Eucalyptus Woodlot Adoption and its Determinants in Mecha District, Northern Ethiopia

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Abstract

The area of Eucalyptus plantations has now expanded greatly and growing Eucalyptus at a farm level in a form of woodlot primarily for income generation has become popular among Ethiopian smallholder farmers. Despite its wider use/practice, studies and systematic documentation on the adoption and economic significance are scarce to inform evidence-based policy making. The aim of this study was to investigate factors affecting adoption of Eucalyptus woodlot in Mecha District, northern Ethiopia. Multistage sampling procedure was used to select 186 sample respondent households from three purposively selected kebeles of the district. For the collection of primary data key informant and in-depth interviews, focus group discussions, market assessment and direct observations were used and complemented by secondary data. Descriptive statistics were employed to analyse the collected data. Double-hurdle econometric model was used to identify factors influencing households' adoption decision and adoption intensity of Eucalyptus woodlot. Parameter estimates from the double-hurdle econometric model revealed that educational level, income of the household head, number of parcels of land, off farm work engagement, farmers perception towards Eucalyptus woodlot production and credit availability significantly and positively influence household adoption decision. Whereas, family size and income of the household (negatively), land holding size, number of parcels of land, off farm work engagement, adjacent land, farmers perception towards Eucalyptus woodlot production and access to market (positively) were found to be significantly influencing the adoption intensity of Eucalyptus woodlot. Moreover, lack of support, lack of road access, lack of storage space for selling, lack of segregation of land, disease as well as limited technologies were the major constraints of tree growers. In general, the household's decision to plant Eucalyptus has been influenced by different demographic, socioeconomic, institutional and physiological factors. Improving farmers' level of education, productivity of land, cluster planting, providing alternative options for the farmers, easing credit access, training on silvicultural management, technologies adoption, implementing the existing policies and enforcing rules and regulations are areas that need policy attentions to improve the livelihood of the communities.

Keywords: Adoption, determinants, double hurdle, Eucalyptus, woodlot

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