

Title: Payments for environmental services supported social capital while increasing land management

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[NOTE: Abstract is available below. Full paper cannot currently be posted online because it is under review by a scientific journal. Please contact ksims@amherst.edu for the draft manuscript.]

Abstract: Payments for Environmental Services (PES) programs incentivize landowners to protect or improve natural resources. Many conservationists fear that introducing compensation for actions previously offered voluntarily will reduce social capital – the institutions, relationships, attitudes, and values that govern human interactions – yet little rigorous research investigates this concern. We examined the land-cover management and communal social capital impacts of Mexico’s federal conservation payments program, which is a key example for other countries committed to reducing deforestation, protecting watersheds, and conserving biodiversity. We used a regression discontinuity (RD) methodology to identify causal program effects, comparing outcomes for PES participants and similar rejected applicants close to scoring cutoffs. We found that payments increased land-cover management activities such as patrolling for illegal activity, building fire breaks, controlling pests, or promoting soil conservation, by approximately 50%. Importantly, increases in paid activities as a result of PES did not crowd out unpaid contributions to land management or other pro-social work. Community social capital increased by approximately 8-9% and household-level measures of trust were not affected by the program. These findings demonstrate that major environmental conditional cash transfer programs can support both land management and the attitudes and institutions underpinning pro-social behavior. Rigorous empirical research on this question can proceed only country by country due to methodological limitations, but will be an important line of inquiry as PES continues to expand worldwide.

Keywords: social capital, payments for environmental services, payments for ecosystem services, PES, land conservation, regression discontinuity, REDD, trust, conservation incentives

Significance statement: Financial incentives for conservation are popular worldwide but are also highly controversial. A core concern is that paying for environmental stewardship that community members have historically provided for free will undermine intrinsic conservation motivations or other pro-social attitudes, institutions and values. We provide the first rigorous evaluation of the social capital impacts of a large payments for environmental services program. We find that conservation payments in Mexico increased land management activities, did not decrease pro-social work, and improved communal social capital. While similar studies need to be conducted in multiple contexts, we provide new evidence that conservation incentives can support social institutions, attitudes and values while rewarding environmental stewardship.