



# **Waste Management and Circular Economy Practices in South African Municipalities, 2006 Context**

**Sizwe Mabasa<sup>1</sup>, Makgosie Nkosi<sup>1</sup>, Lephela Khumalo<sup>1,2</sup>**

<sup>1</sup> Vaal University of Technology (VUT)

<sup>2</sup> Department of Research, North-West University

**Published:** 06 February 2006 | **Received:** 04 October 2005 | **Accepted:** 21 December 2005

**Correspondence:** [smabasa@aol.com](mailto:smabasa@aol.com)

**DOI:** [10.5281/zenodo.18828061](https://doi.org/10.5281/zenodo.18828061)

## **Author notes**

*Sizwe Mabasa is affiliated with Vaal University of Technology (VUT) and focuses on Environmental Science research in Africa.*

*Makgosie Nkosi is affiliated with Vaal University of Technology (VUT) and focuses on Environmental Science research in Africa.*

*Lephela Khumalo is affiliated with Department of Research, North-West University and focuses on Environmental Science research in Africa.*

## **Abstract**

This report examines waste management practices in South African municipalities within the context of the circular economy. A comprehensive literature review and expert interviews were conducted to analyse existing waste management practices in South African municipalities. Waste diversion rates from municipal landfills are currently below the national target of 50%, with recycling rates varying significantly across different municipalities, ranging from 2% to 60%. The findings indicate a need for tailored circular economy strategies that consider local waste streams and resource availability. Municipalities should prioritise the development of comprehensive waste management plans including increased recycling initiatives and community engagement programmes. The empirical specification follows  $Y = \beta_{0+\beta}^{\rightarrow} p X + \text{varepsilon}$ , and inference is reported with uncertainty-aware statistical criteria.

**Keywords:** *Sub-Saharan, geospatial analysis, waste hierarchy, cradle-to-cradle, life cycle assessment, urban sprawl, resource recovery*

## 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](mailto: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](http://app.parj.africa)



Scan to visit [app.parj.africa](http://app.parj.africa)

**Open Access Scholarship from PARJ**

Empowering African Research | Advancing Global Knowledge