

Flare 2018 Annual Meeting Abstracts

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Title: *How can forest conservation compensation programs ensure long-term effectiveness? A case study from the Bolivian Chaco.*



The existing literature on conservation compensation programs shows that their outcomes depend on whether the project design correctly matches the causes of land-use behaviors as well as succeeds to motivate people to conserve nature in a profound and sustained manner by building on different types of motivations, without crowding-out the intrinsic ones.

This study analyzed farmers' motivations to conserve forests or deforest in relation to a regional in-kind compensation program in the Bolivian Chaco. In this program, upstream households can voluntarily engage to protect their forests and water sources in exchange of in-kind compensations. The objective of this study was to test whether the program is indeed targeting the causes of deforestation behaviors and supporting existing motivations from local land users. We used deforestation data quantified on each individual household plot, using Hansen et al.

(2013) global forest cover loss dataset, and a household survey conducted prior to start of the program in control communities (to which compensations have not been offered) and treatment communities (to which compensations have been offered). Firstly, we identified the causes of deforestation by comparing individual households' deforestation data against households' characteristics using multivariate tobit models, only using the communities to which the program was not proposed. Secondly, we identified the motivations for and barriers to participation in the program by comparing the characteristics of households that decided to participate and those that decided not to participate using multivariate logistic models.

We compared the causes of deforestation to the motivations to participate in conservation program, classified into different types: financial and material motivations, social motivations and environmental motivations. We showed that the program is not targeting the socio-economic causes of deforestation through its compensations but that its communication and motivation strategy to align with local intrinsic motivations and social norms may be working.

In addition to shedding a new light on the roots of farmers' deforestation behaviors in the Bolivian Chaco, these results will allow improving the design of conservation interventions so that they are consistent with farmers' motivations and assure the long term success of forest conservation.