## STORIES FROM A CLIMATE CHANGE HERO

Strengthening Climate Information and Early Warning Systems in Cambodia

Mr. Seng Sopha is Hydro-Meteorological Officer of the Ministry of Water Resources and Meteorology at the Provincial Department in Kompong Cham Province.



Meet Mr. Seng, a local climate hero who tracked climate trends for over 40 years in the country's oldest weather station. Now retired, Mr. Seng continues to help the station as a volunteer. He holds a treasure-trove of stories about the climate.

Sitting by the river near a recently installed Automatic Weather Station, he recounts its rich history as the country's first meteorology station. He explains at the beginning of the last century, an outpost was established in the town of Kompong Cham. For the French administration, it was a strategic trade point on the Mekong River. The building remained undisturbed until the Khmer Rouge when it suffered minor damages.

After the war, the outpost became a meteorology station. That is when Mr. Seng Sopha and one of his school-friends, Mr. Oeuv Sim Hen, joined arms to collect meteorology data.

They were the first staff in the Cambodia's first station. When the station was established in 1981, Vietnamese forces were still fighting Khmer Rouge rebels nearby. These war days are gone and they now smile, agreeing with each other as they recall in turn how they would visit some of the ten stations of the province: on bicycle, three to four times per day - sun or rain - at 7am, at 11am and again at 7pm.



The old meteorology station building, legacy of the French colonial era.

They could not stop, not even for a single day. The only way, then, they could manage to attend important events and ceremonies was to take turns. They relayed each other for nearly 40 years. During all this time, they monitored the river levels, the rain, the wind and sunlight. Mr. Seng remembers of the hardships of using a clock that had to be wound-up daily. Changing the photo-voltaic films for the light meters also required a lengthy procedure that remains a lasting memory of the old friends.

Soon after reconciliation in 1996, a new bridge connected Cambodia to Viet Nam. Agricultural trade started flourishing again with the key crops rice, maize and cassava cultivated locally. Farmers today tune in to the real-time weather forecasts of the Ministry to avoid losses and plant on time.

With data updated every 15 minutes, the new sensors allow the Ministry to improve its climate information and early warning system. Mr. Seng proudly says that thanks to the latest equipment upgrade, even the mobile-savvy youth now come on the website and that they are happy when they get the weather forecasts.



## Working together to build the country's forecasting capacities

## **Project Brief**

**Duration**: 2016-2020

Project Budget: USD 4,910,285

Implementing partner:

Ministry of Water Resources and Meteorology **Funding**: GEF-Least Developed Country Fund

Location: Cambodia, nation-wide

Population to benefit: Over 15 Million (est.)

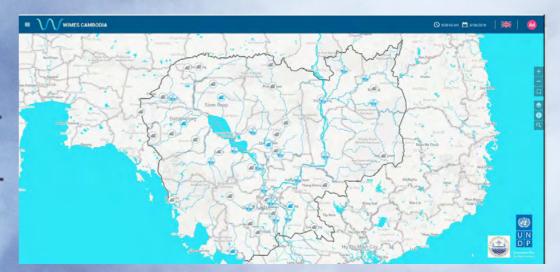
Cambodia's geographical exposure and the lack of adaptive capacity make it particularly vulnerable to the impacts of climate change. With over 80% of the population dependent on subsistence farming, rural populations are particularly exposed.

Floods in 2013 affected 1.7 million people, with an estimated loss of US\$ 356 million. In 2016, floods affected 2.5 million people. These events are precursors of the impacts of the changing climate. Climate information is essential to prepare farmers.

With support from UNDP and funding from the GEF-Least Developed Countries Fund, the project 'Strengthening Climate Information and Early Warning Systems' is supporting the Ministry of Water Resources and Meteorology (MoWRAM) to increase Cambodia's institutional capacity, to assimilate and forecast weather, hydrological and climate information, and to improve communities' access to reliable information and early warning systems.

Under the project, 24 automatic weather stations and 29 hydrological stations for surface and ground water have been installed across the country, integrating technology and placing communities at the heart of a people-centered early warning system.

Information from the stations will be key to generating early warning messages, both for planning and for disaster preparedness and emergency response.



MoWRAM's digital platform (WIMES) aggregates data from over 129 stations. To reach rural populations, weather and climate data is shared via social media, radio and television, (click map)

Globally, 45 countries are developing and strengthening early warning systems, with 189 new end-to-end early warning systems established in 26 countries. With UNDP support, nearly 21 million people have improved access to reliable climate information and early warning systems.

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