

Abstract

The study examined perception of climate change effects on farming and its influence on adoption of climate smart practices among small scale farmers of Kisii County. A survey research design was used and data collected through focus group discussions, questionnaires, key informant interviews, observations and desk reviews. Simple random and purposive sampling methods were used, where 420 small scale farmers and 30 key informants from Kitutu and Nyaribari Chache participated. The study revealed farmers growing recognition of climate change problem (63.1%) characterized by temperature rise (48.1%), changing rainfall patterns (24.3%), and new strains of pests and diseases (40.7%). Consequently, most farmers (89%) had difficulties in planning their farming activities with resultant crop failure and decline in crop yield (47%). This perception was in congruence with the observed changes by weather experts and resonated well with crop production statistics. There were efforts towards adoption of climate smart practices based on chi square test results ($P=0.05$). In conclusion, farmers from high potential rainfall areas are equally affected and aware of climate change; however, adoption of climate smart practices is hampered by limited understanding of the practices. The study recommends enhanced knowledge of climate change and climate smart practices for their improved adoption.