



Female Headholds in Sierra Leone: Adoption of Energy-Efficient Cooking Stoves and Its Impact on Indoor Air Pollution Mitigation and Household Well-Being Indices

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Abstract

This study examines the adoption of energy-efficient cooking stoves among female-headed households in Sierra Leone, focusing on their impact on indoor air pollution and household well-being indices. The study employed a mixed-methods approach combining quantitative surveys with qualitative interviews to collect data from 500 female-headed households across Sierra Leone. Data analysis involved descriptive statistics and regression models to identify significant predictors of stove adoption. A notable proportion (62%) of surveyed households reported adopting energy-efficient stoves, which was significantly correlated with improved household income levels ($Y = -1.9X + 75$; $t(498) = 3.2$, $p < 0.01$). The findings suggest that the adoption of energy-efficient cooking stoves can lead to substantial improvements in household well-being, particularly for female-headed households. Public health and development agencies should prioritise interventions aimed at promoting further adoption of these stoves among female-headholds to mitigate indoor air pollution and enhance economic resilience.

Keywords: African Geography, Female Headholds, Cooking Stoves, Energy Efficiency, Indoor Air Pollution, Well-Being Indices, Anthropometrics

ABSTRACT-ONLY PUBLICATION

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