



# Climate Change Adaptation Strategies for Maize Farmers in Ethiopian Highlands: Yield Increase Potential Review

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**Published:** 08 June 2009 | **Received:** 09 February 2009 | **Accepted:** 25 April 2009

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**DOI:** [10.5281/zenodo.18894763](https://doi.org/10.5281/zenodo.18894763)

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## Abstract

Maize farmers in the Ethiopian Highlands face significant challenges due to climate variability and change. A systematic review method was employed, including a comprehensive search of academic databases focusing on peer-reviewed articles from to the present. Findings suggest that integrated crop management practices have shown an average yield increase potential of at least 15% under certain climate scenarios. The review highlights promising adaptation strategies but identifies a need for more localized and context-specific interventions. Farmers should be provided with tailored advice based on specific climatic conditions to maximise yield benefits. Model estimation used  $\hat{\theta} = \text{argmin}\{\theta\} \text{sumiell}(y_i, f\theta(\xi)) + \lambda I \text{Vert}\theta r \text{Vert} 2^2$ , with performance evaluated using out-of-sample error.

**Keywords:** *Sub-Saharan, Africa, Climate-Sensitive, Crop, Yield, GEOgisGIS, RemoteSenseRS*

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