

**DOMESTIC WOODFUEL CRISIS  
AND ADOPTION OF IMPROVED STOVES:  
THE CASE OF SELECTED URBAN AND RURAL  
SETTINGS OF KISUMU DISTRICT. "**

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**By**

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## ABSTRACT.

Domestic energy crisis due to woodfuel scarcity is complex and imposes a serious burden on many rural and urban households in Kenya. One of the strategies outlined by the Kenya Government in its energy policy on the present domestic energy problem is the introduction of improved stoves. The adoption rate of these stoves has however not been impressive both in urban and rural areas. Similarly variation in the use of energy within urban and rural areas has received less attention. Moreover, the discrepancies between rural and urban areas equally require examining given the policy implications thereof.

This study is (a) an analysis of socio-economic variables which influence the adoption and/or non adoption of improved stoves within and among selected localities of Kisumu District and (b) a description of the patterns and implications of domestic energy use in Kisumu.

The study is a cross-sectional survey consisting of male and female heads of households in the District. The sample -- drawn by proportionate stratified random sampling and systematic sampling -- consisted of 666 respondents with 500 respondents from Urban (Migosi Estate) subsample and 166 from rural (West Kano Irrigation Scheme, WKIS) subsample. The research instrument consisted of interview-administered questionnaire of open and closed ended questions. In addition, qualitative techniques (case histories, key informant interviews, observation and focus group discussions) were used to collect indepth information. The data was analysed by cross-tabulation, chi-square, correlation, regression and time series analysis whilst some statistical tests were performed.

The theories of diffusion of innovation, definition of the situation and cultural lag, Necessity, Natural-circumstantial, Individual attribute, Power and communication model were utilised in the interpretation of the research findings. The study established that besides woodfuel scarcity, the adoption of improved stoves is dependent on household education level, occupation, income, awareness about innovation, orientation to the future, and personal efficacy. Conversely, non-availability and/or lack of awareness about improved stoves, inability to afford improved stoves and lack of expertise and materials to build improved stoves on individual basis hinders the rate of adoption.

The study recommends that institutions concerned with improved stoves promotion should adopt method(s) aimed at understanding the structure and culture of the target group so that these energy conserving devices can have an impact. There is need to incorporate strong feedback component in the extension network to facilitate monitoring, coordination and the delineation of the programme's strengths and weaknesses. The promotion of wood energy conservation requires awareness, public education, understanding, political will, and collaboration of Government and Non-Governmental agencies.