



Methodological Evaluation of Regional Monitoring Networks in Uganda: Time-Series Forecasting for System Reliability Assessment

Kisinyo Oyoo¹

¹ Department of Animal Science, Busitema University

Published: 21 April 2010 | **Received:** 02 January 2010 | **Accepted:** 24 March 2010

Correspondence: koyoo@aol.com

DOI: [10.5281/zenodo.18904252](https://doi.org/10.5281/zenodo.18904252)

Author notes

Kisinyo Oyoo is affiliated with Department of Animal Science, Busitema University and focuses on Agriculture research in Africa.

Abstract

Uganda's agricultural sector is crucial for national economic stability, with livestock health monitoring being a significant aspect of this sector. The study employs advanced statistical techniques including ARIMA (AutoRegressive Integrated Moving Average) for forecasting and evaluating the reliability of agricultural monitoring systems. The application of time-series models has revealed robust system performance metrics, which are essential for improving surveillance and management strategies. Further research should focus on integrating these findings into policy frameworks to enhance agricultural productivity and sustainability. The empirical specification follows $Y = \beta_{0+\beta} X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *African agribusiness, Geographic Information Systems (GIS), livestock epidemiology, Monte Carlo simulation, predictive analytics, regional monitoring networks, time-series 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