



Cost-Effectiveness Assessment of Field Research Stations in Uganda Using Panel Data Analysis: An Evaluation Framework

Kabweta Musoke¹

¹ Kyambogo University, Kampala

Published: 10 September 2009 | **Received:** 20 April 2009 | **Accepted:** 31 July 2009

Correspondence: kmusoke@gmail.com

DOI: [10.5281/zenodo.18896811](https://doi.org/10.5281/zenodo.18896811)

Author notes

Kabweta Musoke is affiliated with Kyambogo University, Kampala and focuses on Environmental Science research in Africa.

Abstract

Field research stations are vital for environmental science in Uganda, providing a platform for monitoring and studying ecological systems. A mixed-method approach combining econometric techniques with qualitative assessments was employed. Panel Data Analysis (PDA) was used to estimate cost-effectiveness ratios (CERs) across different research stations in Uganda. Panel data analysis revealed that Station X offered the lowest CER, indicating it provided the most cost-effective environmental monitoring services among all evaluated stations. The findings suggest that strategic investments should be directed towards maintaining or enhancing Station X to maximise resource utilization and ecological research outcomes. Future studies should consider incorporating additional variables such as station age and community engagement into the PDA model for a more comprehensive cost-effectiveness evaluation. Panel Data Analysis, Cost-Effectiveness, Field Research Stations, Environmental Monitoring, Uganda The empirical specification follows $Y = \beta_{0+\beta}^{-1} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Uganda, Panel Data, Cost-Benefit Analysis, Econometrics, Geographic Information Systems, Sustainability, Spatial 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