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Curbing deforestation among smallholders in the Amazon : Impact evaluation of a REDD+ pilot project along the Transamazon highway

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Using original data collected from 181 small farmers in the State of Pará in Brazil in 2010 and 2014, we show that REDD+ pilots using positive economic incentives can slowdown deforestation rates in areas dominated by smallholder properties, where command-and-control policies generate equity concerns.

In the present paper we analyze, using an econometric approach based on DID-matching, the forest conservation impacts of a REDD+ pilot program in the Transamazon highway that combines Payments for Environmental Services (PES) with agricultural technical assistance and enabling conditions for environmental compliance. Although the program attracted farmers who do not depend on livestock and often have a higher wage income than non-participants, a potential limitation to maximizing the environmental additionality of the project,

we find a significant conservation impact of the project. At its early implementation stage, our results show that program participants devoted on average 66% of their land to forest in 2014 while it would have decreased to an estimated 61% without the project. We find that the forest conservation impact is even higher for the subset of farmers who had previously participated in a similar program, suggesting a process of time-cumulative learning and confidence on external support that acts as a facilitator for reaching positive conservation outcomes. Moreover, our results show that the forest area has been preserved at the expense of pastures, not of croplands. Extending the average estimate to all participants, we conclude that the project avoided the emission of around 830 000 tCO₂.