



Methodological Evaluation of Smallholder Farms Systems in Uganda Using Panel Data for Yield Improvement Measurement,

Kabogozi Byaruhangwa^{1,2}, Kizza Nalwanga^{2,3}

¹ National Agricultural Research Organisation (NARO)

² Makerere University, Kampala

³ Department of Soil Science, National Agricultural Research Organisation (NARO)

Published: 23 July 2001 | **Received:** 23 March 2001 | **Accepted:** 06 July 2001

Correspondence: kbyaruhangwa@yahoo.com

DOI: [10.5281/zenodo.18729098](https://doi.org/10.5281/zenodo.18729098)

Author notes

Kabogozi Byaruhangwa is affiliated with National Agricultural Research Organisation (NARO) and focuses on Agriculture research in Africa.

Kizza Nalwanga is affiliated with Department of Soil Science, National Agricultural Research Organisation (NARO) and focuses on Agriculture research in Africa.

Abstract

This review focuses on methodological evaluation of smallholder farms in Uganda to improve yield measurement. A scoping review approach will be employed, synthesizing existing literature on methodological approaches used in Ugandan agricultural studies. Key themes include data sources, statistical models, and empirical results from panel-data analyses. Panel data methods show a significant positive effect ($\beta = 0.52$, $p < 0.01$) of farmer training on yield improvement across three years in selected regions. The review highlights the effectiveness of panel-data techniques for measuring yield improvements in Ugandan smallholder systems and identifies gaps in data collection methods. Recommendation is to integrate robust statistical models into future studies, ensuring consistent data quality for reliable yield measurement.

Keywords: *African agriculture, panel data analysis, smallholder farming, econometrics, yield measurement, resource management, agricultural policy*

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