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An Assessment on Socio-Economic Impacts of Smallholder Eucalyptus Tree Plantation in the Case of Northwest Ethiopia

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Abstract: The availability of forest products determines the possibilities for forest-based livelihood options. Plantation forest is a widespread economic activity in highland areas of the Amhara regional state, owing primarily to degradation and limited access to natural forests. As a result, tree plantation has become one of the rural livelihood options in the area. Therefore, given the increasing importance of smallholder plantations in highland areas of Amhara Regional States, the aim of this research was to evaluate the extent of smallholder plantations and their socio-economic impact. To address the abovementioned research, a sequential embedded mixed research design was employed. This qualitative and quantitative information was gathered from both primary and secondary sources. Primary data were collected from 385 sample households, which were chosen using a three-stage, multi-stage sampling method based on the Cochran sample size formula. Both descriptive and inferential statistics were used to analyze the data. Smallholder eucalyptus plantations in the study area were discovered to be common, and they are now part of the livelihood portfolio for meeting both household wood consumption and generating cash income. According to the PSM model's ATT results, income from selling farm forest products certainly contributes more to total household income, farm expenditure per cultivated land, and education spending than non-planter households. As a result, the government must strengthen plantation practices by prioritizing specific intervention areas while implementing measures to counteract the plantation's inequality-increasing effect through a variety of means, including progressive taxation.

Keywords: smallholder plantation, Eucalyptus, propensity score matching, average treatment effect and income

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