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Land Use Intensity in Western Kenya: Case of Kakamega

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Abstract

In Kenya, agriculture remains the main occupation and source of income for majority of the population and accounts for about one-third of the gross domestic product and employs more than two-thirds of the labour force. Increasing per capita food production and raising rural incomes are the great challenges facing Kakamega farmers in western Kenya. One way of solving the problem of food shortage in Kakamega is to increase agricultural productivity. Land use intensification is one of the current methods used to increase agriculture productivity in Kakamega. Several hypotheses have postulated market access, population growth, socio economic characteristics and agro ecological zones to have possible effects on land use intensity. Two-stage sampling design was used to select the households. The survey was conducted among 280 households representing a combination of high or low population density, two different agro ecological zones and high or low market access, to test these hypotheses. Using a censored regression model, the result show that agro ecological zone, market access and some socio-economic characteristics of households and their interactions are important drivers of land use intensity in Kakamega. As one moves from low market access to high market access regions; the degree of land use intensity increases. Also as one move from the Lower Midland to Lower Highland agro ecological zones the land use intensity tends to increase. In addition to market access and agro ecological zones, specific socio-economic characteristics of the households also influences land use intensity. This analysis confirmed the hypothesis that market access, agro-ecological zone and socio-economic characteristics are some of the factors that influence land use intensity.

Keywords: Agro-ecological zones, land use intensity, market access