**Tropentag, September 18-20, 2019, Kassel**

"Filling gaps and removing traps
for sustainable resource management"

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

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**Abstract**

The Marqués de Comillas region in Southern Mexico is embedded in the Selva Lacandona which has been designated as a priority area for conservation because of the important ecosystem services it provides. This research concentrates on comparing two adjacent communities (Loma Bonita and Chajul) in the region, by describing and analysing how the land use history, farm size, management practices and perceptions towards the land, has influenced the landscape trajectories of 40 farmers' plots since their colonisation around forty years ago. Qualitative and quantitative data were derived from 40 farms' visits (where farms were mapped manually and with GPS) and respective semi-structured interviews with owners (20 in each community). Interviews consisted of questions about the history, characteristics, management and perceptions of each of the land uses found in each plot. The results show two contrasting case studies with different land use histories, in which Chajul is characterised by more diversified landscape trajectories: large-tracts of conserved forest, pastures, agriculture, reforestations, oil palm and rubber plantations; while Loma Bonita presents only three landscape trajectories: pastures, agriculture, and some small patches of forest. These trajectories are related to differences in farm sizes and consequently different land use practices in each community. Chajul is a bigger community in which the farm size per household ranges from 50–150 hectares. Loma Bonita is smaller and farms per household are only 20 hectares. Bigger farms in Chajul allowed farmers to diversify their land-use management portfolio. Smaller farms in Loma led to less land use practices and therefore less trajectories. We conclude that a major finding of this research is the relationship between farm size and landscape change. Generally a link is made between "large" = "bad" (in terms of forest cover), but, at least in our case study, the relationship is the other way around: "large" = "more forest cover". Other important factors physically influencing landscape change have been the land management practices of the farms, the reasoning behind these practices, and the perceptions towards the land.

**Keywords:** Farm size, forest, land-use change, landscape trajectories, management practices

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