

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

Implemented by People In Need Cambodia (PIN)

Innovation Grant Facility - CCCA3



National Council for Sustainable Development
General Secretariat
Department of Climate Change

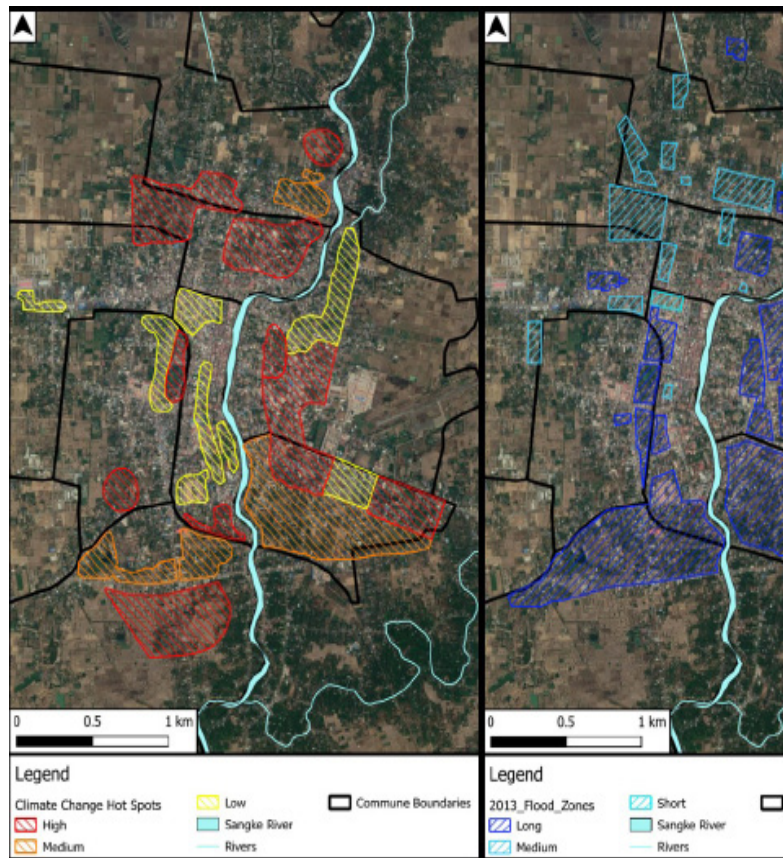


Ministry of Environment

Background

Changes to global climate conditions are exacerbating the effects of temperature driven hydro meteorological hazards, increasing the frequency and intensity of extreme weather events. For developing regions, the impacts can be catastrophic, as their inhabitants often lack the ability to cope with or adapt to these destructive forces, resulting in a greater risk of natural disaster.

Flooding is one of the most damaging natural hazards worldwide, as heavier precipitation patterns coupled with increased global urbanisation, are leading to the growing occurrence of both pluvial and fluvial flood events. It is therefore important that governments are supported in the implementation of climate change mitigation and adaptation measures, to protect their vulnerable communities. These groups are often comprised of the poorest and most disadvantaged members of society, highly susceptible to flood impacts due to a lack of preparatory action and limited coping capacities.



Overall Objective

Address the flood mitigation challenge and reduce the vulnerability of urban populations to climate change impacts

Specific Objectives

1. Producing evidence based recommendations for the Royal Government of Cambodia on flood prevention and mitigation in Battambang city; and
2. Reducing the vulnerability of urban populations to climate change impacts, by facilitating access to an innovative and effective urban Early Warning System (EWS).

Approach

People In Need Cambodia will use an innovative approach to elevation data collection (using tuk-tuks and drones), to facilitate the use of urban flood modelling for the City of Battambang, as well as exploring additional last-mile communication channels for the implementation of a new urban EWS, building on previous PIN experience and partnership with NCDM on EWS mostly targeting farmers / rural households. Local authorities will be engaged through the Provincial and District Committee for Disaster Management, which brings together the

provincial and municipal administration, and relevant departments with a role in disaster management. The system will be handed over to these structures, based on previous cooperation between NCDM and PIN. The project will also provide policy recommendations and inputs to local authorities for the incorporation of flood management measures in local plans and budgets, based on evidence generated both by flood modelling and by social research / vulnerability assessment in vulnerable communities.

Outputs and Key Activities

Result	Key Activities
<ul style="list-style-type: none"> • Three GIS flood hazard maps will be produced (for three communes of Battambang city) • 25% of respondents to vulnerability index consultations in affected communities will display greater resilience capacity to floods (baseline and end-line surveys will assess this) • 30 local officials will be involved in consultations on recommendations for better flood management, based on the flood modelling • The early warning system will be operational in Battambang City, with at least 10% of the target population aware of the system by the end of the project (measure through end-line survey) 	<ul style="list-style-type: none"> • Conduct both primary and secondary research to create a database containing existing geospatial data and historical flood records of the Sangkae River catchment • Undertake a vulnerability assessment of the flood prone • Generate a Digital Elevation Model of Battambang City • Undertake flood modelling to produce flood hazard and extent maps under varying flow conditions • Use the research, GIS mapping and vulnerability assessment to determine the appropriate flood mitigation measures and present them to the relevant local authorities • Develop and implement an innovative urban EWS using the findings from the flood vulnerability and social research • Ensure that the urban population of Battambang has access to the EWS • Develop the capacity of local authorities, to ensure that they can effectively operate and maintain the EWS.

Knowledge Products

- GIS mapping
- Urban Early Warning System (EWS)
- Workshops and training materials

Timeframe	(18 months) August 2020 – January 2022	Current Partners	PIN National Committee for Disaster Management (NCDM)
Total Budget	USD 110,000 (From CCCA US\$100,000)	Location	Battambang city

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Funded by



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