

The effects of a REDD+ initiative on deforestation and well-being: a panel study in the Brazilian Amazon

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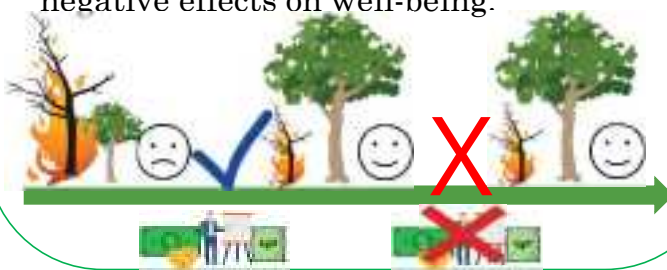
Problem

- The few robust evaluations of REDD+ initiatives indicate some deforestation reduction with mixed effects on well-being. However, what happens when initiatives end is still a mystery.
- Do REDD+ outcomes persist after initiatives end?



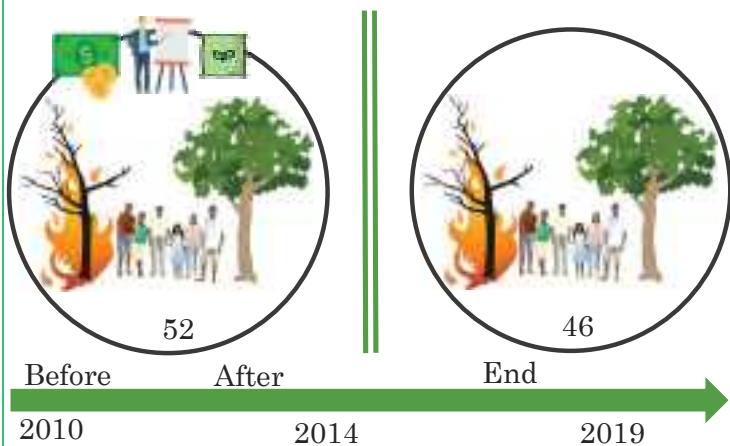
Conclusions

- The outcomes of the REDD+ initiative did not persist after its end.
- Forest was conserved (~6.2 to 8.2 ha/household) and the probability of improving well-being increased during the initiative. However, after its end, we detected no effects for forest cover and negative effects on well-being.



Methods

- Survey data for three periods from 98 households, among treated and control.
- Project Sustainable Settlements in the Amazon: a mix of interventions for 350 smallholders from Pará (Brazil), launched in 2012 and ended in 2017.



- Difference-in-difference with different matching estimators.
- Result-variables: forest cover (% of area); perceived well-being (1 = improved; 0 = not improved in the past two years).

Results

Matching estimator	Forest cover (%)		Well-being	
	Period 1	Period 2	Period 1	Period 2
NNM(4X)	8.08*	-0.02	0.44**	-0.28*
NNM(2X)	7.80*	-0.02	0.45**	-0.31**
PSM (kernel)	10.32**	-0.04	0.27*	-0.17***

Period = 2010-2014 / Period 2 = 2014-2019

Statistically significant
(* = 10%; ** = 5%; *** = 1%)

Not statistically significant

Balancing tests

Matching covariates	Standardized differences	
	Raw	Matched
Total land area in 2010 (ha)	-0.26	-0.01
Forest cover in 2008 (% of land area)	0.55	0.09
Forest cover in 2010 (% of land area)	0.52	0.04
Total income in 2010 (Reais)	-0.29	0.06
Age of the household head in 2010 (years)	0.47	0.12
Family members in 2010 (number)	0.08	0.07