STORIES FROM A CLIMATE CHANGE HERO

Strengthening Climate Information and Early Warning Systems in Cambodia

Ms. Oak let, 46, is a fulltime official with the Provincial Department of Water Resources and Meteorology in Koh Kong. southwest Cambodia.



Each and every day for the past two years, Ms. let has been manually checking a simple rain gauge in her backyard. Her task is to log the data and report it the provincial authorities.

Her contribution – along with other officials and volunteers performing a similar duty across the country – is an important one. The data she collects feeds in to the Government of Cambodia's capacity to monitor and forecast weather. For this task, Ms. let and her husband receive a small payment each month of 100,000 Riel (approximately 25 USD).

"The rain has to be measured every morning at 6am. I have to update the provincial authorities without fail every day – rain or no rain."

Ms. let and her husband moved to Koki Chrum village from the southerly province of Kampong Cham around 11 years ago, where a pronounced drought had caused the family financial difficulties. While the family does not experience drought in Koki Chrum, they have frequently experienced flash floods. Each year the river overflows. "The weather in my area is not stable – it is changing, and it is becoming more unpredictable.

Some weeks, it rains all week. Other weeks, no rain at all."



Installation of a new automatic station in Koh Kong province

In June 2018, with the family's permission, an automatic weather station was installed by the Provincial Department in the family's garden. The tower, and its various sensors, looms among banana plants, enclosed in a 10x10m pen, keeping out her toddler but not the family's chickens which potter around its base.

Oak let says the more detailed and accurate information gathered from the automatic weather station (which automatically measures wind, air temperature and relative humidity, evaporation, solar radiation as well as soil moisture and soil temperature every 15 minutes, reflected online at the <u>Department of Meteorology's</u> <u>website</u>) – will be very helpful to farming families who will be able to check the conditions real- time and know what is coming. She will be able to share the information with neighbors who frequently come to her.

"Most people in the area aren't aware of weather information, but they know I am an official with knowledge and so they come to me to ask. I give them whatever information I can about our area and also other provinces (drought, flooding, lightning, wind)."



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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For more information, contact Muhibuddin Usamah, Project Manager muhibuddin.usamah@undp.org