



Methodological Evaluation of Regional Monitoring Networks in Ghana: Quasi-Experimental Design for Adoption Rate Measurement

Kofi Akoto^{1,2}, Yaa Afua^{2,3}, Yaw Owusu^{1,4}

¹ Kwame Nkrumah University of Science and Technology (KNUST), Kumasi

² University of Ghana, Legon

³ Accra Technical University

⁴ Department of Interdisciplinary Studies, University of Ghana, Legon

Published: 25 July 2012 | **Received:** 18 April 2012 | **Accepted:** 09 June 2012

Correspondence: kakoto@hotmail.com

DOI: [10.5281/zenodo.18970148](https://doi.org/10.5281/zenodo.18970148)

Author notes

Kofi Akoto is affiliated with Kwame Nkrumah University of Science and Technology (KNUST), Kumasi and focuses on Environmental Science research in Africa.

Yaa Afua is affiliated with University of Ghana, Legon and focuses on Environmental Science research in Africa.

Yaw Owusu is affiliated with Department of Interdisciplinary Studies, University of Ghana, Legon and focuses on Environmental Science research in Africa.

Abstract

Regional monitoring networks in Ghana are pivotal for assessing environmental impacts and guiding policy interventions. However, their effectiveness varies significantly across different regions. A scoping review approach was employed to analyse existing literature on monitoring networks in Ghana. A systematic search strategy, including databases like Web of Science and Google Scholar, identified relevant studies published between and . Studies were included if they described the design, implementation, or evaluation of regional monitoring networks. The analysis revealed a significant variation in how adoption rates were measured across different regions, with some using simple proportion calculations while others applied more complex statistical models such as logistic regression to account for confounding factors like socio-economic status and climate variability. While the overall effectiveness of monitoring networks was generally positive, the methodological approaches used varied widely, leading to inconsistencies in adoption rate measurement results. Standardization of methodology is recommended to facilitate a more consistent assessment across different regions. This would enhance comparability and reliability of findings. The empirical specification follows $Y = \beta_{0+\beta} X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Geographical Indicators of Ghana, Monitoring Networks, Quasi-Experimental Design, Adoption Rates, Environmental Impact Assessment, Policy Interventions, Regional Variability*

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