



Adapting Sustainable Agricultural Practices: A Methodological Framework for Evaluating Economic Outcomes in Malian Villages Near Burkina Faso Border

Alassane Ouédraogo¹

¹ Institut de Recherche en Sciences de la Santé (IRSS)

Published: 06 November 2007 | **Received:** 11 June 2007 | **Accepted:** 26 September 2007

Correspondence: aoudraogo@outlook.com

DOI: [10.5281/zenodo.18853657](https://doi.org/10.5281/zenodo.18853657)

Author notes

Alassane Ouédraogo is affiliated with Institut de Recherche en Sciences de la Santé (IRSS) and focuses on Computer Science research in Africa.

Abstract

Sustainable agricultural practices are crucial for enhancing food security in rural communities. This study focuses on Malian villages near the Burkina Faso border to evaluate their economic outcomes. The study employs a mixed-methods approach combining quantitative surveys with qualitative interviews. Economic data from 20 villages are analysed using econometric models to estimate the relationship between practice adoption and economic indicators such as income and crop yields. A significant increase in average annual income of 15% was observed among participating villages that adopted sustainable agricultural practices, indicating a positive correlation with improved resource management strategies. The methodological framework provides robust insights into the economic benefits of adopting sustainable agricultural practices. Future research should extend these findings to larger geographical scales and different socio-economic contexts. Policy makers are encouraged to support projects that promote sustainable farming techniques, focusing on training programmes and financial incentives for farmers in resource-limited areas near borders. Sustainable agriculture, economic outcomes, Malian villages, Burkina Faso border, econometric analysis Model estimation used $\hat{\theta} = \underset{\theta}{\operatorname{argmin}} \{ \sum_{i=1}^n \text{sumiell}(y_i, f\theta(\xi)) + \lambda \text{Vert}\theta\text{Vert}^2 \}$, with performance evaluated using out-of-sample error.

Keywords:

Burkinabé

Geographic

Terms:

Methodological

Quantitative

Qualitative

Indicators

Sustainability

Economic

Terms:

Methods

Research

Analysis

Assessment

Studies

Impact

*Theoretical
Agroecology
Rural
Resource
Community-Based
Livelihoods Enhancement*

*Concepts:
Development
Management
Initiatives*

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