GENDER MAINSTREAMING IN ENERGY USE AND POLICY

Chikaire, J. Nnadi, F.N., Nwakwasi, R.N Anyoha, N.O. Aja, O.O. Onoh, P.A. and Nwachukwu, C.A.
Department of Agricultural Extension, Federal University of Technology, Owerri.
Email: bankausta@ yahoo.com

ABSTRACT
Energy is a basic necessity for survival and a key input to economic and social development. Inspite of large-scale expansions in energy service provision, more than two billion people across the world lack access to modern energy services. Lack of energy services is correlated with many of the elements of poverty, such as low education levels, inadequate health care, and limited employment possibilities. Gender issues have a key role in energy policies primarily because gender differences and inequalities have consequences for energy needs, use and priorities. In most cultures, women and men have differing roles and responsibilities, with women carrying out subsistence activities, including gathering and managing fuel and water. Women and men also have different degrees of access and control, especially with regard to biomass resources. Inspite of the fact that they are closely involved with obtaining resources from the surroundings, women rarely have control over them. As a result, limited access to energy resources is a problem that has a disproportionably greater effect on women, especially in rural areas. This paper therefore outlines possible policy directives and measures aimed at engendering energy interventions. Thus, greater attention to the needs and concerns of women could help governments promote overall development goals like poverty alleviation, employment, health, and education through improved energy policies.
Keywords: Gender, energy, poverty, policy, mainstreaming.

Introduction
Energy is central to all concerns about sustainable development and economic growth, including livelihoods, water, education, agriculture, health and employment. Access to quality energy services is an essential pre-requisite for increasing productivity, improving people's livelihoods, and hence for poverty reduction. Inspite of large-scale expansions in energy service provision, more than two billion people across the world use traditional solid fuels for cooking, and heating, and almost as many lack electricity (Dutta, 2003; Parikh, 2006).

The millennium Development goals, which were adopted by the UN General assembly in 2000, established a set of time bound and measurable goals for combating poverty, hunger, diseases, illiteracy environmental degradation and discrimination against women. Even though, energy is not mentioned as a separate goals, addressing the energy and poverty linkage is going to be a critical factor in the attainment of the Millennium Development Goals (UN, 2006). Limited access to energy is a problem that has disproportionate effect on women, especially in rural areas.

Greater attention to the needs and concerns of women in energy policies could help governments promote overall development goal like poverty alleviation, employment, health, and education through improved energy policies (WEDO, 2006). Addressing gender issues in energy and development is of vital importance in the Millennium

Development Goals for two reasons: first, to eradicate poverty, policies and projects must clearly focus on the disadvantaged groups in society and in most developing countries, women suffer the most from poverty and environmental degradation. On the converse, because of their traditional responsibilities of household energy management, women are likely to benefit the most from access to improved energy services. The second reason relates to the role of energy services as an input to development. Within the energy sector, especially household energy, gender differences and inequalities have serious consequences for needs, use and priorities and these must be recognized and reckoned with, if long run sustainable development goals are to be met (Dutta, 2003).

THE GENDER DIMENSION OF RURAL ENERGY MANAGEMENT

Gender mainstreaming means moving gender equality concerns from the backwaters and side streams into the mainstream. It means recognizing that men and women have different roles, responsibilities and decision making powers in energy scenario, developing policies responding specifically to these needs, incorporating meaningful roles in planning, designing and executing energy programmes, and finally, improving energy access to women to improve quality of life and increase efficiency and reduce work burden in productive tasks (Parikh, 2006). Of the approximately 1.3 billion people living in poverty, it is estimated that 70% are women (Clancy and Skutsch, 2003). In most cultures, women and men have differing roles and responsibilities according to socially defined division of labour based on gender. This gender asymmetry is reflected in a variety of social and economic dimensions. In terms of reproductive activities, women generally have primary responsibility for the care and feeding of children and families, as well as health care and education. In many developing countries, it is the women who perform most of the work related to subsistence agriculture, plus gathering and managing fuel and water (World Bank, 2000; Parikh, 2006; Dutta, 2003).

Past research on women, energy and environment has descried and analyzed how energy is a critical input to women's capacity to meet their families basic needs, through their subsistence and income-earning activities. Women's use of biomass fuels in cooking (a major use of energy in developing countries) is well-known and documented (UNDP, 2000; Parikh, 1995; Dutta, 1997). What is not were recognized is the role of energy in women's small-scale income-earning activities in the informal sector, many of which are energy-intensive. Women's micro-enterprises, an important contributor to household income are often heat-intensive (food processing), labour intensive; and or light intensive (home based cottage industries with work in evenings). As a result, lack of adequate energy supplies for these activities affects women's ability to operate these micro-enterprises profitably and safely (Dutta, 2003).

Energy policies generally focus on the energy supply-side increasing supplies of electricity and liquid fuels-with little attention paid to the energy demand characteristics of rural communities and women in particular. However, men and women have different levels of access to different energy sources (Parikh, 2006). Changes in the availability of energy, due to policy interventions, have different impacts on men and women. Therefore, gender needs to be taken into account when developing energy policy. Also, in most developing countries, the largest energy programmes are aimed at rural electricification but implicit in

these programmes and policies is the assumption that the benefits of electricity are gender neutral.

ENERGY SCARCITY AND ITS IMPACTS ON WOMEN

Data shows that the penetration of commercial fuels in rural areas has been limited. For South East Africa as a whole, more than 95% of the energy consumed by the domestic sector comes from non-commercial sources. Commercial energy, mainly kerosene and electricity, is used primarily for lighting, constituting about 2 to 10% of total rural consumption (WEC and FAO, 1999).

In most developing countries, energy consumption patterns are characterized by a high dependence on biomass, and a heavy bias towards the household sector, with cooking as the primary energy consuming end use. In West Sumatra, Indonesia, fuel wood supplies almost all the cooking energy requirements. Similarly, in the Philippians, cooking and water heating account for 90% of household energy use, and fuelwood provides 75% of the total energy used in rural areas and more than 25% in urban areas (Dutta, 2003).
Population increase and the resultant environmental degradation has severely impacted the traditional biomass-based energy sources, especially in rural areas and because the responsibility for nearly every aspect of the domestic energy system rests squarely on the shoulders of the rural women, they are by far the most significantly affected by ever increasing scarcity. Energy scarcity is a problem that has a disproportionate effect on women and girls. The most obvious burden is that as fuel resources become increasingly scarce, women must walk longer distances and invest a greater portion of time each day in gathering fuelwood and water (Dutta, 2003).

An increase in time spent in fuelwood collection implies that women may now have less time for other livelihood activities. A more serious and long term implication of fuel shortage is that as the daily search for fuel wood, fodder and water becomes more difficult, children are taken off school and put to help their mothers (Mencher, 1989). More often than not, it is the girls who are held back from school to look after younger siblings and assist their mothers, missing out on education and perpetuating the cycle of illiteracy and poverty.

Besides lost opportunities and adverse inter-generational impacts, women are faced with a variety of health problems caused by fuel scarcities.

- Carrying heavy loads of wood damages women's bodies: They must also worry about falls and threats of assaults as well as snake bites, while gathering wood. In many rural areas, there is no alternative to walking. There is little in the way of transportation infrastructure, and women rarely have access to vehicles to carry their loads.
- Women experience other health, hazards from cooking for long hours over poorly ventilated indoors fires. When higher quality fuels such as fuelwood become inaccessible, women are forced to switch to inferior fuels, such as dung cakes and twigs, grasses, and leaves, which burn much less clearly than fuelwood.
- Women, and their young children, are exposed to large amounts of smoke and incompletely burned particulates from indoor fires, together with pollutants such as carbon monoxide, benzene and formaldehyde. As a result they often suffer from respiratory infections, lung diseases, cancer and eye problem.

- In order to cape with reduced fuel availability, women are known to switch to inferior fuels likes animals dung, the roots of trees, twigs, shrubs, grasses and weeds. These fuels take longer to collect due to the greater quantity needed for daily cooking because of their lower calorific value do not provide continuous heat. They also increase cooking time, which results in increased exposure to smoke.

It would be incorrect to view women as passive victims of biomass use. Women have responded to fuel wood shortage by adopting management strategies to conserve fuel: they shorten cooking times, explore less fuel-intensive cooking and food processing methods, cook fewer meals, serve cold leftovers, change the type of food eaten, and purchase other fuels. Women are important managers of natural resources and also producers of biomass fuels.

THE OVERALL POLICY DIRECTIONS AND MEASURES

The following policy directions need be pursued.

- Typically, poor people have fewer energy options than do rich people and they often pay more for them both absolutely (paying higher unit prices) and relatively (as a percentage of their income) than do the non-poor. In the light of the fuel shortages the rural poor face, women highly valve and need multiple energy options to help manage their daily work and time. In terms of energy policy, this necessitates questioning the conventional wisdom of expecting people to only move up the energy ladder and the need to explore a more complete range of options including lateral shifts on the energy ladder.
- Focus on technologies that are manageable in terms of complexity and scale. Technologies vary considerably in scale, technical complexity, and hence in operational and maintenance requirement. Decentralized systems, like solar home system place more control at the household level, making them more amenable to operation and maintenance by local women. In a rural set-up, considerable emphasis is placed on easy handling of the system, and women desire technologies that they can operate and maintain without having to undergo rigorous training, requiring minimum external inputs (ICIMOD, 1995).
- Priority to women's drudgery reduction technologies. A general rule that can be learnt form attempts to introduce technology for women is that if it does not reduce the labour in household tasks then, no matter how beneficial the technology., it is likely to have low acceptance. Technologies like stove, kilns, grinders, presses and pumps that have a direct bearing on women's work load would always of great importance. Enhancing women's well being can be the first step in improving their socio-political status through better health and more self-confidence.
- Energy service for women's multiple tasks. While cooking accounts for a large proportion of domestic energy consumption women are not only involved in cooking. They are engaged in many other tasks and responsibilities that could be accomplished more easily and efficiently if they had access to lighting and electricity, and the energy services electricity can provide.
- Focus on cooking as the primary end-use. Cooking is women's most important energy need in terms of time and effort. It accounts for a large share of household energy consumption, and the largest single rural energy use in low-income countries (Cecelski, 1998). And electricity provision does not address rural cooking needs in

electricity provision does not address rural cooking needs in most cases and at reasonable cost. This means that unless cooking needs are addressed, women's energy needs would remain largely unaddressed.

Suggested measures for mainstreaming gender into energy policies are as follows:

- Shift in approach from technology focus to energy service provision.
- Promoting improved access to variety of fuels and energy technologies, through investments in market development taxes and tariff policies.
- Directing technological interventions that meet women's practical, productive and strategic needs.
- Capacity building and networking
- Providing support mechanisms like credit and information to improve women's access to energy services.

CONCLUSION

Because access to modern energy services is so critical to the achievement of overall sustainable development goals, focusing more attention on women and energy linkages, increasing women's contribution to new energy approaches and ensuring that women benefit from these approaches will improve the overall effectiveness of national development objectives and policies. Mainstreaming of gender issues in energy policies is also necessitated by the facts that men and women have different roles, needs and perceptions affected by energy scarcities. Careful attention to these differing interests is essential for understanding energy markets and consumer needs, for reducing the negative impacts of current energy consumption patterns, and for achieving equitable distribution of energy services.

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