



Socio-Economic Factors Influencing Adoption of Energy-Saving Technologies among Smallholder Farmers: The Case of West Pokot County, Kenya

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Abstract

Fuel wood provides the main source of energy for cooking and space heating for over 80 percent of households living in Kenya. The heavy reliance on the biomass energy has exerted an imbalance in demand and supply consequently resulting in adverse environmental effects in Kenya. As part of innovation efforts, several energy-conserving technologies have been developed. A unique cook stove named Maendeleo was developed and promoted in Kenya and more so, West Pokot County, northern of Kenya, with the goal of reducing the quantity of wood households use for energy, and ultimately reduce pressure on local forests. However, despite the demonstrated technological multiple benefits and the institutional promotional efforts of the Maendeleo stove technology; the adoption level of this innovation has remained low. An important question investigated in this study was what makes potential users not utilize such valuable innovations? Socio-cultural, economic, political and institutional barriers are considered to contribute to low uptake of such innovations. This study therefore, sought to assess socio-economic factors influencing the adoption of the Maendeleo stove in the rural setting of Kapenguria Division. A survey research methodology with ex-post facto design was employed. The results showed that the age of the respondents had the highest influence on the non-adoption of the Maendeleo stove. Given the relatively low adoption level of Maendeleo stove in the county, and the projected increase in the number of people relying on biomass, this study recommends that the government and development partners put in place a programme for the promotion and dissemination of Maendeleo stove. There should be further investigation into the adoption behaviour of the respondents on the reasons for non-adoption and discontinuance of use of the Maendeleo stove.

Keywords:

Adoption, Smallholder, Energy-saving technologies

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