## **STORIES FROM A CLIMATE CHANGE HERO**

Strengthening Climate Information and Early Warning Systems in Cambodia

Father of three and motor mechanic Mr. Nop Khemara, 37, has been measuring and recording rainfall in his village for around seven years.



Three times a day, in the morning, at lunch and in the evening, Nop has diligently checked the simple rain gauge installed at the foot of his family's garden, recording the results in a log book and phoning it in the provincial authorities.

His task – for which he receives some small compensation but carries out with a sense of community responsibility – is an important one. The data is recorded by the government to monitor and predict weather in the area.

Technology is advancing and recently, an Automatic Weather Station was voluntarily installed by the provincial authorities in his family's yard.

The new station automates the measurement of wind, air temperature and relative humidity, evaporation, solar radiation, and soil moisture and soil temperature.

Readings are captured every 15 minutes and conditions reflected online at the Department of Meteorology's <u>website</u>.



Installation of the station in Botum Sakor (left) and inspection of the equipment by Mr Nop (right)

Forecasts are presented to the public after the assimilation of the real-time data by the Ministry of Water Resources and Meteorology.

Having reliable information about the weather is critical for fishermen, farmers and communities in Cambodia, particularly with climate change.

The monsoon rains are heavy and getting heavier in Koh Kong province. During the rainy season, it often floods in Nop's village, the roads becoming unpassable, muddy water filling the holes in the road and turning the ground to boggy mud. Apart from inconvenience, the rain creates uncertainty for farmers and fishmermen.

Like his neighbours, Nop watches the weather forecast on TV. Yet with the installation of an Automatic Weather Station under the UNDP-supported project 'Strengthening Climate Information and Early Warning Systems in Cambodia', they will now also be able to access real time information and 7-day forecasts online.



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

## **Project Brief**

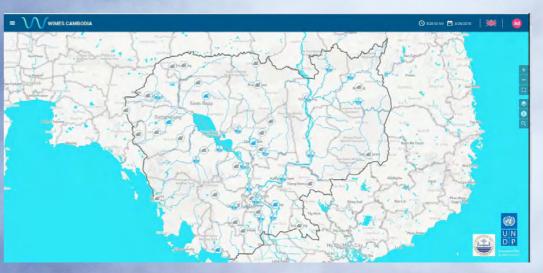
Duration: 2016-2020 Project Budget: USD 4,910,285 Implementing partner: Ministry of Water Resources and Meteorology Funding: GEF-Least Developed Country Fund Location: Cambodia, nation-wide Population to benefit: Over 15 Million (est.)

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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