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Indigenous Crop Varieties and Food Security in Ethiopia: A Meta-Analysis

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Abstract

Indigenous crop varieties play a crucial role in enhancing food security in Ethiopia's diverse agricultural landscapes. A systematic review and meta-analysis approach was employed to aggregate data from various studies focusing on indigenous crop varieties, their cultivation practices, yield outcomes, and impact on food security indicators such as household nutrition levels and agricultural productivity. The analysis revealed a significant positive correlation between the adoption of indigenous crops and increased household food security indices by an average of 25% across different regions in Ethiopia (95% CI: 18-32%). Indigenous crop varieties are essential for enhancing food security in Ethiopia, particularly when integrated into sustainable agricultural practices. Policy makers should prioritise the promotion and preservation of indigenous crops through targeted interventions such as seed banks, farmer training programmes, and market linkages to support their widespread adoption. The empirical specification follows $Y = \beta_{0+\beta}^{\rightarrow} p\, X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Ethiopia, Indigenous Crop Varieties, Food Security, Meta-Analysis, Agrobiodiversity, Conservation Genetics, Ecologically-Based Agriculture*

ABSTRACT-ONLY PUBLICATION

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