

# CLIMATE CHANGE STORIES

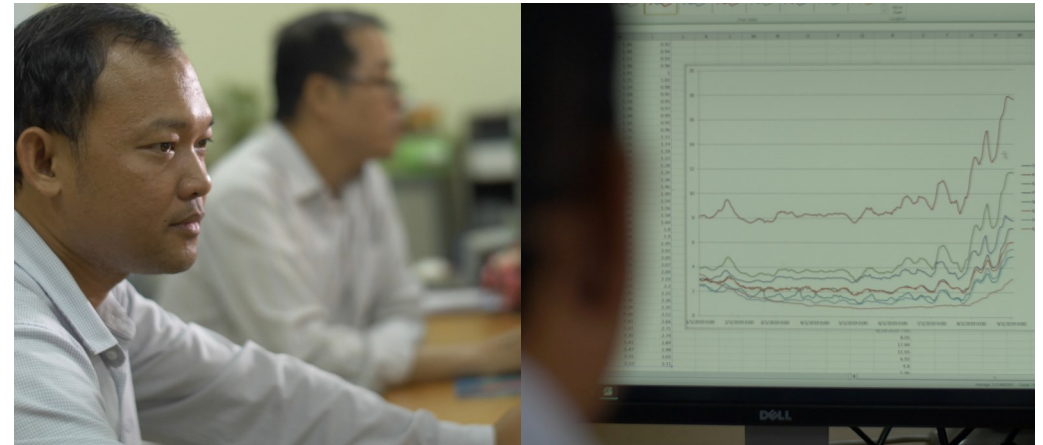
## Strengthening Climate Information and Early Warning Systems in Cambodia

Under the direction of Mr. Hun Sothy, the Department of Hydrology and River Works at the Ministry of Water Resources and Meteorology in Cambodia has made considerable improvements to provide solutions to floods and droughts all over the country.



The Deputy Director of the Department of Hydrology and River Works describes the hydrology field as 'a doctor of water': "We only think of doctors as people who take care of patients in a hospital. But hydrology can also be healed and treated."

With 39 river basins, Cambodia is a country extremely rich in water resources. Therefore, good management of these resources is crucial to people's livelihoods and hydrology is an integral part of the country's development. In the past, members of his department had to physically collect and record data from hydrological stations manually. Today, these stations have been transformed into automatic ones. Twenty-nine stations have been installed by the United Nations Development Programme and handed over to the [Ministry of Water Resources and Meteorology in March 2019](#) as part of a four-year project to strengthen climate information and early warning systems in Cambodia: "That means that the data on water levels is recorded and sent to the department automatically every 15 minutes. We do not have to go to the field every day to record the water level. We have, however, just been to the field to check operations and maintenance, which we do every 2 or 3 months or if the equipment is broken," Mr. Hun Sothy explained.



*Mr. Sothy's department uses a model to forecast floods which they can share to the public. Photo credit: LittleBIG Films*

The department then uses a model to do flood forecasting based on the data received from these hydrological stations, which they can then share to the public: "This data is really beneficial for people living alongside the river. They can be immediately informed of water levels."

Having access to timely and accurate weather information enables people to make informed decisions to mitigate risks. This is crucial as Cambodia, one of the world's most disaster-prone countries, faces growing problems due to climate change. Climate change champions such as Mr. Sothy make a difference every year to the way the country will cope with upcoming disasters and challenges.

As he looks to the future, Mr. Hun Sothy is practical and down to earth - a lot still needs to be done. There are not enough qualified technicians in the field of hydrology in Cambodia today, financial resources are strained and some of the newly installed hydrology stations are still limited in the way they gather data. Mr. Sothy, however, does not sound defeated - far from it. Having worked for the Ministry of Water Resources and Meteorology for the last ten years, he is confident that his department will continue to make substantial contributions to the way Cambodia deals with water issues and how this work will help people not only adapt to climate change but also thrive.

# 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.)

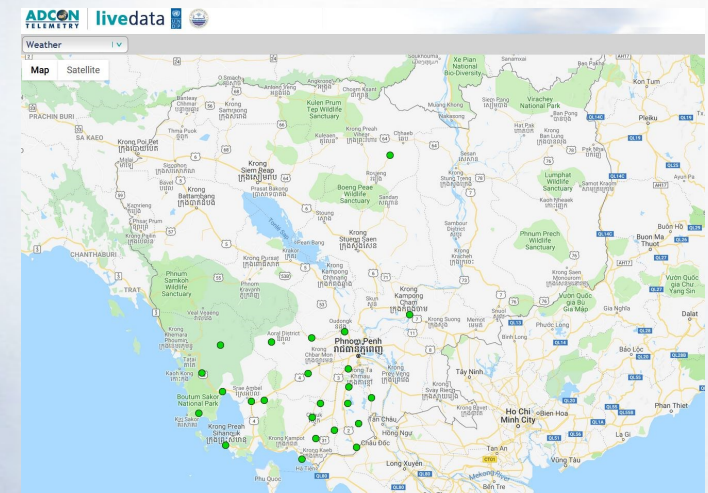
Cambodia's geographical exposure and the lack of adaptive capacity make it particularly vulnerable to the impacts of climate change. With over 80% of the population dependent on subsistence farming, rural populations are particularly exposed.

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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