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## Understanding changes and trade offs in water value upstream and downstream of Theun Hinboun Expansion Project, Lao PDR

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**Session: Basins (Mekong) or Emerging TWG (Benefit Sharing Mechanisms)**

### Key Message

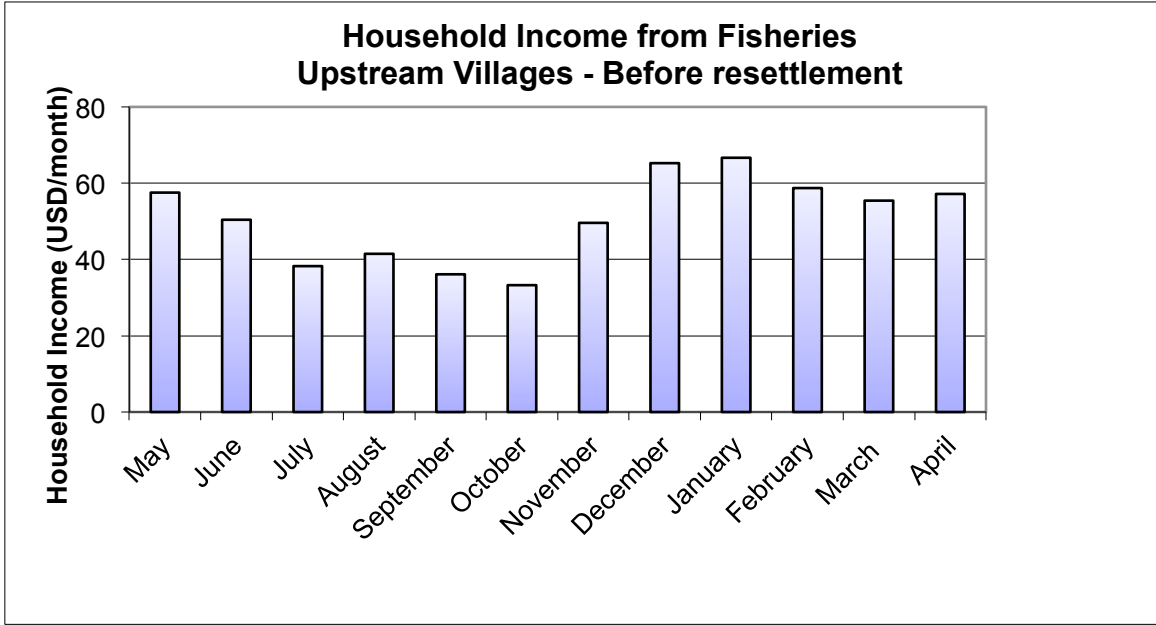
Using an integrated water valuation framework, comparison pre- and post-resettlement of communities affected by a hydropower dam gives us an opportunity to estimate changes and tradeoffs between water values derived from various sources of water. Documentation and analysis of those changes are important for informing the design of future resettlement programs that take multiple uses of water into consideration.

## Summary

Hydropower development alters local communities' livelihoods in many different ways, including changes in water access and use. The Theun Hinboun Expansion Project (THPC) in Lao PDR is nearing completion and the reservoir is beginning to be filled. It will become an additional source of water to feed an existing hydropower plant involving inter-basin water transfer, and has a complex range of affected areas upstream and downstream of the dam. Access to water, water quality and flow regime will be modified in various ways for local communities depending on their location. In addition, many local communities will experience resettlement by various degrees. In conventional resettlement programs some uses of the land and its water are often overlooked while others are replaced by alternative

water supplies, such as public wells, which may incur additional cost to the users. Thus it is important that a wide range of direct and indirect use values of water are documented before the communities are resettled.

By using an integrated water valuation framework we assess those changes at the household level, before and after the resettlement. Comparison between the pre- and post-hydropower development provides a quantification of the trade-offs, losses and benefits in different types of areas affected, relative to the location of the dam. Comparative analysis of those trade-offs, by integrating multiple uses of water, helps to build a more holistic understanding of livelihood changes due to hydropower development. It provides new insights for appropriate intervention that integrates multiple water uses for decision makers.



**AVERAGE MONTHLY HOUSEHOLD INCOME (USD/MONTH) FROM FISHERIES IN 4 UPSTREAM VILLAGES BEFORE RESETTLEMENT (N=100)**