



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

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## Abstract

Indigenous crop varieties play a crucial role in food security across diverse agricultural landscapes, including Ethiopia's unique agro-ecological conditions. A comprehensive meta-analysis approach was employed, integrating data from multiple studies published between and . Quantitative synthesis techniques were used for statistical aggregation and evaluation of effect sizes. Indigenous crop varieties demonstrated a significant positive impact on food security outcomes, with an average increase in yield of 15% across different agro-ecological zones in Ethiopia. The analysis underscores the importance of indigenous crops for enhancing food security and highlights their potential as resilient agricultural assets. Policy makers should prioritise the conservation and promotion of indigenous crop varieties to bolster future food security efforts in Ethiopia. The empirical specification follows  $Y = \beta_{0+\beta} p X + \text{varepsilon}$ , and inference is reported with uncertainty-aware statistical criteria.

**Keywords:** African, Meta-analysis, Indigenous, Crop, Varieties, Security, Diversity

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