



# Reduction Strategies for Food Loss and Waste in South African Supply Chains Revisited

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## Abstract

Food loss and waste remain significant challenges in South African supply chains, affecting both food security and economic sustainability. This study employs a systematic review approach, synthesizing existing literature and data from multiple sources relevant to South Africa's agri-food industry. The analysis reveals that targeted interventions such as improved storage facilities and better post-harvest handling practices can reduce food waste by up to 25% in the fresh produce sector. While previous studies have suggested these strategies, this replication study provides empirical evidence supporting their effectiveness. Given the positive findings, it is recommended that policy makers and industry stakeholders implement comprehensive training programmes for farmers and logistics personnel on waste reduction techniques. The empirical specification follows  $Y = \beta_{0+\beta} X + \text{varepsilon}$ , and inference is reported with uncertainty-aware statistical criteria.

**Keywords:** *African geography, supply chain management, food security studies, waste minimization techniques, loss reduction methodologies, sustainable agriculture practices, environmental sustainability*

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