

Goal of Approach:

For the four countries of the Lower Mekong (Cambodia, Lao PDR, Thailand and Vietnam) the aim is to assist national planning bodies to understand and assess the expected impacts of climate change, the interactions with rapid development and the adaptation needs/scopes suited for the Mekong River Basin. The approach to loss and damage estimation and tools developed are prioritised for issues that are of a transboundary nature and those affecting the most vulnerable.

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Main elements of the implementation strategy

The main elements for implementation are:

- Development of Shared Predictive Tools for hydrological changes in river regime due to climate and development scenarios
- Collection and collation of Impact tools and data including flood/drought damages, fisheries, social and environmental impacts
- Build capacity in member countries to assess climate change impacts and vulnerabilities, use the available tools and to support pilot adaptations.
- Foster cooperation and provide high quality information to allow climate change adaptation to be integrated into development policies

The Mekong River Commission works under the mandate of the 1995 Mekong Agreement which defines the scope for joint planning for balanced and socially just development in the Mekong Basin while protecting the environment and maintaining an ecological balance.

Targeted beneficiaries

The most vulnerable people in the basin through member countries planning and development actions.

Any significant lessons learned

The Mekong River Basin is undergoing a rapid change due to development and the risks of climate related damage is increasing. The development of shared predictive tools has been very successful though there is still significant capacity building needed in the less developed countries.

The use of the modeling and assessment tools for climate predictions needs to be streamlined to take advantage of the developments in climate science and to maintain the confidence of decision makers in light of a plethora of predictions and increased understanding of uncertainties for the future by experts that is harder to convey to non specialists.

The changes expected in the river regime include not only the changes in flow from climate and development (including hydropower) and land use but also changes in the sediment and nutrient regime that will impact on the critically important fisheries sector and more work is needed to understand the changes expected and complex linkages.

Resource requirements

The predictive system for changes in flow has worked well in the past planning for the Basin Development Plan of 2011 but as attention is focused more on the social and environmental impacts, the understanding and data needs increase

rapidly. Data that would resolve some of these constraints such as the more advanced elevation models necessary to determine flood thresholds and depths commonly available in developed countries are not available for the Mekong Basin.

There is one modeler for each country working permanently at the MRCS in a support role to the Climate Change and Adaptation Initiative. Collaboration with other regional and international institutes is necessary to access suitable climate predictions for input to the hydrological and hydraulic river models.

Potential for replication or scaling-up

The Mekong River Basin as the 10th largest in the world and with the 3rd largest estuary provides an example for many of the larger river basins extending over more than one country.

Any additional information