



## ADAPTATION FUND

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18 September 2023

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Adaptation Fund Board  
Project and Programme Review Committee  
Thirty-second Meeting  
Bonn, Germany, 10-11 October 2023

### **PROPOSAL FOR CAMBODIA, LAO PEOPLE'S DEMOCRATIC REPUBLIC, THAILAND, VIET NAM**



ADAPTATION FUND

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

PROJECT/PROGRAMME CATEGORY: Pre-Concept for a Regional Project

**Countries/Region:** Cambodia, Lao People’s Democratic Republic, Thailand, Viet Nam.  
**Project Title:** Enhancing Climate Resilience of Mekong River Communities through Strengthening Climate Services (ECR-MEKONG)  
**Thematic focal area:** Unclear  
**Implementing Entity:** World Meteorological Organization (WMO)  
**Executing Entities:** Several, some to be determined.  
**AF Project ID:** AF00000268  
**IE Project ID:** **Requested Financing from Adaptation Fund (US Dollars):** 12,296,577 USD  
**Reviewer and contact person:** Dirk Lamberts **Co-reviewer(s):**  
**IE Contact Person(s):** Robert Stefanski

<p>Technical Summary</p>	<p>The project “Enhancing Climate Resilience of Mekong River Communities through Strengthening Climate Services (ECR-MEKONG)” aims to reduce vulnerability and exposure from climate hazards, therefore, increase the resilience of communities in the Participating Countries to climate variability and change by implementing climate-smart decision-making networks for better disaster risk management of drought and floods, agriculture management, and water resources management encompassing hydropower generation. This will be done through the four components below:</p> <p><u>Component 1:</u> Development of user-centred integrated Early Warning Systems for drought and floods (USD 3,150,000);</p> <p><u>Component 2:</u> Increased use of climate information and services by strengthening inter-institutional and inter-sectorial capacity (USD 2,700,000);</p> <p><u>Component 3:</u> Enhanced capacity of communities to counter the adverse impact of drought and floods (USD 2,700,000); and</p> <p><u>Component 4:</u> Strengthening regional cooperation and knowledge sharing among the NMHSs and stakeholders (USD 1,800,000).</p>
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	<p><u>Requested financing overview:</u>  Project/Programme Execution Cost: USD 983,250  Total Project/Programme Cost: USD 10,350,000  Implementing Fee: USD 963,627  Financing Requested: USD 12,296,577</p> <p>The proposal includes a request for a project formulation grant of USD 20,000.</p> <p>The initial technical review raises several issues, such as lack of focused objectives, realistic goals and the lack of support to concrete adaptation actions, as is discussed in the number of Clarification Requests (CRs) and Corrective Action Requests (CARs) raised in the review.</p>
Date	13 September 2023

Review Criteria	Questions	Comments
Country Eligibility	1. Are all of the participating countries party to the Kyoto Protocol, or the Paris Agreement?	<b>Yes.</b>
	2. Are all of the participating countries developing countries particularly vulnerable to the adverse effects of climate change?	<b>Yes.</b> Participating countries are particularly vulnerable to climate change-exacerbated floods and droughts, with increasing frequency and severity.
Project Eligibility	1. Have the designated government authorities for the Adaptation Fund from each of the participating countries endorsed the project/programme?	<b>Yes.</b> As per the Endorsement letters dated 22 June 2023 (Cambodia), 23 December 2022 (Lao PDR), 19 July 2023 (Thailand) and 17 March 2023 (Viet Nam).
	2. 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?	<b>No.</b> Essential information needed to justify the funding request, is lacking. The scope of the project is so broad that the diversity and complexity of the problems the proposal aims to address is not presented or reflected in the proposed approach.

		<p><b>CR 1:</b> Please provide the necessary information on the problem as well as the proposed remedy, as required, at the different levels.</p>
	<p>3. Have the project/programme objectives, components and financing been clearly explained?</p>	<p><b>No.</b> The pre-concept note is a broad mix of issues and topics, some with a clear climate change link, others with only a marginal or no connection at all.</p> <p>1. The target area of the proposal is not clearly defined and misaligned with the envisaged objective. The absence from the proposal of PR China (and, to a lesser extent, Myanmar) as a participating country is a major gap as a key source of flood-determining flow and flow control through hydropower management is thereby not included. Furthermore, apart from Cambodia and Lao PDR, only relatively small parts of the territories of Thailand and Viet Nam are located in the Mekong river basin. It is unclear to what extent and how these two countries will use and develop national and nation-wide structures based on these limited requirements.</p> <p>2. The target communities are poorly identified. The project title refers to “Mekong river communities”, while elsewhere they are referred to as “riparian communities” or yet as “vulnerable communities in the Participating Countries”. The flood and drought risks directly related to Mekong river flows and rainfall extend far beyond its direct riparian area.</p> <p>3. The main objective of the project is described as being achieved “by implementing climate-smart decision-making networks”. The proposal does not explain how these decision-making networks will be relevant in decision making across all the sectors involved in the management of drought and flood disaster risks.</p>

4. There seems to be a major disconnect between the information that is needed and relevant for flood and drought disaster risk management (i.e. mostly *weather* forecasts) and the envisaged “climate services production and delivery”. At the community level, for the mentioned sector of agriculture, weather forecasts are relevant, as decisions at a temporal scale where ‘climate services’ are relevant are typically not taken at the level of those communities.

5. There is a conceptual bias in the term ‘flood’ as used in the proposal. It is only used in the sense of being a catastrophic or disastrous event, one that should be avoided or minimised through a disaster preparedness approach. The recurrent flooding associated with the natural hydrological cycle of the Mekong river and its vital importance to globally unique biodiversity, ecosystem processes, ecosystem services and livelihoods, while documented and demonstrated ad nauseam, is entirely absent from the proposal. The proposal makes some references to hydropower development as a factor affecting flooding but ignores the impact of e.g. irrigation development and loss of wetlands and floodplain vegetation, dynamics and other features such as connectivity.

6. Similarly, the proposal ignores the livelihoods and ways of life of millions of households in the Mekong river basin who have adapted to naturally occurring floods and droughts and, in a number of cases, have developed over several thousands of years ways to cope, exploit and often prosper with these natural hydrological cycles.

7. The project objective includes “better (...) water resources management encompassing hydropower generation.” The development of both mainstream and tributaries hydropower infrastructure in the Mekong river basin of the past three decades has clearly shown the inability of the countries and

		<p>companies involved to take into consideration factors in their hydropower operations that are not directly in support of their own profitability. Clearly, considering their impact on river flows, they are of vital importance in flood and drought disaster risks management. However, the proposal does not demonstrate how it will achieve such engagement with the hydropower sector. Attempts at their engagement have consistently failed, despite the existence of bespoke international agreements and institutions established for that exact purpose (e.g. the Mekong River Commission).</p> <p><b>CR 2:</b> Please clarify the link between the project objectives, the project components and the proposed allocation of financing, taking into consideration the above remarks.</p> <p><b>CR 3:</b> Please clarify the components to demonstrate how they will realistically result in outcomes that contribute to achieving the project objectives.</p>
	<p>4. Has the project/programme been justified in terms of how:</p> <ul style="list-style-type: none"> <li>- it supports concrete adaptation actions?</li> <li>- it builds added value through the regional approach?</li> <li>- it promotes new and innovative solutions to climate change adaptation?</li> <li>- it is cost-effective?</li> <li>- it is consistent with applicable strategies and plans?</li> <li>- it incorporates learning and knowledge management?</li> <li>- 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?</li> </ul>	<p><b>No.</b></p> <p>Despite its very broad scope, it can be concluded that the proposal would contribute primarily to disaster risk reduction and early warning systems.</p> <p>The potential for the project to support concrete adaptation actions is low, as the allocation of funding to activities that could be considered concrete adaptation, or that are likely imminently leading to such adaptation, is very limited, involving only an unspecified number of pilot cases and sites.</p> <p>The added value of the regional approach is not demonstrated (please also see comment 1 under point 3 above). For rainfall forecasting, regional impacts in terms of flood and drought risk materialise in a lagged manner through the hydrology of the river, which is extensively</p>

	<p>- it will take into account sustainability?</p>	<p>monitored and for which robust flood forecasting has already existed for several years (please see e.g. <a href="https://portal.mrcmekong.org/monitoring/flood-forecasting">https://portal.mrcmekong.org/monitoring/flood-forecasting</a>).</p> <p>The description of how the project would provide new and innovative solutions for climate change adaptation is vague and contains very few new and no innovative elements. Numerous attempts to “solve potential conflicts in water use between agriculture, energy, and water management using multipurpose infrastructures” have been made in the past, many through MRC, and have mostly failed.</p> <p>The section on cost-effectiveness provides no information on how the proposed project would be a cost-effective way to achieving the project objectives.</p> <p>The proposal contains no gender considerations.</p> <p>Sustainability of the project is said to be “guaranteed” by the national meteorological institutions “in their roles of government agencies supported by public funding with officially mandated duties.” The proposal contains no relevant information in support of the claim of sustainability of the project outcomes.</p> <p><b>CAR 1:</b> Please provide the required information justifying the proposed project.</p>
	<p>5. 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?</p>	<p><b>Unclear.</b></p> <p>The proposal includes eight organisations as named Executing Entities, four in each participating country, and four located outside the project region. In addition, unspecified “relevant national institutions” will execute activities at community level in each country. The role of MRC as regional partner is unclear.</p>

		<p><b>CR 4:</b> Please clarify (i) the role of each executing entity in executing the proposed components/outputs, as well as (ii) the process through which a smooth coordination among the myriad of EEs will be ensured.</p> <p>None of the participating countries has an accredited NIE.</p> <p>The IE will be involved in the execution of some activities. The proposal should comply with relevant AF guidelines related to implementing entities providing execution services.</p> <p><b>CAR 2:</b> Please clarify the role of the IE in the execution of the project, and correct the administrative costs accordingly as needed, in line with relevant AF guidelines.</p>
Resource Availability	6. Is the requested project / programme funding within the funding windows of the programme for regional projects/programmes?	<b>Yes.</b>
	7. 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?	<p><b>Unclear.</b></p> <p>The total funding requested does not correspond to the sum of the project activities and the administrative costs.</p> <p><b>CAR 3:</b> Please correct the amounts of funding requested.</p> <p>At 8.5 per cent, the Implementing Entity Management Fee is at or below 10% of the project/programme cost, as are at 8.7 per cent the Project Execution Costs.</p>
Eligibility of IE	8. Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board?	<b>Yes.</b>





## PRE-CONCEPT FOR A REGIONAL PROJECT/PROGRAMME

### PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme:	Enhancing Climate Resilience of Mekong River Communities through Strengthening Climate Services (ECR-MEKONG)
Countries:	Cambodia, Lao People's Democratic Republic (PDR), Viet Nam and Thailand
Thematic Focal Area <sup>1</sup> :	Disaster risk reduction and early warning systems
Type of Implementing Entity:	MIE
Implementing Entity:	World Meteorological Organization (WMO)
Executing Entities:	National Meteorological and Hydrological Services (NMHSs) of Cambodia, Lao PDR, Thailand and Viet Nam, Australian Bureau of Meteorology, RMIT University, United Nations Food and Agriculture Organization (FAO) and Global Water Partnership (GWP)
Amount of Financing Requested:	12,296,577 (in U.S Dollars Equivalent)

#### Project / Programme Background and Context:

The frequency and severity of drought and floods in Southeast Asia are increasing and will continue to increase over the next decades (IPCC Sixth Assessment Report). The least developed and developing countries in the region such as Cambodia, Lao PDR, Thailand, and Viet Nam (hereinafter referred to as the Participating Countries) are particularly vulnerable to the adverse effects of climate change-induced droughts and floods. Based on WMO assessments, all four countries indicated that floods, drought, and storms are the most common hazards affecting them. Moreover, in the past three decades, droughts and floods have affected more than 100 million people in these Countries (Asian Development Bank; WMO 2021). In addition, the Nationally Determined Contributions (NDCs) submitted to the UNFCCC by the Participating Countries indicate the need to strengthen drought and flood Early Warning Systems (EWS) especially for the agriculture and water sectors.

The Mekong is a transboundary river that runs through the Participating Countries. The riverflow is fundamental for the riparian communities as their livelihood mostly depends on agriculture (including crops, livestock, and inland fisheries). Agriculture is the primary source of employment in Lao PDR (61%), Viet Nam (41%) and Cambodia (27%). As such, decision-informed agriculture and water management offer major opportunities to improve proactive disaster risk management and increase economic productivity. The impact of drought/floods on vulnerable communities in the Participating Countries has been demonstrated using the disastrous consequences of drought-induced by the 2015-16 El Niño. These included: *Cambodia* - an estimated 2.5 million people were affected by drought; *Thailand* - the total rice production fell to 27 million tonnes, the lowest since 2000-2001; *Viet Nam* – it was the worst drought in the past 90 years, affecting 52 out of 63 provinces, 1.1 million people were food insecure and more than 2 million faced damaged or lost their livelihoods.

Accurate and actionable knowledge about rainfall, its spatial and temporal distribution, and rainfall forecasts on various time scales from days to months are vital for the sustainable economic development of the Mekong River countries and planning purposes. Therefore, this project will examine the following aspects of data collection, monitoring and forecasting; co-production of tailored services; provision through effective communication channels; and participatory engagement of stakeholders to increase uptake of advisories. All of these aspects will provide stakeholders in agriculture, energy, and water sectors and local communities with climate information for their specific needs.

Analysing the current situation in the Participating Countries and evaluating technical and technological capacities of their NMHSs, inadequate observation networks, insufficient climate databases, lack of management plans and policies, and lack of technical capacity to generate climate and weather information tailored to specific needs of key economic sectors and communities have been identified as the priorities to improve climate adaptation. This project proposal responds to addressing these needs through WMO-led coordination of partnership and cooperation among the NMHSs in the region, and the technical support to and capacity building of the NMHSs. The project will address the current limitations of the Participating Countries to produce and deliver relevant climate, water, and weather information such as risk assessments and impact-based early warnings to a complex multi-institutional framework, sectoral stakeholders, national, and sub-national authorities in support of proactive risk management and adaptation plans at the community level of drought and flood events in the Mekong River region.

#### Project / Programme Objectives:

The overall objective of the project is to reduce vulnerability and exposure from climate hazards, therefore, increase the resilience of communities in the Participating Countries to climate variability and change by implementing climate-smart decision-making networks for better disaster risk management of drought and floods, agriculture management, and water resources management encompassing hydropower generation. The sub-objectives of the project, which are in line with the project components below, and the Adaptation Fund outcomes, are:

<sup>1</sup> Thematic areas are: Food security; Disaster risk reduction and Early Warning Systems (EWS); Transboundary water management; Innovation in adaptation finance.

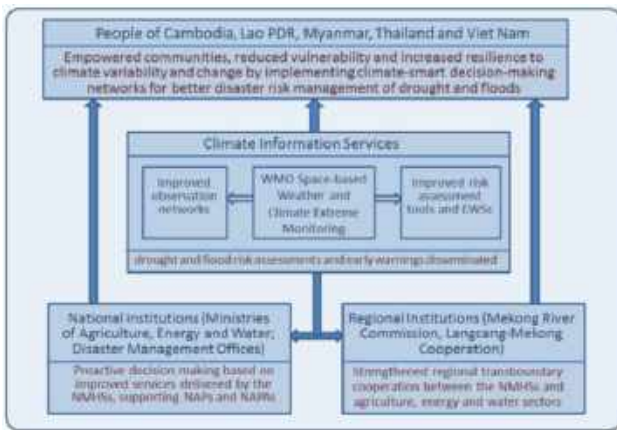
- Risk assessments and user-centred early warnings for drought and floods based on the increased operational capacity of the NMHSs in the Participating Countries are generated and disseminated to decision makers to meet the demand-driven needs for climate adaption;
- Enhanced regional, national and local inter-institutional/sectorial stakeholder networks support the co-design and co-development of sector-specific climate services tailored for community- focused disaster risk management, food, water, and energy security;
- Smallholders farmers, vulnerable households, and communities are empowered to use climate, water and weather information services for disaster risk management and adaptation;
- Regional cooperation is strengthened to support mutual technical assistance among the NMHSs and to enhance national capacity in climate monitoring, prediction, and tailored sectorial information. Regional cooperation enables upscaling of the project outcomes to other countries in Southeast Asia and South Asia.

### Project / Programme Components and Financing:

Based on WMO preliminary assessments of NMHSs current capacity, needs to strengthen the Climate Services Information System has been identified, including guidance on enhancing DRR, early warning and response mechanisms. National and regional capacity building is required for forecasting for climate-sensitive sectors, enhancing sector-specific advisories, increasing collaboration among agencies in disseminating warnings and emergency response, and sharing of base maps, hazard parameters, exposure and vulnerability data. One aspect of a Regional Climate Centre (RCC) is the sharing of climate data across the countries. There is a WMO designated South-East Asia Regional Climate Centre (RCC) Network which is coordinated by the Meteorological Service of Singapore (MSS) which has the role of data sharing, capacity development and conducts the ASEAN Regional Climate Outlook Forum.

Project/Programme Components	Expected Outcomes	Expected Outputs	Countries	Amount (US\$)
1. Development of user-centred integrated Early Warning Systems for drought and floods	Improved decision making based on better information provided by the NMHSs	Improved observation networks and databases, drought and flood risk assessment tools which lead to user-centered integrated EWSs available through the specialised web portal to support decision-making for national, provincial, and community agriculture, water, and energy stakeholders.	Cambodia Lao PDR Thailand Viet Nam	3,150,000
2. Increased use of climate information and services by strengthening inter-institutional and inter-sectorial capacity	Operational mechanism for co-production of climate and water tools/ products demonstrated through pilot cases	Implemented contributions for the establishment, consolidation, and monitoring of Regional and National Frameworks for Climate Services and improved sectorial local multi-stakeholder networks to support the co-design and co-production of tailored climate services.	Cambodia Lao PDR Thailand Viet Nam	2,700,000
3. Enhanced capacity of communities to counter the adverse impact of drought and floods	Prototypes deployed and used by communities for improved climate risk management and adaptation plans	Local stakeholders and communities are able to adapt to climate change by understanding and proactively applying climate information tailored to their needs for risk management and adaptation plans.	Cambodia Lao PDR Thailand Viet Nam	2,700,000
4. Strengthening regional cooperation and knowledge sharing among the NMHSs and stakeholders	Increased regional cooperation mechanisms (RCOFs) among the NMHSs and stakeholders	Development of regional plans / policies and sustained capacity building through regional transboundary strategic alliances and partnerships coordinated by Mekong River regional technical working groups from agriculture, energy, and water sectors and disaster management offices including the South-East Asia RCC Network and other partners.	Cambodia Lao PDR Thailand Viet Nam	1,800,000
5. Project/Programme Execution cost				\$ 983,250
6. Total Project/Programme Cost				\$10,350,000
7. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)				\$ 963,627
<b>Amount of Financing Requested</b>				<b>\$ 12,296,577</b>

**Project Duration:** 5 years (2024 – 2028)



Interconnections between the four project components are shown in this diagram. At this pre-concept stage, the proposed activities in the Participating Countries are indicative and broadly described.

The proposed project will implement activities to address the climate services production and delivery gaps. The full value-chain of climate services will be demonstrated in pilot sites that the Participating Countries will identify. Socio-economic benefits of resilience and adaptation measures based on user-centered EWSs will be quantified at communities' level.

## PART II: PROJECT / PROGRAMME JUSTIFICATION

### Project Justification

The project is advancing a multi-sectoral (agriculture, energy, and water) climate risk reduction approach to minimize the vulnerability and exposure of the Mekong River communities and to increase their adaptive capacity to climate change, variability and extremes. Given high vulnerability of local communities in the Participating Countries to the impact of drought and floods and the need to build resilience to these hazards, the project will focus on enhancing EWSs for drought and flood monitoring and prediction, effective management of water resources through improved availability of and access to climate products tailored to specific needs of sectors and communities. The Mekong River Commission will be key partner of the project and discussions during the next project phase will determine their exact involvement in the project. Specific interactions with stakeholders would include the following: the Cambodian Farmer Federation Association of Agricultural Producers (CFAP); Atlantic Commodities Vietnam (ACOM) in Vietnam; National Agriculture and Forestry Research Institute, Ministry of Finance in Laos; and Department of Agriculture in Thailand. Also, during the project proposal phase, farmer organizations will be solicited for inclusion in the project. Based on preliminary consultations, the following gaps and needs to improve resilience to climate change, and disaster risks were identified:

- Lack of technical capacity to generate and disseminate climate information and early warnings;
- Lack of capacity to use climate information for proactive decision-making;
- Lack of national capacity to produce relevant climate information and early warning system and exchange information among the countries;
- Lack of institutional capacity for cross-sectoral and cross-national coordination and co-production of information.

To address the identified needs, the proposed project will implement activities through four project components:

1. Development of user-centred integrated Early Warning Systems for drought and floods;
2. Increased use of climate information and services by strengthening the inter-institutional and inter-sectorial capacity;
3. Enhanced capacity of communities to prepare, respond, adapt and reach the last mile in order to minimize adverse impacts of drought and floods;
4. Strengthening regional cooperation and knowledge and data sharing among the NMHSs and stakeholders.

WMO surveys its Member countries via the Country Profile Database (CPDB) and results from the most recent survey indicated that only Thailand provide drought services and only Thailand has a drought policy. Only Thailand indicated that they have a flash flood forecast system. The identified gaps of inadequate regional observation networks and insufficient databases will be addressed through improving surface-based observation networks and providing satellite observations through the WMO flagship initiative Space-based Weather and Climate Extreme Monitoring (SWCEM). The project will collaborate with disaster management authorities providing them with early warnings for drought and floods which will assist them in developing, revising and delivering their national disaster risk reduction and management strategies. An important part of flood and drought plans are to link the hazard monitoring to actions on the ground. Risk transfer mechanisms will also be explored in the proposal. Local communities will be engaged in the co-production of the EWSs for drought and floods which will improve their preparedness, response capability and resilience. Details on this co-production will be further developed in the project proposal. It is well-known that the participating countries share common climate drivers (IPCC AR6 WG1) and it is important to ensure consistency in the way the regional information is optimised and integrated into national and sub-national climate services. The regional approach is fundamental for strengthening Climate Services Information Systems consisting of cascading information from global to regional and national levels; for this architecture to function it requires that the NMHSs in the Participating Countries consolidate their resources, share data and knowledge at the regional level. It is essential that climate products are aligned across national borders and therefore regional cooperation and interaction is needed. The WMO designated RCC Network based in Singapore would assist in the development of adaption aspects of the project. Examples of countries working together on drought and flood management aspects can be taken from the World Bank EPIC report.

## Promotion of new and innovative solutions

Expected innovative deliverables through this project include:

- Improved availability of and access to climate data, satellite observations, and global and regional climate model outputs, for use by both intensive and extensive agriculture, water management, and energy sectors; a user requirement process and a gap analysis will help identify possible additional monitoring.
- A wide portfolio of climate services to agriculture, water management and energy sectors, such as databases, subseasonal to seasonal forecasts for medium and long-term climatic and hydrological variables, drought and flood risk assessments and early warnings, capacity building workshops and training.
- Optimization of decision-making on water use based on precipitation monitoring, expected climate outlook scenarios, Hydrological Status and Outlook System (HydroSOS), and impact-based forecasts. This will be particularly important to solve potential conflicts in water use between agriculture, energy, and water management using multipurpose infrastructures.

There are different capabilities in the Participating Countries and therefore the main gap is a lack of standardized climate information across the region. Vietnam and Thailand are a bit more advanced and special attention would be given to Cambodia, and Lao and the project should be able to facilitate the exchange of skill between these countries. Also, drought and flood early warnings will be disseminated to at-risk communities through a user-centered integrated EWSs. This would be co-produced with stakeholders in partnership with project partners such as the MRC and/or the RCC-Network in SE Asia. Flood and drought hazards are usually treated separately and this project will develop and promote common adaptation measures at regional, national and local level to these hazards.

## Cost Effectiveness

The project will build on the existing global and national climate services information system coordinated by the WMO and national authorities involved in the project. That system will produce and deliver authoritative climate services through existing operational mechanisms, technical standards and communication. Duplication of efforts and maximum efficiency of intervention will be avoided by strengthening WMO GPC LRFs and the NMHSs in the Participating Countries. The impact and cost-effectiveness will be reflected in the enhanced ongoing collection, updating, and processing of data at the regional level, in delivering climate data and forecast model outputs to countries, in providing technical assistance in model downscaling outputs, and developing tailored products for country-level decision support systems.

## Consistency with national or subnational strategies

The Project will be consistent with national and regional sustainable development strategies, among them:

- *Cambodia*: Cambodia Climate Change Strategic Plan (2014-2023), , the Agricultural Development Plan, the Climate Change Strategic Plan for Water Resources and Meteorology, the Nationally Determined Contribution to the Paris Agreement
- *Laos*: The National Strategy on Climate Change, the National Adaptation Program of Action
- *Thailand*: Thailand Climate Change Master Plan 2015-2050, 13th National Economic and Social Development Plan (NESDP) 2023-2027, Nationally Determined Contributions (NDC)
- *Viet Nam*: The Climate Change Action Plan for Agriculture and Rural Development, the National Adaptation Programme for Climate Change, the National Climate Change Strategy
- *Regional*: Mekong River Commission Basin Development Strategy (2021-2030) and Mekong River Commission Strategic Plan 2021-2025, and the Lancang-Mekong Environmental Cooperation Strategic Framework (2019-2023)

## Learning and Knowledge management

A learning and knowledge management component to capture and disseminate lessons learned will be provided by WMO GPC LRFs, Regional and National Climate Outlook Forums which are a platform for regular interactions between climate specialists and users in a regional/national context. The climate services information system will comprise a set of tools, including an online web interface and sharing platform to facilitate access and networking. Lessons learnt from knowledge management in this project will facilitate the dissemination of best practices. This learning and knowledge management component will target three different levels: 1) learning among the NMHSs (specialist level); 2) learning among local governments and communities (local level), and 3) learning and collaboration over shared resources (the Mekong River, as being the major and significant river in the region that would be affected by climate change).

## Consultative Process

This pre-concept note was developed by national institutions, WMO, GWP, FAO, RMIT University, Australian Bureau of Meteorology following national consultations with meteorological services of Cambodia, Lao PDR, Thailand, and Viet Nam. The national consultations were undertaken in November 2019 at the ASEAN Regional Climate Outlook Forum and then virtually during the COVID-19 pandemic. Other organizations such as UNDP, WFP, ADPC, and WB will be consulted during the next stage of the project proposal process. The Mekong River Commission will also be consulted as one of the main stakeholders of the project. In addition , the discussions among five countries (China, Laos, Cambodia, Thailand, and Viet Nam) facilitated by Lancang-Mekong Water Resources Cooperation Centre (LMWRCC) in 2018 and 2019 have shown that climate variability and change makes the urgency of climate information services over the upper and lower Mekong River basin is even more prominent, thus it requires transboundary cooperation of all riparian countries starting by data and information exchange on climate information as the basis of integrated river basin planning in the region.

## Sustainability of the project

The participating NMHSs are sustainable institutions within their national governments. The project sustainability will be guaranteed by the Cambodia Department of Meteorology and Department of Hydrology and River Works under the Ministry of Water Resources and Meteorology, Lao PDR Department of Meteorology and Hydrology, the Thai Meteorological Department, and the Viet Nam Meteorological and Hydrological Administration in their roles of government agencies supported by public funding with officially mandated duties. In the Participating Countries, policies for adaptation to climate change in agriculture are spearheaded by the relevant national Ministries. The NMHSs of the Participating Countries and WMO GPC LRFs provide climate services on operational basis.

## Economic, social, and environmental benefits

Investments in risk reduction and preventive adaptation measures based on authoritative climate information spanning the historical recurrence and the future new trends should result in economic benefits for local communities and the entire Participating Countries given the potential avoided costs associated with lack of preparedness. A comprehensive description of social and environmental benefits will be provided in the final proposal, after due assessments (EIA and SIA including screening of the 15 environmental, social, and gender principles of the Adaptation Fund) and consultations are carried out with the respective authorities and communities. Consultations will be undertaken on aiding vulnerable populations and with regards to gender consideration during the project preparation phase.

## Compliance with Adaptation Fund Environmental and Societal Policy

In compliance with the Environmental and Social Policy (ESP) of the Adaptation Fund, the proposal will be screened for its environmental and social impacts. With the information available at this stage, the project is expected to have no adverse environmental or social impacts and would therefore be in category C. Information required to confirm this classification will be provided at the concept stage.

## Overlap with other funding sources and engagement with NIEs

The project will not duplicate the efforts of other initiatives or funding sources. Instead, the project will identify synergies with ongoing and planned initiatives (the AF project in Lao PDR, CREWS projects in South-East Asia, PNG and the Pacific, and De-Risk South East Asia, FAO's GCF PEARL and SAMIS, UNEP/Mekong EbA South, UN-Habitat projects in Viet Nam and Cambodia to ensure coherence with regional programs. Thus, the project will seek engagement with the regional and national institutions in the region. There are no regional projects that bring Mekong River countries together to address common climate-related impacts and apply similar approaches for drought and flood EWS. The project will explore whether a regional system could be set up to address the national needs and regional with regional partners such as the MRC.

## PART III: IMPLEMENTATION ARRANGEMENTS

WMO will be the implementing entity for this project. WMO indirectly implement projects through the NMHSs, regional partners and other organizations to implement weather and climate activities. The NMHSs of the Participating Countries will play the key role in developing partnerships for the project implementation by taking the lead on national consultations and climate information co-production. WMO GPC LRFs hosted by the Australian Bureau of Meteorology will provide global, regional, and national climate information and support the NMHSs in the project implementation. WMO GPC LRFs will assist the NMHSs with enhancing EWS promoting the development and provision of reliable, consistent, and high-quality data and products for drought and flood monitoring and prediction available to end-users assisting them with decision making in resilient food production, hydropower generation, and water management. RMIT University SPACE Centre, drawing on its expertise in space-based observations and application of geographic information systems (GIS) to climate monitoring, will develop tailored methodologies for risk assessments and produce web-based information tools for multi-layered GIS mapping of drought and flood risk combined with relevant exposure and vulnerability information at regional, national, sub-national and community level.

FAO, GWP, NMHSs, and relevant national institutions will be implementing activities at the local communities based on their extensive experience in assisting communities to make agriculture more productive and sustainable, enabling inclusive and efficient agricultural and food systems, and increasing the resilience of livelihoods to threats and crises. There are other actors such as the Mekong River Commission, ADPC, UNDP, WFP etc. that are active in the region. Their activities will need to be reviewed at the concept stage to ensure there is no overlapping with this project. WMO GPC LRFs, RMIT University SPACE Centre, FAO, GWP, NMHSs and relevant national institutions will also be taking the role of the stakeholders' engagement both at national and local levels to ensure the utilization of climate information services is supporting the decision-making processes on the ground. The national stakeholders will include the Ministries of Agriculture and Water Management.

The identified country-level project partners are:


- *Cambodia*: Department of Meteorology (DOM) and Department of Hydrology and River Works (DHRW), Ministry of Water Resources and Meteorology
- *Lao PDR*: Department of Meteorology and Hydrology, Ministry of Natural Resources and Environment
- *Thailand*: Thai Meteorological Department, Ministry of Digital Economy and Society
- *Viet Nam*: Meteorological and Hydrological Administration, Ministry of Environment

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

**A. Record of endorsement on behalf of the government** *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.*

Tin Ponlok Secretary of State Ministry of Environment Cambodia	Date: 22 June 2023
Syamphone Sengchandala Director General Department of Climate Change Ministry of Natural Resources and Environment Lao PDR	Date: 23 December 2022
Jatuporn Buruspat Permanent Secretary, Ministry of Natural Resources and Environment Thailand	Date: 19 July 2023
Dr Tran Hong Ha Minister of Natural Resources and Environment Viet Nam	Date: 17 March 2023

**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*

<p>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 (<u><i>Cambodia</i></u>: National Climate Change Adaptation Plan; <u><i>Laos</i></u>: The National Strategy on Climate Change, the National Adaptation Program of Action; <u><i>Thailand</i></u>: Thailand Climate Change Master Plan 2015-2050; <u><i>Viet Nam</i></u>: The Climate Change Action Plan for Agriculture and Rural Development, the National Adaptation Programme for Climate Change, the National Climate Change Strategy), 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.</p>	
	
<p>Moyenda Chaponda Implementing Entity Coordinator Project Management and Implementation Unit Member Services and Development Department</p>	
Date: 12 August 2023	Tel. and email: +41 22 730 8646 mchaponda@wmo.int
Project Contact Person: Robert Stefanski	
Tel. And Email: +41 22 730 8305 / rstefanski@wmo.int	



**KINGDOM OF CAMBODIA**  
**Nation Religion King**

Ministry of Environment

Nº : .....1445..... MoE

Phnom Penh, 22 June 2023

**To: The Adaptation Fund Board Secretariat**  
c/o Global Environment Facility Secretariat  
1818H Street, NW, MSN P-4-400  
Washington DC, United States of America.  
Email: Secretariat@Adaptation-Fund.org  
Fax: +1 202 522 3240/5

**Subject: Endorsement for “Enhancing Climate Resilience of Mekong River Communities Through Strengthening Climate Service (ECR-MEKONG)”**

**Dear Sir/Madam,**

In my capacity as designated authority for the Adaptation Fund in Cambodia, I confirm that the above regional project proposal is in accordance with my government's national and regional priorities, especially with the specific commitments to the Cambodia Climate Change Strategic Plan (2014-2023), the Mekong Climate Change Adaptation Strategy and Action Plan (MASAP), and Cambodia's Updated Nationally Determined Contribution (Updated NDC) in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Mekong River basin.

Accordingly, I am pleased to endorse the preparation of 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 the National Meteorological and Hydrological Services of the Ministry of Water Resources and Meteorology, Cambodia.

I sincerely hope that this proposal will be considered favorably by the Adaptation Fund. *aw 10/6*

Sincerely Yours,



**Tin Ponlok**  
**Secretary of State**



**KINGDOM OF CAMBODIA**  
**Nation Religion King**

**Ministry of Environment**

N° :.....1006..... MoE

**Mr. Henry Gonzalez**  
Executive Director a.i.  
Green Climate Fund Secretariat  
G-Tower 175 Art Center-daero  
Yeonsu-gu, Incheon 22004  
Republic of Korea

Phnom Penh, 22 June 2023

**Subject: Funding proposal for the GCF by the United Nations Development Programme regarding Early Warnings for All (EW4All) initiative**

Dear Mr. Gonzalez,

**We refer to the programme** titled Early Warnings for All (EW4All) as included in the idea note submitted by the United Nations Development Programme to us on 2 June 2023.

The undersigned is the duly authorized representative of the Ministry of Environment, the National Designated Authority of the Royal Government of Cambodia.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:


(a) The government of Cambodia has no-objection to the programme as included in the funding proposal;

(b) The programme as included in the funding proposal is in conformity with the national priorities, strategies and plans of Cambodia;

(c) In accordance with the GCF's environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme.

We acknowledge that this letter will be made publicly available on the GCF website. 

Sincerely yours,



**Say Samal**  
Chair of the National Council for  
Sustainable Development,  
Minister of Environment





Lao People's Democratic Republic  
Peace Independence Democracy Unity Prosperity

Ministry of Natural Resources and Environment  
Department of Climate Change

No: 1065-1000/DCC

Vientiane Capital, Date: 23. December 2022

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

**Subject: Endorsement for "Enhancing Climate Resilience of Mekong River Communities Through Strengthening Climate Services"**

In my capacity as the designated authority for the Adaptation Fund in Lao PDR, I confirm that the above regional project proposal is in accordance with the government's national and regional priorities in implementing adaptation activities to reduce the adverse impact of, and risk, posed by climate change in the Mekong River basin.

Accordingly, I am pleased to endorse the above project/programme proposal with support from the Adaptation Fund. If approved, the project will be implemented by WMO and executed by the National Meteorological Service in Lao PDR.

Sincerely,

**Syamphone Sengchandala**  
Director General,  
Department of Climate Change,  
Ministry of Natural Resources and Environment.  
Designated Authority for Lao PDR



SOCIALIST REPUBLIC OF VIET NAM  
MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT

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Ha Noi, 17 March 2023  
Ref. No: /MONRE-2023

**The Adaptation Fund Board**

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

*Endorsement for the revised Pre-Concept Proposal of "Enhancing Climate Resilience of Mekong River Communities through Strengthening Climate Services" project*

After addressing all comments based on the Adaptation Fund's review of the Pre-Concept Proposal of "Enhancing Climate Resilience of Mekong River Communities through Strengthening Climate Services" project submitted in 2022, the World Meteorological Organization (WMO) and the Ministry of Natural Resources and Environment of Viet Nam are ready to submit the revised Pre-Concept Proposal.

In my capacity as designated authority for the Adaptation Fund in the Socialist Republic of Viet Nam, I confirm that the above regional project proposal is in accordance with the government's national and regional priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Mekong River basin, Viet Nam.

Accordingly, I am pleased to endorse the above-mentioned project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the World Meteorological Organization (WMO) and executed by Viet Nam Meteorological and Hydrological Administration, Ministry of Natural Resources and Environment of Viet Nam and national partners.

Yours Sincerely,

**Tran Hong Ha**  
**Minister of Natural Resources and Environment**  
**Socialist Republic of Viet Nam.**

No 1006.4/ 1893



Ministry of Natural Resources  
and Environment  
92 Soi Phahol Yothin 7,  
Phahol Yothin Road, Phaya Thai,  
Bangkok 10400 Thailand  
Tel./Fax +66 2 265 6692

19 July B.E. 2566 (2023)

Sir/Madam,

**Subject: Endorsement for Enhancing Climate Resilience of Mekong River Communities through Strengthening Climate Services (ECR-MEKONG)**

In my capacity, as designated authority for the Adaptation Fund in the Kingdom of Thailand, I confirm that the above regional pre-concept note is in accordance with the government's national and sub-regional priorities in implementing adaptation activities to strengthen the capacity on climate information and services for relevant agencies, increase collaboration network within Thailand and among Mekong river countries, and support Thailand's National Adaptation Plan implementation on water management sector, and agriculture and food security sector.

Accordingly, I am pleased to endorse the above pre-concept note dated 26 May 2023 for your consideration. If approved, the project will be implemented by World Meteorological Organization and executed by Thai Meteorological Department.

Yours sincerely,

(Mr. Jatuporn Buruspat)

Permanent Secretary

Ministry Natural Resources and Environment

Adaptation Fund Board Secretariat  
c/o Global Environment Facility  
1818 H Street NW, Washington DC 20433, USA  
Email: [secretariat@adaptation-fund.org](mailto:secretariat@adaptation-fund.org)

## Project Formulation Grant (PFG)

Submission Date: 11 August 2023

Adaptation Fund Project ID:

**Countries:** Cambodia, Lao People's Democratic Republic (PDR), Viet Nam and Thailand

**Title of Project/Programme:** Enhancing Climate Resilience of Mekong River Communities through Strengthening Climate Services (ECR-MEKONG)

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

**Implementing Entity:** World Meteorological Organization

**Executing Entities:** National Meteorological and Hydrological Services (NMHSs) of Cambodia, Lao PDR, Thailand and Viet Nam, Australian Bureau of Meteorology, RMIT University, United Nations Food and Agriculture Organization (FAO) and Global Water Partnership (GWP)

### A. Project Preparation Timeframe

Start date of PFG	<b>September 2023</b>
Completion date of PFG	<b>January 2024</b>

### B. Proposed Project Preparation Activities (\$)

Describe the PFG activities and justifications:

List of Proposed Project Preparation Activities	Output of the PFG Activities	USD Amount
<p>Hire a consultant to contribute to the development of the concept note by:</p> <ul style="list-style-type: none"> <li>• Verification and assessment of the needs</li> <li>• Development of the Concept Note</li> <li>• Preliminary ESIA</li> </ul>	<p>Stakeholders map at each country and across the Mekong region.</p> <p>Description of needs and barriers as well as definition of interventions.</p> <p>Compilation of previous work relevant to the proposed project objectives.</p> <p>List of priorities and propose operational solutions per country and region in a harmonized way to support project formulation.</p>	10,000
<p>Consultations with stakeholders, regional entities, partners and beneficiaries</p>	<p>Definition of workplans for each country. Definition of roles and responsibilities with EEs. Definition of log frame including M&amp;E</p>	6,000

Formalizing the mechanism for sustainability with national and regional entities.	Definition of regional activities and alignment with on-going projects and activities.	4,000
Total Project Formulation Grant		20,000*

\*- the amount is inclusive of 13% project support or admin fee for the implementing entity

### 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
Moyenda Chaponda, World Meteorological Organization	<i>Moyenda Chaponda</i>	12, August 2023	Robert Stefanski	+41 22 730 8305	<a href="mailto:rstefanski@wmo.int">rstefanski@wmo.int</a> <a href="mailto:mchaponda@wmo.int">mchaponda@wmo.int</a>