# Improving Local Awareness to Climate Change Risks in Prey Veng Province, Cambodia

## **Key Findings:**

- In the past, the annual floods in Cambodia after the monsoonal rains were viewed as predictable in timing and non-destructive in nature, bringing benefits such as sediment for crops and increased fish catches.
- More recently, the annual floods are more destructive, damaging rice farms livestock and infrastructure as well as resulting in disease outbreaks.
- In Prey Veng province, floods inundated more than 80 per cent of the land area in the last three years. In 2000, floods affected approximately 30 per cent of the population; more than 7,000 houses and almost 350,000 hectares of rice fields were lost.

#### Introduction

Cambodia is one of the countries considered most vulnerable to climate change in Southeast Asia in terms of natural disasters. Because adaptive capacity to climate change has remained relatively low, combined with limited financial resources, 17 of 24 provinces are vulnerable to the climate risks (USAID, 2007).

Floods bring both benefits and risks for livelihoods and the environment. Floods can damage rice farms, livestock and infrastructure as well as result in disease outbreaks. In the past, the annual floods were viewed as predictable in timing and non-destructive in nature, bringing benefits such as sediment for crops and increased fish catches. But in 2000 and 2011, more intense floods occurred. The period of inundation changed, becoming longer in duration than in the past by almost 70 percent. Local livelihoods in rural areas became more vulnerable to floods. The people most affected were farmers who depend solely on their rice crops as well as children, women and older people.

In Prey Veng, floods inundated more than 80 percent of the land area in the last three years. Floods in 2000 affected approximately 30 percent of the population, destroyed more than 7,000 houses, and almost 350,000 hectares of rice fields (CARE, 2003). Due to little access to information about climate change risks, especially related to floods, drought and storms, local communities residing along the Mekong River in Prey Veng and other provinces are extremely vulnerable to the impacts of climate change.

According to NAPA (National Adaptation Programme of Action to Climate Change 2006), Prey Veng province was rated as one among the 24 provinces in Cambodia that is most vulnerable to floods, followed by Battambang, Takeo and Kampong Thom. In terms of drought, Prey Veng province was second to Battambang.

SUMERNET's partner, the Department of Environmental Science, Royal University of Phnom Penh, carried out the research project Communicating Water-Related Climate Change Risks to Improve Local Adaptation in Cambodia (in parallel with Vietnam and Thailand).

The research addressed the major issues of: 1) understanding how different stakeholders perceived types, levels and sources of water-related climate change risks and uncertainties, 2) developing effective communication models on water-related climate change risks with participation of local stakeholders in order to promote shared learning and strengthen local adaptation capacity, and 3) facilitating sharing good practices and experiences in climate change risk communication and advocating for replication of the communication models to delta communities in the Mekong region.

### Assessment of climate risks in Cambodia

The research team selected two communes namely Svay Phlous and Angkor Ang located in Peam Chor district of Prey Veng province. The two communes sit on the Mekong River banks and are recognized to be at high risk of both flood and drought. The communes' population is hugely dependent upon agriculture, about 83.3 percent of the whole population in both communes. Rice and corn are the most common crops, followed by bean, watermelon and sesame, especially after the floodwaters have receded around November. Wild capture fisheries, fish aquaculture and livestock are also key sources for subsistence.

The research project used models for raising the awareness of people and communicating water-related climate change risks. The models were intended to improve local adaptation measures by focusing on the risks from floods, droughts and storms.

The communication model included using a short video clip helped in engaging people's participation using visual elements since many people have limitations in reading and understanding written material.

Another model used was the "talking farmer": a series of posters of a farmer explaining the climate issues to make local people understand better the impacts in their village from floods, droughts and storms. The model also explained about early warning systems and preparedness.

These communication models are based on the local context and situations in terms of floods, droughts and storms and are continuously improved with feedback from the local communities. The models applied in the study site each have their distinct characteristics and uses: for example, the video is seen as easier to access than the talking farmer poster as the video can be viewed in different local gatherings such as village meetings and festivals.

Through the wider use of these models, local communities can get sufficient information and knowledge to cope with climate change risks.

# **Policy recommendations**

- The relevant government agencies need to address the lack of understanding and awareness of the local communities in the study communes about climate risks including preparedness and early warning system.
- The government institutions such as the National Committee for Disaster Management (NCDM), Ministry of Water Resource and Meteorology (MOWRAM), Ministry of Environment (MOE) and concerned local authorities and civil society can adapt these communication models for their own use as appropriate.
- The relevant government agencies need to replicate the project's communication models to enable people in other districts facing similar risks and hardship from climate change to learn about the impacts of climate change and the strategies for adaptation.

#### Notes

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