainability for transboundary basin planning and management. Jointly addressing the basin threats is more cost effective than individual actions by each of the countries. Therefore, activities aimed at strengthening the institution capacity and sustainability are part of the scope. While institutional capacity development in transboundary water management, biodiversity and ecosystem services are difficult to express in monetary terms. However, with improved soil and water conservation as well as good land husbandry practices, investments will increase land productivity, enhance food security and contribute to the stabilization of rural incomes. Component 2 will build on the FEWS initiated with financial support from GEF and the African Development Bank to develop and maintain monitoring and information management infrastructure and equipment for flood forecasting and early warning grounded in strengthening systems for hydrometeorological monitoring and analysis. Alignment and integration of data with parallel monitoring and warning initiatives within Malawi and Tanzania will be strongly encouraged (e.g., UNDP's Community Based Flood Early Warnings System in Malawi).

Components 3 and 4 will follow a cost-effective approach during implementation ensuring activities are based on the needs and requests of beneficiaries through direct consultations on the small grants programme and introduction to adaptation technologies. Initial consultations under TDA and SAP indicated that the proposed activities in the action plan will require relatively low investment, but each will be evaluated for cost-effectiveness before implementation, prioritizing solutions that require locally available resources and ensure sustainability and upscaling.

Cost effectiveness of the project will also be ensured through promotion of low cost water supply, sanitation and catchment management technologies and establishment of community management structures that will ensure the active involvement of the communities in project implementation providing labour input to the project and building capacity within the communities to be able to scale up activity implementation beyond the project sites

E. Describe how the project/programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist. If applicable, please refer to relevant regional plans and strategies where they exist.

The Promoting Resilience and Adaptation to Climate Change in the Songwe River Project is under the 10 years Songwe River Basin Development Programme (SRBDP) which is a multifaceted programme with several projects being implemented by SONGWECOM and is part of the SADC Regional Strategic Action Plan for Integrated Water Resources Management aimed at fostering cooperation and equitable sharing of benefits of the shared watercourses. The project is in line with the Africa Water Vision 2025 of ensuring equitable and sustainable use of water for socioeconomic development. Furthermore, the project answers to the Sustainable Development Goal number (SDG) 6 which gives a guarantee for access to safe and clean water and sanitation for all as well as contributing to limiting and adapting to climate change as stipulated in SDG 13. The project is also strategically aligned to the Malawi vision 2063, Ten-year

implementation Plan and the Tanzania five-year development plan phase 3 (2021/22-2025/26). It is also in line with the Tanzania Water Sector Development Programme Phase III 2022/2023 – 2025/2026.

The project further builds on the SONGWECOM Resource Mobilization Strategy (2023), SONGWECOM Integrated Capacity Building Programme (2023) and the Strategic Action Plan for the Songwe River Basin (2024) which draws from the results generated through collaborative and participatory processes – hence it is relevant locally, nationally, and in the context of bilateral cooperation of the two countries. The joint SAP as a politically negotiated document is intended to guide the bilateral cooperation of the two riparian countries in the sustainable management of the shared water resources for attaining sustainable and inclusive socio-economic development. A comprehensive assessment of policy alignment for the project will be carried out during concept note development

F. Describe how the project/programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.

Adhering to the Environmental and Social Policy (ESP) of the Adaptation Fund, the proposal will undergo evaluation for its environmental and social impacts. Based on the currently available information, the project is anticipated to have no negative environmental or social effects, categorizing it as Class C. The necessary details to affirm this classification will be supplied during the concept stage.

Given the small scale of the project's pilot interventions as well as their focus on environmental protection, Environmental Impact Assessments (EIAs) are not expected to be necessary for any of the planned interventions. In addition, the proposed projects activities are in line with national social norms, including gender equality and equal access.. However, an environmental screening will be required since Component 3 &4 of the will include development of water supply and sanitation infrastructure.

G. Describe if there is duplication of project/programme with other funding sources, if any.

The project will focus on identifying synergies with ongoing and planned initiatives in the SRB region, and ensure that no duplication of efforts with other initiatives and funding sources. The project will work closely with national and regional partners and stakeholders building resilience in the SRB including African Development Bank, Southern African Development Community as well as the governments of Malawi and Tanzania.

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

The project will conduct a comprehensive assessment of climate change and IWLRM awareness among stakeholders including SONGWECOM and develop a capacity building strategy to enhance community engagement in project objectives.. Information products will be developed from this knowledge base, both to reflect the value of water, sanitation and natural ecosystems to the hydrology and economy of the Songwe River Basin and inform decision makers through policy briefs and high-level engagements. Relevant ministries and other stakeholders will disseminate results from this project Throughout the project implementation, all materials and experiences will be documented, shared on-line on SONGWECOM website and assessed for further use by stakeholders beyond the Songwe River Basin. Experience notes on lessons learned will be drafted to be shared with practitioners through on-line forums, social media platforms and other internet and in person-based knowledge and experience exchanges.

I. Describe the consultative process, including the list of stakeholders consulted, undertaken during project/programme preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund.

The Promoting Resilience and Adaptation to Climate Change Project in the Songwe River Basin Project is partially an output of the Detailed Design and Investment Preparation Project (DDIPP) of 2015 \and the GEF Transboundary Diagnostic Analysis that resulted in the Strategic Action Plan for the SRB (2024).

During this period, different stakeholders at both national and local level were consulted including the beneficiaries of the projects in all the Seven districts of Momba, Mbozi, Mbeya Rural, Ileje and Kyela on the Tanzania Side and Karonga and Chitipa on the Malawi Side. The map shows the districts that are in the Songwe River Basin.

The TDA process involved a series subnational consultations including roundtable discussions with technocrats at regional and district councils in both countries. The discussions involved technocrat staff from key growth and service sectors and development planning departments. The discussions focused on environmental, social, and economic problems, their localized and transboundary implications, actions and plans to address them, and avenues for cooperation between the two countries to advance sustainable socio-economic development in the basin. At the end of the discussion in the districts, the participating staff helped identify village communities to be visited for conducting the Participatory Rural Appraisals (PRAs). The village community to be visited needed to represent the typical reality of the environmental problems discussed. The consultations were broadened to capture a wider spectrum of views from stakeholders through the LPDs. The participants of the LPDs were drawn from grassroots communities, CBOs, CSOs and the private sector. Four LPDs were conducted in the basin between 2nd to 6th March 2022, two in each of the two countries covering stakeholders in the lower and upper basin locations. In Malawi, the two LPDs were conducted in Karonga and Chitipa districts involving 31 participants. In Tanzania, the two LPDs were conducted in Kyela and Ileje districts with 34 participants. The LPDs in the two countries involved a total of 65 participants. A checklist was used to guide the dialogues (Annex 9). The local dialogues provided a wealth of local broad-based information about key transboundary problems, related impacts, underlying drivers and potential solutions. Development opportunities across the growth and service sectors were discussed during the dialogues.

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

The Songwe River Basin (SRB) is encountering escalating challenges due to the combination of a growing basin population and shifting climatic patterns. Table 2 summarises the climate impacts projected by 2025 and 2055. Data gathered for Ileje district, Tanzania shows that climate change had a substantial impact on 36% of the total respondents' livelihoods. The increase in temperature and decrease in rainfall adversely affected farming and various socio-economic activities, thereby impacting incomes, food security, land productivity, natural capital, human capital, and biodiversity. A study carried out by USAID¹² found illustrated a critical climate change effect on rice and maize, that of hot temperatures directly lowering yield. A large impact on rice was apparent after 2005 in various samples where yields in some sample stations were halved due to the impact of extreme temperatures. Frequencies of hot days is already increasing in all regions and will continue to become more frequent further affecting yields in the region. As vulnerability to climate change rises, livelihood options decrease, potentially leading communities to resort to unsustainable use of natural resources.

SONGWECOM will provide essential support for stakeholder consultations, monitoring systems, and capacity-building initiatives. The Basin-Wide Stakeholder Collaboration Platform and national transboundary platforms in Malawi and Tanzania will facilitate cross-border cooperation. Training provided to SONGWECOM staff, local governments, civil society, and the private sector will ensure that climate change-related challenges in transboundary water catchment management are tackled effectively. Existing resources such as the Transboundary Diagnostic Analysis (TDA, 2023) and the Strategic Action Plan (SAP, 2024) will be critical for guiding the baseline studies. Furthermore, SONGWECOM's Management Information System (MIS) will be used for the project's data dissemination, supporting transparency and accountability

¹² Impacts of Climate Change on Rice and Maize, and Opportunities to Increase Productivity and Resilience in Malawi, Global Center for Food Systems Innovation, 2017

SONGWECOM will also provide critical in-kind support to the proposed project, leveraging its extensive experience in the Songwe River Basin. A total of 23 village disaster management committees have been established and trained in both Tanzania and Malawi and will further be supported with development of district and village flood response plans for Kyela and Karonga. These institutional structures will enhance local capacity for planning, designing, and implementing integrated Flood Early Warning System (FEWS) interventions. The project will also capitalize on existing data-sharing agreements between the Malawi and Tanzanian governments, enabling the collaboration of SONGWECOM with national institutions for efficient operation of FEWS in the basin. Moreover, the FEWS infrastructure, including 2 servers, 3 monitors, and a desktop, is already installed at SONGWECOM's control room setting up a platform for the project to support additional capacity ensuring real-time flood monitoring and response. Existing four focal points and two counterpart staff from both governments will be dedicated to supporting the FEWS operations, ensuring continuity and operational efficiency.

The project will further draw on the expertise of the established Joint Technical Committee (JTE) of experts, composed of experts from both Malawi and Tanzania. These experts will review and adopt key project documents, including updates to policies and regulations for sustainable groundwater management within the basin. The specialized agroforestry nurseries in each district, formed through previous initiatives funded by GEF¹³, will also be utilized for climate-resilient agriculture. District Focal Coordinators, set up during the GEF project, will be maintained to coordinate project activities across five districts in Tanzania and two in Malawi, further strengthening local implementation capacities.

K. Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project/programme.

The project is to be implemented by SONGWECOM which is a bilateral transboundary river basin organization between the Governments of the United Republic of Tanzania and the Republic of Malawi established under a Convention signed on 18 May, 2017 and came into force on 1 July, 2018. Through SONGWECOM, basin natural resources are jointly managed and utilized by the two countries and transboundary based challenges are addressed in an amicable manner. The structure of the Commission ensures all key sectors of water, energy, irrigated agriculture, lands, and local governments participated in governing the transboundary resources. The cooperation existing between the two countries guarantee protection of the basin ecosystem. Supporting SONGWECOM to develop its capacity for an adaptation approach will help sustainability beyond the project grant.

The organs of SONGWECOM which are: The council of Ministers and the Joint Steering Committee will be responsible for decision making and managing interventions under the project while SONGWECOM Secretariat will be responsible for day-to-day coordination, implementation and reporting on project activities. The District Councils will be responsible for implementation of activities at community level. Implementation of the project will be guided by the institutional framework, policies and regulations of the two riparian states to ensure sustainability.

The sustainability of the proposed project will be further bolstered by: i) promoting the active involvement of pertinent regional, national, and community stakeholders in the decision-making and implementation of project activities; ii) enhancing institutional and technical capabilities at regional, national, and community levels to ensure stakeholders possess the necessary knowledge and skills for maintaining the benefits of the project's restoration interventions; and iii) fostering awareness of water conservation practices, climate-smart agricultural techniques, and Ecosystem-based Adaptation (EbA) activities at the local level.

L. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project/programme.

¹³ Strengthening Trans-boundary Cooperation and Integrated Natural Resources Management in the Songwe River Basin

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
<i>Compliance with the Law</i>	x	<p>No Risk</p> <p>There are no risks posed to the provisions of national and international legislation. The proposed project will ensure compliance with all relevant national legislations and international laws.</p>
<i>Access and Equity</i>	x	<p>Low Risk</p> <p>Potential Risk – given budget restrictions, not all households within the basin may benefit from the water supply and sanitation interventions.</p> <p>This risk has been taken into consideration during the initial design and budgeting process. The project will not compromise the target community's access to health services, clean water and sanitation.</p> <p>Potential Risk – only a few members of the community will benefit from the livelihood ventures to be adopted.</p> <p>The project will ensure that all members of the community are engaged for the selection and implementation of all livelihood ventures to ensure equitable inclusion via a participatory process. This will be further substantiated during the feasibility studies.</p>
<i>Marginalized and Vulnerable Groups</i>	x	<p>Low Risk</p> <p>Potential Risk – the special needs of marginalized and vulnerable groups are not considered, thereby disenfranchising selected community members.</p> <p>Through SONGWECOM's continuous work with the targeted communities, the needs of marginalized and vulnerable groups have been integrated and risk management solutions will be executed during the implementation phase of the project. The project's actions have been formulated with the above in mind, thereby minimizing unequal access to a basic need. Furthermore, the project will not impose any disproportionate adverse impacts on marginalized and vulnerable groups including children, women and girls, the elderly, tribal groups, displaced people, refugees, people living with disabilities, and people living with HIV/AIDS.</p>

<i>Human Rights</i>	x	<p>No Risk</p> <p>The proposed project will respect and adhere to all relevant national legislation and international conventions on human rights and will not violate any pillar of human rights.</p>
<i>Gender Equity and Women's Empowerment</i>	x	<p>Low to Moderate Risk</p> <p>Potential Risk – Women from the targeted communities are not participating in project activities. SONGWECOM has developed a five-year (2022-2027) Gender Mainstreaming Strategy and Action Plan (GEMSAP) which provides strategic direction for gender mainstreaming in all projects and programmes in the Songwe River Basin (SRB). Its main purpose is to increase the potential and capacity of SONGWECOM in addressing the requirements of women, men, and the youth in benefiting from and accessing opportunities created through projects under the Songwe River Basin Development Programme (SRBDP). The strategy will be one of the guiding tool in the implementation the project where it is expected that Women and the youth will play a central role in designing, planning, implementing solutions and management so that the project responds to their specific needs.</p>
<i>Core Labour Rights</i>	x	<p>No Risk</p> <p>The proposed project will adhere to core national and international labour laws and rights of all parties.</p>
<i>Indigenous Peoples</i>	x	<p>Low to Moderate Risk</p> <p>Potential Risk – Shift in traditional norms linked to introduction of new technologies to the Indigenous communities.</p> <p>The project will respect the right of the Indigenous communities in line with national and international legislations and convention. Community engagement will be key in introducing new technologies.</p>
<i>Involuntary Resettlement</i>	x	<p>No Risk</p> <p>No project actions will involve any voluntary or involuntary resettlement of communities</p>
<i>Protection of Natural Habitats</i>	x	<p>Low to Moderate Risk</p> <p>The project will respect the rights of habitats that are recognized as protected by traditional or Indigenous local communities. Through consultations critical</p>

		habitats will be identified with the help of community leaders and members. The project activities have been formulated based on the ecological functionality of watersheds. Therefore, the actions for restoration and alternative livelihoods will be designed to avoid any negative risk to natural habitats.
<i>Conservation of Biological Diversity</i>	x	<p>Low to Moderate Risk Potential Risk – Introduction of invasive species during riverine afforestation activities.</p> <p>The project will avoid the introduction of invasive species to target reforestation areas. An assessment of local biodiversity will be used to guide the selection of species for the restoration activities</p>
<i>Climate Change</i>	x	<p>Low to No Risk</p> <p>The activities included within the project will not contribute to negative climate impacts nor will it contribute to any significant emission of greenhouse gases. The proposed project activities will enhance the ability of the targeted communities to adapt to anticipated climate change impacts.</p>
<i>Pollution Prevention and Resource Efficiency</i>	x	<p>Low to No Risk</p> <p>The project will produce minimal waste via the construction of water systems and sanitation facilities. The waste produced will be disposed as mandate by the laws of the riparian states including those included in the Environmental Protection Act.</p>
<i>Public Health</i>	x	<p>No Risk</p> <p>The project will pose no risk to public health in the target communities. Relevant national standards and protocols will be adhered to during implementation to avoid causing harm to the communities.</p>
<i>Physical and Cultural Heritage</i>	x	<p>No Risk</p> <p>The project will pose no risk to physical and cultural heritage</p>
<i>Lands and Soil Conservation</i>	x	<p>Low Risk Potential Risk – Selected alternative livelihood actions can pose potential negative impacts on land and soil conservation.</p> <p>The project will ensure that selected alternative livelihood options selected do not result in any negative impacts to lands and soils. Any livelihood actions involving agricultural actions will be sure to adhere to the principles of sustainable agriculture with a climate change focus. The activities under</p>

		component 3 for riverine afforestation will be sure to avoid any further potential damage to the ecological functionality of the system project implementation phase.
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PART III: IMPLEMENTATION ARRANGEMENTS

Demonstrate how the project/programme aligns with the Results Framework of the Adaptation Fund

Project Objective(s) ¹⁴	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
1. Strengthen Institutional capacity and knowledge management to promote climate resilient development in the SRB	Institutional Capacity of SONGWECOM, local governments enhanced to plan, design and implement transboundary IWLRM	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	2.1. Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased	1,555,000.00
2. Enhance capacity for planning, designing, implementing and monitoring integrated Flood Early Warning systems (FEWS)	Climate information dissemination mechanism strengthened to deliver climate information to national policymakers, SONGWECOM technical officers and local communities.	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	1,500,000

¹⁴ The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

3. Transfer climate resilient WASH	Climate resilient water supply and sanitation infrastructure promoted	Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets	4.1. Responsiveness of development sector services to evolving needs from changing and variable climate	5,000,000.00
4. Small Grants programme to build SRB resilience through community implemented small scale projects innovative adaptation practices, tools, and technologies	Improved Community resilience to climate change in the basin.	Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	6.2. Percentage of targeted population with sustained climate-resilient alternative livelihoods	3,400,000.00

* Please note that project specific indicators will be developed at full proposal stage after further analysis and project level consultation have taken place.

** Budget allocations per outcome/output will be further refined at full proposal stage

Implementing Entity

As requested by Republic of Malawi and United Republic of Tanzania, the two Member States of the Joint Songwe River Basin Commission, **UNEP** will be the **Multilateral Implementing Entity (MIE)** for the proposed project. UNEP has significant experience in implementing projects of this nature, with dedicated groups in Climate Change Adaptation and transboundary ecosystem-based adaptation. UNEP is headquartered in Nairobi, Kenya and has extensive experience working in the Eastern and Southern Africa Regions. The following implementation services under the MIE modality will be provided by UNEP for the proposed project:

- overall coordination and management of UNEP's MIE functions and responsibilities, and the facilitation of interactions with the AF Board and related stakeholders;
- oversight of portfolio implementation and reporting on budget performance;
- quality assurance and accountability for outputs and deliverables at the project development phase, during implementation and on completion;
- receipt, management and disbursement of AF funds in accordance with the financial standards of the AF;
- information and communication management, including maintaining Information Management Systems and specific project databases to track and monitor progress – financial and substantive – of project implementation;
- oversight and quality assurance of evaluation processes for project performance and ensuring that lessons learned/best practice are incorporated to improve future projects; and
- general administration and support costs including legal services, procurement and supply management, IT and human resource management.

Executing Entity

The organs of SONGWECOM which are: The council of Ministers and the Joint Steering Committee will be responsible for decision making and managing interventions under the project while SONGWECOM Secretariat will be responsible for day-to-day coordination, implementation and reporting on project activities. The District Councils will be responsible for implementation of activities at community level. Implementation of the project will be guided by the institutional framework, policies and regulations of the two riparian states to ensure sustainability. SONGWECOM will be responsible for:

- coordinating and managing the overall implementation of project outcomes and activities;
 - monitoring and evaluating project outcomes and activities;
 - regional knowledge management, communications and awareness raising;
 - implementing the regional components of the project;
 - disbursing funds to Member States for the implementation of on-the-ground activities within those countries;
 - providing technical oversight to all activities carried out within Member States;
- managing centralized procurement of goods and services for the project; and ensuring the overall quality and timely delivery of project outputs both regionally and within Member States.

The SONGWECOM will establish a Project Coordination Unit (PCU), which will be responsible for the day-to-day coordination of the proposed project and for promoting and facilitating stakeholder engagement.

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

- A. Record of endorsement on behalf of the government¹⁵** *Provide the name and position of the government official and indicate date of endorsement for each country participating in the proposed project/programme. Add more lines as necessary. The endorsement letters should be attached as an annex to the project/programme proposal. Please attach the endorsement letters with this template; add as many participating governments if a regional project/programme:*

Mary N. Maganga Permanent Secretary, Vice Presidents Office United Republic of Tanzania	Date: 29 January 2024
Ted Sitimavwina Secretary to the Treasury, Ministry of Finance and Economic Affairs Malawi	Date: 29 February 2024
(Enter Name, Position, Ministry)	Date: (Month, day, year)

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

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 and subject to the approval by the Adaptation Fund Board, <u>commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund</u> and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
UNEP Mirey Atallah, Chief, Adaptation and Resilience Branch, Climate Change Division. Implementing Entity Coordinator	
Date: (Month, Day, Year)	Tel. and email: mirey.atallah@un.org
Project Contact Person: Jessica Troni	
Tel. And Email: Jessica.troni@un.org	

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Ministry of Finance and
Economic Affairs
P.O. Box 30049
LILONGWE 3

Ref No. FIN/DAD/RM/5/2/1/1

29th February, 2024

The Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Dear Sir/Madam,

**ENDORSEMENT FOR THE PROJECT ON PROMOTING RESILIENCE AND
ADAPTATION TO CLIMATE CHANGE IN THE SONGWE RIVER BASIN**

I write as the designated authority for the Adaptation Fund in the Republic of Malawi, the promoting resilience and adaptation to climate change in the songwe river basin regional project proposal is in accordance with the Government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks posed by climate change in Malawi.

The Project will be implemented multilaterally at a cost amounting to \$13,850,000, I am pleased to endorse the attached project proposal with support from the Adaptation Fund. If approved, the project will be implemented by United Nations Environment Programme (UNEP) and executed by Ministry of Water and Sanitation and Joint Songwe River Basin Commission (SONGWECOM).

Your usual cooperation is highly appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read 'Robert Mwanamanga'.

Robert Mwanamanga.

DIRECTOR DEBT AND AID MANAGEMENT DIVISION

THE UNITED REPUBLIC OF TANZANIA
VICE PRESIDENT'S OFFICE

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In reply please quote:



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DODOMA.

Our Ref. No: CBA. 78/90/02A/165

29th January, 2024.

The Adaptation Fund Board,
c/o Adaptation Fund Board Secretariat.
Washington DC 20433
1818H Street NW
UNITED STATES OF AMERICA

**RE: ENDORSEMENT FOR THE PROJECT ON PROMOTING RESILIENCE AND
ADAPTATION TO CLIMATE CHANGE IN THE SONGWE RIVER BASIN**

Refer the heading above,

2. In my Capacity as the designated authority for the Adaptation Fund in the United Republic of Tanzania, I confirm that the above regional project proposal is in accordance with the Government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks posed by climate change in Tanzania.
3. In this regard, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by United Nations Environment Programme (UNEP) and executed by Ministry of Water and Joint Songwe River Basin Commission (SONGWECOM).
4. Thank you for your continued cooperation.


Mary N. Maganga
PERMANENT SECRETARY



Revised PFG Submission Form¹ (additions in red)

Project Formulation Grant (PFG)

Submission Date: 30 October 2024

Adaptation Fund Project ID: N/A

Country/ies: Tanzania and Malawi

Title of Project/Programme: Promoting Resilience and Adaptation to Climate Change in the Songwe River Basin

Type of IE (NIE/RIE/MIE): MIE

Implementing Entity: United Nations Environment Programme (UNEP)

Executing Entity: SONGWECOM

A. Project Preparation Timeframe

Start date of PFG	1 March 2025	
Completion date of PFG	1 March 2026	

B. Proposed Project Preparation Activities (\$)

List of Proposed Project Preparation Activities	Output of the PFG Activities	US\$ Amount	Budget note²
Full proposal formulation including annexes to full proposal	1-3	110,000	Consultancy firm cost based on market rates
Stakeholder consultation processes in 3 countries	1-3	26,000	1 consultation and 1 validation workshop in SongweCom offices. @USD5000 each and 2 community level survey in both countries @ USD4000 each reflecting costs of consultants, travel

¹ As presented in AFB/PPRC.33/40 Annex 1.

² The proposal should include a detailed budget with budget notes indicating the break-down of costs at the activity level. It should also include a budget on the Implementing Entity management fee use.

			and facilitation for communities.
Activity total		136,000	
IE fee %10%		13,600	
Total Project Formulation Grant		149,600	

Please describe below each of the PFG activities and provide justifications for their need and for the amount of funding required:

The proposal will be prepared based on the endorsed concept note. The proposal will be prepared with the involvement and validation of regional national and local stakeholders. Field level consultations will take place among the communities to be supported. The information gathered will be location-specific and quantitative as far as possible. Data and information should be recent and referenced. The proposal should incorporate the following key aspects:

- Refine the climate change adaptation problem statement based on consultations with communities and national stakeholders, validating and refining the climate rationale in the CN;
- Develop the solution tree and clearly describe what the proposal will focus on based on consultations with communities and national stakeholders.
- Refine the Theory of Change;
- Prioritization of project implementation sites based on objective criteria and estimation of direct and indirect beneficiaries.
- The adaptation measures proposed should be agreed with key national and local stakeholders and aligned with the country/territories' needs, priorities and planning and, as far as possible, be based on initiatives that have been known to work in the country or in similar contexts, considering the reality of the country/es.
- Description of complementarity and synergies with past and ongoing projects, initiatives and existing lessons learned.
- Cost-effectiveness analysis of the proposed measures and the project overall.
- Clear strategy for ownership, replication and sustainability of the measures.
- Budget at activity and output level based on country-level cost data together with budget notes.
- **A log frame** detailing outcome indicators and tentative targets as well as output targets and alignment with the AF Results Framework.
- Description of monitoring and evaluation arrangements with a budgeted plan.
- **Procurement plan** - a procurement plan for each year of the project and in each participating country, using UNEP's Umoja format.
- **Project maps** - maps indicating the location of the project/programme including GIS-based maps of intervention locations, as necessary.
- GANTT chart detailing the timeline of project/programme implementation.
- **Social and environmental safeguards and action plan** – the assessment should follow the requirements and templates of each fund and completion of the UNEP's internal Environmental, Social and Economic Review Note, liaising with the Environmental and

Social Officer in UNEP, and complete the AF table on alignment with the AF Environment and Social Principles;

- **Gender assessment and Action Plan** - the assessment and plan will ensure the development of gender-responsive outputs and outcomes. A gender assessment will be conducted, and will identify the issues, needs and contextual factors affecting male and female stakeholders. Then, an action plan will be developed and will include specific actions and indicators to ensure the effective mainstreaming of gender throughout the project design.
- **Stakeholder engagement plan** - The objectives of the stakeholder engagement plan are to (i) ensure there are opportunities during the project for stakeholders to provide feedback, ask questions and raise concerns; (ii) ensure information sharing and disclosure through the project's duration; (iii) to establish a culturally appropriate mechanism for filing complaints and addressing grievances; (iii) foster strong project-stakeholder relationships, including at the community level; and (iv) ensure meaningful consultation and secure social acceptability of the project. The plan will therefore identify actions required to engage stakeholders and manage expectations through the duration of the project, including for instance:
 - Information dissemination and channels for feedback
 - Conflict management and settlement
 - A project-specific grievance redress mechanism
 - Key issues and concerns and how to address them

Complete all sections of the AF template proposal.

1. Stakeholder consultation

A round of stakeholder consultations: **(i)** SONGWECOM offices in Kyela, Tanzania for high level consultations with country representatives **(ii)** Tanzania (Kyela, Ileje, Mbozi, Momba, and Mbeya Rural) **(iii)** Malawi (Chitipa and Karonga). The consultation process will inform the:

- Identification of criteria for the selection of target areas.
- Identification of the roles and responsibilities of each regional, government and district institution and partnering institution in project implementation and monitoring at different levels.
- Identification of result framework SMART indicators and targets aligned with the Adaptation Results Framework.
- Identification of costed activities necessary to attain the planned outputs and outcomes and a detailed budget.
- M&E and knowledge management plan, Gender Action Plan and Environmental and Social Management Plan.
- Sustainability and exit strategy

C. Implementing Entity

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation

Implementing Entity Coordinator, IE Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
UNEP Dechen Tsering, Director, a.i., Climate Change Division.		05 November 2024 04.12.2024	Jessica Troni	+254795751062	Jessica.troni@un.org