



# Eco-Friendly Alternatives for Livestock Waste in Kenyan Villages: A Community Health Analysis

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## Abstract

Livestock waste management in Kenyan villages poses significant environmental challenges, particularly regarding water pollution and soil contamination. A comprehensive search of peer-reviewed journals, grey literature, and relevant databases was conducted to identify studies evaluating the effectiveness of various waste management practices. The review identified several eco-friendly alternatives such as composting and biogas production that showed promise in reducing contamination levels by at least 30% compared to conventional methods. Eco-friendly alternatives for livestock waste disposal can significantly improve community health, though further research is needed to validate their long-term efficacy. Communities should be educated on the benefits and proper implementation of these eco-friendly practices. Policy makers should support initiatives promoting sustainable waste management solutions. The empirical specification follows  $Y = \beta_{0+\beta} p X + \text{varepsilon}$ , and inference is reported with uncertainty-aware statistical criteria.

**Keywords:** *African, Biogas, Composting, Anaerobic, Waste Management, Sustainability, Circular Agriculture*

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