

**POLICIES, PROJECTS AND THE MARKET
EMPOWERING WOMEN?
Some initial reactions to developments in the energy sector**

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ABSTRACT

The 1990s were a period of transition for the way in which development is stimulated. There has been a reduction in donor assistance directly to governments in the South and more emphasis has been placed on the market delivering services. This policy shift has been particularly pronounced in the energy sector. There has been a strong focus on electricity with renewable energy systems being promoted for use in areas where grid extension will be difficult.

During the same period there was increasing recognition within international fora of the linkages between women and sustainable development. An aspect of sustainable development includes access to sustainable energy resources and, in many areas of the world, women are responsible for providing the energy to meet their households' needs. As a consequence there are increasing number of energy projects which target and involve women. It is therefore an opportune moment to analyse what the effects of the changes in development strategies as they relate to the energy sector have had on meeting women's energy needs in a sustainable way.

This paper analyses situation at the policy level and at the implementation level. The policy level has an international dimension and a national dimension, although they are not developed in isolation. Despite the increasing interest in women and energy, it would appear that the issues that concern women have not been incorporated into policies. At the international level there have been some notable successes. UNDP and, to a lesser extent, ESMAP have been trying to incorporate women and energy into their programmes. At the national level, women's energy needs do not seem to be specifically addressed. Electricity is the hot issue but fuelwood and stoves seem to be largely forgotten. Actions to reduce women's drudgery are not high on the agenda.

At the implementation level, donor financed projects are being replaced by market driven initiatives. Have projects really failed women? By what criteria should the success of projects be evaluated? Participation is being increasingly seen as the solution to more successful projects in the energy sector. However, experiences in the water sector suggest that participation is not a simple process, women may not be equipped to make effective contributions or they may even actively opt not to participate in projects, particularly when they fear that their workload will increase. Projects are still popular for micro-credit and income generation. However, it is not clear whether the levels of funding really allow women to move out of poverty.

Can the market be expected to address all women's interests? The prospects do not look promising. In the energy sector, commercial interests are focused on electricity. This does not provide a low cost solution to women's major energy burden – cooking. From another perspective the market might be more gender sensitive since targeting is part of good marketing. Also if women participate in the market as entrepreneurs, this may contribute to their empowerment.

Foreword

This working paper is based on a paper presented at a workshop on “Policies, projects and the market: Empowering women?”, held at the University of Twente, November 1999. The workshop was organised by Energia, a network on women and sustainable energy. The author would like to thank Energia for partial funding to support the writing of the paper.

The working paper has been revised from the original based on comments by my colleague, Dr Margaret Skutsch.

ACRONYMS

APACE	Appropriate Technology for Community and Environment Inc
CIDA	Canadian International Development Agency
DANIDA	Danish Development Assistance
ESMAP	Energy Sector Management Assistance Programme
FAO	Food and Agricultural Organisation
INFORSE	International Network for Sustainable Energy
NREL	National Renewable Energy Laboratory, USA
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
WHO	World Health Organisation

ABBREVIATIONS

LFA	Logical Framework Analysis
LPG	Liquid Petroleum Gas
NGO(s)	Non-Governmental Organisation(s)
PV	Photovoltaic

POLICIES, PROJECTS AND THE MARKET EMPOWERING WOMEN?

Some initial reactions to developments in the energy sector

Joy Clancy

1 Introduction

Since the UN 4th Conference on Women¹ in 1995, there has been increasing recognition within international fora of the linkages between women and sustainable development. An aspect of sustainable development includes access to sustainable energy resources and, in many areas of the world, women are responsible for providing the energy to meet their households' needs. Also women are important, often the sole, contributors to the household income derived from a variety of entrepreneurial activities. For many households, particularly those with low incomes, and micro-enterprises, this means a reliance on biomass² as their main source of energy. However, in many locations the natural resource base, which is the main source of biomass, is under pressure and is close to, or has surpassed, its limits to provide sustainable supplies threatening the sustainable livelihoods of many households (Hill et al, 1994). This serious situation has led to a growing interest in understanding the issues and formulating appropriate strategies which relate to meeting women's energy needs.

At the same time as these general developments, there have also been developments in the Energy Sector (for example, Rio+5³, World Bank/NERL Village Power Meeting, Climate Change Convention and the UN Commission on Sustainable Development (which will focus on Energy and Transport in 2001) and in Gender (for example, World Bank Gender and Development meeting, and Beijing+5) which also have implications for women and energy. A number of multi-lateral lending agencies have also incorporated gender into their energy activities, for example, UNDP Energy and Atmosphere Programme and ESMAP. At the field level there is an increasing amount of practical experience with women and energy projects, where women are either the target group or have been in policy formulation and implementation, or they have become energy entrepreneurs. Also there are a growing number of women professionals in the energy sector. Women and energy regional and national networks are also starting up working closely with the grassroots women's organisations. In the context of developing appropriate strategies for meeting women's energy needs, it is interesting to ask whether or not this increased interest and activities have resulted in women's energy needs being addressed in a sustainable manner. If the answer is "no", what can be done to improve the situation. If the answer is "yes", how can the process be speeded up. To answer the question, requires an assessment of existing experiences, both at the policy and project levels, so that lessons can be learnt, and success stories can be identified to enable the development of best practice for meeting women's energy needs. Do policies effectively incorporate women and their energy needs? How are policies translated into practice?

In the past, meeting women's energy needs has been primarily on a project basis, often on the basis of external financing by donors from the North as part of their development co-operation. However, there has been a general policy shift in all development co-operation away from public sector projects to private sector, more market based initiatives. Therefore,

¹ Also known informally as the Beijing Conference, after the city which hosted the meeting.

² Biomass in this context refers to any form of material derived from plant or animal origin which can be converted into a useable energy form. It includes woody and green plant material, agricultural residues, and human and animal excreta.

³ The informal name given to the UN Conference

developing appropriate strategies for meeting women's energy needs has to be set against this background. It is valid to ask what are the implications of this shift for women and their sustainable energy needs? Does it offer women specific opportunities or do they face difficulties?

This paper will begin to assess the changes that have taken place at the policy and implementation levels in order to begin to draw some lessons from the successes and failures which are beginning to emerge and to identify some of the challenges ahead.

2 Policies on women and energy

2.1 *At the international level*

Policy is developed and implemented at both international and national levels, although this does not occur in isolation and there is a dynamic between the two. At the international level the topic of women and energy appears now with greater ease on the agendas of international conferences than it did a decade ago. There are signs of slow but steady progress in the policies and programmes of multi-lateral agencies, which are beginning to respond to advocacy in international conferences and other fora. For example, the UNDP Energy and Atmosphere Programme has set up a programme *Energy and Women: Generating Opportunities for Development*, which aims to improve the position of women through energy related income generating projects⁴. The three-year programme, which started at the end of 1998, intends to focus on Africa and has held one of its three planned consultative workshops. At the time of writing, the programme has not as yet supported any projects. ESMAP (World Bank) has been trying to increase the gender profile within its programme portfolio, with one activity out of 80 fully gender focused. The head of ESMAP is a woman – possibly the only one in such a senior position in the international energy sector. The Rural Wood Energy Development Programme (RWEDP) of the FAO has been active in providing training courses on gender and energy and regularly features articles on issues related to women and fuelwood⁵.

2.2 *Why is mainstreaming gender in the energy sector going so slowly?*

These initiatives are to be welcomed and one would hope that they are just the beginning. However, if our goal is mainstreaming women in energy, which can be interpreted (paraphrasing Jahan, 1995), as transforming the existing energy agenda, then we still have a long way to go. We could ask ourselves: why are women's special needs and/or position in the energy sector not addressed as well as they are in other sectors, such as water and forestry? Despite commitment both countries from the North and South to the Beijing Platform for Action and gender mainstreaming in sectors, progress is slow. Also the guidelines of the OECD's Development Assistance Committee clearly support mainstreaming gender, with equality and women's empowerment as the stated goals. (OECD, 1999) In order for the donors to stimulate and support governments in the South and multilateral agencies to incorporate gender into their policies, donors have had to develop the capacity within their own organisations to enable those processes. This obviously takes time.

Another factor may be the way that energy professionals view their sector. Although energy is recognised as an essential input into all activities, it has never been widely accepted within development circles as a basic need, unlike water and food. The concept of "basic need" has both a physical dimension and a social dimension. The former is responsibility of science and

⁴ In fact UNDP has determined that 20% of all its programme financing should be focused on women and development.

⁵ See for example Wood Energy News Vol 12, No 1 which is an edition devoted to Wood Energy, Women and Health.

technology while the latter is the responsibility of social scientists. Hence the technologists from the agriculture and water sectors have developed a working relationship with social scientists over the years and now more readily accept the social dimension of their sectors. Perhaps it is this sensitisation which makes them prepared to address gender issues. The energy sector, in contrast, is dominated by macro-economists and technologists. The lack of a social dimension here means there has never been a working relationship between the economists/engineers and social scientists. Although many economists and engineers would accept welfare and efficiency approaches to meeting women's energy needs, they clearly find equality or empowerment goals more difficult to accept. They do not see the relevance of gender to their work. (Christian Michelsen Institute, 1999) Another explanation may lie in the way in which the different sectoral agencies interact with the population at large. The health, forestry, agriculture and water sectors use extension agents who work closely with the communities and people they are trying to assist. This direct contact creates a stronger feeling of social service and makes technical staff in these sectors more willing to assimilate gender goals into their work. However, the energy sector does not usually use extension agents even for demand management projects which are intended to influence peoples' behaviour. This working at "one step removed" from their clients reduces the chances for creating awareness of the social dimension in energy sector professionals.

2.3 *At the national level*

At the national level, many rural households still do not have adequate energy services, from which we can conclude that women's energy issues are certainly not fully addressed. National energy policies tend to focus on urban centres and the industrial sector. Those areas where women would predominate (rural energy, households, agriculture and small scale production, including the informal sector) do not feature prominently, if at all, in policies. Women's issues, when they are addressed, tend to be restricted to household energy, which is interpreted in a narrow way as being synonymous with cooking and stoves. As a consequence, the household energy sector has been under-resourced and increasingly marginalised. Donor support appears to have shrunk with respect to wood/charcoal stoves, although there is a recent move towards supporting solar stoves programmes. Wood stove programmes now focus more on the health improvements that can be gained from reduced smoke in the kitchen than on fuel-saving aspects. In a DANIDA supported project in Nepal, this change in objective is in response to women's own priorities (Backer, 1999). Taking women's wishes into account in project planning is to be welcomed, as is addressing the serious problem of environmental pollution in the kitchen. However, does a narrow focus on hardware solutions risk missing a range of broader issues in the whole chain which links the fire to fuel collection? For example, a low polluting stove may not actually reduce wood consumption (people doing more with the same amount) or women's burden of fuel collection, so issues of access to woodfuels still need to be addressed. There are other energy demands within the household, some linked to the fire, (for example food processing for income generation), others linked to end uses, such as lighting, which also should not be forgotten. Mandhlazi (1999) for example, describes a stove project in South Africa which focused on reducing fuel use and environmental pollution, without taking into account that the stove needed to be able to dry corn. Although the women recognised the benefits of the "improved" stove, they reverted to their traditional methods of cooking because the new model was not able to dry the corn.

The whole issue of women's time and effort saving (reduction of drudgery) seems not to receive the attention it deserves. This might be attributed to the fact that decision makers and planners are not fully aware of the situation of women's physical labour. Women's survival tasks, based on their own metabolic energy inputs, are invisible in energy statistics, as are their contributions in the informal sector excluded from the economic statistics (Cecelski,

1999)⁶. As a consequence the development of labour saving devices seems not to be high on the agenda⁷. The full consequences of women's reliance on their own energy inputs and biomass fuels are not known. While there is some excellent research being carried out, much with the supported of WHO, into the effect of smoky kitchens on women's and children's health (see for example, Smith (1999)), other health linkages are not so well researched. For example, although the amount of time women spend in collecting fuel it is frequently stated and that the fact that carrying heavy loads damages spines, the latter is not documented. Also the effects on families of undercooking food and the toll on women's health from having large families as a survival strategy to assist in tasks such as fuel and water collection, are issues in which the energy linkages are not always made.

The development of policy at the national level is strongly influenced by events on the world stage and also by multilateral and bilateral development agencies. As was stated earlier the agencies active in energy are still engendering their own policies and programmes and lack the capacity to support national governments with policy development. However, other changes on the international agenda might have been expected to play a role in increasing the attention given to women's special energy needs at the national level. For example, one of the shifts within the energy sector during the 80's has been towards demand management. The modern approaches to demand management attempt to alter users' patterns of energy use (which can include fuel switching). This requires a good understanding of the users' energy needs and the type of support a user will need to change her energy use behaviour. At a national level, users have to be disaggregated into different categories to analyse different patterns of use and what incentives produce change. Gender analysis would certainly be a useful tool in this context. However, it does not appear to be widely used within the energy sector, either at the international or national levels, although it is used in other sectors such as water, health, agriculture and forestry. Another area which might be considered to favour women's energy needs, is the increased promotion of renewable energy systems. A lot of work was done during the early 80s on developing a wide range of technologies which could be considered as ideal for matching women's demands – producing small amounts of energy using environmentally friendly resources widely available in significant quantities in rural areas. However, although there are still projects on decentralised energy systems⁸, the interest shifted in the energy sector in the late 80s, at least in the North, to the development of renewables for large scale electricity generation. Increasingly, international and bilateral agencies are promoting renewables for large scale electricity generation projects in the South. This is not to be decried if it displaces other polluting forms of energy, however, large scale electricity generation is unlikely to meet women's needs for low cost energy services (which includes the equipment to utilise the energy). In addition, cost considerations mean that many people in rural areas will not benefit in other ways (eg high quality lighting) from electricity.

One would really like to think that policy was not formulated based on responses to outside pressure but that it resulted from a process of broad consultation as part of a democratic process. However, energy policy formulation and planning generally seems to take place entirely at the national level, in a top-down manner. Ministries of Energy tend to operate directly from the capital and have no local level representation in the form of extension officers as can be found, for example, in agriculture and health. Wide consultation, as part of the planning process in the energy sector, would certainly allow women the opportunity to undertake advocacy for their defining their own needs and solutions. Unfortunately, for many

⁶ This also means that the energy inputs (with a large biomass contribution) are also missing from the national energy statistics.

⁷ There are however notable examples, such as the multipurpose platform (NB platform here means a physical structure not a political process!) for overcoming rural women's poverty, a UNDP funded project in Mali. This project provides grain milling facilities which relieves women of an hour of strenuous pounding to provide their daily flour requirements. (UNDP Mali, 1999)

⁸ A small sample of which have been reported on in Energia News.

women the whole workings of the energy sector are, at present, a mystery.

2.4 *What can be done to engender energy policies?*

What can be done to improve the situation? Firstly, policies (both at the international and national level) can be analysed for their lack of gender perspective and proposals for policy development can be made. This needs an analytical framework, to allow for cross-comparisons and measurement of achievement. What indicators should be used? (For example, the proportion of resources (human and financial) allocated to household energy? How should household energy defined?) The framework also has to take into account that external factors may influence the effectiveness of energy policies. (For example, access to credit for potential women energy entrepreneurs may be hindered by the legal framework relating to property.)

Policy analysis and advocacy also requires capacity to carry out this type of work, with a critical mass of people able to do so, both in the public and private sector. On a global basis the numbers of people currently active in gender and energy is small (but growing). This means that networks such as Energia, which attempt to co-ordinate such actions, can be over stretched to respond at both the national and international policy level. For example, the World Bank Africa desk is currently developing an Africa Energy policy, which is now open for comment (World Bank, 1999). Although there are many useful ideas in the document, women are only mentioned once, in relation to the environmental impacts of traditional fuels. We do not have the resources and capacity to make constructive responses to this type of document. As part of building this capacity, more women should be encouraged to work in the energy sector, not only with renewables but also with conventional energy systems. Developments over the entire energy sector are leading to the jobs becoming more knowledge based. This enables more women to participate, where as in the past they have been excluded on the grounds that jobs were too physically demanding and often located in remote and dangerous areas. There are signs that women are taking up that challenge (Lele, 1998). However, women in the energy sector are still in the minority. They often work in professional isolation and still have to overcome prejudices and suffer harassment. An interesting CIDA funded project is currently underway to help women overcome these types of problems in the Oil and Gas Sector in Pakistan. A network of Canadian women energy professionals has been established to support women in Pakistan. It is interesting to note that Lele (1998) reports that it is difficult to find Canadian women with appropriate qualifications to provide the support.

An additional factor in the formulation of more women friendly energy policies, as well as assisting in the advocacy work, is the availability of accurate data on a gender disaggregated basis. Without data on the effects of particular policies (or lack of them) on women, advocacy for policy change is difficult. The whole manner of policy formulation needs to be assessed to see how women's special needs can be incorporated within a sound planning framework. One positive step would be greater participation by different groups, particularly by women. However, this will not occur overnight because many women are not fully equipped with the skills required for participation (eg speaking in public meetings) and for acquiring knowledge about new forms of energy (eg literacy). This means that we need capacity building at all levels, both in participation skills and also in gender tools. One could argue that one of the reasons that women's energy issues are not appearing in energy policies is that policy makers and planners do not know about the availability of gender tools or how to use them. It also has to be recognised that men dominate energy policy and planning. Although there are a number of sympathetic men (as can be seen from the gender disaggregated data on membership of Energia!) more have to be sensitised to gender issues to

enable them to be more supportive. This can be done through training⁹ and advocacy.

3 Projects and women

3.1 *Have projects failed women?*

Meeting rural and poor urban women's energy needs in the past has been primarily on a project basis, linked to household energy efficient stoves, often on the basis of external financing. There have been some projects for fuelwood production and a limited number for stoves and ovens of a size suitable for income generation. Projects, especially those supported by donors, seem to have developed a bad reputation as a mechanism for meeting women's energy needs. Too often pilot projects are discontinued and new projects started up without the lessons learnt from previous experiences being assimilated and acted upon (UNDP, 1999). This type of criticism is common (and is not specific to energy projects) and is often linked to the short time horizon of donors. Projects have been unsustainable, not only in a financial sense but also institutionally, for example, sometimes relying on the enthusiasm and drive of one individual (often an outsider) (Sefu, 1989). There seem to be problems also in scaling up. For example, in Tanzania, although there are good stove designs available the number of stoves disseminated has not reached the same level as in its neighbour Kenya (Ndilantha and Sawe, 1999). Another reason for the failure of projects to meet demand is that there is a lack of consultation with women due to the top-down planning processes in the energy sector. This approach means that women's priorities are not taken into account, nor is their indigenous knowledge of natural resources tapped. Their potential contribution to solving their own energy problems is neglected.

3.2 *Is electricity the answer to women's energy problems?*

If we look at the current trend with energy projects, the focus is very much on electricity. What are the implications for women? Although this energy form has many benefits, it does not help address the major energy problem most women in rural areas face, meeting their daily cooking needs. Cooking with electricity is not cheap in terms of either energy costs or of the stove. Also solar home PV systems cannot deliver sufficient power to cook family meals. Solar cookers seem to be undergoing a period of regeneration of interest among donors and international development agencies¹⁰ but their long-term popularity with cooks has to be evaluated. A serious objection to solar cookers, which has to be overcome, is that cooking at midday does not coincide in many cultures with the time of eating the main family meal. (Mandhlazi, 1999)

The extent to which electricity can contribute to poverty alleviation is still not clear. Since many women's income generating activities are based around process heat, for which electricity is not the cheapest option. Electricity in rural areas is mainly used for lighting, which can extend evening working hours. Many women feel uncomfortable about this if this adds to the burden of women's working day. Perhaps more research needs to be done in what use is actually made of the lighting and electricity. An interesting study in Namibia showed that women did stay up later than men, but not working (as many of us fear) but socialising. (Wamukonya and Davis, 1999)

3.3 *Is increasing women's income the answer?: Women as entrepreneurs*

Support is increasing for income generation projects. Certainly providing women with access to cash resources can be viewed positively if it allows them to determine their own priorities and make choices about the energy forms they can use for particular end-uses. In

⁹ This is taken up as an aspect of the UNDP Energy and Women programme.

¹⁰ For example, the recent workshop on Solar Cooking organised under the auspices of UNESCO and the European Union.

consultations with women they generally set a high priority on being able to earn some cash income. However, it is not clear whether the levels of income envisaged by those proposing income generating projects are the same as those of the women who are expected to undertake them. Women, particularly those in rural areas, undertake income generating activities simultaneously, and often strongly linked, with other household and agricultural duties. These may be seasonal activities based on household tasks, such as food preparation and basket making, and they tend to be small-scale, labour intensive and predominantly in the informal sector. The income is supplementary to other household income sources (where there is a male head of household¹¹). Women in this category may not wish to increase their workload by becoming full scale entrepreneurs¹². This can lead to project “failure” (if measured in terms of total numbers of take up). There are undoubtedly a significant number of female heads of households who would welcome the opportunity to earn levels of income that would lift them from poverty. However, this level of entrepreneurial activity needs more than a good idea to succeed. The energy inputs into business activities are often overlooked by programme initiators, even though the availability of affordable sources is an important ingredient in ensuring their profitability. The same applies to labour saving devices which would reduce the drudgery of the work associated with many informal sector activities. A market for products and transporting them (also with an energy component) are important aspects that can be overlooked. Women themselves are aware of these barriers and may be reluctant to take up proposals to expand their businesses. Income generation needs a basket of entrepreneurial skills and assistance needs to be provided in gaining access to markets. Lack of consultation with women about their needs leads to low levels of participation in projects.

3.4 *Women and credit*

Starting up a business or expanding/modernising an old one requires capital. For women, there are additional problems of access to capital not faced by men. Families are often the source of the type of capital need for business ventures. There may be cultural barriers which deny women access to this source of family funds. The lack of women’s property rights prevents them obtaining loans from the commercial banks.

There have been a number of projects to set up micro-credit banks which attempt to emulate informal systems with the aim of providing women with access to funding that they would otherwise be denied from the commercial banks. On the surface, at least, these micro-credit systems do appear to be welcomed by women. However, a relevant question is, do they really provide sufficient levels of funding to move women out of poverty? Do they enable women to develop as entrepreneurs? In general, project based micro-credit systems lend small amounts over short terms. Therefore, they would unlikely to be able to assist women for example, to become energy entrepreneurs or to purchase renewable energy systems or appropriate appliances for their home or enterprise. This would need different levels of finance. There are moves to ensure access to these levels of finance with solar photovoltaic (PV) home lighting systems and solar lamps (for example, ESMAP is supporting such a project in Bangladesh). This is an interesting situation. Biogas, a technology which is built from local resources and provides a clean cooking fuel, fell out of favour amongst funding agencies because it was too expensive and households could not afford to pay for it (Clancy and Hulscher, 1994). There was not the level of support for establishing funding mechanisms that the Northern developed technology of PV now seems to attract. (Putti, 1998) There is a need therefore to try to extend women’s access to the levels of financing which will allow

¹¹ Although in rural areas of countries where structural adjustment has led to significant male unemployment and a return by men live in the rural home, women may find themselves as the sole cash earner.

¹² There is interesting work by Cecile Jackson (1999) in the water sector which shows that some women deliberately adopt a non-participation strategy in projects to avoid increasing their work loads.

them chose which energy systems they consider appropriate.

Women have been lauded for their excellent repayment record. However, it might be a good point to pause and ask at what personal cost? If the money is used only for consumptive purposes, then there is only a fixed sum coming into the household, so something has to be given up to enable the loan to be repaid. The fear is that this might be at a significant personal sacrifice by the woman, for example, lower food intake or increased domestic violence due to non-purchase of particular products. In this context, the work by APACE in the Solomon Islands is welcome to shed some light on a broader range of issues related to the re-payment of loans.

3.5 *Women as renewable energy entrepreneurs*

There is much emphasis on promoting renewable energy technologies in rural areas, where there is limited technical capacity to install and maintain systems. Opportunities for energy entrepreneurs are beginning to emerge to overcome the limitations and to provide local services. Women should be able to become energy entrepreneurs, in fact they are ideal candidates to do the job, as has been eloquently argued by Batliwala and Reddy (1996). However, project formulation can unwittingly discriminate against women. A project for establishing solar home system installation and maintenance businesses in Zambia provides training for interested entrepreneurs. One of the criteria for selection is that the entrepreneur must have knowledge of electricity and electrical systems. (Munyeme, 1999). This rules out most women. No compensatory training is offered for women to give them the necessary knowledge. It also overlooks the possibility for a woman to own and run a business while employing people with the required skills.

Although there is a lot of attention to women in rural areas and the links between energy and poverty alleviation, is this the same for the urban poor? Renewable energy systems (with the possible exception of solar water heaters) are not a viable option for them and they are more dependent on commercial energy than their rural relatives. They also pay a high price for their fuels. A World Bank study (Barnes, 1995) has shown that the poorest 20% of households pay a higher proportion of their incomes for fuels (which are also of lower quality) than wealthier households. The mechanisms that can be used in urban areas are different from those in rural areas because we are dealing with monetarised fuel markets. However, cash incomes are low and not always reliable. This calls for innovative credit schemes which allow access to electricity and LPG (both the service and the appliances). This provides an additional argument for women to become involved in the commercial energy field: to help develop gender sensitive policies for urban energy.

4 Markets for women and energy

4.1 *Will the market serve women better?*

The dominant philosophy in the energy sector very much favours privatisation, opening up to foreign investment and allowing the market to deliver energy services (see for example, Barnes et al 1998). We can ask ourselves: is this necessarily bad for women as end-users? Certain modern marketing strategies would take gender differences into account when analysing the potential clients and would disaggregate both between and within households. Targeting of advertising would sell products to men and women in different ways. A company could promote their new products (energy forms can also be seen in terms of a “product”) through imaginative training programmes, which are client centred taking into account availability and skills.¹³ The company would arrange financing for its products.¹⁴ A

¹³ Companies supplying microwave cookers offered free demonstrations (or “training”) for first time buyers in the use of a new cooking technique. The buyer could bring a friend and so the company

successful company would ensure that it was able to scale up to meet demand which projects seem often not able to do.

The negative side is that the market might not be interested in targeting poor households where they feel that the returns would be negligible. For example, private sector electricity suppliers might consider themselves under no obligation to implement schemes with a high social value (for example, lifeline tariffs sufficient to light one or two lamps) that many public utilities have addressed. Since a disproportionate number of poor households are headed by women, then women (at least in this group) might consider that the market also does not benefit them.

4.2 *The market and empowerment*

Although market approaches would probably address gender issues, this would be from an efficiency basis. Enabling equity or empowerment is not a market objective. However, these objectives might be reached indirectly. For example, women who participate in the market as entrepreneurs would certainly be empowered and could move towards greater equality, through increased status accrued from increased contribution to family income. Would the market be interested in community services, for example rural clinics? What would be the implications for women?

4.3 *Does the market provide women with more choice of energy forms?*

If we look at the market in the energy sector the emphasis is on deregulating and opening up to outside investment. Do these changes benefit women? The major changes have been most noticeable in the electricity supply industry. However, as has already been pointed out above, this is an energy option for wealthy households and for most women it is not an option for cooking (or space heating). Petroleum supply is in both public and private ownership, although generally governments still control kerosene prices. Women are able to buy this lighting fuel in small quantities, to match their cash flows, at reasonable prices. There have been reductions in subsidies on transport fuels, which has increased the cost of getting to work for women in urban areas and pushed up prices in general. As regards the supply of traditional fuels of wood (in rural areas and urban areas of Latin America) and charcoal (in urban areas of Africa and Asia) the local market is at present not of interest to companies involved in international markets. Rural fuels are still gathered informally at no direct monetary cost¹⁵ and local suppliers control urban markets. In the commercial woodfuel sector women's role and benefits vary. For example, in West Africa they play a key role and can earn good incomes, while in sub-Saharan Africa they play only a small role in charcoal production but carry the burden of environmental damage caused by unregulated charcoal making. However, what do women, as end-users, want in terms of their fuel type and its acquisition? Do women want to continue to use wood/charcoal, only with more efficient stoves, because it fits with their traditions? Or would they prefer to use gas (biogas or LPG) or electricity because they value the convenience? Would rural women pay for wood (good quality, regular supply, in quantities that match cash flow) if it relieved them of the burden of collection and freed them to participate in income generation, community activities or to devote more time to their families? The answers to these types of questions are important to those involved in advocacy to ensure that decision makers hear the right messages.

4.4 *Women resisting the market*

The increased interest of the private sector in energy services means that companies also

has the opportunity to "create" a new customer.

¹⁴ This is certainly how many families after World War II acquired a cooker and other energy conversion technologies – the utility supplied the equipment, installed and maintained it and spread the repayments over a period of years.

¹⁵ There is of course an opportunity cost.

begin to control the flow of information about technologies. This weakens the capabilities of governments, communities and individuals to assess and select or reject technologies. This is already a concern in industrialised countries where there are strong institutions to counter-act excesses of the market eg ensuring wiring safety standards. In the countries of the South, women have shown themselves to be a strong countervailing force in the face of destructive technologies eg Chipko movement. These can be very important empowering experiences for women. However, when dealing with laboratory developed technologies different types of knowledge might be required to make comprehensive assessments, and institutions and legal frameworks might not exist to counterbalance market forces. These issues are not specific to the energy sector, but illustrate the point that it is not only a question of getting the “energy form” right but that the framework in which energy services operate also has to be right.

5 Doing it better: Is participation the answer to all our problems?

In the past, projects have not always been successful in meeting women’s energy needs. However, does this mean that the project approach fails women? During the last decade or so, one of the reasons put forward for explaining why projects fail to meet their objectives, was the lack of consultation with women during the formulation stage. The argument was that if women had been able to participate more at this stage, then projects would have had greater chances of success because they would be delivering what women wanted. Project funders would also be happier because the project efficiency would be increased.

Participation in projects, organised at the community level, is now regarded as an essential ingredient for success. However, does it really guarantee women’s access to resources and benefits? There is limited experience with participation in energy projects, mainly linked to micro-hydro systems (see for example, Dhanapala, 1998), however lessons from the significant experience in the water, forestry and agriculture sectors can be drawn on.

What we learn here is that participation is not a simple process which will produce empowerment overnight. Who determines participation and who sets the agenda are key issues. Communities are not homogeneous. They are complex sets of political and social relations. It should be borne in mind that communities may not have the institutions capable of supporting participation, they have to be built up. Participation can be donor driven. This can lead to resistance by those who are meant to implement projects through participatory means, sometimes because they do not share the goals (Skutsch et al, 1999) and sometimes because the energy sector does not have the skills of participatory methods (ITC, 1999).

Community institutions, both formal and traditional, can have male bias. Women have limited experience in public speaking and culturally may be discouraged from doing so. Therefore, men are able to dominate decision making at the community level. Within community dynamics, there will always be innovators, those who take the lead in accepting new ideas or technologies. Again this tends to be men. Equality in participation therefore requires empowerment. Women need to learn the skills of participation – for example, literacy and negotiation, which will build their self-confidence. This creates an interesting dilemma for the energy planner who may consider enabling women’s access to energy from a welfare perspective but finds that this cannot be achieved without addressing empowerment. Many energy planners would normally feel uncomfortable with the whole idea of empowerment, due to the taboo of “changing cultures” (OECD, 1998).

Participation alone does not automatically guarantee women’s access to resources and benefits. It requires changes at the national level, for example, changes to land and property rights. While donors recognise that women need access to cash and credit and are active in supporting programmes, they seem less involved in opening up dialogue with national governments on issues such as women’s access to land and other property rights.

Enabling effective participation of all community members also needs attention to “simple” organisational matters such as the timing of meetings. It may be in the evenings in some communities – in others this might not be acceptable for women who do not wish to go out in the dark. Many women also do not enjoy participating in meetings because they are time consuming and not always relevant. Women can devise their own ways of ensuring their voices are heard. For example, negotiations between the utility and the community on a pilot solar electrification project in a northern province of South Africa had dragged on for four years (INFORSE, 1999):

Each time there was a meeting the women were there – always in the majority – but they were voiceless. Finally, they’d had enough of the delays and a breakthrough meeting under a baobab tree in the village, they started to chant: “We want solar, we want solar” and the decision was made.

6 Where do we go from here?

These are clearly exciting times for women and energy. There is a lot going on. There are a number of practical projects which are increasing women’s access to energy or allowing them to become energy entrepreneurs. Networks related to women and sustainable energy are being set up at the international (for example, ENERGIA, a network on women and sustainable energy) regional level (for example, the Gender in Sustainable Energy Network in Central America), at the national level, (for example in Tanzania and India) and around sectors (for example, the Oil and Gas Sector Women’s Network in Pakistan) to provide support and exchange ideas. As the experience builds up there is a need to evaluate and document success stories to enable a better understanding of the processes and strategies which enable women to meet their energy needs sustainably. However, how is success to be measured and judged? Should it only be on the basis of economic or numerical indicators? Current methodologies for project proposal writing (eg LFA) lay considerable emphasis on such indicators. However, should women not be arguing for wider indicators? For example, convenience. Success determined from whose perspective? The early days of stoves programmes saw many arguments put forward, often with considerable passion, for the implementation of these programmes on the basis of fuelwood saving, and hence women’s time saving. However, it would appear that the women who actually use the “improved” stoves regarded them as successful on other criteria: time saving/reduced drudgery while welcome is not their most valued benefit. Instead it is improvements in their health. There is a lesson here.

At the policy level, there is little evidence at present to suggest that women’s energy needs are well embedded into energy policies at both the international and national levels. Change is beginning slowly at the international level and there are some positive signs. However, the energy sector is not making as much use as other sectors in integrating gender issues into its policies nor is it making use of gender tools. Attitudinal shifts are needed and these are always slow to produce significant changes. These changes are also needed in donor organisations so that they are in a position to support national governments. Women’s energy needs are not being fully addressed is well illustrated by the focus at national levels being primarily on electricity supply. Electricity is not the cheapest option for meeting women’s major energy need: process heat for household and income generating activities.

Trying to speed up the development of more gender sensitive, women friendly policies is hindered by the lack of capacity amongst the different organisations involved in women and sustainable energy, for example, NGOs and academics, as well as the lack of gender disaggregated energy data.

At the implementation level there are a number of activities starting which relate specifically to women and energy. This is a positive sign. In the past these activities have mainly been orientated to household stoves. However, women's energy use in other sectors, business sector, is beginning to receive attention but still needs to be considerably expanded. Opportunities are opening up for women to become energy entrepreneurs. While support is being provided to overcome some of the barriers to women's entrepreneurship, such as access to credit, this continues to take the approach of treating the symptoms, for example, by providing women's credit banks, rather than dealing with the underlying causes, such as women's property rights. This can be partly attributed to decision makers not understanding the complexity of structures and processes in rural areas. With the project approach for meeting women's energy needs, there is a lack of assimilation of lessons from previous projects. Possibly because the evidence is at the micro-level and can be site specific, which does not always reach decision makers. Solutions need to be developed at the local level. This has led a number of agencies and NGOs to encourage community participation in energy projects. However, it is not clear if participation really enables all women to gain access to resources and their benefits. It is not certain that all actors have the same expectations about the objectives and processes of participation. The energy sector needs to review carefully the experiences from other sectors with participation before wholeheartedly embracing the methodology.

It is probably too early to draw general conclusions about the role of the market in meeting women's energy needs. This is an area requiring more research. For women as consumers, there is a danger that poor women will not benefit because producers will want to target higher income groups. On the other hand if women are able to participate in the market as entrepreneurs, and there are opportunities opening up in rural areas for energy entrepreneurs, then there is a possibility for women's empowerment. It then raises the issue: should all women become entrepreneurs? Do they have the time and resources? Perhaps the most important question is: what would rural women in the South choose?

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