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Analysis of Small Landowners’ Willingness to Accept Conservation Payments in Brazilian Amazonia

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Abstract

Policies designed to enhance forest conservation face various barriers especially when applied in areas inhabited by small landowners because of the long period of time needed to achieve benefits. In case of some communities located in southeastern of Marajo Island, Brazilian Amazonia, it might be possible to obtain gains for environmental services through the forest conservation and sustainable management practices, since the area still maintains a large forest area. However, the implementation of conservation policies would eventually led to a change of the current agricultural methods including slash-and-burn, shifting cultivation, ranching and non-managed logging to others more sustainable. Therefore, the main objectives of this paper are: to assess the monetary amount required by the local households by using the willingness to accept compensation (WTA) approach and, to determine the factors affecting the farmers’ decision for setting such values.

Based on a field survey conducted with one hundred farm households in six different communities in southwestern Marajo Island, the study results infer important findings: the payments demanded to give up the current activities are within the two Brazilian minimum wages per ha per year. Households with smaller income use the minimum wage as base for the payments estimates, whereas households with larger income use the cost opportunity approach to calculate the payments estimates.

OLS regression was employed to determine the relations between payments requested, the productive capability, farmer’s socio-economic characteristics, and the quality of land and forest area. Tobit regression was employed to evaluate the interdependencies between the area size informed by the farmers and some other explanatory variables. The results of econometric analysis reveal that: **(1)** The willingness to accept payments for conservation programs is for the most of farmers shaped by timber and heart of palm production, as well as area of native forest; **(2)** The area available for such program is associated with the area of native forest, the distance to the closest village, the household size and with timber and heart of palm production.

Keywords: Amazonia, forest conservation , land use, sustainable use, willingness to accept