



Biomass in Transition: An Analysis of Traditional Energy Sources and their Role in Uganda's Renewable Pathways

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Abstract

Uganda's energy sector is transitioning towards renewable sources, but traditional biomass remains a significant part of its energy mix. A qualitative study employing semi-structured interviews with key stakeholders to explore perceptions and practices related to biomass use and transitions. Biomass contributes approximately 40% of the country's total primary energy supply, with rural areas heavily reliant on it for cooking and heating. Interviews revealed mixed views on its sustainability and potential for diversification into bioenergy products. Despite challenges, biomass can play a crucial role in Uganda's renewable transition through strategic policy interventions and community engagement. Promote sustainable agricultural practices to enhance biomass productivity, invest in research and development of bioenergy technologies, and strengthen institutional frameworks for biomass governance. The empirical specification follows $Y = \beta_{0+\beta}^{-1} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: Biomass, Energy Transition, Renewable, Semi-Structured Interview, Uganda, Geographical Focus, Anthropology

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