

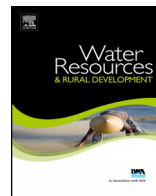


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# Benefit sharing from Kamchay and Lower Sesan 2 hydropower watersheds in Cambodia



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### ABSTRACT

The purpose of this study was to explore the institutions underlying different forms of benefit sharing in hydropower projects in Cambodia, through detailed analysis of two case studies: Kamchay and the Lower Sesan 2 hydro-dams. Promises on paper were compared with how benefit sharing was implemented in practice. The study found that, first, compensation and resettlement were a common, if minimalist, form of benefit sharing in Cambodia. Other forms of benefit sharing, such as environmental impact management and allocation of community development funds, were mentioned in both the EIA report and investment agreements, but have never been implemented. Second, at the national and sub-national levels, there are no comprehensive guidelines for benefit sharing, nor is there a supporting legal framework. Benefit sharing and compensation policies have been developed on a project-by-project basis. Third, hydro-dam projects do not prioritize providing electricity services to affected communities: no preferential electricity rate was given. Fourth, inter-ministerial structures have been introduced, which could improve the integration of activities, but instead have just slowed down decision-making. This study advances our knowledge on how benefits from hydro-dam projects are shared (and not shared), in practice, with prior residents of hydropower watersheds and other affected stakeholders in Cambodia.

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## 1. Introduction

Improving access to reliable and low price grid-based electricity is one of the priority actions for the energy sector in Cambodia; in 2008, only 26% of total households in the country had access to electricity, whereas only about 13% had access in rural areas [1,2]. The current policy target is for 70% of rural households in the country to have access to grid-quality electricity by 2030 [2].

Cambodia has the potential to produce about 10,000 MW of electricity power from hydropower dams along the Mekong and Tonle Sap rivers [3]. Hydropower could thus play a significant role in the long-term energy development of the country [4]. However, only less than 3% of the potential power has been developed [2]. The demand for electricity in Cambodia has grown noticeably over the past few years, from about 208 MW of demand in 2006 to about 485 MW in 2011 [5]. Electricité du Cambodge (EDC) predicts demand to rise to about 1500 MW by 2015 and 2750 MW in 2020. The Asian Development Bank estimates are lower: 1008 MW in 2015 and 1610 MW in 2020 [6]. Current electricity supply does not meet domestic demand.

In 2012, hydropower contributed about one third of the energy used to produce electricity in the country [7]. Expansion of hydropower energy sources is one element of the rural electrification and related energy policies. Hydropower projects, however, can have significant negative impacts on natural resources such as loss of forests, flora and fauna as well as negative impacts on fisheries [8–10]. Benefit sharing schemes might reduce or help offset some of the negative impacts from hydropower projects.

“Benefits” are anything that the community recognizes as important and valuable for their life. Several forms of benefits can be distinguished: non-monetary; monetary or revenue sharing benefits; equitable access to project services; and indirect or other benefits [11]. Non-monetary benefits are defined as support from hydropower projects that are provided to local communities, so they can better access resources and social welfare. Revenue sharing benefits refer to the distribution of economic and financial gains from hydropower to the participants where the hydropower project is located [11,12]. Equitable access to project services refers to things such as water and electricity services for local people, especially, affected communities so as to restore their well-being and compensate them for the costs associated with livelihood transformations driven by hydropower construction. Indirect and other benefits refer to the leverage that a hydropower project can have to diversify and stimulate the development of the region, and a country.

Trans-boundary benefit sharing of water and electricity hydropower resources involves sharing benefits between two or more countries on an international river, such as the Mekong River [13,14]. Extending the set of benefits beyond water and power services, including trade and infrastructure, has been identified as an effective strategy in international negotiations and diplomacy around benefit sharing [11,14]. National-to-local form of benefit sharing refers to government regulations that regulate how benefits are shared from hydropower project to local people, including electricity end-users [11]. Sharing of benefits is necessary to ensure improvements to livelihood, sustainable management of national resources, as well as social equity when water resources are developed for a particular purpose, for instance, to generate hydropower for use in a country.

The purpose of this study was to explore the institutions underlying different forms of benefit sharing in hydropower projects in Cambodia, through detailed analysis of two case studies: Kamchay and the Lower Sesan2 hydro-dams. Challenges and opportunities for implementing benefit sharing were also identified.

## 2. Methodology

The study used desk research and empirical field work on two case studies in Kamchay and Lower Sesan 2 hydropower stations. There were several criteria for choosing these two locations. Firstly, the two projects are in different stages of development: Kamchay hydropower was put into operation in 2011; Lower Sesan 2 hydropower project is still under construction. Secondly, geographical location was another factor to consider. Kamchay hydropower project is located in Kampot province, which is situated in a coastal watershed. On the other hand, Lower Sesan 2 is in Stung Treng province, which is inland on the Mekong river watersheds in the Northeastern region. Desk research involved

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