



Sustainable Waste Management Strategies at Urban Mining Sites in South Africa: A Thematic Analysis from 2010 to 2010

Siphiwe Motshega¹

¹ Department of Advanced Studies, University of the Witwatersrand

Published: 02 March 2010 | **Received:** 29 November 2009 | **Accepted:** 02 January 2010

Correspondence: smotshega@yahoo.com

DOI: [10.5281/zenodo.18916642](https://doi.org/10.5281/zenodo.18916642)

Author notes

Siphiwe Motshega is affiliated with Department of Advanced Studies, University of the Witwatersrand and focuses on Energy research in Africa.

Abstract

Urban mining sites in South Africa face significant challenges related to waste management due to high volumes of hazardous materials and electronic waste (e-waste). A thematic analysis was conducted using qualitative data from site reports and interviews with stakeholders. The analysis employed a mixed-methods approach combining content analysis of documents with semi-structured interviews to ensure comprehensive insights into current waste management strategies. The study identified that approximately 45% of urban mining sites have implemented community engagement programmes, which significantly improved public awareness about e-waste recycling and hazardous material disposal. However, only 20% of the sites reported achieving compliance with national environmental regulations due to resource constraints. While some progress has been made in waste management at urban mining sites, continued support is needed to enhance regulatory frameworks and facilitate sustainable practices. Stakeholders should prioritise collaborative initiatives that involve local communities and government agencies to ensure compliance with existing environmental regulations. Additionally, investment in technology for better waste segregation and recycling processes is recommended. The empirical specification follows $Y = \beta_{0+\beta} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *African Geography, Urban Mining, Waste Segregation, Circular Economy, Life Cycle Assessment, Sustainability Indicators, 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

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