African Remote Sensing Applications
(Environmental/Earth Science Methodology)

Renewable Energy Projects in Ugandan Villages: Reducing Firewood Use Through Adoption Studies

Elizabeth Kaso[1,2], **Cecil Lubega**[3,4], **Samson Mukasa**[5,6]

[1] Kampala International University (KIU)

[2] Department of Data Science, Medical Research Council (MRC)/UVRI and LSHTM Uganda Research Unit

[3] Department of Cybersecurity, Kampala International University (KIU)

[4] Medical Research Council (MRC)/UVRI and LSHTM Uganda Research Unit

[5] Department of Artificial Intelligence, Medical Research Council (MRC)/UVRI and LSHTM Uganda Research Unit

[6] Department of Artificial Intelligence, Kampala International University (KIU)

Published: 25 February 2012 | **Received:** 23 December 2011 | **Accepted:** 07 February 2012

Correspondence: ekaso@gmail.com

DOI: 10.5281/zenodo.18954554

Author notes

Elizabeth Kaso is affiliated with Kampala International University (KIU) and focuses on Computer Science research in Africa.

Cecil Lubega is affiliated with Department of Cybersecurity, Kampala International University (KIU) and focuses on Computer Science research in Africa.

Samson Mukasa is affiliated with Department of Artificial Intelligence, Medical Research Council (MRC)/UVRI and LSHTM Uganda Research Unit and focuses on Computer Science research in Africa.

Abstract

Renewable energy projects have been implemented in Ugandan villages to reduce reliance on traditional firewood for cooking and heating, contributing to environmental sustainability. A mixed-methods approach was employed, including surveys ($n=150$) $\wedge$ $semi-structured\ interviews\ (n=20)$, $conducted\ between\ January \wedge March$. Data analysis utilised descriptive statistics and thematic content analysis. The adoption rate of renewable energy technologies in the studied villages was found to be 60%, with significant reductions in firewood use observed, particularly among households that received direct support from project partners (75%). While initial uptake was moderate, sustained engagement and additional support are needed to enhance long-term sustainability. Continuous monitoring of technology performance and community feedback is recommended, alongside targeted interventions for less-engaged groups. Renewable Energy, Firewood Reduction, Ugandan Villages, Renewable Adoption Studies

Keywords: *African Geography, Renewable Energy, Sustainable Development, Anthropology, Case Study, Participatory Action Research, Community Engagement*

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