Flare 2018 Annual Meeting Abstracts

Braga, Daniel Perez; University of São Paulo
daniel.braga@usp.br
Authors: Daniel P. P. Braga1*; Benno Pokorny2; Flávio B. Gandara3; Edson Vidal1
1 Department of Forest Sciences, “Luiz de Queiroz” College of Agriculture, University of São Paulo, Piracicaba, SP, Brazil
2 Faculty of Environment and Natural Resources, Forestry and Rural Development, University of Freiburg, Germany
3 Department of Biological Sciences, “Luiz de Queiroz” College of Agriculture, University of São Paulo, Piracicaba, SP, Brazil

Title: What is best for small-scale farmers? A comparative success analysis of cacao and cattle farmers along the Transamazon highway in Pará, Brazil

Since, in the early 1970s, the first colonist families were settled along the Transamazon highway in the Brazilian Amazon, it has been hotly debated how to guarantee their livelihoods. Over time a range of production systems has been suggested, supported and abandoned. For a long time, cattle ranching was the priority option for many farmers and decision makers, but with increasing awareness of the related environmental and economic damages, alternative land uses were promoted. More recently, particularly the cultivation of cacao, at best in agroforestry systems, is disseminated as the most attractive option of small-scale farmers to achieve a reasonable living standard while preserving or even restoring the fragile Amazonian ecosystems. Against this backdrop, this study invested in understanding whether and to what degree cacao complies these expectations by analyzing and comparing households in seven municipalities along the Transamazon Highway engaged in the production of cacao and cattle. Structured interview were applied to 90 households to learn how the different production systems contribute to economic success and environmental stability. As suggested by Principal Component Analysis, we used the responses about income and housing to calculate success levels for each households. We then calculated correlations and applied frequency and non-parametric hypothesis tests (Spearman and Kruskall-Wallis) to learn about the differences and similarities of the households related to the different production systems, and to understand the underlying drivers for economic success and environmental stability. The results reveal some particularities of cacao and cattle farmers, but no clear and significant differences in the level of success. However, families adopting both activities, have a slightly higher probability to achieve high success. Factors found to positively influence the probability of success (p<0.05) were: income, land size, soil fertility, diversification, access to market niches, social interactions, and women integration. None of the production systems, in average of the households, managed to maintain the legally required minimum of 50% forest cover, but findings suggest that cacao is less impacting. Our findings show that it is not possible to attribute the level of success of small-scale farming to a production system or some few factors. The situation is much more complex and allows for individual pathways. This diversity and related scope for action should be better considered in public policies.