# Exploring Mekong Futures for Laos

## Exploring the impacts of large-scale irrigation on poverty reduction and alternative development scenarios in the Nam Ngum catchment, Lao PDR.

### Key lessons for development

- Large-scale irrigation schemes are not likely to generate a positive impact on poverty in the basin as only providing irrigation helps those who own land.
- People who live below the poverty line and don't own land (i.e. the most marginal) receive only marginal benefit from investment in large scale irrigation. Greater poverty alleviation can be achieved through the promotion of a diverse regional investment portfolio.
- Well-designed participatory planning processes that are underpinned by science can lead to a change in beliefs by actors and encourages consideration of better targeted solutions to complex development challenges.

### The issue

Lao PDR is one of the world's least developed countries. The Nam Ngum River supports one of the country's largest food production areas and the largest irrigated area in Lao PDR. It contributes 14% to the Mekong River's flow.

Environmental flow from the Nam Ngum into the Mekong is critical for downstream users and ecosystems, particularly in the dry season. Cooperation among water users within the basin is important as the Nam Ngum is used for a wide variety of purposes such as hydropower, irrigation, mining and ecotourism as well as providing a source of fish for diet and income to more than 500,000 basin inhabitants. Authorities plan to increase the number of dams in the upper catchment from four to 14 to produce urgently needed electricity and to provide irrigation water in an attempt to reduce poverty. This will modify the seasonal flow of the river, impacting the availability of water for irrigation. The river basin organisation asked the project team to assess water availability to support current and future irrigated agriculture demand.

### What did the project deliver?

**Assessment of the impact of hydropower dams on irrigated agriculture** was carried out by project partner IWMI, which showed that even during very dry years, there is sufficient water to supply the agricultural sector, which is the largest water user in the basin. The study showed that under a scenario of significant (but unlikely) irrigation development water demand could exceed supply.

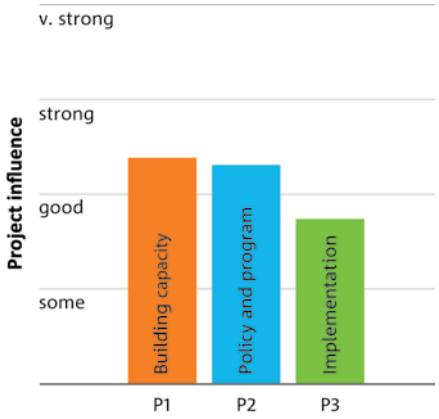
**Scenario planning** investigated the potential impact large irrigated infrastructure development would have on alleviating poverty. The results demonstrated that providing large scale irrigation only helps people who own land. People who live below the poverty line and don't own land (i.e. the most marginal) receive only marginal benefit from this type of investment. The findings challenged current beliefs, and posed alternative development scenarios that could deliver greater benefit to poor rural communities by opening up development planning to a more diverse range of investments.

**A participatory planning method**, Challenge and Reconstruct Learning (ChaRL) was introduced in a series of six workshops. ChaRL challenges current thinking by introducing development scenarios and scientific evidence, engaging stakeholders in a participatory process designed to identify a range of development options beyond the status quo.

## Project evaluation and impact

In April 2014, CSIRO undertook an evaluation to assess the project's influence on participants' adaptive capacity. The project consisted of three linked phases to identify where impact had been achieved. Phase 1 focused on 'building planning capacity and tools'. This enabled Phase 2 'policy and program development', which was followed by Phase 3 'implementation, adoption and scaling out'. Phase 1 encompassed the project's activities, while Phases 2 and 3 were out of the project team's direct control. Parts of Phase 2 and all of Phase 3 'impact with beneficiaries' extend beyond the life of the individual projects and are dependent on key stakeholder support over time.

The results showed that the participatory approach and training have significantly built the capacity of the basin management decision makers in Lao PDR. These skills and the project's participatory planning process have influenced the development of management plans and cross-sectoral partnerships as part of Phase 2. These positive impacts are in turn being used to inform the development of plans for the provinces in Phase 3, which is the implementation phase.




**Summary evaluation results for the three phases of the project impact pathway**

## Project partners

This four year collaborative project was led by CSIRO, the International Water Management Institute (IWMI), the Lao Ministry of Natural resources and the Environment (MoNRE), and the Australian Department of Foreign Affairs and Trade (DFAT).

Australian Aid

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