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The Impact of Innovations and Policies Affecting Smallholder Agriculture in the Eastern Amazon: Implications for Research and Implementation

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Abstract

The semi-subsistence smallholder fallow system in the eastern Amazon is characterised by increasing intensification and market-integration. For the environment this situation results in the shortening of fallow periods and more frequent burning as part of the common slash and burn practices. For farmers, intensification and market-integration offer new opportunities but also involve additional risks.

Based on a case study analysis of the Bragantina region, located in the north-east of Brazil, this contribution first identifies the changes of the smallholder farming system and investigates their general causes. It then, specifically, considers the set of institutions that impact on smallholder agriculture, both locally and regionally. Institutions and organisations offer means for the adoption and diffusion of technical innovations, which are currently developed to secure the sustainability of the system by using fire-free, yield increasing technologies. To be attractive, those technologies must provide short-term pay-offs as well as long-term sustainability of the natural resource base on which agriculture depends. Hence, private and social costs and benefits of the innovations count. The contribution also investigates the existing and emerging agricultural and environmental policies (e.g. the prohibition to burn) that affect smallholder agriculture in the study area and assesses their impact in relation to the innovations described.

While the Bragantina can be considered as a model for future developments in other forest margin areas in the Amazon region, an attempt is made to scale-up the results and draw conclusions for a broader region. Lastly, a research agenda is sketched which outlines a more profound analysis of factors that condition the dynamics of transforming smallholder fallow-based systems under different scenarios of alternative innovations and policies.

Keywords: Amazon, innovations, policy, research agenda, slash-and-burn