



Seasonal Implementation and Evaluation of Climate-Smart Agriculture Practices by Maize Farmers in Semi-Arid Kenya,

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Abstract

Climate-smart agriculture (CSA) practices are being implemented to enhance agricultural productivity in semi-arid regions of Kenya, particularly among maize farmers facing increasing climate variability. Qualitative data were collected through structured interviews with a sample of maize farmers from three semi-arid counties, focusing on their perceptions and experiences during different seasons. Farmers reported significant improvements in crop yields (up to 30%) when implementing CSA practices tailored for the dry season, compared to traditional farming methods. The study concludes that seasonal implementation of CSA practices can substantially enhance maize production in semi-arid Kenya, with noticeable yield increases observed during specific seasons. Local extension services should promote targeted CSA interventions for different seasons to maximise benefits and address the unique challenges faced by farmers. Climate-Smart Agriculture, Maize Farmers, Semi-Arid Kenya, Seasonal Implementation

Keywords: *Maize, Semi-Arid, Climate Variability, Smallholder, Adaptation, Sustainability, Case Study*

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