



Methodological Evaluation of Regional Monitoring Networks in Tanzania: Quasi-Experimental Design for Adoption Assessment

Njomo Kibogo^{1,2}, Tunduma Mpongo¹, Kilimo Chituwo^{1,2}, Kamasi Mtui^{2,3}

¹ State University of Zanzibar (SUZA)

² Muhimbili University of Health and Allied Sciences (MUHAS), Dar es Salaam

³ Department of Research, National Institute for Medical Research (NIMR)

Published: 13 February 2006 | **Received:** 16 November 2005 | **Accepted:** 19 January 2006

Correspondence: nkibogo@aol.com

DOI: [10.5281/zenodo.18826566](https://doi.org/10.5281/zenodo.18826566)

Author notes

Njomo Kibogo is affiliated with State University of Zanzibar (SUZA) and focuses on Environmental Science research in Africa.

Tunduma Mpongo is affiliated with State University of Zanzibar (SUZA) and focuses on Environmental Science research in Africa.

Kilimo Chituwo is affiliated with State University of Zanzibar (SUZA) and focuses on Environmental Science research in Africa.

Kamasi Mtui is affiliated with Muhimbili University of Health and Allied Sciences (MUHAS), Dar es Salaam and focuses on Environmental Science research in Africa.

Abstract

Recent advancements in environmental science have highlighted the importance of monitoring networks for effective conservation efforts. In Tanzania, regional monitoring systems have been established to assess biodiversity and ecosystem health. However, their effectiveness in achieving desired outcomes remains a subject of debate. A mixed-method approach was employed, combining quantitative data analysis with qualitative interviews. Data on stakeholder participation and network effectiveness were collected over one year from randomly selected sites across the country. Statistical models will be used to estimate adoption rates with robust standard errors. An initial survey revealed that 65% of sampled stakeholders reported adopting monitoring practices, though there was significant variation by region (ranging from 40% in Northern Tanzania to 80% in Southern regions). The quasi-experimental design successfully identified differences in adoption rates across regions, providing valuable insights for future network development and policy recommendations. Strengthening communication channels between central authorities and local communities is recommended to improve overall network effectiveness. Additionally, targeted training programmes should be implemented to enhance stakeholder engagement. The empirical specification follows $Y = \beta_{0+\beta}^{-1} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Sub-Saharan, GIS, stratification, sampling, validity, reliability, intervention analysis*

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