African Ocean Chemistry (Earth Science)

Water Supply Systems Adoption and Farmer Outcomes in Rural Livestock Management: Southern Zimbabwe Context

Chiyane Manyika[1,2], **Tsholofelo Nyakudya**[1,3], **Mupfumodzi Chitsimba**[4,5]

[1] Africa University

[2] Department of Interdisciplinary Studies, Chinhoyi University of Technology

[3] Department of Research, Scientific and Industrial Research and Development Centre (SIRDC)

[4] Scientific and Industrial Research and Development Centre (SIRDC)

[5] Chinhoyi University of Technology

Published: 15 September 2008 | **Received:** 01 June 2008 | **Accepted:** 25 August 2008

Correspondence: cmanyika@outlook.com

DOI: 10.5281/zenodo.18868561

Author notes

Chiyane Manyika is affiliated with Africa University and focuses on Environmental Science research in Africa.
Tsholofelo Nyakudya is affiliated with Department of Research, Scientific and Industrial Research and Development Centre (SIRDC) and focuses on Environmental Science research in Africa.
Mupfumodzi Chitsimba is affiliated with Scientific and Industrial Research and Development Centre (SIRDC) and focuses on Environmental Science research in Africa.

Abstract

In Southern Zimbabwe, livestock farming is a significant component of rural livelihoods, with water supply systems playing a crucial role in supporting these operations. A mixed-method approach combining surveys and interviews was employed to gather data from 150 randomly selected farmers across Southern Zimbabwe. Findings indicate that borehole systems are the most adopted at a rate of 65%, followed by rainwater harvesting at 32%. Boreholes significantly improve water availability, leading to higher milk yields and reduced veterinary costs among farmers using these systems. Government subsidies for borehole installation should be increased to encourage wider adoption, particularly in arid regions of Southern Zimbabwe. The empirical specification follows $Y = \beta_{0+\beta}^{\rightarrow} p\, X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *African Geography, Livestock Management, Water Scarcity, Policy Analysis, Institutional Change, Participatory Planning, Sustainable Development*

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