

# PRoACC

## AN INTEGRATED POST-DOCTORAL RESEARCH PROGRAMME ON ADAPTATION TO CLIMATE CHANGE IN THE MEKONG RIVER BASIN



To address the challenges of climate change, UNESCO-IHE in collaboration with partner institutions has set up a Post-doctoral Programme on Climate Change Adaptation (PRoACC).

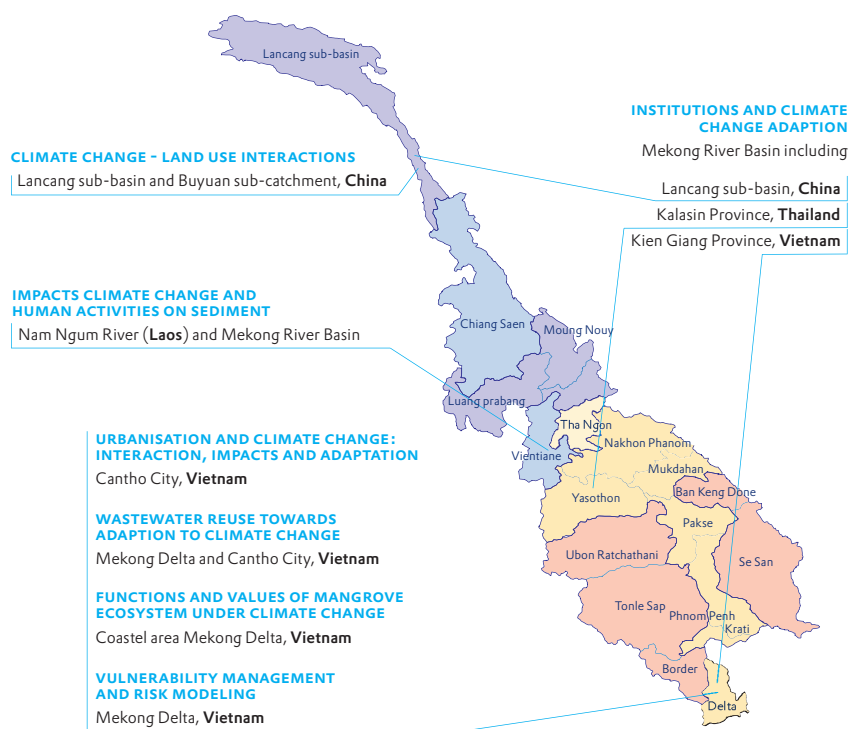


During the eighteen months programme the following meetings were/ will be held to stimulate cooperation, synergies and interdisciplinary research:

- **Inception workshop** (UNESCO-IHE, Delft, 26-29 April 2010)
- **Integration workshop** (Can Tho University, Can Tho; December 2010)
- **Synthesis workshop** ('Final ProACC Symposium', November 2011, location tbc)

In this phase of PRoACC (April 2010-October 2011) the focus lies in the **Mekong River Basin**. Eight individual post-doctoral research projects are developed in close collaboration with key stakeholder groups from the Mekong River Basin. Besides carrying out the research, the scientific findings will be translated for the development and implementation of better policies in the field of climate change adaptation. In addition, the capacity building aspect of this post-doctoral programme is significant. All post-doctoral fellows come from the region and are hosted by local/ regional knowledge institutes. This will strengthen regional cooperation further and the objective is that the post-doctoral fellows will continue to work on related topics in the region after the programme is finished.

The **eight post-doctoral research projects** study different aspects of climate change adaptation in the Mekong (see Figure below). These aspects are studied at the relevant local and regional scales. Four Vietnamese post-docs for instance study the Vietnamese Mekong delta. Cooperation with the other post-docs and key regional stakeholders like the Mekong River Commission and the Changjiang River Commission (Chinese part of Mekong River Basin), will allow the fellows to obtain a good understanding of the interactions with the upstream parts of the Mekong River Basin. The programme as a whole will integrate the research projects and translate findings of the different aspects of climate change adaptation at the local and regional scales into recommendations for climate change adaptation at the basin scale.



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## EXPECTED RESEARCH AND SOCIETAL OUTPUTS

The following scientific outputs are expected as a minimum from each individual post-doc project:

- Two peer reviewed international journal articles and papers in conference proceedings or chapters in books.
- One PRoACC Symposium Paper and contributions to 'synergy papers'.
- One policy brief outlining the potential implementation of project outputs in the development/implementation of on-the-ground adaptation strategies in the partner country.
- One digital case study to be used as educational product at partner institutes and UNESCO-IHE.

The expected societal outputs are:

- Contribution to basin planning and management and answer to key questions related to climate change adaptation.
- Link research and education – use of knowledge and material in local university curricula and training.
- Strengthened local Climate Change and Adaptation partnerships of government and academic partners.

## ACADEMIC PARTNER INSTITUTES HOSTING POSTDOCS

- Asian Institute of Technology (AIT), Thailand
- Chinese Academy of Science (CAS), China
- Changjiang River Scientific Research Institute (CRSRI), China
- Cantho University (CU), Vietnam
- Southern Institute of Water Resources Research (SIWRR), Vietnam
- Vietnam Institute of Meteorology, Hydrology and Environment (IMHEN), Vietnam
- Water Resources University (WRU), Vietnam

The programme cooperates with local / regional organisations to ensure that results contribute to Mekong basin planning and climate change initiatives, like the Mekong River Commission (MRC) in Vientiane Lao PDR, and the Changjiang Water Resources Commission (CWRC), in Wuhan, China. Other partners and research groups are encouraged to join the programme.

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The Mekong River Basin is a large international river basin and is shared by six countries: China (Yunnan province, Lancang sub-basin), Union of Myanmar, Lao PDR, Kingdom of Thailand, Kingdom of Cambodia and Viet Nam. More than 70 million inhabitants live in this basin, mainly in rural areas and, consequently, the livelihoods depend to a significant extent on agriculture. The rapidly growing population (about 2% per year) causes often conflicting demands on the water and land resources, in particular in the lower Mekong River Basin. Climate change has been evident over past decades and it is likely to cause further shifts in the monsoon weather patterns with increasing floods (more intense rainfalls) and droughts (longer and more severe dry spells), possibly an increased number of tropical cyclones, more severe heat waves in particular in larger urban areas, and possibly more frequent and extensive ENSO phenomena with impacts on the regional climate. On top of that sea levels will rise faster with significant impacts on coastal regions.

Over a long period already, the four riparian countries in the Lower Mekong Basin collaborate on the development and management of their water resources. Recent attempts and developments have been bringing the upper part of the basin closer to the other countries and their regional cooperative development approach.

The growing concern in the Mekong River Basin about national, but particularly also trans-boundary effects of climate change and the adaptation responses needed has resulted in various initiatives aimed at better informed planning and decision-making. Examples are the Mekong River Commission Climate Change Adaptation Initiative and the Changjiang Water Resources Commission Climate Change Programme.

