

The Impact of Energy Use on Poor Urban Livelihoods in Arusha, Tanzania

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Poor urban families may spend a third or more of their income on energy. Despite this fact, there are very few micro-level studies on energy use and the impact of energy on the livelihoods of the urban poor. Furthermore, existing studies tend to address technological/economic issues, rather than the social aspects of energy use and are quantitative rather than qualitative in their approach. The study described here addresses this imbalance by examining energy/poverty/gender relationships in two urban wards in Arusha, Tanzania¹.

The Study

The study perceives poverty as multidimensional and uses a sustainable livelihoods framework to structure poor men's and women's perceptions of their condition. It acknowledges that urban poverty is qualitatively different from rural poverty and recognises the significance of gender roles within a household. It accepts that energy has a significant role to play in improving the lives of the urban poor and sets out to clarify the nature of the transforming process. In particular, it tests the assumptions underlying Millennium Development Goals (MDGs) 2 and 3.²

The study had two aims:

- to provide stakeholders (including policymakers, planners and implementers in the public and community sectors, and poor people themselves) with an improved understanding of how access to energy impacts on the livelihoods of poor urban women and girls. In particular, to consider how changes in the energy decision-making process, and in women's and girls' energy responsibilities, might affect their capacity to take advantage of educational opportunities and contribute to their greater empowerment and greater equality in the household; and
- to contribute to improving the livelihoods of poor urban women and girls in Arusha by providing them with information on how to optimise their use of energy and to begin to strengthen their capacity to take part in the energy decision-making process.

The study is in two parts, the first is research-focused and the second practice-based. The former sets out to test two hypotheses:

- *“time saved by using modern energy will result in women's and girls' greater participation in educational activities”;* and
- *“access to modern energy will contribute to gender equality and women's empowerment.”*

The second part of the study enabled residents in each of the two study wards to design an energy-focused project that could contribute to improving the livelihoods of poor urban women and girls in Arusha.

In testing the hypotheses, the study adopted a socially sensitive and gender aware perspective. Specifically, it was concerned with processes relating to livelihoods, resources, knowledge and rights that can be perceived as either enhancing or constraining energy use for men and women. It examines micro-level evidence about the use of energy and the energy decision-making process, and compares

the situation in poor and non-poor, male- and female-headed, households.

The fieldwork was undertaken in two urban wards, Daraja Mbili

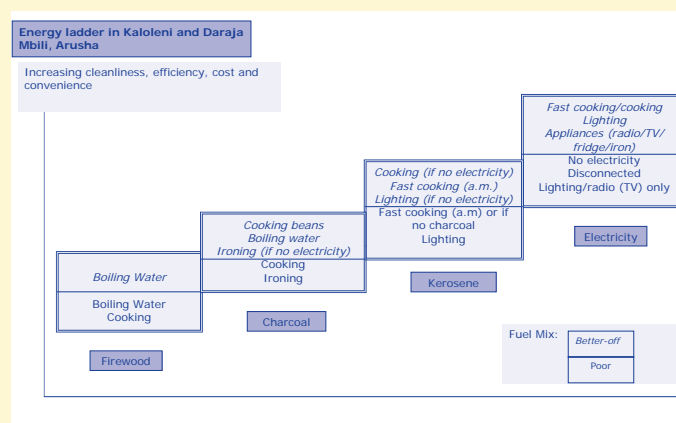
and Kaloleni, in Arusha, Tanzania. The study compared the energy roles, responsibilities and rights of women in poor and better-off households.

The study was participatory and primarily qualitative in approach. It incorporated inputs from a variety of stakeholders including the residents of the wards and the research team, and uses a range of tools including semi-structured interviews, case-studies, focus group discussions, key informant interviews and four sets of workshops.

Findings

Fuel Use

The study found that households, both poor and better-off, do not exclusively use just one fuel, nor is each fuel type used for only one activity. For a mixture of practical and cultural reasons, households use a combination of modern and traditional fuels (see figure).



The following observations on fuel use can be made:

- Electricity is the fuel that all households aspire to. However, its cost and the quality of supply mean that it is used sparingly by both poor and better-off households.
- Households are often not willing to use gas, which they perceive as unsafe because of past accidents.
- Kerosene, the easiest available fuel, is popular for cooking and lighting amongst all the household groups.
- Charcoal is the most popular of the 'traditional' fuels. It is used by nearly all households for some cooking and, in poorer households, for ironing.

Time-saving Strategies and Use of Time

Women have a number of time-saving strategies:

- in so far as they can, they mix their use of fuels in order to save cooking time;
- they cook large quantities of food at one time;
- they buy fuel in bulk quantities, and
- they change to a different type, or number, of cooking stoves.

The use of modern energy forms would result in less time being needed by women for reproductive³ activities, providing time for new activities. However, less than one-third of the women in Kaloleni, and one-fifth of those in Daraja Mbili, expressed a desire to take up education or education-related activities (including girls having more time for homework and mothers helping children with homework). Whereas the majority of the women - half in Kaloleni and two-thirds in Daraja Mbili - would aim to take up an income-generating activity. This is perhaps not surprising in households that lack income and assets.

The Energy Decision-making Process

The energy decision-making process falls into three areas.

- Men are most likely to make decisions about expenditure on household appliances.
- Women are most likely to decide on the type of cooking stove to be used unless the stove costs more than they are allowed to spend, in which case they will defer to their husbands.
- Decision-making about the type of energy to be used is less clear cut, with men sometimes making the decision and sometimes the decision being made jointly.

The residents of Daraja Mbili and Kaloleni have conservative attitudes towards gender roles, responsibilities and rights. The generally accepted paradigm is one in which men are seen as the breadwinners

and household decision-makers, while women are responsible for reproductive tasks and are subservient to men. In the better educated households, there is a greater likelihood of joint decisions being made.

There is anecdotal evidence that men are more willing to share in energy-related tasks if the process is easier, cleaner and quicker. The use of modern fuels would therefore appear to be desirable if there is to be a more equal sharing of household energy-related tasks between men and



Woman holding a kibatori lamp
(Photo: Patrice North)

women. It is a contention of this study that greater gender equality and women's empowerment in the energy process can be achieved through making energy a focus of community interest, and working with men and women to increase their knowledge and understanding of the performance of various fuels and how best to use them.

Conclusions and the Way Ahead

In relation to the first hypothesis it can be concluded that, in the study areas, if women and girls had improved access to modern energy they would be willing to use it and thus save time. However, in the current context, it is unlikely that more than a third, and perhaps as low as one-fifth, of women would be interested in using the time saved for education or education-related purposes. Constraints unrelated to energy – the lack of spare money for education, cultural constraints and the lack of educational opportunities - also need

consideration if women and girls are to benefit educationally from improved access to modern energy.

To achieve effective and sustainable changes in the household energy process - and hence energy roles, responsibilities and rights - and thus move towards *gender equality and women's empowerment*, it will be necessary to work with both women and men. Further, because of the unique use of energy in each locality, it will be necessary for any changes to be context-sensitive. Two sets of issues have been identified which, if changed, could lead to time-saving and the more efficient use of energy, not only by women but also by men and others in the home.

- The first is concerned with increasing knowledge and understanding of the performance of various fuels and how best to use them.
- The second relates to changing approaches towards energy issues in the community and government sectors.

In a very short period of time it has proved possible for the two communities to establish interventions in the form of energy focal points which will, if sustained, contribute to improving the lives of poor households, especially women and girls, in Daraja Mbili and Kaloleni. It would be beneficial to monitor the development and utility of these energy focal points.

The research highlights the need for more data on the amount and cost of energy used for each domestic activity. Such information is needed in order to be able to advise households on how best to manage household energy budgets. Careful energy management is particularly important for poor households who are currently spending about one-third of their limited incomes on energy.

In view of the relatively limited research on the energy, poverty and gender relationships in urban areas, and the context-specific nature of this study, there is a need for further follow-up research in other towns both within and outside Tanzania, possibly in west and southern Africa and also outside Africa, to assess the generic application of the findings. ■

¹ A ward is an administrative unit below the municipal level.

² Specifically, the achievement of primary education (MDG 2) and the promotion of gender equality and the empowerment of women (MDG 3).

³ Child bearing and daily tasks associated with child rearing and domestic tasks.

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