

# STORIES FROM A CLIMATE CHANGE HERO

## Strengthening Climate Information and Early Warning Systems in Cambodia

Mr. Lohn Nrak represents a potential new generation of meteorologists in Cambodia. With a background of Information Technology (IT), disaster management and education, he is in a unique position to advance Cambodia's forecasting capacity.



Despite his young age and being part of the Department of Meteorology's Systems Support team for less than a year, Mr. Lohn Nrak's experience is extensive. He began his career volunteering for the National Committee for Disaster Management in 2006 before accepting a position as an IT specialist. As part of this role Mr. Nrak was given opportunities to travel and train around the world including countries such as Indonesia, New Zealand, Philippines, and Japan. In 2018, he began working in the Department of Meteorology.

Mr. Nrak thoroughly enjoys being part of an area that has such significance in the Cambodia context. As he said, "It is amazing that we get to work in this field. We [the Department of Meteorology] do the forecast every day and give the results to the public so they can know what is coming and they can prepare". He recognises the importance this information can play, especially for everyday Cambodians such as farmers who need to plan their daily activities and seasonal crops and prepare for disasters.

Having already completed two degrees – one in computer science and one in teaching – Mr. Nrak is keen to develop his knowledge and skills further. He recently took part in short-term forecast models training provided under a partnership between [United Nations Development Programme](#) (UNDP) and [Regional Integrated Multi-Hazard Early Warning System for Africa and Asia](#) (RIMES).



Checking the weather station systems: Photo credit: UNDP Cambodia/Manuth Buth/MOWRAM.

With facilitators saying he was an outstanding participant, Mr. Nrak hopes to one day be able to adapt these models specifically to address Cambodia's climate needs. He would also like to study a master's degree majoring in meteorology in the future.

The unique skill combination that Mr. Nrak presents is likely to become increasingly valuable in such a technical field. "I think my computer background has helped me understand meteorology and my work here. Meteorology is a science field and IT is a science field – they are very similar and go together... People are becoming more involved in technology – they use smartphones and can get information quickly by using social media. If our team can get the forecast out with a good accuracy, then this can provide important information for people."

Mr. Nrak, however, also acknowledges the challenges of working in meteorology. "It is not an easy field. Honestly, it is very hard – if forecasters say that it will rain tomorrow, and it rains then people are happy. But if they say it will rain but it doesn't rain then people get upset. Our work is very beneficial to the public, but they don't always understand it".

As part of the Systems Support team, Mr. Nrak plays an important role in maintaining the Department of Meteorology's systems, including supporting operation and maintenance of [24 Automatic Weather Stations](#) installed by UNDP.

# 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.)

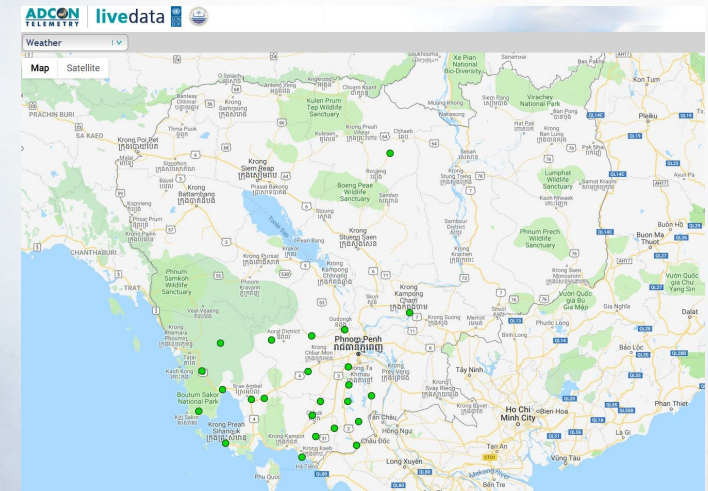
Cambodia's geographical exposure and the lack of adaptive capacity make it particularly vulnerable to the impacts of climate change. With over 80% of the population dependent on subsistence farming, rural populations are particularly exposed.

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-centred 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.



**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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