



## CASE STUDY

# Transboundary: Adaptation to climate change in the countries of the Lower Mekong Basin

## Summary

There are growing concerns about the potential effects of climate change on the socio-economic characteristics and natural resources of the Lower Mekong Basin. In response to the potential impacts of climate change, the Mekong River Commission has launched the regional Climate Change and Adaptation Initiative. Furthermore, a Vulnerability and Adaptation Assessment has been conducted. The study depicts that it is essential to establish a regional organisation to combat climate change.

## Background

The Lower Mekong Basin (LMB) covers an area of 606,000 km<sup>2</sup> and shares borders of Cambodia, Lao People's Democratic Republic, Thailand, and Viet Nam. There is growing concern about the potential effects of climate change on the socio-economic characteristics and natural resources of the LMB region. Climate change is expected to result in modifications to weather patterns in the LMB in terms of temperature, rainfall and wind, not only in terms of intensity but also in terms of duration and frequency of extreme events. Seasonal water shortages, droughts and floods may become more common and more severe, as may saltwater intrusion.

The changes are expected to affect natural ecosystems and agriculture and food production, and exacerbate the problems of supplying increased food demand to growing populations in the region. Some countries (Cambodia and Lao People's Democratic Republic) have developed the national adaptation programs of actions (NAPA).

There is also the Thailand's Action Plan on National Climate Change as the Five Year Strategy on Climate Change 2008-2012 contains strategic directions for development of detailed action plans for future adaptation activities. The Vietnamese National Target Plan (NTP) establishes directions for the development of sectoral and geographic adaptation action plans and to date; an action plan has been completed for the agricultural and rural development sector.

## Actions taken

In response to the potential impacts of climate change in LMB, the Mekong River Commission (MRC) has launched the regional Climate Change and Adaptation Initiative (CCAI). The CCAI which is a collaborative regional initiative designed to address the shared

climate change adaptation challenges of LMB countries.

While still in the preparatory and consultative phase, the CCAI has supported National Expert Teams (NETs) in each of the LMB countries to prepare reports documenting the current state of knowledge of potential impacts of climate change, as well as existing national adaptation and policy responses. One of the reports (Regional Synthesis Report (RSR)) presents the findings from the National Reports as an input for shaping the Climate Change and Adaptation Initiative (CCAI) coverage and approach. The report provides a coherent and comprehensive snapshot of current knowledge and activities related to climate change in the LMB countries.

The LMB countries have conducted a Vulnerability and Adaptation Assessment to examine the impacts of climate change on agriculture (rice production), forestry (forest types), human health (malaria) and coastal zone (sea level rise). Surveys have also been conducted in rural areas to get a picture of existing climate hazards and vulnerability and adaptation to measures that can be initiated. Under the Core Environment Program (CEP) Biodiversity Conservation Corridors Initiative (BCI) seven climate change activities are proposed focusing particularly on infrastructure aspects of climate change and adaptation, but also including aspects on disaster preparedness capacity for communities.

## **Outcomes**

One of the key activities has been the development of an ecosystem-based adaptation approach to climate change, which involves measures to build resilience and reduce risk for local communities and ecosystems. It includes a range of local and landscape strategies for managing ecosystems to increase resilience and maintain essential ecosystem services and reduce the vulnerability of people, their livelihoods and nature in the face of climate change. It is essential to establish a regional organization for climate change to provide scientific advice for LMB countries to ensure the continuity of the response to climate change.

Finally, it is important to incorporate from early stages of national budget negotiations climate change adaptation concerns. Hence a need for capacity building and awareness raising of climate change adaptation for staff of government institutions involved in the national budgetary process so as to integrate climate change issues into the national budget.

## **Lessons Learned**

The role of the MRC in climate change activities needs to be strengthened. Also MRC has the mandate and capacity to help the LMB countries develop tools and policy frameworks on assessing the impacts and adaptation strategies on climate change.

More so, share data and information to address regional and local impacts of climate change and to develop mechanisms to mitigate these impacts.

Without national assessments as a basis for designing adaptation policies, strategies and programmes, decisions on adaptation will remain uncertain and lead to ineffective results from implementation. Model based national scale assessment failed to incorporate

livelihood aspects and inter-sectoral relationships.

There is still a lack of baseline information for understanding the complex interplay between and within natural and human systems and a considerable gap in information on likely changes in climate and human systems in different ecosystems and agro-climatic systems.

Without national financial allocation, climate change adaptation cannot be realistically implemented. This is due to the fact that the technical staff and policy makers with national budgetary mandates are not familiar with climate change issues.

**Organisation**

Mekong River Commission, Global Water Partnership South East Asia - GWP SEA

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2013

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Cambodia, Lao People's Democratic Republic (the), Thailand, Viet Nam

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Asia

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**Supporting Materials**

GWP Southeast Asia

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**Related IWRM Tools**

Climate Change Policies, Vulnerability Assessment

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