African Public Economics

Climate Resilient Crop Varieties Adoption and Yield Performance Among Smallholder Farmers in Mozambique

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Abstract

Climate change poses significant challenges to agricultural productivity in Mozambique, particularly for smallholder farmers who rely on rain-fed agriculture. The adoption of climate-resilient crop varieties is seen as a key strategy to enhance yield performance and increase farm incomes. This study employed a mixed-methods approach, combining quantitative survey data from 200 randomly selected households with qualitative interviews to explore detailed farming practices and experiences. Data were collected through structured questionnaires and semi-structured interviews in rural areas of Mozambique. Findings indicate that climate-resilient crop varieties have led to a notable increase in yield performance, averaging 15% over the baseline period. Farmers reported adopting these varieties primarily due to improved drought tolerance and resistance to pests and diseases, which has significantly reduced input costs and increased profitability. The study concludes by highlighting the effectiveness of climate-resilient crop varieties as a viable strategy for enhancing agricultural productivity in Mozambique's challenging climatic conditions. The findings underscore the importance of farmer education and support systems in facilitating wider adoption. Recommendations include strengthening extension services to provide farmers with comprehensive information on the benefits and challenges associated with adopting climate-resilient crop varieties, alongside financial incentives for promoting sustainable farming practices.

Keywords: *Geographic Terms Related to Africa: Sub-Saharan*

Methodological		*Terms:*
Sampling		*Theory*
Theoretical		*Concepts:*
Socioeconomic		*Factors*
Methodological		*Terms:*
Quantitative		*Methods*
Theoretical		*Concepts:*
Climate	*Change*	*Adaptation*
Methodological		*Terms:*
Survey		*Design*
Theoretical		*Concepts:*
Economic Incentives		

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