Climate Diplomacy

POLICY BRIEF

# INTEGRATING WATER AND CLIMATE DIPLOMACY IN THE MEKONG RIVER BASIN

SABINE BLUMSTEIN, JUNE 2017

***The Mekong River in Southeast Asia is an important source of life for people living within the basin. Sharing the river's water resources is, however, becoming increasingly difficult, and has already sparked disputes among riparians. Climate change could potentially increase political instabilities and intensify interstate disputes. It is important, therefore, to increase capacities to adapt to changing climatic conditions. To overcome existing shortcomings and improve adaptive capacities, synergies between climate and water diplomacy should be harnessed.***

## The Mekong River Basins

The Mekong River originates in the Tibetan Plateau and from there flows through China, Myanmar, Thailand, Laos, Cambodia, and Vietnam where it empties into the South China Sea. The river is an important livelihood factor for people living in the basin, who primarily live from agriculture and fisheries. In recent years, the Mekong River has also increasingly been used as a source of hydropower. The building of large-scale dams has, however, created disagreements and disputes amongst these riparians. These disagreements risk being aggravated by the impacts of climate change. These are likely to affect precipitation as well as the timing and amount of water runoff, and may compound dam-building consequences, e.g. where delta subsidence due to reduced sediment loads meets sea-level rise. It is therefore important to strengthen the Mekong River Basin's adaptive capacities, to manage the risks of climate change, and to safeguard livelihoods and prevent major disputes.

**Mekong River Basin**
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## Climate Change affecting the Mekong River

The Mekong River is expected to be severely affected by climate change. Climate models predict changes in both temperature and precipitation patterns, which will alter river flow. Temperatures are projected to

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increase in most parts of the basin. With temperatures rising up to 1.2 C by 2030, the upper Mekong Basin is expected to be affected most severely. It is also in this part of the basin where the highest increases in evaporative losses are anticipated (Eastham et al. 2008).

Furthermore, climate change is predicted to lead to an increase of rain during the wet season, while the dry season in the lower basin is likely to become even dryer. Because of significant increases in precipitation during the wet season, the duration and magnitude of flood events is likely to increase as well (Eastham et al. 2008, MRC 2009).

These changes in climate and river flow can affect socio-economic development of the Mekong countries, and potentially cause disputes within basin countries, as well as between them.

First, the deterioration of livelihood opportunities (because of diminishing fish resources or agricultural opportunities) could fuel regional migration and potentially result in local disputes (Carius and Maas 2009: 8-9). Changes in the seasonality of river discharge can also affect the potential for hydropower generation and, as a result, negatively affect the economies of basin countries (Beilfuss and Triet 2014).

Second, increase in flow variabilities, floods and growing demand for irrigation could lead riparians to further increase damming activities. If uncoordinated at the basin-level and developed in an unsustainable manner, such dams can affect downstream riparians and, as a result, bilateral relations. Given the importance of freshwater fisheries for food security in South East Asia, the impact of dams on this sector are of particular concern.

The construction of dams – such as the Yali Falls or Pak Mun dams – has already affected the flow regime and fish migration in the Mekong River. A number of dams that are currently constructed (such as the Xayaburi Dam) have furthermore caused significant bilateral conflicts between some riparians.

## Managing Climate Change in the Lower Mekong

To manage the river basin resources and to coordinate various national activities along the Mekong River, the lower four out of the six riparian countries of the Mekong have established the Mekong River Commission (MRC). The MRC has engaged in a number of activities to address climate change. In 2009, the Commission adopted the Climate Change Adaptation Initiative (CCAI), which is financed by several international donors. As part of this initiative, a number of research activities were conducted to improve the understanding of climate change impacts on the river basin. Beyond this technical knowledge-generation role, CCAI has not (yet) exercised any significant influence to increase adaptiveness to climate change. Nonetheless, other MRC programs, such as MRC's Flood Management and Mitigation Program (FMMP), have been more successful in building adaptive capacities.

**CLIMATE CHANGE**

**CAN AFFECT SOCIO-ECONOMIC DEVELOPMENT OF THE MEKONG COUNTRIES AND CONTRIBUTE TO DISPUTES.**

**REGIONAL APPROACHES TO ADAPTATION**

**ARE ADOPTED BY THE MEKONG RIVER COMMISSION.**

The FMMP, for example, established flood forecasting and early-warning which significantly improved the safety of local communities (Schmeier 2013).

Whilst first steps to address impacts of climate change have been taken, important challenges still remain. One major obstacle for successful climate change adaptation in the basin constitutes the absence of the upstream riparian China in regional coordination efforts (China is not a member of MRC). Because China is likely to be significantly affected by climate change (e.g. through melting glaciers and increased runoff during the wet seasons and increasing drought during drier periods), it may further increase its already intense damming activities. Additional dams would affect water resources downstream, including changes in river flow, decrease in sediment flows and fish resources. The development of such infrastructures, hence, could affect millions of people that rely on the river for food and livelihoods.

An additional challenge – which is closely linked to the first one – is the lack of coordination between various national adaptation activities of MRC members. Whilst all countries of the lower Mekong have national adaptation plans and policies in place, those plans have been formulated without considering potential effects on other co-riparians, or exploring potential synergies (Earle et al. 2015: 67-90). Cambodia, for instance, is particularly concerned about the effects of climate change on the Tonle Sap Lake, which is important for its agriculture and fisheries production. Changes in river flow patterns caused by upstream developments along the main stem of the Mekong (to address climate change impacts at the national level) would put additional stress on this very sensitive ecological system. Despite these dangers, the Cambodian National Adaptation Program of Action to Climate Change (NAPA 2006) neither considers such potential developments nor explores possible ways to coordinate upstream developments with its own national interests.

This observation does not only hold for Cambodia, but for all Mekong riparians. National adaptation plans are often only weakly integrated into national policies, and even less so into the regional context.

## Linking (national) Climate Adaptation with the Basin-level

Whilst regional and national actors seem to be aware of the looming dangers of climate change and (to various degrees) act upon these, there are still a number of challenges that require more concerted action. In particular, more efforts have to be taken to harmonise the different national climate policies and activities within the basin and to seek potential synergies. Whilst the MRC has realised this deficit and is trying to address it through initiatives like the Mekong Adaptation Strategy and Action Plan (MASAP) – a basin-wide climate change strategy that is currently being developed – it remains to be seen whether this plan will contribute to better regional coordination and materialise into concrete actions on the ground.


**Map of the Mekong River Basin**
Jennifer C. Veilleux © 2014 Oregon State University; Transboundary Freshwater Dispute Database (www.transboundarywaters.orst.edu)

**CHALLENGES TO REGIONAL ADAPTATION EFFORTS**

**INCLUDE THE LACK OF REGIONAL COORDINATION OF NATIONAL ADAPTATION POLICIES.**

Furthermore, international climate finance, such as provided through the Green Climate Fund (GCF), could potentially provide additional funding for transboundary activities and programs to address impacts of climate change. Such climate funding is expected to increase substantially over the next years and could provide significant potential for funding transboundary climate change adaptation activities. Considering that MRC has recently experienced enormous funding cuts by international donors, such options for alternative funding sources are even more important.

## Recommendations

Both climate change itself and the expansion of dam-building that may in part be or become driven by efforts to mitigate and adapt to its effects could result in significant human security risks in the Mekong basin. Given the scale and partly cumulative nature of these risks, it will be important to achieve a more coherent response at the basin level. Potential entry points for supporting climate change adaptation and a closer integration of climate and water diplomacy-tools include:

- Demonstrating the benefits of regional cooperation and joint adaptation planning;
- Supporting activities that help to link regional and national adaptation activities and contribute toward better coordination between various governance levels (vertically) and between different basin-countries;
- Facilitating access to bilateral and multilateral climate funding mechanisms, for example by supporting MRC to become accredited to climate financing mechanisms such as the GCF.

**ENTRY POINTS FOR SUPPORTING ADAPTATION:**

**DEMONSTRATE THE BENEFITS OF REGIONAL COOPERATION AND JOINT ADAPTATION PLANNING.**

## Literature

Beilfuss, R. and T. Triet (2014). Climate change and hydropower in the Mekong River Basin: a synthesis of research. Available at: https://www.giz.de/de/downloads/giz2014-en-study-climate-change-hydropower-mekong.pdf (accessed 09 January 2017).

Carius, A. and A. Maas (2009). Climate Change and Security. Two Scenarios for South East Asia. Directorate-General External Relations of the European Commssion.

Earle, Anton; Ana Elisa Cascão, Stina Hansson, Anders Jägerskog, Ashok Swain and Joakim Öjendal (2015). Transboundary Water Management and the Climate Change Debate. New York: Routledge.

Eastham, J. Mpelasoka, F., Mainuddin, M., Ticehurst, C.C., Dyce, P., Hodgson, G., Ali, R. and M. Kirby (2008). Mekong River Basin Water Resources Assessment: Impacts of Climate Change. CSIRO: Water for a Healthy Country National Research Flagship. Available at: https://ppcrcambodia.files.wordpress.com/2012/11/eastham-2008-csiro_mekong-river-basin-water-resources-assessment-impacts-of-climate-change.pdf (accessed 09 January 2017).

Schmeier, S. (2013). Governing International Watercourses: The Contribution of River Basin Organizations to the Effective Governance of Internationally Shared Rivers and Lakes. Earthscan Studies in Water Resource Management: Routledge.

*This brief is based on the report "Water and Climate Diplomacy".*

The **climate diplomacy initiative** is a collaborative effort of the German Federal Foreign Office in partnership with adelphi. The initiative and this publication are supported by a grant from the German Federal Foreign Office.

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