

Impacts of Farm Size and Management Practices on Landscape Trajectories in Southern Mexico

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Introduction

- The Selva Lacandona region in the state of Chiapas (Southern Mexico) is the largest remaining area of tropical rainforest in this country, and a priority area for conservation because of the important ecosystem services it provides
- The region is currently threatened by an increasing deforestation rate
- In Mexico there is a lack of studies that analyse and integrate the multiple causal factors involved in the process of land-use change and deforestation
- Objective:** analyze and compare how and why the history of land management practices, farm size and perceptions towards the land have influenced the different landscape trajectories during the last 40 years in the two study communities

Study Site



Fig. 1: Location of studied communities: Loma Bonita (1,731 ha) and Chajul (4,838 ha)

Methods

- 40 farm visits + semi-structured interviews
- Interviews: land-use history, farm management and motives for land-use change
- Comparative analysis of qualitative and quantitate data

Conclusions

- Larger farm size in Chajul (30-100 ha/household) has allowed farmers to diversify their land-use management portfolios; and vice-versa in Loma Bonita (20 ha/household)
- Landscape trajectories in Loma Bonita remain the same (trajectories 1-7 → Fig. 2); trajectories in Chajul are more diversified (trajectories 1-9 → Fig. 2)
- Larger farms in general have led to more forest cover; this is an important finding for the design and formulation of effective forest conservation policies:
- E.g. intensifying agricultural use in smaller farms can give space to diversify management practices portfolios, including forest

Results

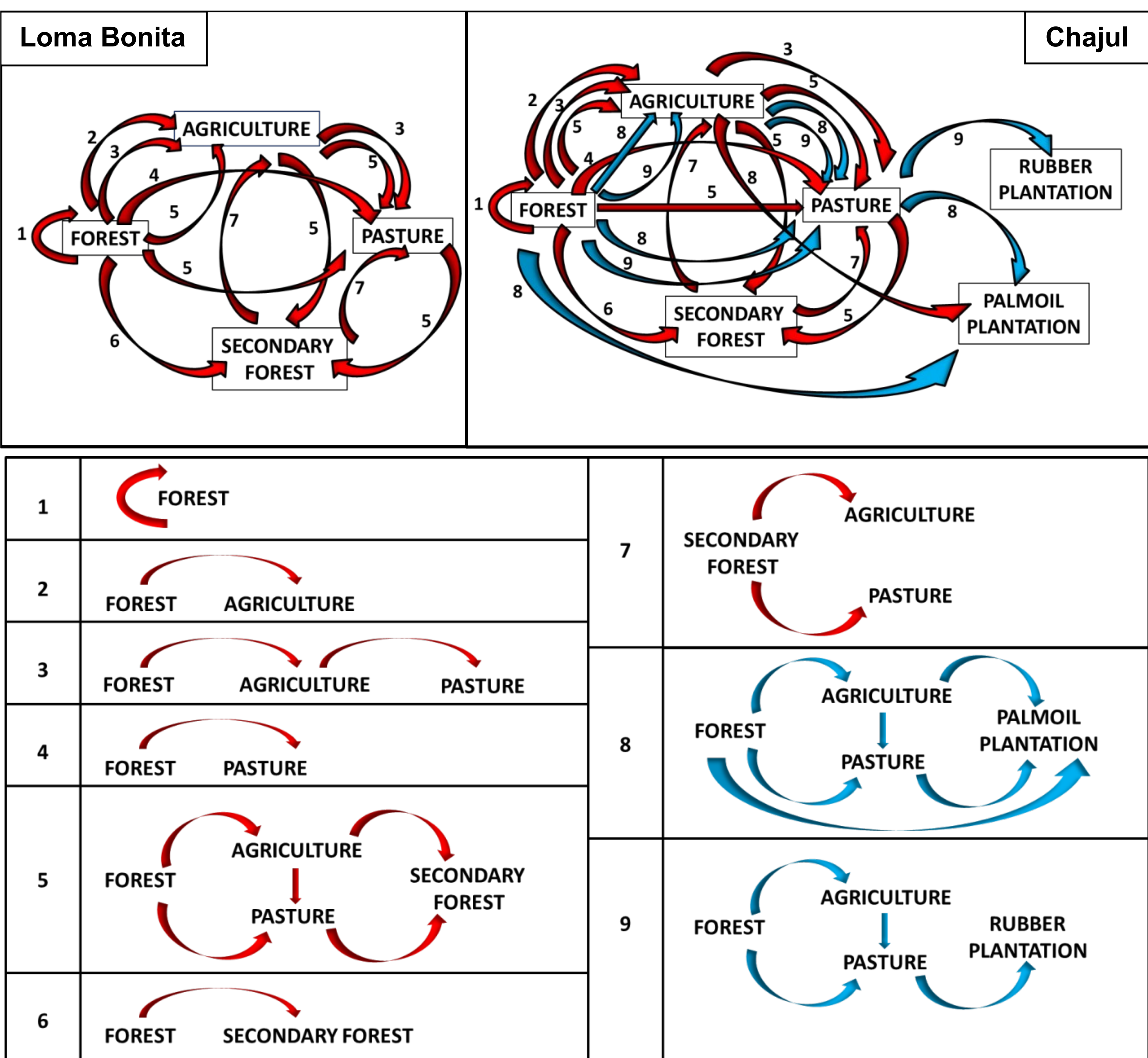


Fig. 2: Landscape trajectories for Loma Bonita and Chajul and trajectories breakdown

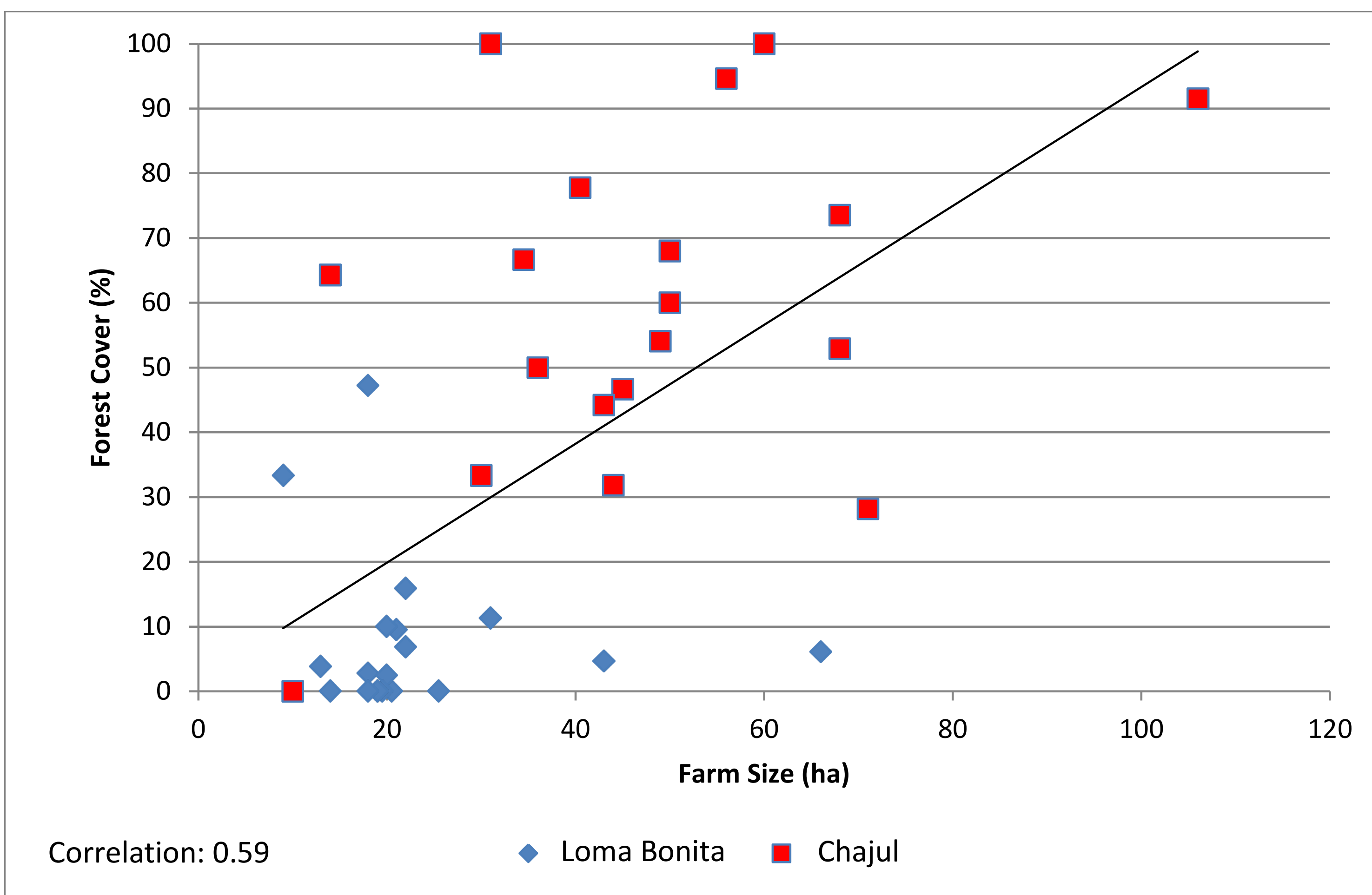


Fig. 3: Farm size and forest cover correlation (larger farms have more forest cover)

Chajul (larger farms)		Program		Loma Bonita (smaller farms)
Sufficient forest to enroll	Yes	PES	No	Not sufficient forest to enroll
Sufficient land gives the choice of experimenting with and diversifying the uses	Yes	Oil Palm	No	Concerns about land degradation! + Smaller plots don't allow the choice to diversify land-uses given current extensive ranching practices + Long-term returns → they need cash now!
	Yes	Rubber	No	

Fig. 4: Implications of forest cover and farm size for enrolling (or not) in rural development and conservation programs



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