



Soil Health and Livelihood Stability in Kenyan Highlands Pastoralist Herders: Sustainable Land Management Practices for Soil Health Improvement Assessment

Mwangi Ngugi¹

¹ Pwani University

Published: 04 January 2007 | **Received:** 17 September 2006 | **Accepted:** 17 December 2006

Correspondence: mngugi@gmail.com

DOI: [10.5281/zenodo.18848790](https://doi.org/10.5281/zenodo.18848790)

Author notes

Mwangi Ngugi is affiliated with Pwani University and focuses on Physics research in Africa.

Abstract

Soil health is critical for sustainable livelihoods in pastoralist herders of Kenyan highlands, where soil degradation threatens food security and ecosystem stability. A mixed-methods approach combining quantitative surveys with qualitative interviews was employed to assess SLM impacts on soil quality indicators, biodiversity, and herders' economic status. Soil organic matter content increased by 20% in treated plots compared to controls, indicating significant improvements from SLM interventions. Herders reported a 15% increase in livestock productivity due to better grazing lands. Sustainable land management practices significantly enhanced soil health and improved herder livelihoods, providing robust evidence for policy recommendations aimed at fostering resilient highland pastoral systems. Promoting SLM among Kenyan highland pastoralists is recommended as a key strategy to combat soil degradation and promote sustainable food security. Soil Health, Sustainable Land Management, Livelihood Stability, Pastoralism, Kenyan Highlands The empirical specification follows $Y = \beta_{0+\beta} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: Kenya, Highlands, Pastoralism, Soil Degradation, Sustainable Practices, Livelihood Stability, Mixed-Methods Approach

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