



Kolloquium Boden, Wasser, Luft

10. November 2022, 16:15 – 18 Uhr
Hörsaal Fahnenbergplatz, Friedrichstr. 39

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Challenges in the Mekong River Basin – Climate Change and Hydropower Impacts from Large Scales to Local Agro-Ecohydrological Processes

The Mekong is Southeast Asia's largest river, and a lifeline for much of the region. It sustains the world's largest inland fishery and rich agricultural systems on its deltaic plains that have become known as the "rice bowl" of Southeast Asia. Of the more than 70 million people who call the Mekong basin home, 40% live within 15 km of the river's mainstream. Over 80% of the lower basin's population depend on the Mekong for their livelihoods.

Yet the Mekong is facing a series of challenges, ranging from climate and land use change to hydropower construction. These factors are altering the river's traditional hydrological regime, shifting the annual Monsoon peak in water levels on which both agricultural systems and the reproductive cycles of fish depend. The impacts of these changes can be observed across multiple scales, from basin-wide shifts in fish populations over increasing salinity intrusion and land subsidence rates in the Mekong's delta to local agricultural communities struggling to adapt traditional practices to altered conditions.

This presentation outlines the main drivers of change in the Mekong River Basin and then progressively zooms in onto a case study area in the Cambodian Mekong Delta. It presents the results of literature reviews, remote sensing approaches, archival research, modelling work, and surveys among local stakeholders to outline the impacts of changes from basin-wide scales to local agro-ecohydrological processes and illustrate how adaptation strategies such as infrastructure rehabilitation can be harnessed by communities to cope.

**Veranstaltet von den Professuren für Bodenökologie, Hydrologie,
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