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The Rural Poverty-Environmental Relationship in the Brazilian Amazon Region: The Case of Tocantins State

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Abstract

This study analyses the relationship between rural poverty and environmental degradation, aiming to validate or to refute the poverty-environment hypothesis, which belongs to the mainstream of sustainable development theory. This poverty-environment hypothesis – or poverty-trap thesis - asserts that poverty is a major cause of environmental degradation, forming a vicious circle or a poverty trap situation. In this way, any policy that reduces or alleviates poverty has, necessarily, positive impacts on environmental preservation. In this context, the present study analyses this relationship in the rural areas in the city of Palmas – Tocantins State, located in the Brazilian Amazon Region, also so-called Legal Brazilian Amazon.

A database was formed based on 45 interviews with small farmers - during the year of 2007 -, including several environmental and socioeconomic indicators. Non-linear regression (probit) models were estimated, with dummy variables as dependents, expressing the environmental degradation, and the socioeconomic indicators as independent variables, expressing the different rural poverty situations. The impacts of access to markets, information, credit and technical assistance on environmental degradation were also estimated in the model.

The results point towards a refutation of the hypothesis that rural poverty and environmental degradation is directly correlated, forming a vicious circle or a poverty trap situation. Moreover, the study is unprecedented in the Brazilian Amazon Region and the results showed that this relationship is ambiguous and therefore policies that aim to alleviate the rural poverty do not have, necessarily, positive impacts on environmental preservation. For this reason, the results will be sent to the regional decision makers and Policy makers, aiming to subsidise new specific “win-win” policies, which alleviate the local rural poverty and at the same time contribute to the conservation of the natural resources and the environment in the city of Palmas, Tocantins State, Brazilian Amazon Region.

Keywords: Brazilian Amazon Region, environmental degradation, rural poverty, vicious circle hypothesis