



Adoption Rates and Productivity Gains of Eco-Friendly Agriculture Technologies Among Maize Farmers in Tanzanian Villages

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Abstract

Eco-friendly agriculture technologies have gained traction globally as a means to enhance crop productivity while reducing environmental impact. In Tanzania, where agricultural practices are predominantly traditional and resource-intensive, there is potential for adoption of such technologies among maize farmers. A mixed-methods approach was employed, involving a survey of 200 maize farmers across four selected villages. Data collection included both quantitative (using structured questionnaires) and qualitative (semi-structured interviews). The survey revealed that 65% of respondents were willing to adopt new technologies, with solar-powered irrigation systems being the most popular. Qualitative insights suggested that cost considerations and lack of technical expertise were significant barriers. While initial adoption rates are promising, further research is needed to address identified challenges and facilitate sustainable technology diffusion among Tanzanian maize farmers. Policy makers should consider subsidizing technology costs and providing training programmes to enhance the uptake of eco-friendly agriculture technologies. Agricultural extension services could also play a crucial role in disseminating information about these innovations.

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*Productivity
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