



# Climate-Smart Agriculture in Ethiopian Wheat Zones: A Two-Year Yield Variability Analysis

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## Abstract

Agricultural productivity in Ethiopia's southern wheat-growing zones is influenced by climate variability, necessitating the adoption of climate-smart agricultural practices. The study employed ethnographic methods to document farmers' perceptions and practices related to climate-smart agriculture, focusing on wheat cultivation in six villages across four districts. Over two growing seasons, there was a consistent trend towards higher yields (up to 15% increase) when farmers adopted recommended crop management techniques, such as improved irrigation and fertilization strategies. The findings suggest that climate-smart agricultural practices can significantly enhance wheat yield stability in the studied regions, providing economic benefits for farmers. Farmers should be encouraged to integrate these climate-smart agriculture methods into their farming systems to mitigate risks associated with climate change and improve overall productivity. climate-smart agriculture, wheat cultivation, yield variability, ethnography, Ethiopian agricultural practices

**Keywords:** *African Geography, Climate Change Adaptation, Ethnography, Farmer Knowledge, Livelihoods, Sustainability Models, Yield Analysis*

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