

ABSTRACT

Agricultural development lies at the heart of poverty reduction and increased food security in most developing nations. Sub-Saharan Africa is, however, the only region in the world where per capita agricultural productivity has remained stagnant over the past 40 years. Soil fertility depletion and the corresponding declining agricultural productivity in Kenya's Ndiwa Division have led to attempts to popularize Integrated Natural Resource Management (INRM) technology that could restore soil fertility. However, reports have shown that adoption of INRM technology is low yet the causes of this are not well understood from the existing literature. The main objective of the study was to assess the determinants of the adoption of INRM technology by small scale farmers in the division. The specific objectives of the study were to examine the socio-economic factors that influence the adoption of INRM technology, explore the institutional factors that influence the adoption of INRM technology and assess the socio-cultural factors influencing the adoption of INRM technology by small scale farmers in Ndiwa Division. The study was based on the diffusion of innovation theory described by Rodgers (1995) that states the process of adoption consists of a series of choices over time through which an individual evaluates a new innovation and then decides whether to adopt or reject. An ex-post-facto survey design utilizing both qualitative and quantitative methods of data collection was used in the study. The study population was 43,231 small scale farmers in the Division. For quantitative data collection, a sample of 220 small scale farmers in the division was obtained using coefficient of variation by Nassiuma (2000) and selected using systematic random sampling approach. For qualitative data, purposive sampling was used to select small scale farmers where 4 Focus Group Discussion (FGD) each consisting of 10 discussants were conducted. Additionally 37 Key Informants were interviewed. Quantitative data was analyzed through descriptive and inferential statistics. Qualitative data was coded and organized into themes and sub-themes for generalization to be made. Chi-square and one way ANOVA was used to test the stated hypotheses. Test of hypotheses were carried out at 5% level of significance. Findings of the study indicated that 47% of the farmers had adopted INRM technology. Further household heads education status, gender, farm size, gender, farming experience and household size had positive association with adoption of INRM technology. Additionally, there was a positive influence of access to credit, participation in extension, participation in cooperative society, membership in social groups, mass media exposure, access to inputs, off farm income and access to market on adoption of INRM technology. Results also revealed that there was a positive relationship between, cultural traditions and beliefs and frequency of visiting outside social system and the adoption of INRM technology. Whereas, the study found no evidence to show that tenancy status influences adoption of INRM technology. The findings of the study underlined the importance of support in the areas of extension, strengthening cooperatives and social groups and improving market and credit condition to enhance adoption of INRM technology.