



ADAPTATION FUND

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Adaptation Fund Board
Project and Programme Review Committee
Thirty-eighth Meeting
Bonn, Germany, 19-23 October 2026

PROPOSAL FOR KENYA, LESOTHO, MALAWI, UGANDA, ZAMBIA



ADAPTATION FUND

ADAPTATION FUND BOARD SECRETARIAT
TECHNICAL REVIEW OF PROJECT PROPOSAL FOR
"INCREASING FOOD SECURITY RESILIENCE: SCALING UP EFFECTIVE NATIONAL AND
REGIONAL AGRICULTURE MONITORING AND EARLY WARNING THROUGH EARTH
OBSERVATIONS"

Project Title Increasing Food Security Resilience: Scaling up Effective National and Regional Agriculture Monitoring and Early Warning through Earth Observations

Project ID AF00000541

Category Regular size project (over \$1 million)

Type Regional project

Stage Pre-concept

Country Regional (Kenya, Lesotho, Malawi, Uganda, Zambia)

Implementing Entity WMO

Financing Requested USD 29,320,000.00

Reviewer Jonathan Cook

Co-reviewer(s)

IE Contact Person

Ana Laura Zuanazzi, Makabe Esther, Moyenda Chaponda, Petra Mutic, Sebastian Grey, Timileyin Oyebade

Secretariat's Overall Comment

The project Increasing Food Security Resilience: Scaling up Effective National and Regional Agriculture Monitoring and Early Warning through Earth Observations aims to strengthen food system resilience to climate shocks in five countries through enhanced earth observation-based monitoring, early warning systems, institutional capacity and regional adaptation learning, while promoting inclusive adaptation benefits for vulnerable communities.

The initial technical review raises several issues, such as lack of details about stakeholder engagement, discrepancy in total project/programme costs, lack of information on national technical standards as well as national policies and strategies per country, as is discussed in the number of Clarification Requests (CRs) and Corrective Action Request (CAR) raised in the review. (23 June 2026)

The second technical review raises several issues, such as not including relevant details from responses to previous questions in the pre-concept note itself and a discrepancy in total project/programme costs, as is discussed in the number of Clarification Requests (CRs) and Corrective Action Request (CAR) raised in the review.

Country Eligibility

Are all of the participating countries party to the Kyoto Protocol, or the Paris Agreement?

Response: Yes

Secretariat: Yes.

(23 June 2026)

Are all of the participating countries developing countries particularly vulnerable to the adverse effects of climate change?

Response: Yes

Secretariat: Yes.

All five countries experience climate-related changes from floods and droughts as defined in Table 1.

(23 June 2026)

Project Eligibility

Have the designated government authorities for the Adaptation Fund from each of the participating countries endorsed the project/programme?

Response: Yes

Secretariat: Yes.

As per the Endorsement letters dated:

- March 10, 2026 (Kenya)
- September 5, 2025 (Uganda)
- April 24, 2026 (Malawi)
- May 4, 2026 (Lesotho)
- March 11, 2026 (Zambia)

(23 June 2026)

Has the pre-concept provided necessary information on the problem the proposed project/programme is aiming to solve, including both the regional and the country perspective?

Response: Pending

Secretariat: Yes.

However, further information is required.

CR1: Please elaborate on the country-level analysis. For example, what are the relevant constraints faced by each participating country? This will ensure the analysis is sufficiently balanced.

(23 June 2026)

Response: Not Cleared

Secretariat: CR1: Not cleared. While part 1 and table 1 identify climate risks, national priorities, and benefits from a regional approach for each country, they still do not reflect specific barriers and obstacles for each country that will be addressed through the project. Please add some text and/or another column in the table that succinctly describes those issues.

Have the project/programme objectives, components and financing been clearly explained?

Response: Cleared

Secretariat: Yes.

(23 June 2026)

Has the project/programme been justified in terms of how: - it supports concrete adaptation actions? - it builds added value through the regional approach? - it promotes new and innovative solutions to climate change adaptation? - it is cost-effective? - it is consistent with applicable strategies and plans? - it incorporates learning and knowledge management? - it will be developed through a consultative process with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund? - it will take into account sustainability?

Response: Pending

Secretariat: Yes. However further information is needed.

The pre-concept note proposal provides reasonable justification of how it will support concrete adaptation actions. It demonstrates added value through a regional approach that addresses transboundary agro-climatic risks, using harmonized indicators, EO workflows and regional knowledge exchange. The project has a dedicated knowledge management and learning component (Component 4) with a regional MEL and relatively preliminary knowledge management approach. The project primarily contributes to the Disaster risk reduction and early warning systems thematic area, but also Food security.

CAR1:

1. At Part II, please add at paragraph “Components and regional added value” a sentence indicating which AF strategic outcome areas that the project will be aligned to.
2. Please clarify that the project will only use Adaptation Fund’s resources to fully achieve adaptation objectives and outcomes and the project will not rely on external resources to achieve these.

CR2: Please clarify if Uganda is the only country where this approach has been applied. And explain how it was determined that the approach will be applicable to the other countries.

CAR2: Please briefly expand on the Naivasha workshop in terms of the stakeholders engaged/participated, when it occurred (date), topics discussed and outcomes of the discussion as well as how these have been integrated in the pre-concept note.

CAR3:

1. Please explicitly state any engagement with the stakeholders with gender remit (and name those institutions) so it is clear they will be engaged.
2. Please list any other vulnerable groups (associations) that will be targeted; and
3. Confirm that these vulnerable groups will directly inform the design during concept note development.

CR5: Please separate the risk category from the consultation subsection. Please consider a standalone bullet point on risks or merge with the last bullet point related to ‘potential environmental and social risks’. Please also indicate that the risk analysis will be deepened during the concept note stage.

CR6: Please confirm that all five countries have a National Adaptation Plan and note whether National

Sustainable Development Strategies have also been identified. Be sure to include the dates of all the policies/policy-related documents mentioned and mention at least one key policy per country (e.g. Lesotho and Zambia which are not included). Consider adding a reference to the African Union's Comprehensive Africa Agriculture Development Programme (CAADP) and the AU's Climate Change and Resilient Development Strategy as possibly relevant.

CR7: Kindly confirm if there is intention to have a dedicated person for knowledge management to help with tracking experience and learning, along with support from an M&E officer, and where these persons will be based.

CR8: Please briefly mention if a sustainability plan will be developed, considering who maintains the relevant systems post-project. Kindly consider partnerships needed and any other commitments and any recurrent financing which should be identified during the concept note stage.

CR9: Please ensure the potential economic, social and environmental benefits are adequately linked to the project activities. Please also provide a rough estimate of the number of people to benefit directly and indirectly and please ensure this is elaborated during the concept note stage.

CAR4: Please identify national technical standards with which the project should comply for each country.

CAR5: Please provide some baseline gender-related data for the target countries (e.g., women's share of smallholder farming, gender gaps in EWS access or mobile phone ownership), as a starting point for further gender analysis.

(23 June 2026)

Response: Not Cleared

Secretariat: CAR1: Cleared.

- 1) Cleared. Text has been added as requested (p. 4).
- 2) Cleared. Text has been added as requested (p. 6).

CR2: Not cleared. Thanks for providing an additional example of a similar approach in the response to comments. Please explain (in the pre-concept note itself) how it was determined that this approach could be useful and applicable to the other countries.

CAR2: Cleared. Some additional information was provided on the Naivasha workshop and how it influenced the pre-concept note (p. 2).

CAR3: Cleared. Specific reference has been added to plans for engaging these stakeholders and incorporating their inputs into the concept note (p. 5). Please consider including the list of gender-related ministries as a footnote in the pre-concept note, not just in the response to comments.

CR5: Cleared. Text moved and added as requested (p. 6).

CR6: Cleared. Text added and expanded as requested (p. 5).

CR7: Cleared. Text added as requested (p. 5).

CR8: Cleared. Text added as requested (p. 5).

CR9: Not cleared. Please incorporate the beneficiary estimates from the response to comments into the pre-concept note itself.

CAR4: Cleared. Text added as requested (p. 6).

CAR5: Not cleared. Thank you for incorporating some baseline data on gender gaps in digital climate services into the pre-concept note. Please also incorporate some of the statistics on women's participation in agriculture from the response to comments into the pre-concept note.

Does the pre-concept briefly explain which organizations would be involved in the proposed regional project/programme at the regional and national/sub-national level, and how coordination would be arranged? Does it explain how national institutions, and when possible, national implementing entities (NIEs) would be involved as partners in the project?

Response: Pending

Secretariat: Yes.

However further information is needed.

CR11: Please identify the Accredited National Implementing Entities that will be engaged as stated and what roles they are expected to play in the project.

(23 June 2026)

Response: Cleared

Secretariat: CR11: Cleared

Information has been added about the involvement of two NIEs (NETFUND Kenya and Ministry of Water and Environment in Uganda) as requested (p. 6). No NIEs exist for Zambia, Malawi and Lesotho.

Resource Availability

Is the requested project / programme funding within the funding windows of the programme for regional projects/programmes?

Response: Cleared

Secretariat: Yes.

(23 June 2026)

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?

Response: Pending

Secretariat: No.

The PFG request is US\$39,000 which is the correct amount based on the total grant requested for a three-step process.

However, there is some discrepancy in the figures as they do not add up. The total Project/Programme Activities Cost is US\$24,000,000. The total Project/Programme Cost should be Project/Programme Activities Costs (US\$24,000,000) + Project/Programme Execution Costs (US\$2,660,000) = 26,660,000.

CAR6:

1. Please review figures and correct/confirm the total Project/Programme Cost as well as provide full number/value rather than stating XXm to avoid errors.
2. Please present the budget in the project components and financing table at the output level.

CAR7: Please revise the PFG so it reflects WMO as the Executing Entity for the PFG if WMO intends to execute the PFG. If it is not, please explain the arrangement on the use of the resources under the PFG by those institutions.

(23 June 2026)

Response: Not Cleared

Secretariat: CAR6: Not cleared

1) Not cleared. There is still an error in the budget within the Project/Programme Components and Financing table. The total Project/Programme Activities Cost is US\$24,000,000. The total Project/Programme Cost should be Project/Programme Activities Costs (US\$24,000,000) + Project/Programme Execution Costs (US\$2,660,000) = 26,660,000. Please correct and recalculate as needed. Also, make sure the numbers match the ones on the online platform. You may use the AF fees calculator: <https://www.adaptation-fund.org/document/ie-and-ee-fees-calculator/>

2) Cleared. The programme budget has been disaggregated to the outcome level (pp. 3-4).

CAR7: Not cleared. Given that the PFG will be executed by ITC (University of Twente), please remove the names of the other executing entities for the broader programme (e.g. ICPAC) from the PFG title page. This clarification is essential for the preparation of the PFG legal agreement.

Response: Not Cleared

Secretariat: CAR7 (New): Please add thousand-separator commas to all numbers throughout the documents to improve readability (e.g., 100,000 instead of 100000).

Eligibility of IE

Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board?

Response: Cleared

Secretariat: Yes.

The Implementing Entity is World Meteorological Organisation (WMO). Its accreditation expires 30 October 2027.

(23 June 2026)



ADAPTATION FUND

PRE-CONCEPT FOR A REGIONAL PROJECT/PROGRAMME

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Increasing Food Security Resilience: Scaling up Effective National and Regional Agriculture Monitoring and Early Warning through Earth Observations.

Countries: Kenya, Lesotho, Malawi, Uganda, Zambia

Thematic Focal Area¹: Disaster risk reduction and early warning systems

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: World Meteorological Organization (WMO)

Executing Entities: IGAD Climate Predictions and Applications Centre (ICPAC); SADC Climate Services Centre (SADC CSC); Alliance of Bioversity International and CIAT (CIAT); Ministries of Agriculture Malawi, Zambia, and Kenya, Ministry of Agriculture, Food Security and Nutrition in Lesotho, Office of the Prime Minister in Uganda, NETFUND; NMHSs in the respective countries; University of Twente-ITC.

Amount of Financing Requested: 29,320,000 (in U.S Dollars Equivalent)

Project Formulation Grant Request: ☐ Yes ☒ No ☐

Amount of Requested financing for PFG: (in U.S Dollars Equivalent) 39,000

Stage of Submission:

- ☐ This pre-concept has been submitted before
☒ This is the first submission ever of the pre-concept

In case of a resubmission, please indicate the last submission date: [Click or tap to enter a date.](#)

Project/Programme Background and Context:

Food insecurity in Eastern and Southern Africa is worsening due to climate variability, recurrent droughts and floods, and weak early warning systems. In 2024, over 30 million people in Southern Africa faced drought-related food shortages with Malawi and Zambia declaring national emergencies. The Horn of Africa remains in crisis, with more than 18 million at risk from hunger in 2025, with countries like Kenya remaining among the world's hunger hotspots². In the target countries—Malawi, Zambia, Lesotho, Kenya and Uganda – agriculture contributes up to 20% of GDP and employs over 60% of the population yet remains highly climate-sensitive. Declining water availability, reduced yields, and rising pests and diseases further threaten livelihoods.

Timely and actionable information on weather, water crop and pasture conditions is critical for food security, adaptation and resilience. Earth Observation (EO) and Early Warning (EW) systems can provide governments

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

² [Hunger Hotspots. FAO–WFP early warnings on acute food insecurity: November 2025 to May 2026 outlook. Rome.](#)

with anticipatory insights at scale shifting responses from reactive to proactive as demonstrated in Uganda's 2017 use of EO alerts to support 90,000 households and save USD 11 million in emergency costs. However, uptake of EO tools remains constrained by fragmented systems, gaps in in-situ observations, and limited institutional capacity to access, process, and effectively use data and related applications. Women play a central role in agriculture but face persistent barriers to accessing digital climate services. Across Sub-Saharan Africa, women are 7% less likely to own a mobile phone, 13% less likely to own a smartphone, and 12% less likely to use mobile internet than men (GSMA, 2026), highlighting the need for gender-responsive dissemination.

The GEOGLAM Crop Monitor Learning Exchange (Naivasha, Kenya, March 2024) provided the consultative foundation for the programme, bringing together national and regional stakeholders - including ministries of agriculture, NMHSs, national statistical offices and technical partners to identify country-specific needs and shared priorities for agriculture and food security (Table 1 below³). These informed the proposed regional approach (tailored to national contexts) which delivers economies of scale, harmonized methods, and coordinated responses. Despite not sharing continuous borders, the participating countries share common priorities that justify regional coordination.

Commented [EM1]: CAR2 & CR1

This project, therefore, will enhance national and regional agrometeorological systems (NMHSs, ICPAC, SADC CSC) by improving interoperability, harmonization, and use of EO-based information for decision-making, resilience, and food security.

Table 1: Priorities identified during regional workshop held jointly by GEOGLAM and ICPAC in 2024

Country	Climate-related challenges	Adaptation priorities	Value of a regional approach
Malawi	Frequent droughts & floods	EO-based crop monitoring; anticipatory action	Shared risk maps; harmonised bulletins
Zambia	Erratic rainfall, dry spells, drought	Regional drought/flood alerts; seasonal forecasts	Data pooling for accurate forecasts
Lesotho	Drought, frost in highlands	District crop maps; water-smart planning	Common protocols; peer learning
Kenya	Climate-driven rangeland loss	EO rangeland indicators; harmonized bulletins	Cross-border grazing strategies
Uganda	Floods, landslides	Multi-hazard EO advisories; local preparedness	Shared best practices; regional Monitoring, Evaluation and Learning (MEL)

Project/Programme Objectives:

The goal of the project is to strengthen food system resilience to climate shocks in five countries through enhanced earth observation-based monitoring, early warning systems, institutional capacity and regional adaptation learning, while promoting inclusive adaptation benefits for vulnerable communities. The specific objectives are, to:

1. **Reduce climate risk through improved monitoring.** Strengthen EO-enhanced agrometeorological monitoring systems and harmonised climate risk information services to support anticipatory action and adaptive planning.
2. **Increase institutional adaptive capacity.** Institutionalize EO-integrated workflows and Standard Operating Procedures (SOPs) in all countries for climate risk analysis and response, incorporating gender-responsive capacity development.
3. **Strengthen community-level resilience.** Ensure climate-vulnerable communities receive timely and actionable early warnings through accessible and inclusive dissemination channels, enabling local adaptation actions and livelihood protection, especially for women and vulnerable groups.
4. **Promote regional learning for sustained adaptation.** Establish a regional MEL system and knowledge repository to support peer learning, climate-smart practices and informed future adaptation strategies.

³ Priorities identified during regional workshop held jointly by GEOGLAM and ICPAC in 2024

Project/Programme Components and Financing:

Programme Components	Expected Outcomes	Expected Outputs	Countries	Amount (US\$)
1. Climate risk monitoring systems	Countries produce timely, harmonized climate risk information for adaptive planning.	Baseline assessment of EO tools, observations and data, resources and user requirements for agrometeorological monitoring and early warning.	Malawi, Zambia, Lesotho, Kenya, Uganda	3600000
		Enhanced tools for EO-based agrometeorological monitoring and early warning (EW).		
		Strengthened EO integration into national systems for food security and agrometeorological monitoring.		
		Regional and national EO monitoring frameworks and indicators developed for coordinated response.		
	Localized tools and data improve accuracy and relevance of EWs.	EO-based crop/rangeland products tailored for local contexts.		4900000
		Local/subnational EO platforms, maps, and EW tools.		
		Gender and youth inclusive in-situ data collection protocols, including citizen data and other innovative solutions.		
2. Institutional capacity for EO integration	Government institutions adopt EO-based workflows for climate risk management.	EO-based crop/rangeland products tailored for local contexts.	Malawi, Zambia, Lesotho, Kenya, Uganda	1800000
		Local/subnational EO platforms, maps, and EW tools.		
		Gender and youth inclusive in-situ data collection protocols, including citizen data and other innovative solutions.		
	Technical and managerial staff have the skills to sustain EO systems.	In-situ data management, harmonisation and sharing tools in compliance with relevant standards like WIS 2.0.		3600000
		Concept of operations (CONOPS) and SOPs for EO integration in food security monitoring and EW, following gender and Environmental and Social Protection safeguards.		
		Institutional guidelines and standards for the use of EO in monitoring and decision-making.		
3. Community-level EW and action	Vulnerable communities receive timely, actionable climate risk information.	Policy briefs and guidance documents for embedding EO in gender-responsive adaptation planning.	Malawi, Zambia, Lesotho, Kenya, Uganda	1800000
		Inclusive regional & national training programmes and training modules for EO tools and climate risk analysis.		
		Partnerships with universities, research and training institutions for structured training and fellowship programmes including (scholarships, exchanges, curriculum development and certification).		
	Local actors are equipped to act on EWs.	Establish and formalise regional communities of practice.		3050 000
		Regional coordination system for EO-based methods and data for food security monitoring.		
		Repository of training materials and case studies hosted on a regional knowledge platform.		
	Vulnerable communities receive timely, actionable climate risk information.	Multi-channel dissemination systems (SMS, messaging apps, radio, community networks) tailored for diverse audiences (women, youth, and indigenous groups).	Malawi, Zambia, Lesotho, Kenya, Uganda	1650000
		Locally tailored and differentiated agrometeorological monitoring bulletins and advisories integrating drought, flood, and crop stress adaptation actions.		
		Protocols for inclusive EW communication developed and institutionalized.		
	Local actors are equipped to act on EWs.	Inclusive training for extension agents and community leaders in interpreting alerts.		3050 000
		Community risk communication strategies and helpdesk services developed addressing literacy and cultural barriers.		
		Tailored knowledge products that explain trends, risks, and strategies for local adaptation planning.		
		Communities supported and equipped for preparedness and contingency plans.		
		Climate-smart agriculture support for long-term resilience in pilot communities (hotspot approach)		

4. Regional MEL system and knowledge sharing	Regional learning informs adaptation strategies and good practices.	Regional MEL system with differentiated indicators to capture diverse outcomes/impacts across groups.	Malawi, Zambia, Lesotho, Kenya, Uganda	2400000
		Six regional learning and knowledge exchange events.		
		Cross-country synthesis reports on adaptation lessons and innovations.		
	Knowledge products and tools are accessible for replication and scaling.	Shared repository of methods, training materials, and intercomparison results hosted on a regional platform.		1200000
		Open-access case studies and guidance documents for EO-enhanced adaptation.		
		Digital tools developed for collaborative MEL and reporting.		
5. Project/Programme Execution cost				2660000
6. Total Project/Programme Cost				26600000
7. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)				
2660000				29320000
Amount of Financing Requested				

Project Duration: Six (6) years – Seventy-two (72) months

PART II: PROJECT/PROGRAMME JUSTIFICATION

Components and regional added value. The programme has four components: EO-driven climate risk monitoring; institutional capacity; community EW and action; and regional learning. A regional approach adds value by harmonizing indicators, pooling technical capacity and enabling cross border climate risk monitoring and adaptation through bodies such as ICPAC and SADC regional climate centers (RCC), responding directly to the priorities identified in table 1. The programme contributes to all three pillars of the Adaptation Fund Medium-Term Strategy (2023–2027) by delivering concrete adaptation actions that reduce climate risk and strengthen resilience, scaling innovative EO-based climate-informed agricultural solutions, and promoting learning, knowledge sharing, and capacity development. It contributes to reducing climate vulnerability, strengthening adaptive capacity and resilient livelihoods, and improving climate information for adaptation decision-making.

Adaptation activities and contributions to resilience. Component 1 will operationalize analysis ready EO data streams and in-situ calibration to generate routine, harmonized crop/rangeland condition bulletins at relevant time scales, anomaly maps, and hazard alerts. Component 2 will embed EO workflows into national agencies. Component 3 translates warnings into locally relevant adaptation actions through inclusive preparedness planning and dissemination, and piloting climate-smart agriculture activities in hotspot communities. Component 4 establishes a regional MEL system with feedback loops to guide programme adjustments in line with Locally Led Adaptation. Overall, the programme enables earlier, better-targeted responses and strengthens coordination between NMHSs and Ministries of Agriculture.

Innovation. The programme combines cloud-based EO workflows, harmonized in-situ protocols, open-source tools such as AI-assisted annotation and foundation models, to strengthen climate monitoring and early warning. Social innovation is emphasized through co-creation, citizen engagement, and capacity development linked to long-term operational sustainability.

Cost effectiveness. A regional approach reduces duplication and lowers costs through shared EO pipelines, cloud processing, and harmonized training. Joint MEL and knowledge platforms further reduce transaction costs and accelerate uptake via peer learning. Compared to isolated national efforts, this model achieves economies of scale, faster implementation, and financial viability using open data and tools.

Consistency with national and regional strategies. The programme aligns with national adaptation plans (NAPs), where adopted, Nationally Determined Contributions (NDCs), national development, climate and agricultural strategies such as Malawi's National Agriculture Policy (2016), Kenya's Agricultural Sector Transformation and Growth Strategy (2019-2029), and Uganda's Agricultural NAP (2018), Zambia's National Policy on Climate Change (2016), and Lesotho's National Climate Change Policy (2017–2027). All emphasize early warning, data-driven planning, and inclusive service delivery. Regionally, it supports SADC and ICPAC frameworks and the AU's Comprehensive Africa Agriculture Development Programme (CAADP) and the Climate Change and Resilient Development Strategy and Action Plan (2022-2032).

Learning and knowledge management. A regional MEL system will track results using harmonized indicators and support adaptive management. Knowledge products (guides, datasets, case studies) will be shared via platforms such as the GEO Knowledge Hub and WMO communities. Learning exchanges and communities of practice will help refine implementation and strengthen institutional memory. Knowledge management will be implemented through a multi-level institutional arrangement, with KM and learning lead within the programme management team. ICPAC and the SADC Climate Services Centre will designate regional focal points, while participating ministries and NMHSs will nominate national focal points to document lessons, support knowledge exchange, and ensure learning informs programme implementation and national adaptation planning.

Consultative process and compliance with ESP and Gender Policy. The programme is based on a multi-stakeholder consultative process (Naivasha workshop) and will continue with inclusive engagement of ministries, agencies, and community groups. At concept stage, a gender assessment, together with consultations with national gender ministries, women organizations, representatives of youth, pastoralists, indigenous people (where applicable) among other vulnerable groups will inform project design, the Gender Action Plan and implementation arrangements. A grievance mechanism will ensure accountability.

Sustainability. Sustainability will be achieved by institutionalizing EO workflows within national agencies, integrating them into existing budgets and systems and strengthening long-term capacity through training-of-trainers, university partnerships, and regional exchanges. A sustainability plan, including long-term partnerships and recurrent financing arrangements, will be developed during concept preparation.

Benefits, standards, duplication, funding rationale, and risk management.

- The programme delivers economic, social and environmental benefits by reducing climate-related crop losses, strengthening food security and resilience, and promoting sustainable land and water management through climate-informed decision-making and climate-smart agriculture. All activities will comply with national technical standards and legislation, including Kenya's Environmental Management and Coordination Act (1999), Uganda's National Environment Act (2019), Malawi's Environment Management Act (2017), Zambia's Environment Management Act (2011), Lesotho's Environment Act (2008), together with national meteorological, geospatial data management (where applicable) and data protection standards, and the Fund's ESP. Details to be developed further at concept stage.
- Duplication will be avoided by building on existing national and regional systems, aligning with ongoing initiatives such as CREWS, ClimSA, SEWA, Copernicus4GEOGLAM, IKI CISTA, and ensuring interoperability and long-term institutional ownership, coordination by WMO and GEOGLAM.
- The funding request reflects the full cost of adaptation, including EO-based monitoring, institutional integration, inclusive advisory design and dissemination, and regional MEL systems required to address climate risks beyond business-as-usual. The project will not rely on external funds to achieve its objectives and outcomes.
- The project is expected to fall under Environmental and Social Risk Category B, with risks managed through an ESMP. Potential environmental and social risks, e.g. exclusion, data misuse, will be managed through an Environmental and Social Management Plan, a Gender Action Plan, a data protection plan, and a grievance mechanism to ensure accountability. A detailed risk analysis will be conducted at the concept stage.

PART III: IMPLEMENTATION ARRANGEMENTS

The programme will be implemented by WMO as the accredited Implementing Entity, which holds the grant and bears full legal, financial, monitoring and reporting responsibility to the Fund, and convenes the partnership through GEOGLAM (Group on Earth Observations Global Agricultural Monitoring), which it hosts. Technical execution will be led by ITC (University of Twente), responsible for day-to-day programme management, and technical coordination across partners.

At the regional level, ICPAC and SADC CSC will act as executing partners for technical and policy integration, aligning the programme with regional early warning and food security frameworks. The Alliance of Bioversity and CIAT will contribute expertise in agricultural systems and data analytics, linking regional and national activities. At the national level, implementation will be led by relevant government ministries for agriculture & food security and NMHSs across the five countries, acting as executing partners. NETFUND Kenya and Ministry of Water and Environment Uganda will be engaged as NIEs to strengthen ownership and coherence with national investment strategies as well as learning.

Each country will appoint a focal point to a technical working group that ensures coordination and alignment with national systems. Overall coordination will be ensured through a regional steering committee led by WMO and GEOGLAM and involving the lead executing entity and regional partners, supported by regular virtual meetings and annual workshops, with equivalent structures at national level for planning, review, and knowledge exchange.

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

A. Record of endorsement on behalf of the government⁴

<i>Dr. Eng. Festus K. Ng'eno, Principal Secretary, State Department of Environment & Climate Change, Ministry of Environment, Climate Change & Forestry, Kenya</i>	<i>Date: 10 March 2026</i>
<i>Dr. Teke Ramotubei, Acting Director, Lesotho Meteorological Services and National Focal Point for Climate Change, Ministry of Environment and Forestry, Lesotho</i>	<i>Date: 4 May 2026</i>
<i>Ms. Tiyaamka Kanthambi, Director Debt and Aid Management Division, Ministry of Finance, Economic Planning and Decentralization, The Republic of Malawi</i>	<i>Date: 24 April 2026</i>
<i>Mr. Ramathan Ggoobi, Permanent Secretary /Secretary to the Treasury Ministry of Finance, Planning and Economic Development, Uganda</i>	<i>Date: 5 September 2025</i>
<i>Dr. Dauty Chibamba, Permanent Secretary, Ministry of Green Economy and Environment, Zambia</i>	<i>Date: 11 March 2026</i>

B. Implementing Entity certification:

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 regional strategies 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.	
Moyenda Chaponda	
<i>Moyenda Chaponda</i>	
Implementing Entity Coordinator Development Partnerships Office, WMO	
Date: 29 May 2026	Tel. and email: +41 22 730 8646; mchaponda@wmo.int
Project Contact Person:	
Tel. And Email: +41227308407; sgrey@wmo.int	

⁴ 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.



ADAPTATION FUND

PRE-CONCEPT FOR A REGIONAL PROJECT/PROGRAMME

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Increasing Food Security Resilience: Scaling up Effective National and Regional Agriculture Monitoring and Early Warning through Earth Observations.

Countries: Kenya, Lesotho, Malawi, Uganda, Zambia

Thematic Focal Area¹: Disaster risk reduction and early warning systems

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: World Meteorological Organization (WMO)

Executing Entities: IGAD Climate Predictions and Applications Centre (ICPAC); SADC Climate Services Centre (SADC CSC); Alliance of Bioversity International and CIAT (CIAT); Ministries of Agriculture Malawi, Zambia, and Kenya, Ministry of Agriculture, Food Security and Nutrition in Lesotho, Office of the Prime Minister in Uganda, NETFUND; NMHSs in the respective countries; University of Twente-ITC.

Commented [GU1]: Move to front as lead EE.

Amount of Financing Requested: 29,320,000 (in U.S Dollars Equivalent)

Project Formulation Grant Request: Yes ☒ No ☐

Amount of Requested financing for PFG: (in U.S Dollars Equivalent) 39,000

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 pre-concept has been submitted before
☒ This is the first submission ever of the pre-concept

In case of a resubmission, please indicate the last submission date: [Click or tap to enter a date.](#)

Project/Programme Background and Context:

Food insecurity in Eastern and Southern Africa is worsening due to climate variability, recurrent droughts and floods, and weak early warning systems. In 2024, over 30 million people in Southern Africa faced drought-related food shortages with Malawi and Zambia declaring national emergencies. The Horn of Africa remains in crisis, with more than 18 million at risk from hunger in 2025, with countries like Kenya remaining among the world's hunger hotspots². In the target countries—Malawi, Zambia, Lesotho, Kenya and Uganda - agriculture contributes

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

² [Hunger Hotspots. FAO–WFP early warnings on acute food insecurity: November 2025 to May 2026 outlook. Rome.](#)

up to 20% of GDP and employs over 60% of the population yet remains highly climate-sensitive. Declining water availability, reduced yields, and rising pests and diseases further threaten livelihoods.

Timely and actionable information on weather, water crop and pasture conditions ~~is~~are critical for food security, adaptation and resilience. Earth Observation (EO) and Early Warning (EW) systems can provide governments with anticipatory insights at scale shifting responses from reactive to proactive as ~~demonstrated~~shown in Uganda's 2017 use of EO alerts to support 90,000 households and save USD 11 million in emergency costs. However, uptake of EO tools remains constrained by fragmented systems, gaps in in-situ observations, and limited institutional capacity to access, process, and effectively use data and related applications. Women play a central role in agriculture but face persistent barriers to accessing digital climate services. Across Sub-Saharan Africa, women are 7% less likely to own a mobile phone, 13% less likely to own a smartphone, and 12% less likely to use mobile internet than men (GSMA, 2026), highlighting the need for gender-responsive dissemination.

Justification for a regional project: The GEOGLAM Crop Monitor Learning Exchange (Naivasha, Kenya, March 2024) provided the consultative foundation for the programme, bringing together national and regional stakeholders - including ministries of agriculture, NMHSS, national statistical offices and technical partners to identify country-specific needs and shared priorities for agriculture and food security (Table 1 below³). These informed the proposed regional approach (tailored to national contexts) which ~~A regional approach delivers economies of scale, harmonized methods, and coordinated responses, reducing duplication and aligning policies across countries facing similar risks. Strengthening EO systems and capacities will improve anticipation of climate-related food security shocks, protect livelihoods, and support climate-smart agriculture in line with national priorities, as seen in the table below. While not all the 5 countries~~Despite not sharing a continuous borders, the participating countries share common priorities that justify regional coordination. shared priorities make regional coordination more effective by aligning data systems and enabling joint responses to climate risks

Commented [EM2]: CAR2 & CR1

This project, therefore, will enhance national and regional agrometeorological systems (NMHSS, ICPAC, SADC CSC) by improving interoperability, harmonization, and use of EO-based information for decision-making, resilience, and food security.

Table 1: Priorities identified during regional workshop held jointly by GEOGLAM and ICPAC in 2024

Country	Climate-related challenges	Adaptation priorities	Value of a regional approach
Malawi	Frequent droughts & floods	EO-based crop monitoring; anticipatory action	Shared risk maps; harmonised bulletins
Zambia	Erratic rainfall, dry spells, drought	Regional drought/flood alerts; seasonal forecasts	Data pooling for accurate forecasts
Lesotho	Drought, frost in highlands	District crop maps; water-smart planning	Common protocols; peer learning
Kenya	Climate-driven rangeland loss	EO rangeland indicators; harmonized bulletins	Cross-border grazing strategies
Uganda	Floods, landslides	Multi-hazard EO advisories; local preparedness	Shared best practices; regional Monitoring, Evaluation and Learning (MEL)

Project/Programme Objectives:

The goal of the project is to strengthen food system resilience to climate shocks in ~~six~~five countries through enhanced earth observation-based monitoring, early warning systems, institutional capacity and regional adaptation learning, while promoting inclusive adaptation –benefits for vulnerable communities. The specific objectives are, to:

1. **Reduce climate risk through improved monitoring.** Strengthen EO-enhanced agrometeorological monitoring systems and harmonised climate risk information services to support anticipatory action and adaptive planning.

³ Priorities identified during regional workshop held jointly by GEOGLAM and ICPAC in 2024

2. **Increase institutional adaptive capacity.** Institutionalize EO-integrated workflows and Standard Operating Procedures (SOPs) in all countries for climate risk analysis and response, incorporating gender-responsive capacity development.
3. **Strengthen community-level resilience.** Ensure climate-vulnerable communities receive timely and actionable early warnings through accessible and inclusive dissemination channels, enabling local adaptation actions and livelihood protection, especially for women and vulnerable groups.
4. **Promote regional learning for sustained adaptation.** Establish a regional MEL system and knowledge repository to support peer learning, climate-smart practices and informed future adaptation strategies.

Project/Programme Components and Financing:

Programme Components	Expected Outcomes	Expected Outputs	Countries	Amount (US\$)
1. Climate risk monitoring systems	Countries produce timely, harmonized climate risk information for adaptive planning.	Baseline assessment of EO tools, observations and data, resources and user requirements for agrometeorological monitoring and early warning.	Malawi, Zambia, Lesotho, Kenya, Uganda	3600000 3.68.5m
		Enhanced tools for EO-based agrometeorological monitoring and early warning (EW).		
		Strengthened EO integration into national systems for food security and agrometeorological monitoring.		
		Regional and national EO monitoring frameworks and indicators developed for coordinated response.		
	Localized tools and data improve accuracy and relevance of EWs.	EO-based crop/rangeland products tailored for local contexts.		4900000 4.9m
		Local/subnational EO platforms, maps, and EW tools.		
		Gender and youth inclusive in-situ data collection protocols, including citizen data and other innovative solutions.		
		In-situ data management, harmonisation and sharing tools in compliance with relevant standards like WIS 2.0.		
2. Institutional capacity for EO integration	Government institutions adopt EO-based workflows for climate risk management.	Concept of operations (CONOPS) and SOPs for EO integration in food security monitoring and EW, following gender and Environmental and Social Protection safeguards. Institutional guidelines and standards for the use of EO in monitoring and decision-making. Policy briefs and guidance documents for embedding EO in gender-responsive adaptation planning.	Malawi, Zambia, Lesotho, Kenya, Uganda	1800000 7.21.8m
	Technical and managerial staff have the skills to sustain EO systems.	Inclusive regional & national training programmes and training modules for EO tools and climate risk analysis. Partnerships with universities, research and training institutions for structured training and fellowship programmes including (scholarships, exchanges, curriculum development and certification).		3600000 3.6m
	Regional collaboration accelerates learning and innovation.	Establish and formalise regional communities of practice. Regional coordination system for EO-based methods and data for food security monitoring. Repository of training materials and case studies hosted on a regional knowledge platform.		1800000 1.8m
3. Community-level EW and action	Vulnerable communities receive timely, actionable climate risk information.	Multi-channel dissemination systems (SMS, messaging apps, radio, community networks) tailored for diverse audiences (women, youth, and indigenous groups).	Malawi, Zambia, Lesotho, Kenya, Uganda	1650000 4.71.65m
		Locally tailored and differentiated agrometeorological monitoring bulletins and advisories integrating drought, flood, and crop stress adaptation actions.		

		Protocols for inclusive EW communication developed and institutionalized.		
	Local actors are equipped to act on EVs.	Inclusive training for extension agents and community leaders in interpreting alerts.		3050000 3.05m
		Community risk communication strategies and helpdesk services developed addressing literacy and cultural barriers.		
		Tailored knowledge products that explain trends, risks, and strategies for local adaptation planning.		
		Communities supported and equipped for preparedness and contingency plans.		
		Climate-smart agriculture support for long-term resilience in pilot communities (hotspot approach)		
4. Regional MEL system and knowledge sharing	Regional learning informs adaptation strategies and good practices.	Regional MEL system with differentiated indicators to capture diverse outcomes/impacts across groups. FiveSix regional learning and knowledge exchange events.	Malawi, Zambia, Lesotho, Kenya, Uganda	2400000 3.62.4m
	Knowledge products and tools are accessible for replication and scaling.	Cross-country synthesis reports on adaptation lessons and innovations.		
		Shared repository of methods, training materials, and intercomparison results hosted on a regional platform.		1200000 1.2
		Open-access case studies and guidance documents for EO-enhanced adaptation.		
		Digital tools developed for collaborative MEL and reporting.		
5. Project/Programme Execution cost				2660000 2.66m
6. Total Project/Programme Cost				2660000 0276.66 m
7. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)				2.66m
2660000 Amount of Financing Requested				2932000 029.32m

Project Duration: Six (6) years – Seventy-two (72) months

PART II: PROJECT/PROGRAMME JUSTIFICATION

Components and regional added value. The programme has four components: [EO-driven](#) climate risk monitoring [systems](#); institutional capacity for [EO integration](#); community [level](#) EW and action; and [a](#) regional MEL system with knowledge sharing [learning](#). [The participating countries share agro-climatic zones—e.g., Kenya and Uganda's tropical mid-altitudes and Malawi, Lesotho, and Zambia's mixed highland systems—making them ideal for a regional monitoring strategy.](#) [The](#) regional approach adds value by harmonizing indicators, pooling [analysis pipelines and training technical capacity](#) and enabling cross border [situational awareness climate risk monitoring and adaptation](#) through bodies such as ICPAC and SADC regional climate centers (RCC), [which directly addresses common country needs identified in the Naivasha workshop responding directly to the priorities identified in—table 1.](#) The programme contributes to all three pillars of the Adaptation Fund Medium-Term Strategy (2023–2027) by delivering concrete adaptation actions that reduce climate risk and strengthen resilience, scaling innovative EO-based climate-informed agricultural solutions, and promoting learning, knowledge sharing, and capacity development. It contributes to reducing climate vulnerability, strengthening adaptive capacity and resilient livelihoods, and improving climate information for adaptation decision-making.

Commented [EM3]: CAR1

Adaptation activities and contributions to resilience. Component 1 will operationalize analysis ready EO data streams and in-situ calibration to generate routine, harmonized crop/rangeland condition bulletins at relevant time scales, anomaly maps, and hazard alerts. Component 2 will embed EO workflows into national agencies. Component 3 [ensures early warnings](#) translates [warnings](#) into locally relevant [adaptation](#) actions through inclusive, [participatory processes involving communities, women's groups, and local authorities, with preparedness planning and dissemination, and piloting via accessible channels \(radio, SMS, local networks\).](#) Further support will be provided to specific high-risk communities for testing climate-smart agriculture activities

~~based on alerts in hotspot communities.~~ Component 4 establishes a regional MEL system with feedback loops to guide programme adjustments in line with Locally Led Adaptation. Overall, the programme enables earlier, better-targeted responses and strengthens coordination between NMHSs and Ministries of Agriculture.

Innovation. The programme ~~advances innovation through dynamic, combines~~ cloud-based EO workflows ~~with transparent methods and uncertainty metrics, supported by open-source platforms. It promotes,~~ harmonized in-situ protocols ~~and selectively applies, open-source~~ new tools such as AI-assisted annotation and foundation models, ~~ensuring explainability and policy alignment. Open science principles ensure accessibility without reliance on proprietary tools to strengthen climate monitoring and early warning.~~ Social innovation is emphasized through co-creation, citizen engagement, and capacity development linked to long-term ~~service continuity~~ operational sustainability.

Cost effectiveness. A regional approach reduces duplication and lowers costs through shared EO pipelines, cloud processing, and harmonized training. Joint MEL and knowledge platforms further reduce transaction costs and accelerate uptake via peer learning. Compared to isolated national efforts, this model achieves economies of scale, faster implementation, and financial viability using open data and tools.

Consistency with national and regional strategies. The programme aligns with national adaptation plans (NAPs), ~~where adopted,~~ Nationally Determined Contributions (NDCs), ~~national development, climate~~ and agricultural strategies such as Malawi's National Agriculture Policy (2016), Kenya's Agricultural Sector Transformation and Growth Strategy (2019-2029), and Uganda's ~~Climate-Smart Agricultural NAP (2018)e Plan,~~ Zambia's National Policy on Climate Change (2016), and Lesotho's National Climate Change Policy (2017-2027). All emphasize early warning, data-driven planning, and inclusive service delivery. Regionally, it supports SADC and ICPAC frameworks ~~by standardizing indicators and enabling cross-border awareness. It builds on RCG platforms and integrates with national agrometeorological and food security systems to ensure complementarity and sustainability, and the AU's Comprehensive Africa Agriculture Development Programme (CAADP) and the Climate Change and Resilient Development Strategy and Action Plan (2022-2032).~~

Learning and knowledge management. A regional MEL system will track results using harmonized indicators and support adaptive management. Knowledge products (guides, datasets, case studies) will be shared via platforms such as the GEO Knowledge Hub and WMO communities. Learning exchanges and communities of practice will help refine implementation and strengthen institutional memory. ~~Knowledge management will be implemented through a multi-level institutional arrangement, with KM and learning lead within the programme management team. ICPAC and the SADC Climate Services Centre will designate regional focal points, while participating ministries and NMHSs will nominate national focal points to document lessons, support knowledge exchange, and ensure learning informs programme implementation and national adaptation planning.~~

Consultative process and compliance with ESP and Gender Policy. The programme is based on a multi-stakeholder consultative process (Naivasha workshop) and will continue with inclusive engagement of ministries, agencies, and community groups. ~~At concept stage, a gender assessment, together with consultations with national gender ministries, women organizations, representatives of youth, pastoralists, indigenous people (where applicable) among other vulnerable groups will inform project design, the Gender Action Plan and implementation arrangements. It is expected to fall under Environmental and Social Risk Category B, with risks managed through an ESMP. A gender assessment will inform a Gender Action Plan, and a grievance mechanism will ensure accountability. Consultations will be inclusive and culturally appropriate.~~

Sustainability. Sustainability ~~is ensured through~~ will be achieved by institutionalizing EO workflows ~~within national agencies, aligning with national strategies, and integrating them into existing budgets and systems and strengthening long-term.~~ Capacity-building (including MSc training and ~~through~~ training-of-trainers), university engagement ~~partnershipst,~~ and regional knowledge exchanges, will support continuity. ~~Use of existing regional infrastructure, community of partioners and embedding operational ownership in national and regional institutions (WMO Regional Training Centres and regional Climate Centres) will reinforce long-term viability. A sustainability plan, including long-term partnerships and recurrent financing arrangements, will be developed during concept preparation.~~

Benefits, standards, duplication, funding rationale, and risk management.

Commented [EM4]: CR6

Commented [EM5]: CR7

Commented [EM6]: CAR3

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- The programme delivers economic, social and environmental benefits by reducing climate-related crop losses, increasing household income, and reducing emergency response costs through earlier action; social benefits by improving/strengthening food security and, enhancing climate resilience, and promoting equity (targeting women and vulnerable groups, inclusive EW delivery channels; and environmental benefits by promoting sustainable land and water management through climate-informed decision-making and climate-smart agriculture, and avoiding maladaptation.
- All activities will comply with national technical standards for environmental assessment and legislation, including Kenya's Environmental Management and Coordination Act (1999), Uganda's National Environment Act (2019), Malawi's Environment Management Act (2017), Zambia's Environment Management Act (2011), Lesotho's Environment Act (2008), together with national meteorological, geospatial data management (where applicable) and data protection standards, and with the Fund's ESP through risk screening, mitigation, and monitoring. Details to be developed further at concept stage.
- Duplication will be avoided by building on existing national and regional systems, aligning with ongoing initiatives such as CREWS, ClimSA, SEWA, Copernicus4GEOGLAM, IKI CISTA, and ensuring interoperability and long-term institutional ownership, coordination by WMO and GEOGLAM.
- The funding request reflects the full cost of adaptation, including EO-based monitoring, institutional integration, inclusive advisory design and dissemination, and regional MEL systems required to address climate risks beyond business-as-usual. The project will not rely on external funds to achieve its objectives and outcomes.
- The project is expected to fall under Environmental and Social Risk Category B, with risks managed through an ESMP. Potential environmental and social risks e.g. exclusion, data misuse, will be managed through an Environmental and Social Management Plan, a Gender Action Plan, a data protection plan and a grievance mechanism to ensure accountability. A detailed risk analysis will be conducted at the concept stage.

Commented [EM8]: CR9

Commented [EM9]: CAR4

Commented [EM10]: CAR1

Commented [EM11]: CR5

PART III: IMPLEMENTATION ARRANGEMENTS

The programme will be led by the WMO as the implementing entity, working closely with GEOGLAM (Group on Earth Observations Global Agricultural Monitoring), which WMO hosts. The programme will be implemented by WMO as the accredited Implementing Entity, which holds the grant and bears full legal, financial, monitoring and reporting responsibility to the Fund, and convenes the partnership through GEOGLAM (Group on Earth Observations Global Agricultural Monitoring), which it hosts. Technical execution will be led by ITC (University of Twente) as lead Executing Entity, responsible for day-to-day programme management, the programme management unit, and technical coordination of the technical workplan across countries and partners.

At the regional level, ICPAC and SADC CSC will act as executing partners for support technical and policy integration, aligning the programme with regional early warning and food security frameworks. The Alliance of Bioversity and CIAT will contribute expertise in agricultural systems and data analytics, linking regional and national activities.

Commented [GU12]: Would rather rephrase this as a role

At the national level, implementation will be led by relevant government ministries for agriculture & food security and NMHSs across the five countries, acting as executing partners. Accredited National Implementing Entities NETFUND Kenya and Ministry of Water and Environment Uganda will be engaged where available as NIEs to strengthen ownership and coherence with national investment strategies as well as learning.

Commented [EM13]: CR11

Each country will appoint a focal point to participate in a technical working group that to ensure coordination and alignment with national systems. Overall Coordination will be ensured through a regional steering committee led by WMO and GEOGLAM and involving the lead executing entity and regional partners, supported by regular virtual meetings and annual workshops, alongside with equivalent structures similar structures at national level for planning, review, and knowledge exchange.

Commented [GU14]: Zambia, Malawi and Lesotho have no accredited NIE, so engagement there runs through the ministries and NMHSs as executing partners.

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

A. Record of endorsement on behalf of the government⁴ 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 annexes to the project/programme proposal.

Dr. Eng. Festus K. Ng'eno, Principal Secretary, State Department of Environment & Climate Change, Ministry of Environment, Climate Change & Forestry, Kenya	Date: 10 March 2026
Dr. Teke Ramotubei, Acting Director, Lesotho Meteorological Services and National Focal Point for Climate Change, Ministry of Environment and Forestry, Lesotho	Date: 4 May 2026
Ms. Tiyaamka Kanthambi, Director Debt and Aid Management Division, Ministry of Finance, Economic Planning and Decentralization, The Republic of Malawi	Date: 24 April 2026
Mr. Ramathan Ggoobi, Permanent Secretary /Secretary to the Treasury Ministry of Finance, Planning and Economic Development, Uganda	Date: 5 September 2025
Dr. Douthy Chibamba, Permanent Secretary, Ministry of Green Economy and Environment, Zambia	Date: 11 March 2026

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 regional strategies 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.	
Moyenda Chaponda	
<i>Moyenda Chaponda</i>	
Implementing Entity Coordinator Development Partnerships Office, WMO	
Date: 29 May 2026	Tel. and email: +41 22 730 8646; mchaponda@wmo.int
Project Contact Person:	
Tel. And Email: +41227308407; sgrey@wmo.int	

⁴ 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.



REPUBLIC OF KENYA

MINISTRY OF ENVIRONMENT, CLIMATE CHANGE & FORESTRY
State Department for Environment & Climate Change
Office of the Principal Secretary

Telegrams: "NATURE", Nairobi
Telephone: 254-20- 2730808/9
Fax: 254-20- 2734722
Email : psoffice@environment.go.ke

SHA BUILDING
RAGATI ROAD
P. O. BOX 30126-00100
NAIROBI

When replying, please quote:

Ref. No: MEF/SDECC/DPPSI/4

10th March, 2026

The Adaptation Fund Board

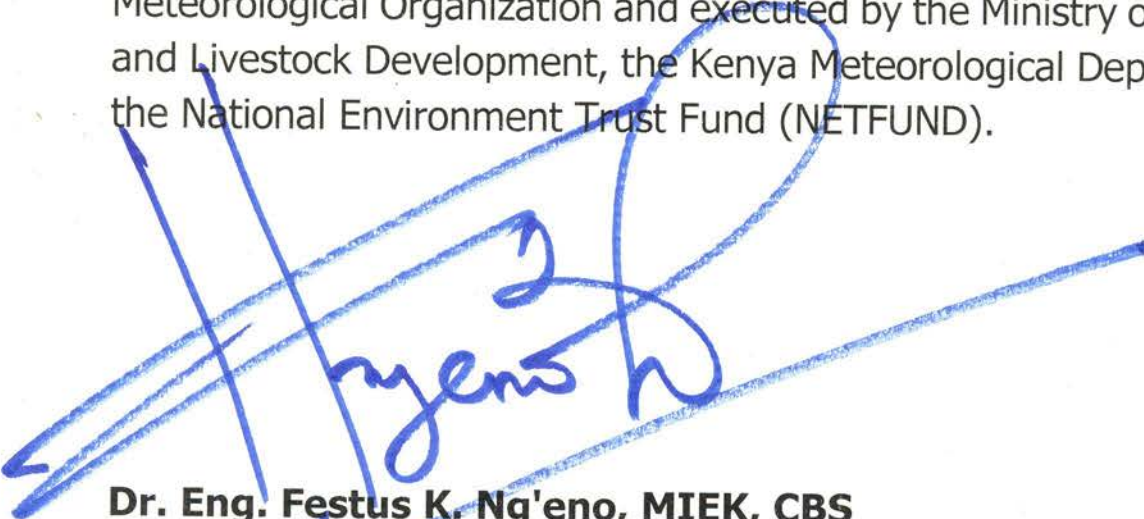
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

**RE: ENDORSEMENT FOR INCREASING FOOD SECURITY
RESILIENCE: SCALING UP EFFECTIVE NATIONAL AND
REGIONAL AGRICULTURE MONITORING AND EARLY
WARNING THROUGH EARTH OBSERVATIONS**

In my capacity as designated authority for the Adaptation Fund in Kenya, I confirm that the above regional Project/Programme 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 Kenya.

Accordingly, I am pleased to endorse the above Project/Programme proposal with support from the Adaptation Fund.

If approved, the Project/Programme will be implemented by the World Meteorological Organization and executed by the Ministry of Agriculture and Livestock Development, the Kenya Meteorological Department and the National Environment Trust Fund (NETFUND).



Dr. Eng. Festus K. Ng'eno, MIEK, CBS
PRINCIPAL SECRETARY



ADAPTATION FUND



LESOTHO

Ministry of Environment and
Forestry P.O. Box 772,
Maseru 100

Ref:MEF/MET/5/23

Letter of Endorsement by Government

4th May 2026

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

Subject: Endorsement for "Increasing Food Security Resilience: Scaling up Effective National and Regional Agriculture Monitoring and Early Warning through Earth Observations"

In my capacity as designated authority for the Adaptation Fund in Lesotho, 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 Lesotho.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the World Meteorological Organization (WMO) and executed by IGAD Climate Predictions and Applications Centre, CIAT, SADC CSC, Ministries of Agriculture Malawi, Zambia, Kenya & Ethiopia, Ministry of Agriculture, Food Security and Nutrition in Lesotho, Office of the Prime Minister in Uganda, NETFUND.

Yours Sincerely,

Teke Ramotubei (PhD)

[Director – Lesotho Meteorological Services]

Ministry of Environment and Forestry Headquarters,
Post Office Building, Cnr Constitution Rd and Palace Rd, 7th Floor,
Maseru 100,



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

24th April, 2026

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

Dear Sir/Madam,

**ENDORSEMENT FOR "INCREASING FOOD SECURITY RESILIENCE:
SCALING UP EFFECTIVE NATIONAL AND REGIONAL AGRICULTURE
MONITORING AND EARLY WARNING THROUGH EARTH OBSERVATIONS**

In my capacity as designated authority for the Adaptation Fund in Malawi, I confirm that the above regional project/programme 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.

Accordingly, I am pleased to endorse this project proposal with support from the Adaptation Fund as it aligns Malawi's strategic adaptation priorities, national Climate Smart Agriculture Framework (NCSAF) and relevant policies guiding environmental management in Malawi. If approved, the project will be implemented by the World Metrological Organization and executed by the Ministry of Agriculture, Irrigation and Water Development.

Yours Sincerely,

Ms. Tiyamika Kanthambi

Director, Debt and Aid Management Division

Ministry of Finance, Economic Planning and Decentralization
Designated Authority
The Republic of Malawi

Telephone : 256 41 4341305/230487
Fax : 256 41 4233524
Email : finance@finance.go.ug
Website : www.finance.go.ug
Plot No. 2-8 Apollo Kaggwa Road
In any correspondence on
This subject please quote No.DARC 158/550/04



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

5th September, 2025

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

**ENDORSEMENT LETTER FOR THE PROJECT TITLED
“INCREASING FOOD SECURITY RESILIENCE: SCALING UP
EFFECTIVE NATIONAL AND REGIONAL AGRICULTURE
MONITORING AND EARLY WARNING THROUGH EARTH
OBSERVATIONS”**

In my capacity as the National Designated Authority for the Adaptation Fund in Uganda, I confirm that the above regional project/ programme is in line with Uganda's priorities in implementing adaptation actions to reduce the adverse impacts of, and risks, posed by climate change in Uganda.

Accordingly, I am pleased to endorse the above national project/programme proposal to be supported by the Adaptation Fund.

If approved, the project/ programme will be implemented by World Meteorological Organization and executed by the Office of the Prime Minister.

Ramathan Ggoobi

PERMANENT SECRETARY/SECRETARY TO THE TREASURY

- Copy to: - Hon. Minister of Finance, Planning and Economic Development
- Permanent Secretary, Office of the Prime Minister
 - Permanent Secretary, Ministry of Water and Environment
 - Permanent Secretary, Ministry of Agriculture, Animal Industry and Fisheries

Mission

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



REPUBLIC OF ZAMBIA

In reply please quote

No.....

NDA/71/21/9

MINISTRY OF GREEN ECONOMY AND ENVIRONMENT

OFFICE OF THE PERMANENTS SECRETARY

Corner of John Mbita & Nationalist Road

P.O BOX 30147

Lusaka-Zambia

11 March 2026

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

ENDORSEMENT FOR INCREASING FOOD SECURITY RESILIENCE: SCALING UP EFFECTIVE NATIONAL AND REGIONAL AGRICULTURE MONITORING AND EARLY WARNING THROUGH EARTH OBSERVATIONS

In my capacity as designated authority for the Adaptation Fund in Zambia, I confirm that the above national grant 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 Zambia.

Accordingly, I am pleased to endorse the above grant proposal with support from the Adaptation Fund. If approved, the project will be implemented by the World Meteorological Organisation and executed by the Ministry of Agriculture.

Sincerely,

Dr. Dauty Chibamba
Permanent Secretary

MINISTRY OF GREEN ECONOMY AND ENVIRONMENT



Revised PFG Submission Form¹ (additions in red)

Project Formulation Grant (PFG)

Submission Date:

Adaptation Fund Project ID:

Country/ies: Kenya, Lesotho, Malawi, Uganda, Zambia

Title of Project/Programme: Increasing Food Security Resilience: Scaling up National and Regional Agriculture Monitoring and Early Warning through Earth Observations

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

Implementing Entity: World Meteorological Organization (WMO)

Executing Entity/ies: IGAD Climate Predictions and Application Centre (ICPAC), SADC Climate Services Centre, Alliance Bioversity International & CIAT, University of Twente-ITC.

A. Project Preparation Timeframe 6 months

Start date of PFG	1 November 2026
Completion date of PFG	31 March 2027

B. Proposed Project Preparation Activities (\$)

List of Proposed Project Preparation Activities	Output of the PFG Activities	US\$ Amount	Budget note ²
Assess and establish project baselines and indicators	Baseline and target reports for outcomes and outputs	12,000	Consultant honorarium, travel for consultations
	Indicator measurement criteria		
	Initial gender analysis		
	LogFrame and theory of change elaboration and strengthening		
	Site identification for community level actions		
Readiness assessment	Technical & institutional readiness assessment of the EEs	12,000	Consultant honorarium, travel for consultations
	Project execution/implementation strategy		

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.

	Initial environmental and social risk and safeguards assessment		
Stakeholder Consultations & advanced user needs assessment.	Stakeholder mapping and engagement strategy, including vulnerable and marginalized groups	11,500	Consultant honorarium, travel for consultations
	Revised project outcomes and outputs		
	Revised Gaps and Needs Assessment		
Implementing Entity Fee (Administration and management of concept preparation)	Implementing entity fee – coordination of overall process to have CN submitted	US\$ 3,500	10% of direct costs
Total Project Formulation Grant		US\$ 39,000	

The amount above represents 20% of the funds to be requested for the full proposal development

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

The main activities to be conducted in the project preparation will include:

- i) Establishment of baselines, refine targets, and indicators for the project outputs and outcomes. This will also include the development of an indicator measurement criteria for all project deliverables. This will help enhance project monitoring and evaluation and ensure accurate measurement of the project impacts.
- ii) A readiness assessment to establish the level of readiness of the Executing Entities for project execution. This assessment will seek to understand the technical and institutional capacities of the EE using a set of pre-determined criteria including governance, accountability, and decision making; Participation, positioning, leadership, and influence; Technical and operational capacity; Partnerships and stakeholders; and Sustainability.
- iii) Stakeholder analysis and advanced user needs assessment will be done to ensure the completeness of stakeholder identification and establishment of a stakeholder engagement and management strategy, as well as a revision/refining of the user needs and project objectives and outcomes.

Across all aspects, regional online and in-person engagements will be conducted with key stakeholders, national and subnational level focal persons, and with representatives of vulnerable groups, women, youth, elderly, selected climate-vulnerable and remote communities.

These pre-conditions are essential to a successful and fit-for-purpose project design as well as the smooth implementation of the project.

The Project Formulation Grant will be executed by the lead executing entity, ITC (University of Twente), under WMO's oversight as Implementing Entity, covering concept-stage consultations, gender assessment, risk screening and detailed budgeting.

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 <i>Moyenda Chaponda</i>	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Moyenda Chaponda (mchaponda@wmo.int)		29 May 2026	Sebastian Grey	+41227308407	sgrey@wmo.int