



វប្បធម៌ ទឹក  
Cambodia Water  
Partnership  
(CambodiaWP)



WORLD  
METEOROLOGICAL  
ORGANIZATION

# Climate Risk and Early Warning Systems (CREWS) in Southeast Asia

Photo credit: Getty Images Pro



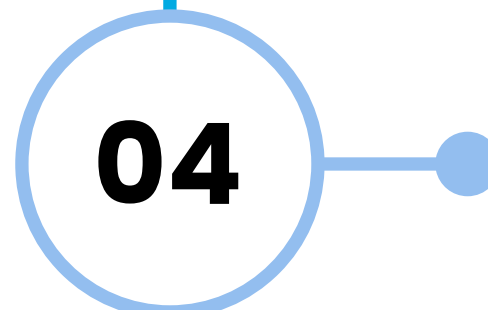
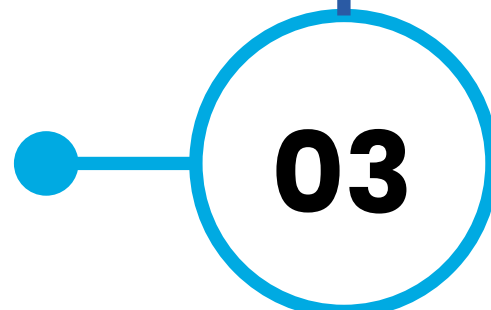
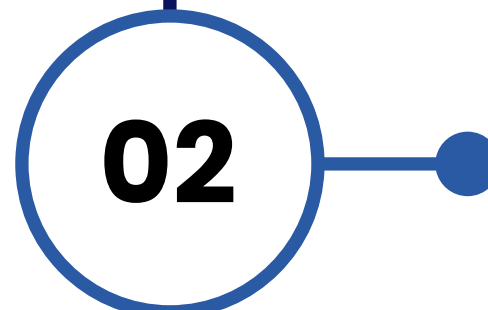
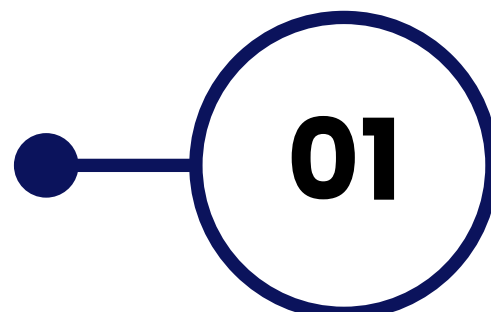
# What is CREWS?

**The Climate Risk and Early Warning Systems (CREWS) Initiative is a multi-donor financial mechanism that funds projects in least developed countries and small island developing states. Its goal is to establish customized, risk-informed, people-centered, and gender-responsive early warning systems tailored to nationally defined needs. CREWS leverages innovation and agile solutions to drive transformational and sustainable change, while also multiplying resources and mobilizing additional climate finance and action with each investment.**

# Project Background

In July 2021, the **Climate Risk and Early Warning Systems (CREWS) Initiative** approved funding for a new project in **Cambodia and Lao PDR**. The CREWS Cambodia and Lao PDR Project was **officially launched in October 2021**.

These efforts are **supported by the World Meteorological Organization (WMO), the United Nations Office for Disaster Risk Reduction (UNDRR), and the World Bank (WB)**. The project is **expected to be completed by July 2025**.



The four-year project, implemented **in collaboration with MOWRAM Cambodia, MONRE Lao PDR, the Cambodia Water Partnership, and the Lao Water Partnership**, aims to **strengthen their capacities to deliver hydrometeorological early action and response services to vulnerable populations** in both countries.

The project **builds on ongoing initiatives** in the region and **actively engages key regional stakeholders**.





Jochen Luther

Technical Coordinator Regional Office for Asia  
and the South-West Pacific  
World Meteorological Organization

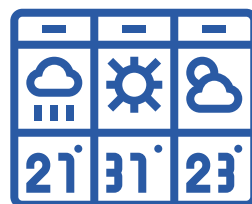
***"WMO has partnered with the Global Water Partnership to support the governments of Cambodia and Lao PDR in developing drought management and integrated water resource management plans and policies, as part of a dedicated CREWS project for both countries. The principal objective is to enhance the capacities of national and regional stakeholders and institutions to provide hydrometeorological early action and response services through effective and inclusive, risk-informed early warning systems."***



# CREWS Project Outcomes



1. Strengthen institutional capacities through improved governance mechanisms



2. Enhanced capacity of National Meteorological and Hydrological Services (NMHSs) to provide forecasts and warnings



3. NMHSs' Information and Communication technology strengthened



4. Enhanced preparedness and response capability to act upon warning and risk information



5. Improved integration of gender and vulnerable groups across the Early Warning – Early Action (EW-EA) value chain



# Drought Management and IWRM strategy/ Action Plan Development

As part of Outcome 1, one of the key activities led by Global Water Partnership (GWP) is the development of an Integrated Water Resources Management (IWRM) and drought management strategy/action plan and institutional framework for both Cambodia and Lao PDR. This serves as a guiding document for the respective ministries and stakeholders in both countries.

## SDG 6 IWRM Support Programme

Assists governments and other stakeholders in



## Integrated Drought Management 3 Pillars approach



**Integrated Drought Management Programme (IDMP)**  
promotes the Three Pillars of Integrated Drought Management

Established in 2013 at High-Level Meeting on National Drought Policy



A participatory approach that engages stakeholders in the drafting and endorsement of the strategy is essential.  
More information:  
<https://www.gwp.org/en/sdg6support/>



# Cambodia Progress



**17 May 2024**

Pre-kick off meeting  
MOWRAM departments  
(drought).



**12 to 13 Sept 2024**

Integrated Drought  
Management Training.



**24 Dec 2024**

2nd Stakeholder Workshop  
for Drought Management  
Action Plan.



**3 Mar 2025**

2nd Stakeholder  
Consultation Workshop for  
IWRM Action Plan  
Development.



**19 June  
2025**

Launching  
IWRM and  
Drought  
Management  
Action Plan

**21 - 22 Nov 2024**

1st Stakeholder  
Workshop for Drought  
Management Action  
Plan.

**17-18 Feb 2025**

1st Stakeholder  
Consultation Workshop  
for IWRM Action Plan  
Development.

**27 Mar 2025**

3rd Stakeholder Consultation  
Workshop for IWRM Action  
Plan Development.

**10 - 17 June 2024**  
Desktop Study and Field  
Survey (Drought).





# Lao PDR Progress



**31 May 2024**

Kick off meeting  
(Drought and IWRM)  
with line agencies and  
multi-stakeholder.



**15 July 2024**

1st Stakeholder  
Consultation  
Workshop.



**26 - 27 Dec 2024**

2nd Stakeholder  
Workshop on Drought  
Management and IWRM  
Action Plan.

**2 - 3 Sept 2024**  
Integrated Drought  
Management  
Taining.



**13 June 2025**  
Launching IWRM  
and Drought  
Management  
Action Plan



**June 2024**  
Desktop review  
(Drought) and IWRM.





Photo credit: Global Water Partnership Southeast Asia (GWP-SEA) 2025

Experts and government leaders from Cambodia and Lao PDR gathered in Bangkok for a two-day **Regional Learning Exchange Workshop on Integrated Water Resources Management (IWRM) and Drought Management**.

The two countries **joined forces to accelerate progress on SDG 6.5.1 and strengthen drought resilience** through national updates, strategic dialogues, and insights from development partners such as UNEP, FAO, ADB, IUCN, and others.

The workshop **bridged policy and action, emphasizing that cross-sector collaboration and regional partnerships** are essential for effective water resource management and for addressing one of Southeast Asia's most pressing climate risks.

**Communities of Practice (CoPs)** are also proving vital in translating knowledge into action.



Photo credit: Global Water Partnership Southeast Asia (GWP-SEA) 2025



# Desktop study of various drought policy in Southeast Asia countries

## Aims

- Establish a comprehensive climate rationale for the CREWS project in the region.
- Collect essential baseline information on drought management.
- Reviewed existing interventions to mitigate drought impacts and propose forward-looking recommendations.

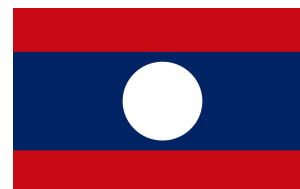
### KEY CHALLENGES

- Insufficient **technical capacity** for drought risk and impact assessment.
- Less effective** drought **early warning systems**, especially in rural areas.
- Uncoordinated data collection on disaster losses and damages.**



### EXISTING STRATEGIES / POLICIES

- Law on Disaster Management.
- Law on Water Management.
- The National Action Plan for Disaster Risk Reduction (DRR).
- The Cambodia Climate Change Strategic Plan.
- Climate Action Plan for Water Resources and Meteorology.



### EXISTING STRATEGIES / POLICIES

- National Socio-Economic Development Plan (NSED).
- Disaster Management Law.
- Law on Meteorology and Hydrology.
- Climate Change Decree.
- National Strategy on DRR.
- National Strategy on Climate Change Towards 2030.

### KEY CHALLENGES

- Limited real-time** drought monitoring capacity.
- National strategies do not specifically cover drought.**
- Fragmented **coordination** between national and local.
- Lack of advanced **infrastructure**.
- Heavy reliance on **external aid**.
- Rural** communities remain largely **underserved**.

### WAY FORWARD

- Develop **government institutional and policy framework** for drought management & EWS.
- Prioritize the **development of low-cost, robust, and sustainable real-time data collection infrastructure**, especially for rural areas.
- Encourage **data sharing practices** and **use of regional datasets**.

### WAY FORWARD

- Improve technical capacity** on:
  - Early Warning Systems (EWS).**
  - drought **monitoring and forecasting**.
  - drought risk and **impact assessment**.
- Establish integrated framework for **drought management**.
- Build upon existing initiatives:**
  - EWS 1294.
  - Cambodia Disaster Damage & Loss Information System.
  - PRISM.



**Dr Seth Vannareth**

**Permanent Representative of Cambodia with WMO  
and Adviser to the Ministry of Water Resources and  
Meteorology (MOWRAM) Cambodia**

***"We are currently studying  
and investing in  
understanding drought, which  
is why I believe this is an  
important step. Our goal is to  
contribute to Cambodia's  
national development by  
supporting the government  
through improved laws,  
assessments, and mitigation  
measures."***



***"Through IWRM planning, I've learned how to develop an action plan. It's not an easy task and requires the involvement of various sectors. When it comes to drought, it's not solely the government's responsibility — private sector engagement is also essential."***



**Bounteum Sysouphanthavong**  
**Deputy Director General**  
**Department of Meteorology and Hydrology**  
**Lao PDR**