

Energy and Poverty Reduction: The role of women as a target group

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Introduction

First I would like to thank the Forum for Energy and Development (FED) for giving me the opportunity to contribute here today at this important debate, on this key subject of “Energy and Poverty Reduction: The role of women as a target group”. Secondly, I would like to congratulate DANIDA not only for having produced a very fine draft document, but for engaging in a very exciting process of democratic consultation with Danish civil society.

The new energy policy paper that Minister Trojborg has just put before us for debate sets out a renewed commitment by DANIDA to put energy at the service of development, and more particularly, poverty alleviation, in which, from what I have seen of DANIDA assistance in the past, women will play an important role. The challenge before us today is to move beyond these concepts and policy prescriptions, on which we all basically agree, to begin to explore more concretely how to *operationalise* such a poverty- and user-oriented energy policy.

This is a concern that ENERGIA, the International Network on Women and Sustainable Energy that I represent, shares with DANIDA. ENERGIA News is a quarterly newsletter sent to the ENERGIA network of about 1100 subscribers. Two-thirds of ENERGIA members are in developing countries, and about one-quarter are men. ENERGIA is actively working with regional and national networks in Africa, Asia and Latin America in program areas that our members have identified as important in supporting operationalisation of user-oriented energy policies including gender: the ENERGIA News newsletter, a web-based resource center, advocacy, capacity-building, regionalization of activities, and methodology development and case studies. My presentation today is based partly on ENERGIA’s experience with implementing these program areas, and partly on my own personal consultancy experience in project design and evaluation.

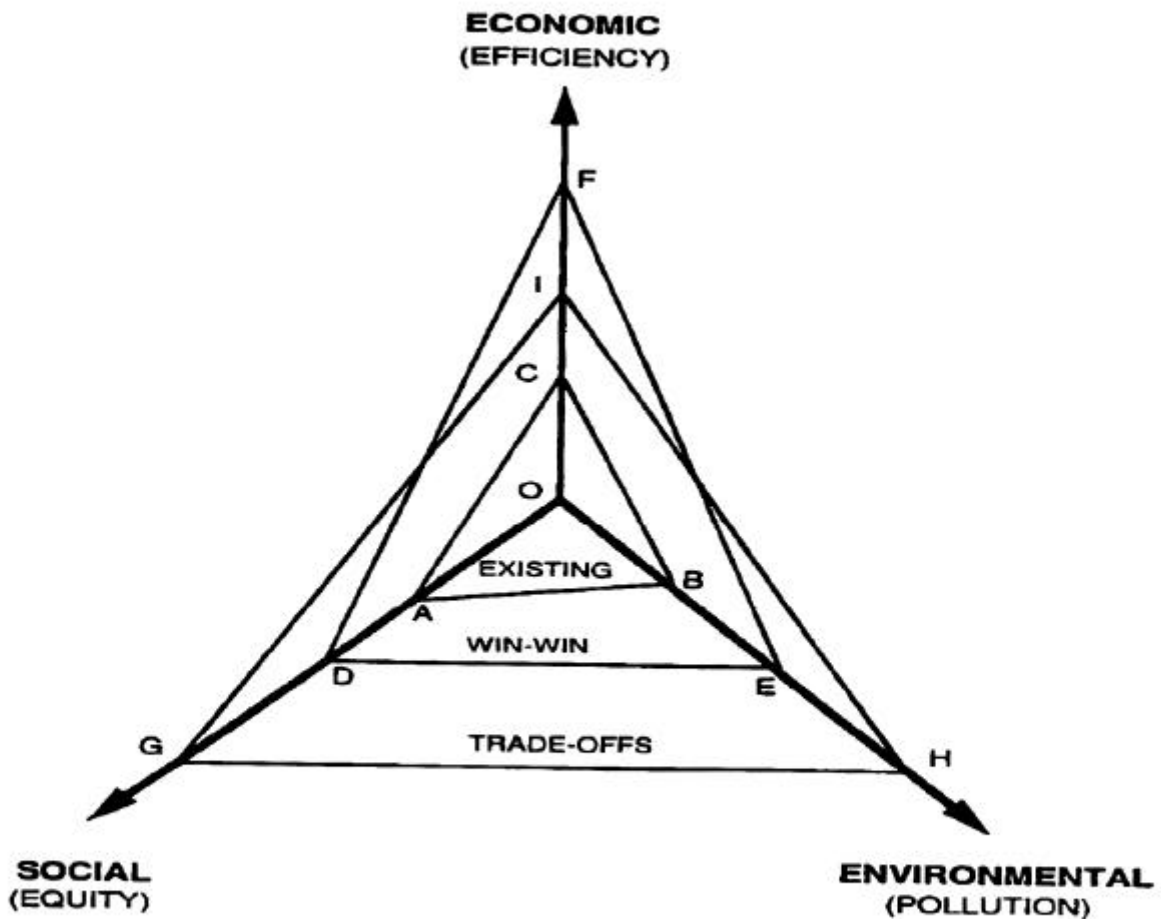
Sustainable energy development: Complementarities and trade-offs

What do we mean by sustainable energy development (SED)? Truly sustainable energy development must include:

- environmental sustainability: biodiversity, preserving natural resources, and avoiding pollution;
- economic sustainability: efficiency, growth, and stability; and
- social sustainability: poverty alleviation, consultation/empowerment, and preservation of culture and heritage.

The question is, how can we improve sustainability on all three of these fronts simultaneously? There can be contradictions, potentially, among these goals. This **Figure 1** by Mohan Munasinghe (1995) provides a useful way of thinking about the complementarities and trade-offs among environmental sustainability, economic sustainability, and social sustainability, or equity. For example the middle triangle, ABC, could be a *traditional* wood stove, where economic efficiency is moderate, social equity is low, and overall environmental impact may be poor. Sustainability on all counts is increased in the second triangle DEF - this could be an *improved*

Figure 1: Complementaries and trade-offs among the three main dimensions of sustainable development



Source: Munasinghe 1993b.

wood stove, that provided efficient energy and health benefits to the poor as well as environmental and economic benefits. This is a win-win (or rather win-win-win!) situation, and ideally, we would like all energy projects to fall here.

Other win-win-win situations could be, for example, using micro-credit to finance improved energy technologies for income-generation by the poor. Environmentally sustainable (renewable, or more efficient fossil fuel) energy technologies could thus be disseminated (and income earned could be used to purchase them), incomes of the poor increased (socially sustainable), and economic growth sustained.

However many worthy energy projects do not fall into this magical "win-win-win" area, and require difficult trade-offs. For example, for environmental and economic sustainability, we might like to have large numbers of renewable energy technologies sold on a commercial basis. But we know that, even with subsidies, photovoltaic systems e.g. are not affordable to the poorest 25-50% of the rural population in developing countries. Or a wind power park that substitutes wind for fossil fuel in electricity generation, may score quite high on the environmental sustainability axis, and possibly quite well on the economic efficiency axis, but it has no real impact at all on social equity or poverty alleviation.

The key question is, how can we improve the complementarities and make difficult decisions about these trade-offs? We need information about impacts in order to know: where are the greatest complementarities and synergies among these development goals, the win-win-win situations? Which types of interventions are especially cost-effective? Where do policymakers face difficult trade-offs? And how to address these effectively?

Mostly, however, we don't really know what impacts most energy projects have on the social equity, poverty alleviation, or gender equity axis. This is because:

- poverty (and gender) impact monitoring and evaluations have been scarce in the energy sector, since the main goal has been increasing energy supplies and developing commercial technologies; and
- interdisciplinary teams including social scientists as well as technologists and economists have been rarer in the energy sector than in some other sectors, such as water and forestry.

This must change in a poverty- and gender-oriented energy policy.

I would like to propose four key questions for our debate today to help us address these issues:

3. What would an energy strategy that contributed to poverty alleviation with women as a target group look like?
4. Which specific field-level methodologies and approaches could be used to operationalise such a strategy?
5. What new capacities would be needed at the institutional level in DANIDA and in its partners, for example in staffing and training?
6. How can achievement of a poverty- and gender-oriented energy portfolio be measured and monitored?

1. What would an energy strategy that contributed to poverty alleviation with women as a target group look like?

What would an energy strategy that contributed to poverty alleviation and gender equity look like? I would like to start by looking specifically at the situation of poor rural women. Poor rural women are certainly a major target group of any poverty alleviation strategy, and we have been hearing about the "feminization of poverty" and high levels of female-headed households in many countries. Furthermore, as Shahna Razavi (1998) points out, it is becoming increasingly

clear that gender differentiates the social processes leading to poverty, and the escape routes out of destitution. This raises questions about whether it can be assumed, as is often done, that the same kinds of policies that can strengthen the position of poor men will have much the same impact on poor women.

Poverty means, among other things, limited access to energy sources. Poverty influences and determines energy choices of poor households. There is a gender bias in rural energy poverty, too, because the main source of energy in poor rural households is not biomass. It is women's labour. The real energy crisis in rural areas is women's time.

We know from poverty studies that gender differentiates the social processes leading to poverty, and the escape routes out of destitution (Razavi, 1999). This implies that the kinds of policies, including energy policies, that strengthen the position of poor men, may not have the same impact on women.

Poverty means, among other things, limited access to energy sources. Poverty influences and determines the energy choices of poor households. There is a gender bias in rural energy poverty, too, because the main source of energy in poor rural households is not biomass. It is women's labour. The real energy crisis is women's time.

What would an energy strategy that focused on poor rural women's needs look like? One way to answer this question is by looking at what activities poor women do, and how these use energy.

Cooking is of course poor women's main energy use, so we would expect an energy strategy for poor women to have a large component of traditional fuel use improvement, whether improved biomass stoves and fuels or better management of biomass supplies.¹ This could improve family health, both by reducing smoke and indoor air pollution, and by decreasing women's and children's workload in woodfuel collection.²

It might also include measures to help poor women, like this woman in Nicaragua, to shift to safer and more efficient modern fuels for cooking, such as kerosene or natural gas, where pricing policies and availability of both stoves and fuels would be a factor or even solar cookers, as in this GTZ project in Ethiopia.

Perhaps an energy strategy for poor women would help them to reduce their heavy workload in water carrying, food processing and transport, through improved water pumping and purification, through grain mills or improved transport facilities. Here is a small hydro-powered grain mill in Nepal.

Improved home and street lighting and rural electrification might come next in priority for poor women. And of course, using electricity to improve health and education facilities and services would be of interest to them.

¹ Cooking is not only women's most time- and effort-consuming energy need; it is also a very large share of household energy consumption, and *the largest single rural energy use in low-income countries*. This means that, unless cooking needs are addressed, positive impacts of energy interventions on carbon dioxide emissions, on deforestation, and on women's health and time will be fairly marginal.

² A slide presentation is available in the PowerPoint version, to illustrate this part of the paper.

Of course, any assistance in using these technologies to earn income would be most welcomed by poor women. In this slide women in Bhutan have increased their output weaving at night with improved lighting.

Or, why not, any opportunities for themselves to build, sell, maintain or repair energy technologies? Here rural women in Uganda are building a Lorena stove in a rural development and training project.

At present, poor women often engage in biomass or human energy-intensive income-earning activities, such as food processing, often without energy sources other than their own labour, like these Ghanaian women pounding palm nut kernels for oil. Instead, poor women could be energy entrepreneurs for improved technologies for households and small-scale industry: This woman is working in one of a number of villages in Mali, where women entrepreneur groups manage multi-purpose (diesel) energy platforms that can be used for anything from grain grinding to water pumping to carpentry, through a UNDP project. (video available) Ghana and Burkina Faso are among the West African countries that have requested assistance in expanding this model.

Naturally, an energy strategy that focused on poor women's needs would also provide opportunities for poor women's organizations and views to be represented as stakeholders in policy decisions on macro energy planning and pricing, as in this participatory assessment in South Africa.

Another possible way to link energy assistance to poverty alleviation in a target country could be to look at an available poverty alleviation assessment in a specific country, and to ask what types of energy projects might support this poverty alleviation strategy. 1 shows a very rough example using the World Bank Poverty Assessments for two DANIDA target countries, Nepal and Ghana. In this example, in Nepal, since poverty is centered in rural areas, a focus on rural and household energy might be appropriate. In Ghana, since there is little rural-urban difference in poverty, both rural and urban energy might be the focus. In Nepal, the priority on strengthening infrastructure and the human resource base through improved education and health, might lead to an energy sector focus on drinking water pumping, lighting for reading, and smokeless cooking.

Corruption is also apparently a big problem in Nepal, and community involvement is recommended in the Poverty Assessment to control this. So energy projects should probably be thinking in terms of using participatory project design and implementation in energy projects too. In Ghana, a social fund was recommended by the poverty assessment to create employment and income-earning opportunities in lean season and improve rural infrastructure; women are noted to be especially active as entrepreneurs in Ghana. So energy projects in Ghana might want to think about creating employment in manufacturing and construction of energy services, for both women and men.

And so on and so forth. These are just a few examples of some potential linkages, but this is a possible methodology that could be followed in any target country.

1: How can energy strategies be linked to poverty alleviation strategies? Two examples in DANIDA target countries

<u>Poverty alleviation assessment/strategy³</u>	<u>Energy strategy (examples)</u>
<u>NEPAL (50% poverty incidence)</u>	
Poverty centered in rural areas	Rural energy, household energy
Agricultural growth; women as important client group	Water pumping, transport
Growth in rural non-farm sector; women as imppt target group	Post-harvest processing, income-earning; alleviate women's domestic work burdens so can participate
Strengthen infrastructure & human resource base (education & health), especially women	Drinking water pumping, lighting for reading, radio, smokeless cooking
Use community involvement to strengthen institutional mechanisms against corruption	Use participatory project design & implementation in energy projects
<u>GHANA (31% poverty incidence)</u>	
Little rural-urban difference in poverty	Rural and urban energy
Gender important dimension of poverty, especially Northern region technologies	Important focus on women, both household and income-generating energy services
Improve health and education Infrastructure	Lighting, refrigeration services
Social fund to create employment & income-earning opportunities in lean season and improve rural infrastructure	Create employment opportunities in manufacturing and construction of energy services in lean season, for both women and men

³ Based on the most recent World Bank Poverty Assessment for the country.

2. Which specific field-level methodologies and approaches could be used to improve poverty/gender impacts of energy projects ?

Most energy experts feel strongly that energy projects have the potential to provide positive benefits for the poor and for women. More efficient stoves, drinking water pumping, and agro-processing can reduce women's workloads, improve their health, and even provide income-earnings. Better lighting can extend the day for both productive and reproductive work and strengthen education and health services. Irrigated agriculture can provide employment opportunities for the poor. Recent research by the World Bank (Barnes, 2000) even suggests that improving energy infrastructure as part of an overall rural development program has a synergistic effect way beyond the provision of, for example, improved education or health services alone. There are many examples of energy playing a critical role in widening opportunities and empowering people.

How to better realize these benefits? There are many ways that the poverty and gender orientation of energy projects can be improved. Some of these, such as gender analysis, are relatively simple and yet can have powerful effects. Others, such as partnering with development organizations and ministries, may require a very different approach to energy project design. Tools, such as the Methodology for Participant Assessment (MPA) developed in the water sector, could be adapted from successful experiences in other sectors.

Gender analysis: An example in rural electrification

Rural electrification is an energy subsector that many people think of as not having any differential impacts on men versus women. Of course, it is easy to imagine that women's needs and preferences should be taken into account in an improved stoves project, but isn't rural electrification "gender neutral"?

Table 2: Home Lighting/Connection Point Preferences of Women & Men, Biogas Village Power Project, Ghana

Women	Men
Kitchen (for preparing food)	In front of house for entertaining friends, cards)
Work room (for working on income-generating activities at night)	Music/TV
Back of house by bathroom (for bathing children at night)	

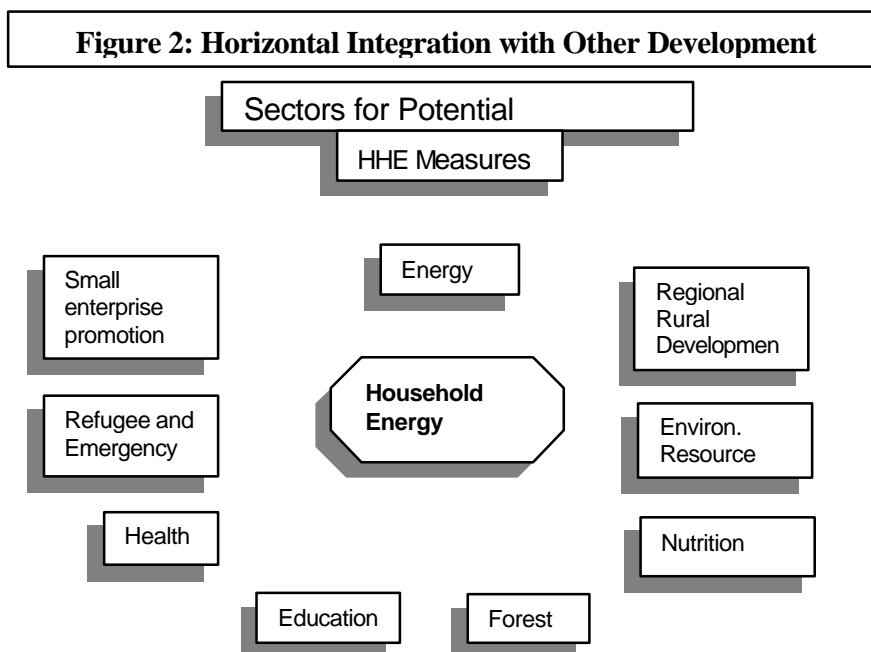
Source: W. Ahiataku-Togobo, Ministry of Mines & Energy, Accra.

Table 2 shows the different home lighting and connection point preferences of women and men in a village biogas project in Ghana. Women want to use home lighting in the kitchen, work room and bathroom, to make their work easier and more productive – both their domestic work and their income-earning work. Many of women's income-generating micro-enterprises are home-based. The income from these small-scale, part-time activities is often absolutely critical for their families' survival. But like women's domestic work, these income activities are often not highly visible - women don't go to a workplace, they are weaving while taking care of children, or preparing foods to sell at the same time that they cook the family meal, and so on. Women need light where they work. Men on the other hand, in this case at least, are mainly interested in the entertainment value of electricity. Of course this can be different in other areas.

Poverty and gender analysis can be a powerful tool in giving project staff ideas about how to orient projects to women. Similar analysis can be used to target the poor.

Horizontal integration of development sectors: An example of an integrated approach to biomass energy conservation

The second field-level implementation approach I would like to refer to is the integration of energy projects with other development sectors. **Figure 2** shows the integrated approach of GTZ's Household Energy Program (HEP), in an EU/GTZ/SADCC Regional Program for Biomass Energy Conservation in Southern Africa (ProBEC). Considering the heavy workload of women in the household and on the farm, and the large role that biomass resources play in women's work, one of the most effective ways of supporting rural development is by integrating biomass energy conservation activities into any type of development programme.



Some benefits of integration into agriculture and health development programmes, for example, include (Klingshirn, 2000):

- Economic impacts on women's time, that can increase food security, on men's and women's employment opportunities outside of agriculture (e.g. building or maintaining energy devices, selling seedlines, etc.) and on saving money on fuelwood;
- Environmental impacts, by reducing deforestation and securing forest productivity, as well as contributing to environmental consciousness;
- Health impacts, by reducing children's burns, women's work, and the acute respiratory infections caused by smoke from cooking; and
- Socio-political impacts, by increasing women's time and control over their lives and thus strengthening their self-initiative and self-confidence, and by encouraging group organization.

This approach is currently being implemented in the ProBEC project in Lesotho, Malawi, Mozambique, Namibia, South Africa and Zimbabwe. This approach to integration with other development sectors such as agriculture, forestry, environment, education and health need not be limited to biomass energy conservation, but could be an interesting approach for any energy technology or project.

Financing energy services and income-generating opportunities for the poor (ENSIGN)

How to provide energy services to the poor, who cannot afford the high cost? ENSIGN, an Asia-Pacific Development Center (APDC)/UNDP project launched in 1996, has combined energy services and corresponding income-generating activities in the form of micro-enterprises for the poor, and employed micro-credit mechanisms to finance such enterprises. Eight Asian developing countries participated in the project: India, Indonesia, Mongolia, Myanmar, Nepal, Philippines, Sri Lanka and Vietnam (UNDP-APDC/APENPLAN, 1998).

The project cooperated closely with the Self-Employed Women's Association (SEWA) Bank in India to establish the feasibility of a new energy-linked micro-enterprise loan portfolio, and studied renewable energy implementation experiences in the Philippines to develop a methodology for formulating integrated energy and income-generation projects.

Pilot projects were co-financed by a revolving fund and national financing institutions such as SEWA. The revolving fund financed 33% of the total loan; interest rates were somewhat below prevailing market rates for commercial loans, at 15-20%; and borrowers' equity ranged between 10-33%, although for some poor borrowers, labour was substituted for equity.

In all, 43 pilot projects covering 275 households involved both household and community enterprises in a wide variety of activities: garment making, embroidery, felt and leather goods manufacturing, copper welding, utensils manufacturing, bakery, cold storage, rubber stamp making, beauty salon, grain grinding, fish drying and powdering, soybean processing, rice husk charcoal briquette manufacturing, battery-charging, manufacturing rice husk cook stoves, spice

drying, beedi wrapping and cinnamon peeling, and rice processing. *The majority of the borrowers turned out to be women.*

Urban projects were largely based on grid electricity, while rural projects employed renewable energy sources (solar photovoltaic, solar thermal, rice husk) as well as coal briquette and diesel). *Household monthly income growth generated by the pilot projects averaged 66.7% overall.*

Country reviews and workshops under the ENSIGN project identified many useful lessons and strategies, and manuals, guidelines and reports are currently under preparation.

Applying state-of-the-art participatory and user-centred methodologies from other sectors to improve access to energy for the poor

User-centred participatory approaches have been developed in many sectors, including agriculture, forestry, and water. Probably many of you are familiar with the Forestry, Trees and People Program of FAO or the Promotion of Women in Water and Environmental Sanitation Services (PROWESS) program in the water sector. Participatory rural appraisal (PRA), participatory learning and action (PLA) are on everyone's lips now. Quantitative studies have found that participation in general, and women's participation in particular, are among the variables strongly associated with project effectiveness.

An innovative state-of-the-art approach is the Methodology for Participatory Assessments (MPA) developed by a World Bank project through a Participatory Learning and Action Initiative and 18 assessments in 88 villages in three continents (6 in Africa, 5 in Asia and 4 in Latin America). The Initiative sought to address the problem that, though "gender" and "participation" frequently feature in project documents, they are rarely translated into the actual design, implementation, monitoring or evaluation strategies.

The MPA (Dayal, et.al., 2000) "integrates gender and poverty aspects with demand and sustainability, and combines participatory tools in self assessments with statistical analysis at the community, institutional and policy levels." This makes it possible to do both qualitative and quantitative analysis of the data. The findings show clearly that there is a positive link between sustained and effective services and the use of demand-responsive, participatory, gender and poverty-sensitive approaches that benefit both men and women, rich and poor. As importantly, the methodology can be used at any stage in the project cycle to assess whether known sustainability factors are present, and thus to improve project outcomes for the poor and women at any time – designing and monitoring projects for sustainability, for local capacity building, for institutional and policy reform, and for gender and poverty mainstreaming.

Why have such methodologies not become common in the energy sector? There are many reasons, but one is the lack of partnerships between technicians and social scientists. Another is that, until recently, there has not been sufficient interest in development agencies in using and supporting the development of such participatory methodologies in the energy sector.

Variables	Indicators and sub-indicators
A. Effectively sustained	<p>SYSTEM QUALITY</p> <ul style="list-style-type: none"> • Construction matches design, quality of materials and workmanship <p>EFFECTIVE FUNCTIONING</p> <ul style="list-style-type: none"> • Service operation on terms of water quantity, quality, reliability, and predictability <p>EFFECTIVE FINANCING</p> <ul style="list-style-type: none"> • Coverage of investment and/or recurrent costs • Universality and timeliness of payments <p>EFFECTIVE MANAGEMENT</p> <ul style="list-style-type: none"> • Level and timeliness of repairs • Budgeting and keeping accounts
B. Effective use	<p>HYGIENIC AND ENVIRONMENTAL USE</p> <ul style="list-style-type: none"> • Proportion and nature of population using the service • Degree of improvement in water use habits* • Presence and state of waste water disposal provisions for R/P
C. Demand-responsive service	<p>USER DEMANDS</p> <ul style="list-style-type: none"> • Type and proportion of contribution at the time of establishment of service, by M/W, R/P <p>PROJECT RESPONSIVENESS TO DEMAND</p> <ul style="list-style-type: none"> • User voice and choice in planning and design, by M/W, R/P • Satisfaction of user demand for M/W, R/P • Ratio of user-perceived costs-benefits for M/W, R/P
D. Division of burdens and benefits	<p>GENDER AND POVERTY FOCUS DURING ESTABLISHMENT AND OPERATIONS</p> <ul style="list-style-type: none"> • Nature of community payments at the time of establishment of the service • Cost sharing/contribution sharing between and within households for construction and O&M • Division of skilled/unskilled and paid/unpaid labor between M/W, R/P in establishment and management of the service • Division of functions and decision-making between M/W, R/P
E. Participation in service establishment and operation	<p>PARTICIPATION DURING ESTABLISHMENT AND OPERATIONS</p> <ul style="list-style-type: none"> • Degree of control in construction schedules and quality of works by M/W • Composition, status, and rules and tools of control of managing committee, as present and known to M/W, R/P • Responsibilities for maintenance and management • Type of skills created and practiced among M/W, R/P • Transparency in accounts (M/W, R/P)
F. Institutional support for gender- and poverty-sensitive, demand-responsive participation	<p>ENABLING ORGANIZATIONAL SYSTEM</p> <ul style="list-style-type: none"> • Indicative strategy as reflected in service objectives, implementation strategies, and project performance criteria • Sex and class disaggregated planning and monitoring systems in operation • Expertise as reflected in the type of agencies involved, field teams, and team approach <p>ENABLING ORGANIZATIONAL CLIMATE</p> <ul style="list-style-type: none"> • Capacity building, managerial support, and staff performance incentives
G. Policy support for gender- and poverty-	<p>SUPPORTIVE SECTOR POLICY AND STRATEGY</p> <ul style="list-style-type: none"> • National sector policy for water and sanitation present with sustainability and

sensitive, demand-responsive participation	equity as explicit goals <ul style="list-style-type: none"> • Degree to which national sector strategies are present to guide the achievement of the policy goals and incorporate participation, demand-responsiveness and gender and poverty perspectives
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Table 3: Key Indicators for the Assessment in Water Supply and Sanitation Services

Fortunately, this is changing, and several agencies are exploring how to promote user-oriented approaches in energy. A recent major international report aimed at shifting the focus of energy policy back to the challenge of rural energy poverty emphasizes the need for an explicit poverty focus, decentralization and participation, and the integration of energy efforts with other development sectors (WEC/FAO, 2000). Experience with such approaches in the energy sector is however limited; the awareness and capacity to implement them by administrators, policy makers, planners and 'experts' is scant; and proven methodologies and tools on how to orient energy projects towards the poor's participation, and particularly by poor women, in a financially sustainable way, are lacking.

Why not make use of existing participatory methodologies and experience developed in other related technical sectors? ENERGIA is currently developing a project to do just that, by taking the Methodology for Participatory Assessments (MPA) developed in the water sector, and adapting and testing it in the energy sector, while at the same time building capacity to field implement such tools among energy professionals.

For the water and sanitation sector, the MPA framework uses a set of twenty-five tested indicators that are sensitive to gender and poverty (**Table 3**). Many of these indicators can be transferred directly to the energy sector, but adaptation would be needed to reflect eg the greater emphasis on market-based approaches in the energy sector, and for different types of energy projects.

3. What new support is needed at the institutional level, in DANIDA and its partners?

The third key question that I believe our debate today should address is, what new support is needed at the institutional level, in DANIDA and its partners? I would like to say just a word here about the critical role of staffing and capacity building. In ENERGIA's experience, capacity to integrate energy with poverty- and gender objectives is lacking both in energy experts *and* in social development experts.

The new perspectives in poverty alleviation - such as empowering the poor by addressing political and gender inequalities, addressing risk and vulnerability in their daily lives, and expanding their participation in economic opportunities - have not really been part of the normal professional concerns of many of those involved in energy policy and practice. Energy is not widely recognized in development circles either, as a "basic need" like water and food. Working relationships between macro-economists/engineers, and other social scientists have been slow to develop in the energy sector compared to other sectors like forestry and water. Energy experts and social development experts often have different "ways of thinking".

So the answer can only be to work together in partnerships, as multidisciplinary teams. Multidisciplinary teams should be a requirement for every phase (planning, design, implementation, evaluation) of every energy project, to successfully address poverty alleviation. One of the best ways to do this in my opinion is to encourage working-level partnerships: both at the individual level among professionals working in energy and those working in gender and poverty, and at the institutional level, between energy organizations and development organizations.

Training of energy staff in poverty and gender approaches, as is being pursued in some development assistance agencies, is very important. However I believe that the real capacity-building and learning takes place through working on field projects and problems together. That is why in ENERGIA we are trying to encourage active networking and joint activities between energy organizations and development and women's organizations, at both the national and regional levels, for example through the Regional Workshop on Women and Sustainable Energy held in Nairobi last March, national consultations which led up to the workshop, follow-up seed projects proposed already in Kenya, Lesotho, Zimbabwe, South Africa, Ghana and Nigeria, and an African technical advisory group on capacity-building in the region.

4. How can achievement of a poverty- and gender-oriented energy portfolio be measured and monitored?

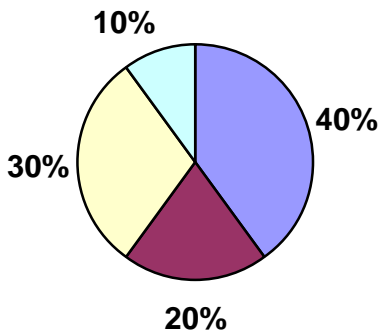
Last, but certainly not least, achievement of a poverty- and gender-oriented energy portfolio needs to be measured and monitored. One reason that the social development impacts of energy projects have been questioned, is that in the past, social impact assessment has seldom been done in the energy sector. How can achievement of a poverty- and gender-oriented energy portfolio be measured and monitored?

An important monitoring tool could be at the macro level of development assistance budget allocations. This is a rough but useful means of judging poverty and gender orientation.⁴ Here in **Figure 3** are two hypothetical examples of project portfolios. The first is dominated by projects that may very well contribute to environmental sustainability and to economic growth, but may have little to do with poverty alleviation: improved efficiency in coal-burning plants, large hydro, wind parks, and photovoltaic commercialization. The second includes a number of smaller projects that are more likely to support poverty alleviation: Household energy/biomass, financing energy services for income-generation by the poor, improving kerosene and LPG pricing and access in rural areas, off-grid electrification with financing for low-income people, multi-sector development including energy, and incentives to assist the poor in power sector reform.

⁴ Unfortunately, most energy projects are categorized by technology, rather than by beneficiaries, end use, or development goal. It cannot however be simply assumed that projects labeled sustainable energy or renewable energy will indeed have any positive impacts on poverty alleviation or gender equality.

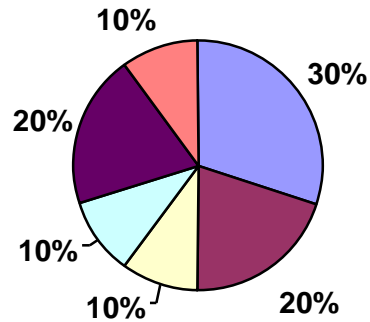
If, as Minister Trojberg informed us this morning, Danish development assistance “will go to the poorest people in the poorest countries,” then presumably the new energy portfolio will end up looking more like the second example below, than like the first.

Environmentally Sustainable Energy Project Portfolio



- improve efficiency in coal-fired plants - 40%
- large hydro - 20%
- wind farms - 30%
- PV electrification (commercial) - 10%

Poverty- and Gender-oriented Energy Project Portfolio



- household energy/biomass - 30%
- household energy/biomass - 20%
- improving kerosene/LPG pricing/access in rural areas - 10%
- improving kerosene/LPG pricing/access in rural areas - 10%
- multi-sector development including energy - 20%
- incentives to assist poor in power sector reform - 10%

Figure 3: Environmentally sustainable-oriented vs poverty & gender-oriented energy project portfolios

One could also think about monitoring projects for their inclusion of women as a target group, with a target for example of fifty percent participation or fifty percent of projects (on a dollar basis). UNDP for example now requires that 20 percent of all program sector funds must be spent on women's projects, and this has affected the energy portfolio as well. Whatever the target percentages, it is critical to set some kinds of targets and indicators that are objectively measurable, if the good rhetoric we read in the new energy policy paper is to be more than, well, just rhetoric.

Conclusion

Starting from the definition of Sustainable Energy Development, the key question has been addressed here of how to improve the complementarities and make difficult decisions about trade-offs among environmental, economic and social objectives in a development-oriented energy policy? How can the concept of energy as a means for development, rather than as an end in itself, be meaningfully operationalized in field implementation?

The new DANIDA energy policy paper must offer us practical guidance in how to do this. It needs to tell us what lessons have been learned and what models we can take from past DANIDA energy projects, or indeed from the considerable Danish NGO experience in linking energy with development. Perhaps the next step will be the preparation of some kind of operational guidance note on energy and the rural poor, including women. This debate today, and continued consultation with civil society, will surely be helpful in contributing to such a guidance note.

In closing, I would like to draw your attention again to the questions that, in my opinion, DANIDA field staff and development cooperation partners will need to have answered, and perhaps participate in answering, in such a guidance note, in order to actually implement a poverty- and gender-oriented energy policy:

1. What would an energy strategy that contributed to poverty alleviation with women as a target group look like?
2. Which specific field-level methodologies and approaches could be used to operationalise such a strategy?
3. What new capacities would be needed at the institutional level in DANIDA and in its partners, for example in staffing and training?
4. How can achievement of a poverty- and gender-oriented energy portfolio be measured and monitored?

Some ideas about how to approach answering these questions have been given in this paper. There are numerous experiences and methodologies to draw upon. There are DANIDA and Danish NGO experiences to learn from. How to best ensure that energy projects contribute to

poverty alleviation, including women as a target group, is a debate that is ongoing in many multi- and bi-lateral agencies and national governments today. DANIDA should be there.

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