

# Ensuring Water Availability to Water Users Through Incentive Payment for Ecosystem Services Scheme: A Case Study in a Small Hilly Town of Nepal

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## Abstract

This study was carried out to design an incentive payment for an ecosystem services (IPES) scheme in the Baitadi Town Water Supply and Sanitation Project of Nepal. The main intention behind the designing of the scheme was to develop strategy for equitable use of water resources and involve communities, watershed and water user, in the sustainable management of water resources. We administered household survey in both the watershed community and water users to elicit their preferences regarding water source management and drinking water supply. A discrete choice experiment was employed in the case of water users which showed that, for them, water quality and quantity are the most important attributes. The estimated annual willingness-to-pay of water users for doubling water availability is NPR 482,076 (USD 4,505) and for doubling the water quantity and the supply of clean water that can be drunk directly from the tap is NPR 1.18 million (USD 10,988). The results of consultations with stakeholders indicate that the construction of public toilets, the regularization of grazing, off-season vegetable farming and drinking water distribution in the upstream area may contribute to maintaining the quality of water while keeping the watershed community satisfied with regard to water-sharing. These activities require NPR 1.17 million (USD 10,987) in the first year and NPR 425,640 (USD 3,978) annually from the second year on. The estimated willingness-to-pay and cost of the watershed activities indicate that implementing IPES in the Baitadi Town Water Supply Project is financially feasible and socially acceptable. Our study recommends the integration of the IPES design into the project design phase in future drinking water scheme, the best option being its integration into the initial environmental examination at the time of project design.