

"Biophysical and Socio-economic Frame Conditions for the Sustainable Management of Natural Resources"

Small Scale Jatropha curcas and Ricinus communis Production: A Living Standard Approach in the Brazilian Legal Amazon Region

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Abstract

Brazil has around 4.5 million of small scale farmers (family farmers), and the majority of them lives and works in the south and southeast of Brazil, where the social capital is stronger and the access to goods and services is more consolidated. However, there is a part of Brazilian family farmers who live in the north of the country, within a region socalled Brazilian Legal Amazon, and need to survive in an environment of difficult access to services and lack of opportunities. After the launch of Brazilian Program of Biodiesel use and production (PNPB) in 2004, the oil seed production became an alternative for family farmers once they might have the chance to improve their income and supply the biodiesel enterprises with raw material. Theoretically speaking this picture is easy to draw but until recently no scientific research was carried out to identify what farmers are being included in the biodiesel chain. Aiming at understand the link between family farmers' living standard and the adoption of oil seed activity, the present research assesses the Jatropha *Curcas* and *Ricinus communis* small scale seed production within a region of transition between Cerrado and Amazon rain forest, so-called Ecotone. A comprehensive survey was carried out in 2008 in Tocantins State and comprises family farmers who cultivated the oil seeds as well as family farmers who had the opportunity but decided not to go through the activity. A range of socio-economic indicators were collected and the preliminary results point towards a direct relationship between family income and the adoption of oil seed activity in case of Jatropha Curcas and a weak and negative link in case of Ricinus communis production. Other indicators such as food security, federal transferences and capital assets were analysed and pointed out different directions on decisions about adopt (or not) the oil seed activity. The results are unprecedented in the region and are extremely important to subsidise the PNPB in order to integrate efforts and achieve one of its goals that are promote new income alternatives to family farmers, especially those in worse conditions and therefore alleviate rural poverty

Keywords: Biodiesel production, Brazilian Legal Amazon Region, *Jatropha curcas*, living standard, *Ricinus communis*

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