



# Drought-Resistant Maize Varieties and Smallholder Farmers in Eastern Kenya: A Policy Analysis Over Three Years

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## Abstract

Drought-resistant maize varieties have been introduced to address increasing water scarcity in Eastern Kenya's agricultural landscapes. A mixed-methods approach was employed, combining surveys with qualitative interviews to gather data from 150 randomly selected farmers in the region. Data analysis included statistical tests for quantifiable outcomes and thematic coding for qualitative insights. The adoption rate of drought-resistant maize varieties among smallholder farmers reached a significant proportion (78%) within two years, indicating their efficacy in enhancing agricultural productivity under challenging climatic conditions. Smallholder farmers in Eastern Kenya have shown substantial interest and uptake of drought-resistant maize varieties, contributing to improved yields and overall resilience against climate-induced water shortages. Government policies should prioritise the promotion and subsidization of drought-resistant maize varieties for smallholder farmers. Farmer education programmes on best practices should be expanded to maximise benefits from these seeds.

**Keywords:** *African, Smallholder, Policy Analysis, Water Scarcity, Adaptation Strategies, Agricultural Economics, Mixed-Methods*

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