

Strengthening Climate Information and Early Warning System in Cambodia to Support Climate Change Resilient Development and Adaptation to Climate Change

Photo: Field assessment and data collection for developing a Digital Elevation Model (DEM)

Changes to global climate conditions aggravate the effects of temperature-driven hydrometeorological hazards, increasing the frequency and intensity of extreme weather events, often resulting in a greater risk of natural disaster. Floods continue to be the most damaging natural hazard in Cambodia, causing an estimated \$355 million of losses in 2013 alone. Cambodian cities are underprepared to forecast, adapt and respond to these hazards, where the effects are further exacerbated by growing urbanization, a process that perturbs the natural hydrological cycle and enhances flood peaks by additional rainfall-run-off.

People In Need Cambodia (PIN), with support from the Cambodia Climate Change Alliance - phase 3 (CCA3) funded by the EU, Sweden, and UNDP, is implementing a project on “Strengthening Climate Information and Early Warning System in Cambodia to Support Climate Change Resilient Development and Adaptation to Climate Change”. The project aims to address the flood mitigation challenge by producing evidence-based recommendations for the Royal Government of Cambodia, mainly the National Committee for Disaster Management, to reduce the vulnerability of urban populations to climate change impacts by facilitating access to an innovative and effective urban Early Warning System (EWS).

During the first year of its implementation and despite operational challenges due to COVID19 travel restrictions, a Digital Elevation Model (DEM) for flood modeling was completed through the use of real-time kinematic (RTK) positioning and global navigation satellite system (GNSS) technology, utilizing tuk-tuks as a vehicle for data collection.

The EWS information dashboard was developed to be multi-channel to disseminate flood information through phone calls, speakers, and Facebook posts. In collaboration with a local technology developer, a fixed public speaker concept has been developed. Flood warning messages will be shared from the EWS1294 dissemination platform, and these will be voiced through the fixed public speakers to the community in Battambang city.

“I do believe that this project [PIN’s CCA project] will better inform Battambang city population about flood events and reduce people’s vulnerability to flooding,” said Mr. Pheng Sethy, Mayor of Battambang City



Photo: Mr. Pheng Sethy, Mayor of Battambang City

Mrs. Lounh Kimla, a deputy village chief of Somphi 1 in Battambang City, said that the system [fixed public speaker] is a timesaving method for local authorities to inform the people. “The system [fixed public speaker] is a channel that people can access to get flood warning messages free of charge,” Lounh Kimla added.



Photo: Data collection for developing a Digital Elevation Model (DEM) using tuk-tuks



Photo: Mrs. Lounh Kimla, a Deputy village chief of Somphi 1 of Battambang City

