Choice Experiment Analysis of Non-market Values of Ecosystem Services

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Abstract

Small tank cascade systems (STCS) are clusters of hydrologically interconnected irrigation reservoirs with a 2500-year history located in the dryzones of Sri Lanka. They provide irrigation to 40 per cent of the irrigable land and a host of other benefits. The maintenance of STCS was neglected historically partly due to the low recognition of their true value. We highlight how choice experiment surveys and extended benefit-cost analysis can be used to elicit the full value of conducting environmental restoration projects with application to STCS. Respondents have a positive willingness to pay for the restoration (over LKR 78 million for the onsite sample). The cost-benefit analysis proves that cascade restoration is justified.

Keywords

Cascade restoration · Small tank cascade systems · Choice experiments · Cost-benefit analysis · Valuation

13.1 Introduction

There is renewed interest in small tank cascade systems (interconnected small irrigation reservoirs) in the dry zone of Sri Lanka. After years of neglect or conversion to other uses, such as into paddy fields or to facilitate water conveyance,

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