

# JOINT PROJECT ON TRANSBOUNDARY FLOOD AND DROUGHT MANAGEMENT

## Building trust in Joint Planning: The 9C-9T Basin Atlas

### A Transboundary Decision Support Tool

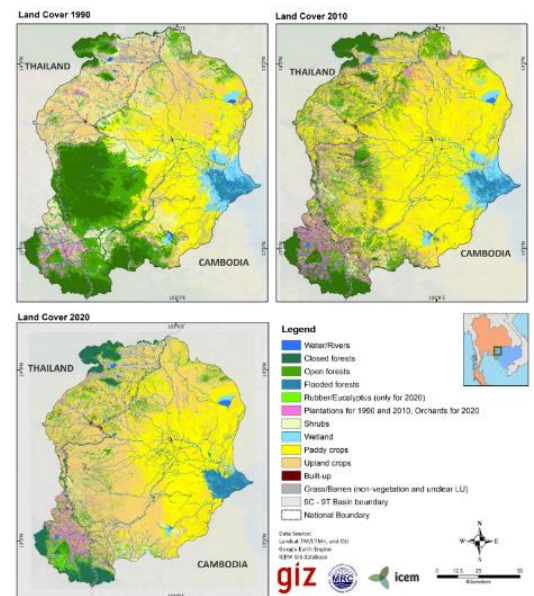
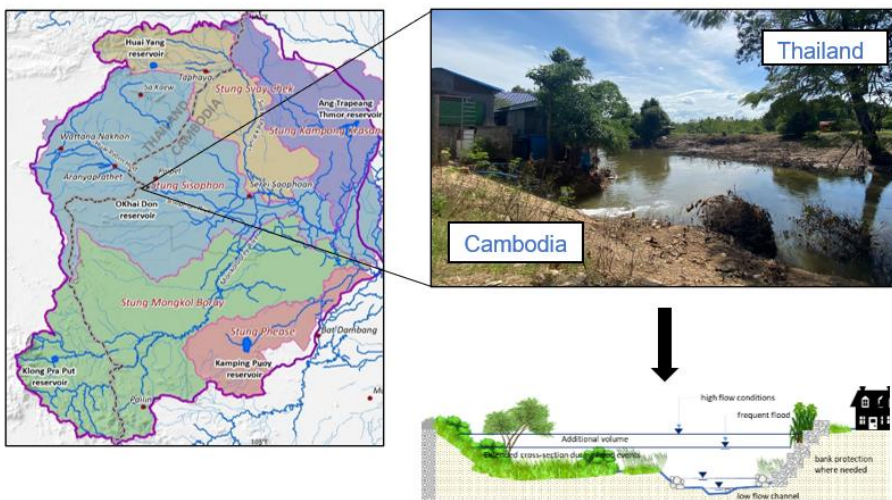
The 9C-9T Basin Atlas is a web-based decision support tool developed under the 9C-9T Joint Project with the support of the German Government and the Mekong River Commission. It aims to share data and information for better water resource management related to flood and drought.



*Link to 9C-9T Basin Atlas*

It provides data and interactive and downloadable maps that visualize the findings of analytical work and forward-looking scenarios, like the extent of deforestation since 1990 or the trend of increasing temperatures until 2050 under all scenarios of climate change.

As Figure 2 (below) illustrates, the 9C-9T Basin Atlas was used to scale down from basin wide planning to design on the ground measures. Here the example shows proposed riverbank widening and bank stabilization interventions jointly planned by Cambodia and Thailand to mitigate transboundary flood risk at the border river shared by the two countries.



**Figure 1: Changes of land cover in 9C-9T sub-river basin over the past 30 years, with declining forest areas.**

# Creating Resilience: Transboundary Green Investments

## Nature-based Solutions for Flood and Drought Management

In the 9C-9T Joint Projects Master Plan nature-based solutions have become formulated as a key output. Most investment in Cambodia and Thailand goes to conventional infrastructure such as reservoirs, irrigation systems, dams, and transport, which in turn suffers from increasing watershed erosion, sedimentation, and flood damage. Therefore, initial conceptual designs for nature-based solution projects have been selected for different landscapes (rural, urban, headwater) to illustrate how nature-based solutions can be implemented within the national and regional context and to demonstrate their efficacy in addressing transboundary challenges of floods and droughts.

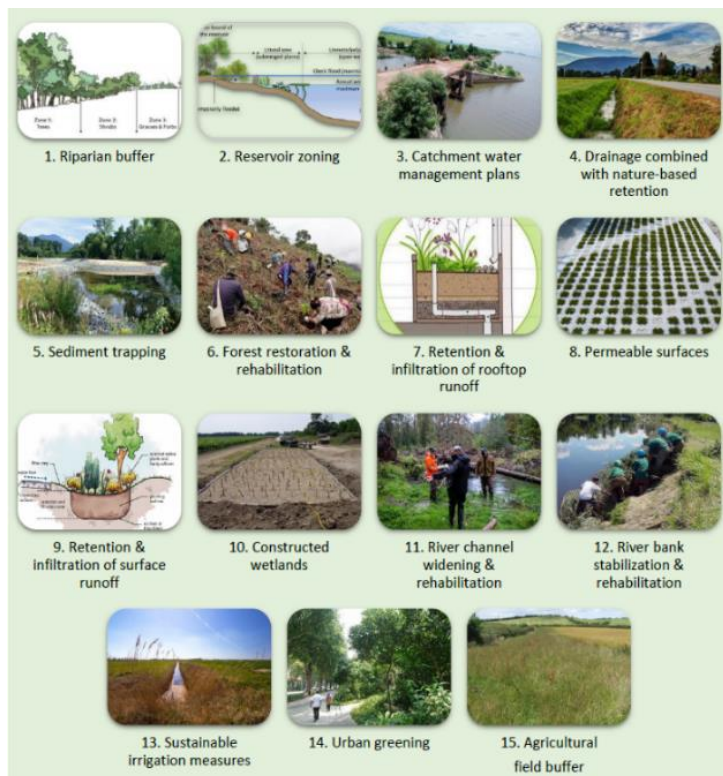


Figure 3: Examples of nature-based solutions for flood and drought management, more are available in the **Nature-based Solution Catalogue** on the 9C-9T Basin Atlas <https://9c9t.mrcmekong.org/>

## Nature-based Solutions

The overall goal is to replicate, upscale and roll out nature-based solutions across the shared basin. The aim is a network with cumulative transboundary impacts to substantially reduce the risks of flood and drought in the whole 9C-9T sub-basin.

## Economics of Land Degradation Initiative

An economic analysis was developed in cooperation with the global Economics of Land Degradation Initiative which secretariat is hosted by GIZ. The cost-benefit analysis presented a robust economic case for further investments in nature-based solutions. In rural areas a catchment rehabilitation via nature-based solutions was associated with anticipated core benefits for improved water availability and reduced operational costs of reservoirs; in urban areas river rehabilitation and urban greening was associated with core benefits in flood reduction.

## Co-benefits of Nature-based Solutions

Co-benefits of nature-based solutions in rural areas can be carbon sequestration, biodiversity, fisheries production, and Non-Timber Forest Products, contributing to community livelihoods. In urban areas, nature-based solutions can improve air quality, temperature, and recreation, contributing to cost savings and community well-being.