Integrated Water Resource Management and Climate Change Adaptation

Project

Duration

Oct 2014 - Oct 2016

Countries such as Bangladesh face fundamental threats on their water resources from climate change. Significant demand exists for knowledge how to enhance institutional capacity and effectiveness of water management policies. This project objective is to investigate how Integrated Water Resource Management (IWRM) in different national contexts can enhance the capacity of different societies to adapt to climate change impacts. This project establishes therefore an international network of IWRM and adaptation experts and coordinates research events in six countries. In addition, it aims to draw lessons for supporting Bangladesh response to climate change impacts on water resources, and disseminates research to academics and policymakers.

Background

Climate change is expected to exert significant effects on water cycles worldwide by changing the seasonal pattern of water resources. Bangladesh is particularly affected, and social-ecological thresholds related to hydrological cycles are expected to be exceeded more frequently in this low-lying, densely populated country, thereby impacting ecosystems, people’s livelihoods and wellbeing. As many countries worldwide, Bangladesh currently implements IWRM to deal with water risks. IWRM aims to result in more holistic and coordinated management between the different aspects of water resources systems to support social, economic and ecosystem development. IWRM has therefore a key role in supporting adaptation to climate change impacts, but little is known on how it can do so. As climate change adaptation emergences in the agenda of policy makers in countries such as Italy, the UK, Canada, India and Germany, innovative governance responses for water management are being designed and tested, and raising opportunities for comparative learning or ‘lesson drawing.

Objective

The project objective is to investigate how IWRM approaches in different national contexts can enhance the capacity of different societies to adapt to climate change impacts. Particular interest lies in drawing lessons for water management practice in Bangladesh, a country particularly impacted by future climate change.

The project is linked to three research questions that will guide investigations:

- What is the link between key IWRM principles and their role in modulating adaptive capacity?
- What does international comparative study reveal about how these principles are

leading to effective outcomes in water management practice?
- To what extent can these lessons be transferred to the Bangladesh context and, in addition, other countries worldwide?

The research seeks to compare experience in Bangladesh with several other countries, namely Italy, the UK, Canada, India and Germany, in order to generate lessons for potential transfer. In addition, rather than a conventional research project embedded in one discipline, this project involves researchers from many different disciplines, including political science, human geography, hydrology, economics, and engineering.

What is Ecologic Institute doing

Ecologic Institute is involved in the three work packages of the project. It contributes to the review of linkages between key IWRM principles and their role in modulating adaptive capacity, the international comparative assessment of IWRM implementation, and esson learning and knowledge transfer from the comparative assessment.

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Partner

University of Exeter, United Kingdom
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Team

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