



Integrated Pest Management Impact on Maize Yield in Central Mozambique: Community Participation and Sustainability Analysis

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Abstract

Integrated Pest Management (IPM) is an environmentally sustainable approach to pest control in agriculture, aiming for optimal economic, environmental, and social outcomes. A mixed-methods approach was employed, including surveys, interviews, and yield data collection. Data were analysed using descriptive statistics and regression analysis. Community involvement significantly increased local adoption of IPM practices, contributing to a 15% increase in maize yields compared to traditional methods (95% CI: 10-20%). The study underscores the importance of community engagement for successful implementation and long-term sustainability of IPM strategies. Promote collaborative research initiatives involving local communities, farmers' organizations, and government agencies to enhance IPM adoption in Central Mozambique. Integrated Pest Management, Maize Yield, Community Participation, Sustainability, Central Mozambique The empirical specification follows $Y = \beta_{0+\beta}^{-} p X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: African Agriculture, Geographical Analysis, Integrated Pest Management, Maize Yield, Participatory Extension, Sustainability Models, Vector-Borne Diseases

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