ABSTRACT

Climate change is considered one of the most serious threats to sustainable development in the world. As a sector, agriculture is very dependent on climatic conditions, which makes it extremely vulnerable to the impacts of climate change and variability. The semi-arid areas of the world are especially more vulnerable to the impacts of climate change and variability. The purpose of this study was to determine how farmers adapt to changing climate in Narok East, and determine the factors that influence their choice of response strategies. Data was collected from 223 household heads using a semi-structured questionnaire. Data was analysed using descriptive statistics to determine how farmers adapt to climate change and variability while Principal Component Analysis and a multivariate probit model were used to assess the factors that influence the choice of response strategies. The results showed that early planting, increased use of manure, use of terraces, increased use of inorganic fertilisers, and planting short season crops were the most widely used strategies while the least used were planting agroforestry trees, crop diversification and irrigation. Results of the multivariate probit model showed that the age of the household head, total household size, level of education of the household head, noticing changes in mean annual rainfall and onset of rains, receiving weather information, and the land tenure system were all significant factors that influence the choice of the response strategy. This study, therefore, recommends boosting more education and climate change awareness for the farmers of Narok East Sub-county.