Valuation of Benefits of Water Quality and Water Supply to Justify Payments for Ecosystem Services in Mae Sa Watershed, Chiang Mai, Thailand

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ABSTRACT

For the past two decades, the concept of Payments for Ecosystem Services (PES) has been increasingly used as a market-based instrument to support natural resources and environmental management. Economic evaluation of ecosystem services is an important step for implementing a PES scheme as it helps provide information to stakeholders for their decision-making on payment. This paper aims to evaluate the ecosystem services from upstream village conservation activities in Mae Sa watershed in terms of such water ecosystem services as water quality and water supply. The results revealed that the benefits gained from cleaned water and drought prevention due to conservation activities are worth more than the costs. Moreover, these economic values are the partial economic values of ecosystem services in the watershed and will be used as an effective communication tool to raise concerns among stakeholders over the importance of resource conservation and sustainable resource management practices under the implementation of PES scheme in Mae Sa watershed.

Keywords: Payments for ecosystem services, Ecosystem services valuation, Damage cost avoided, Choice experiment, Contingent valuation method