

Mechanisms and impacts of an incentive-based conservation scheme: evidence from a Randomized Control Trial in Bolivia

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Abstract:

There is strong interest in the potential of using positive incentives to encourage sustainable land management, conserve forests and protect biodiversity. Those promoting Payments for Ecosystem Services suggest that they can deliver positive environmental outcomes while avoiding the negative social impacts sometimes associated with strict protected areas. Following growing recognition of the poor evidence base underpinning many conservation interventions, there are calls for more high-quality evaluations, especially those that explore mechanisms as well as ultimate outcomes. We present results from an incentive-based forest, biodiversity and water conservation scheme in Bolivia known as Watershared, which was implemented as a randomised control trial in 129 communities in the Bolivian Andes. We present the theory of change of how the intervention is expected to impact intermediate and ultimate outcomes (including livelihood changes linked to land use change, perceptions of forest condition, reported incidents of diarrheal disease). We use responses from a household survey in Control and Treatment households at baseline (2010) and endline (2015) to explore the impact of the scheme on this range of outcomes. As is common in voluntary interventions, uptake was incomplete (49% of households in Treatment communities enrolled land in Watershared agreements). We carry out an 'as-randomised' analysis, comparing outcomes in all Treatment and Control households regardless of intervention uptake, to provide information on effectiveness of the intervention as implemented. We conduct a further 'as treated' analysis, comparing outcomes in Treated households (those that took up the scheme) with statistically matched Control households, to evaluate the impact of the intervention on those who participate.