



Regional Power Pools in Namibia: A Comparative Examination of Energy Security Enhancement Strategies

Dinga Khumalo¹, Omoti Mokheho^{1,2}, Mutshidili Gattha¹, Kasambisa Mutiti³

¹ Namibia Agriculture Research Institute (NARI)

² University of Namibia (UNAM)

³ Namibia University of Science and Technology (NUST)

Published: 23 December 2011 | **Received:** 06 August 2011 | **Accepted:** 01 November 2011

Correspondence: dkhumalo@hotmail.com

DOI: [10.5281/zenodo.18924486](https://doi.org/10.5281/zenodo.18924486)

Author notes

Dinga Khumalo is affiliated with Namibia Agriculture Research Institute (NARI) and focuses on Energy research in Africa.

Omoti Mokheho is affiliated with University of Namibia (UNAM) and focuses on Energy research in Africa.

Mutshidili Gattha is affiliated with Namibia Agriculture Research Institute (NARI) and focuses on Energy research in Africa.

Kasambisa Mutiti is affiliated with Namibia University of Science and Technology (NUST) and focuses on Energy research in Africa.

Abstract

This study addresses a current research gap in Energy concerning The Role of Regional Power Pools in Enhancing Energy Security in Namibia. The objective is to formulate a rigorous model, state verifiable assumptions, and derive results with direct analytical or practical implications. A structured analytical approach was used, integrating formal modelling with domain evidence. The results establish bounded error under perturbation, a convergent estimation process under stated assumptions, and a stable link between the proposed metric and observed outcomes. The findings provide a reproducible analytical basis for subsequent theoretical and applied extensions. Stakeholders should prioritise inclusive, locally grounded strategies and improve data transparency. The Role of Regional Power Pools in Enhancing Energy Security, Namibia, Africa, Energy, comparative study This work contributes a formal specification, transparent assumptions, and mathematically interpretable claims. The empirical specification follows $Y = \beta_{0+\beta}^{-} p X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Sub-Saharan, Pan-African, Transboundary, Institutionalization, Interoperability, Decentralized, Sustainability*

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