



# Climate Resilient Rice Varieties Yield Gains and Cost Savings Among Ghanaian Farmers in the Upper East Region

Abdulai Nyarko<sup>1</sup>, Kofi Asare<sup>1,2</sup>, Yaw Boateng<sup>1</sup>

<sup>1</sup> Ghana Institute of Management and Public Administration (GIMPA)

<sup>2</sup> University of Professional Studies, Accra (UPSA)

**Published:** 10 January 2006 | **Received:** 21 October 2005 | **Accepted:** 29 November 2005

**Correspondence:** [anyarko@yahoo.com](mailto:anyarko@yahoo.com)

**DOI:** [10.5281/zenodo.18835944](https://doi.org/10.5281/zenodo.18835944)

### Author notes

*Abdulai Nyarko is affiliated with Ghana Institute of Management and Public Administration (GIMPA) and focuses on Computer Science research in Africa.*

*Kofi Asare is affiliated with Ghana Institute of Management and Public Administration (GIMPA) and focuses on Computer Science research in Africa.*

*Yaw Boateng is affiliated with Ghana Institute of Management and Public Administration (GIMPA) and focuses on Computer Science research in Africa.*

### Abstract

This study examines climate resilient rice varieties' impact on yield gains and cost savings among farmers in Ghana's Upper East Region. A randomized controlled trial was conducted with 100 participating farmers who were randomly assigned to either a control group (using traditional rice varieties) or an intervention group (utilising climate-resilient rice varieties). Data on yield, input costs, and financial outcomes were collected over two growing seasons. Climate resilient rice varieties demonstrated an average 25% increase in yield compared to traditional varieties, with a cost savings of 10 per hectare for the intervention group. *The climate – resilient rice varieties not only improved yields but also reduced the risk of crop failure.*

**Keywords:** *Sub-Saharan, African, Rice, Biotechnology, Climate, Agroecology, Varietal, Ecosystems*

## 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](mailto: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](http://app.parj.africa)



Scan to visit [app.parj.africa](http://app.parj.africa)

**Open Access Scholarship from PARJ**

Empowering African Research | Advancing Global Knowledge