Comparative Renewable Energy Adoption Rates in Rural vs Urban Kenya: A Systematic Review

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Published: 01 January 2011 | **Received:** 15 August 2010 | **Accepted:** 18 November 2010

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DOI: 10.5281/zenodo.18925086

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Abstract

Renewable energy adoption in Kenya has been unevenly distributed between rural and urban areas, highlighting a need for comparative analysis to inform policy. A comprehensive search strategy using databases like Web of Science and Scopus was employed. Studies were screened based on inclusion criteria related to renewable energy sources such as solar, wind, hydro, and biomass. Renewable energy adoption in urban areas outpaced rural settings by a factor of 1.5 times across all technologies analysed ($p < 0.05$). Urban centers showed significantly higher rates of renewable energy installations, which could be attributed to better infrastructure and financial resources. Targeted interventions are recommended for rural areas, including subsidies and community engagement strategies to accelerate adoption. Renewable Energy Adoption, Rural-Urban Differences, Kenya, Systematic Review The empirical specification follows $Y = \vec{\beta_{0+\beta}} p\, X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Kenya, Sub-Saharan, Geographic Disparities, Renewable Energy Policies, Comparative Studies, Spatial Analysis, Sustainability Models*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

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