ANALYSIS OF THE IMPACT OF SUCCESSIONAL AGROFORESTRY ON THE HOUSEHOLD ECONOMY IN THE WEST AMAZON, BRAZIL

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ABSTRACT

In Manicoré, one of the emerging hot spots of deforestation in the South Amazonas, Successional Agroforestry (SAF) has been promoted since 2008 to preserve nature and improve the economic conditions of the small farmers. Although positive changes in agricultural practices among some farmers have been observed, SAF's economic impact has not proven yet due to the lack of quantitative data on their economic activities. Agroforestry is conducted mostly in developing countries. Due to the unavailability of reliable data, few studies were conducted on the economic impact. Even when economic analyses were conducted, annual income data were obtained by a single round (or a few times) of interviews. Therefore, it not only casts doubt about the accuracy of data but is unable to capture yearly cashflow, wherein SAF's contribution can be measured. This study collected detailed quantitative data by a one-year diary survey to investigate the hypothesis that SAF in Manicoré contributes to the household economy and to examine the factors influencing the adoption of SAF and income for betterintervention.

The results showed that the SAF-farmers had significantly higher annual income, more stable monthly income, less damage by weather-related events and price fluctuations, and lesser expense on food purchase than the Non-SAF farmers. The SAF farmers have more acquaintances who conduct SAF than their Non-SAF counterparts, while age, years of education, family size, tenure, and assets did not show significant differences between the

two groups. However, the disparity in income between the SAF farmers was substantial, suggesting that income does not rise by merely adopting SAF. The comparison of the two groups of the SAF demonstrated that the upper income had a smaller size of cultivation than the lower income, but higher domestic labor capacity and more agricultural machines, although the adoption of SAF was found not to require these resources. Moreover, the upper income group was negotiating more with middlemen on the price of crops than the lower income group.

So far, the local government or NGOs support the small farmers by focusing on cultivation techniques through the SAF project. These results suggest that additional intervention for increasing productivity for cultivation and improving sales skills for making SAF more profitable would be necessary toachieve sustainable development in the Amazon area.

Keywords: Agroforestry, Successional Agroforestry, Amazon rainforest, Amazonas