



A Framework for Reducing Food Loss and Waste in South African Supply Chains

Zola Masego^{1,2}, Mahlangu Khumalo^{3,4}, Nokuthula Ngwenya^{5,6}

¹ University of the Witwatersrand

² Department of Crop Sciences, Human Sciences Research Council (HSRC)

³ Department of Animal Science, Tshwane University of Technology (TUT)

⁴ Human Sciences Research Council (HSRC)

⁵ Department of Animal Science, University of the Witwatersrand

⁶ Department of Soil Science, Tshwane University of Technology (TUT)

Published: 10 October 2002 | **Received:** 24 June 2002 | **Accepted:** 12 August 2002

Correspondence: zmasego@yahoo.com

DOI: [10.5281/zenodo.18748443](https://doi.org/10.5281/zenodo.18748443)

Author notes

Zola Masego is affiliated with University of the Witwatersrand and focuses on Agriculture research in Africa.

Mahlangu Khumalo is affiliated with Department of Animal Science, Tshwane University of Technology (TUT) and focuses on Agriculture research in Africa.

Nokuthula Ngwenya is affiliated with Department of Animal Science, University of the Witwatersrand and focuses on Agriculture research in Africa.

Abstract

South Africa's agricultural sector faces significant challenges in reducing food loss and waste along supply chains, impacting both economic viability and environmental sustainability. This article employs qualitative analysis and literature review methods to synthesize existing knowledge on food loss and waste reduction in agricultural settings. The framework identifies strategic areas for intervention to enhance efficiency and reduce waste in South African supply chains. Implementing targeted interventions such as better infrastructure development and enhanced consumer engagement strategies is recommended to achieve sustainable food loss reduction goals. The empirical specification follows $Y = \beta_{0+\beta} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *African agroecology, food systems analysis, supply chain management, sustainability metrics, waste minimization techniques, geographic information systems, circular economy principles*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge