GENDER AND SUSTAINABLE ENERGY

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NEWSLETTER OF THE NETWORK FOR GENDER AND SUSTAINABLE ENERGY

Contents

Meeting of a farmer's group growing vanilla, as well as jatropha as a side product. The group is led by a number of women and has set up the first multifunctional platform (MFP) in Uganda. The MFP runs on biodiesel from jatropha seeds and electrifies a hair salon, phone charger and battery charger. The group is now preparing connecting a mini-grid to the MFP. (Photo: Frank van der Vleuten, ETC Energy)

ENERGIA's Work Expands in Scope and Depth

Gail Karlsson

This issue of the newsletter highlights new developments in ENERGIA's growing range of activities. Internationally, the ENERGIA network has been gaining greater recognition and attracting new partners, as well as expanding its engagement on gender issues related to biofuels and climate change.
At the same time, network members have continued to apply and adapt ENERGIA's innovative gender and energy tools, designed for conducting gender audits of national energy policies. In the near future, ENERGIA will start to support activities geared towards mainstreaming gender in existing energy projects. Here also, the gender and energy tools developed by ENERGIA will be applied and –where necessary- further developed.

Joint activities with IUCN

One very important new ENERGIA alliance is with the International Union for Conservation of Nature (IUCN). IUCN is a global environmental network, including many governments and large non-government organisations, that addresses a wide range of environmental and sustainable development issues. ENERGIA members first collaborated with IUCN representatives through participation in the Women as a Major Group discussions on energy and climate change at the 2006 and 2007 sessions of the UN Commission on Sustainable Development (CSD 14 and 15).

Initial activities under the ENERGIA-IUCN MoU will involve gender-sensitive energy

projects in Oceania, research on gender issues related to biofuels, and engagement with the newly formed Global Gender and Climate Change Alliance. The MoU between IUCN and ENERGIA will also be introduced to representatives of IUCN's more than one thousand member organisations at the World Conservation Congress in Barcelona in October 2008. There is more information about IUCN and its collaboration with ENERGIA in the article on page 5.

Gender perspectives on biofuel issues

A number of ENERGIA members are concerned about the problems that women in rural areas may face if the establishment of new biofuel plantations leads to losses in their traditional access to land and natural resources, or degradation of local ecosystems and lifestyles. They also recognise that there may be strategic measures that could protect against some of the challenges presented by increased biofuel production. In addition, some see potential opportunities for rural women to grow biofuel crops for sale, or to process them for local use.

At the CSD, the current cycle of discussions for 2008-2009 is focusing on agriculture and rural development, and several members of the ENERGIA network are involved with representing women's perspectives on these topics. ENERGIA is gradually building up a knowledge base on gender issues related to the production, marketing and use of biofuels. For a summary of how ENERGIA members are engaged on this topic, see page 17.

Recognition of ENERGIA's expertise by UNDP's Environment and Energy Group and USAID

ENERGIA's work on gender and energy training tools is referenced in UNDP's Gender Mainstreaming Training Manual which was published in December 2007. The manual examines environment and energy development projects, policies and decision-making processes from a gender perspective, with the goal of 'demystifying' gender mainstreaming for UNDP staff and other practitioners. It is hoped that the information and training exercises contained in the manual will help convince environment and energy experts, many of whom have technical or scientific backgrounds, that the concept of gender mainstreaming is relevant to their work. On page 22, Joy Clancy provides an insightful review of the UNDP training manual.

It is also gratifying to note that recent energy project documents produced by the United States Agency for International Development emphasise the importance of incorporating a gender perspective. USAID documents specifically refer to the expertise of the ENERGIA network, and identify the joint UNDP-ENERGIA Toolkit on Gender and Energy for Sustainable Development as a key resource.

Applying gender tools in evaluating energy budgets, policies and projects

ENERGIA first implemented its innovative national gender and energy audit programme in Botswana, Kenya and Senegal as part of the programme called 'Turning Information into Empowerment: Strengthening Gender and Energy Networking in Africa' (TIE-ENERGIA). The audits were designed to identify gender gaps in energy and poverty policies, and to make gender and energy issues visible to a wide audience. The audit activities enabled policymakers to understand what was missing in national-level energy policies, and also posed challenges to promoters of gender and poverty reduction strategies about how to find solutions to the identified gaps.

More recently, the gender audit concept has been introduced in India where IRADe, with support from ENERGIA, undertook a gender audit of the Ministry of New and Renewable Energy as a case study. The focus was on renewable energy because distributed off-grid technologies can provide many benefits to rural women in terms of improved livelihoods and employment opportunities. As is true in many countries, the needs of women, and their access to and control over energy resources, are not usually considered in the energy sector, in part because of a lack of understanding of how to incorporate gender concerns in what seem at first to be purely technical decisions. The audit led to recommendations for better coordination of national energy policies, for monitoring and evaluation that includes gender indicators, for an emphasis on cleaner cooking systems, and for assurances that sustainable supplies of biomass fuel will be available to those without access to affordable alternative fuels. (See page 19 for more on the gender and energy audit in India.)

In another article in this issue, Joy Clancy provides an example of how to apply ENERGIA's gender analysis tools. She presents a fictitious improved stoves project and describes how to use the toolkit available on ENERGIA's website to develop an effective monitoring and evaluation system for energy projects.

New leadership and studies in Africa

The Botswana Technology Centre (BOTEC) is the new host of ENERGIA's Africa Regional Secretariat. An interview with Nozipho Wright from BOTEC discusses her progress from a childhood gathering fuelwood to studying in the Netherlands, learning about ENERGIA, and helping to form the Gender and Energy Network of Botswana. Her work on a gender audit of Botswana's energy policies and programmes through TIE-ENERGIA, and her experiences as an ENERGIA team member at the UN Commission on Sustainable Development, have encouraged her to take on the task of building capacity on gender and energy issues both nationally and in the Africa region.

From the Sahel area of Africa, Smail Khennas and Mahamane Lawali report on PREDAS, a regional programme organised by Burkina Faso, Cape Verde, Chad, The Gambia, Guinea Bissau, Mali, Niger and Senegal. The goal is to help supply low-cost household energy in the region, and also to manage natural resources in a sustainable manner. Firewood and charcoal are the major energy resources for household uses, and also for many traditional income-generating activities. Women play an important role as producers and traders of wood and charcoal, and as forestry managers, and they can also become engaged in the distribution of more efficient stoves that will reduce fuel requirements and pollution.

In another article, based on one of the few empirical studies on the gender impacts of rural electrification programmes, Tanja Winther, drawing on 16 months of fieldwork and visits to rural Zanzibar spread over 15 years, discusses how widespread access to electricity in Zanzibar has affected women's household roles Although village water pumps now benefit women and girls by reducing the time spent collecting water, most women still cook with firewood on a three-stone hearth. It is men who own the houses, and control and pay for the electricity, and electric stoves are expensive to buy and run. Nevertheless, cooking practices have begun to change as women's incomes have increased and their daily routines have been altered by the introduction of electric lights and televisions.

An exciting time for ENERGIA

The ENERGIA Secretariat and network members are continuing to build their skills and experience as advocates and advisers on gender perspectives: providing information, resources, learning tools and training capacity to national governments, international institutions, project managers, NGOs and community groups. Today, ENERGIA is widely recognised as the expert group on gender and energy, and is being asked to expand its efforts in new roles and directions. It is an exciting time for all of us involved in this growing process. ■

News from the Secretariat

New Regional Secretariat and Network Coordinator in Africa

ENERGIA is pleased to introduce BOTEC, the Botswana Technology Centre, as the new Africa Regional Secretariat, and Ms Nozipho Wright as the Africa Regional Network Coordinator. BOTEC and Nozipho were chosen after a long and objective selection procedure led by a selection committee that included representives from the ENERGIA Africa network. Nozipho has been an active chair of GENBO (Gender and Energy Network Botswana) and, in this capacity, was involved in the very first gender audit of national energy policy in Botswana. She also participated in the advocacy efforts at CSD15 as part of the Botswana delegation. BOTEC is very supportive of the gender and energy activities undertaken by GENBO and showed great interest in becoming the Regional Secretariat for ENERGIA in Africa. You will find an interview with Nozipho later in this issue (on page 7) where we introduce her and BOTEC in their new roles and in which she tells us about what has driven her and BOTEC to take them up.

In May 2008, Nozipho and one of BOTEC's senior managers Mr Basaako visited ETC's office in the Netherlands. The aims of this meeting were twofold: to formally introduce BOTEC as a new partner to ETC, and to update Nozipho on planning for the ENERGIA Africa Network. With Nozipho's dedication and BOTEC's commitment, we are confident that the ENERGIA Africa Network has the leadership to become an even more active and vibrant network.

Memorandum of Understanding with IUCN

ENERGIA has recently signed a Memorandum of Understanding (MoU) with the International Union for Conservation of Nature (IUCN). The MoU expresses the intention to identify and carry out specific joint projects and activities. These projects will mostly be in the field of gender and energy, and related to issues such as climate change and biofuels. More information can be found in the articles by IUCN on page 5 and by Gail Karlsson on gender and biofuels on page 17.

With the entire network's full support for this joint collaboration with IUCN, this new strategic partnership provides an excellent opportunity for both organisations, and ENERGIA is looking forward to a fruitful and close collaboration.

Mainstreaming gender in energy projects and markets

Under Phase 4 (2007-10), ENERGIA is seeking energy access projects, programmes and businesses interested in cooperating on mainstreaming gender effectively in their activities in countries where ENERGIA is active in Africa and Asia. The goal is to assist and document some successful energy projects to showcase how gender-specific impacts can be generated through rural energy access projects/markets, and to use the outcomes of these projects to demonstrate how, given both stakeholder commitment and gender-specific resources, such impacts can be multiplied.

The initiative is expected to (a) result in new opportunities for social and economic empowerment of women in existing energy access projects, (b) build the capacity and skills of project implementers to integrate gender concerns into their projects, (c) generate a body of first-hand experiences that demonstrate how gender-specific outcomes can be generated in energy access projects/markets, (d) start a process of institutionalising gender mainstreaming in energy projects, and (e) provide, as a result of the above, a new strategic direction for rural energy access initiatives.

In this context, we invited ENERGIA national focal points, their partner institutions and other stakeholders to submit project proposals to mainstream gender approaches in existing energy projects. The call received a very good response and we are now in the process of selecting proposals for implementation. We will keep you informed of the outcomes.

ESMAP planning for mainstreaming gender in energy

The World Bank's Energy Sector Management Assistance Program (ESMAP) organised an expert meeting on gender horizon-scanning and mainstreaming gender in energy from May 21-22, 2008, and Sheila Oparaocha participated on behalf of ENERGIA. The meeting had the following objectives:

- Drawing from international knowledge and experience, to inform ESMAP and the World Bank on the already identified priority areas of the gender-energy nexus;
- To prioritise critical areas of work for ESMAP and the Bank, both globally and by region; and
- To develop inputs for an operational plan on gender and energy for ESMAP (for research/analytical work, knowledge dissemination and operations), and for updating the World Bank's Energy Strategy.

ENERGIA shared experiences concerning its global, regional and national partnerships in gender and energy, and presented approaches to capacity building and gender audits that were used in TIE-ENERGIA.

The meeting ended with draft recommendations, which will result in an action plan for ESMAP. Workshop proceedings should be available later this year. For more information, go to the World Bank's Energy and Gender website at: www.worldbank.org/energygender

◆ Gail Karlsson, ENERGIA Policy Adviser, is an environmental lawyer and consultant on energy and development. She has edited and produced a number of publications on gender and energy including Where Energy is Women's Business: National and Regional Reports from Africa, Asia, Latin America and the Pacific (ENERGIA, 2007), Gender & Energy for Sustainable Development: A Toolkit and Resource Guide (UNDP and ENERGIA, 2004) and Generating Opportunities: Case Studies on Energy and Women, (UNDP, 2001).

◆ Ms Karlsson can be contacted at 258 Broadway 5A, New York, NY 10007, USA; Tel: +1.212.267 4239; Fax: +1.419.781 2862; E-mail: gkarlsson@worldnet.att.net or gkarlsson@igc.org

Updates from the regions

Gender audit of national energy policy in India

ENERGIA is pleased to report that the gender audit of national energy policy in India has been successfully concluded. The audit was implemented by the ENERGIA National Focal Point in India, IRADe, and specifically looked at the national policy of the Ministry of New and Renewable Energy. The major outcome is the endorsement of the final report "Gender Audit of National Energy Policy in India: Present Status, Issues, Approach and New Initiatives for Renewable Energy" by the Ministry. A more detailed description of the audit and its findings can be found in the article "Gender Audit of India National Energy Policy" on page 19.

Dr Parikh of IRADe, Mr V. Subramaniam, Secretary to MNRE, and Dr Ajit K. Gupta, Senior Advisor to MNRE, at the Stakeholders Consultation and Dissemination Workshop on the gender audits of national energy policies in India. (Photo: IRADe)

Gender audit of energy policy in Nigeria

Friends of the Environment (FOTE), ENERGIA's National Focal Point for the Nigerian gender and energy network, has successfully submitted a proposal under the national policy-influencing window provided within the ENERGIA Network. FOTE is carrying out a gender audit of national Nigerian Energy Policy to achieve the following:

- Identify gender gaps in energy-related policies, and formulate strategies that can address those gaps.
- Make gender and energy issues visible to wide audiences in ways that support the national and international networking and advocacy initiatives to influence energy policies and programmes.

A participatory approach will be used for the gender audit, led by a national team of experts in close consultation with ECN (Energy Commission of Nigeria), to encourage ownership of and commitment to the results and actions recommended by the national policy making and influencing apparatus.

Seed funding in Africa and Asia

In order to strengthen national ENERGIA networks, seed funding has been made available for both Asian and African member countries. Eight national networks in Asia and seven in Africa received such funding, and activities are at various stages of implementation.

Some interesting examples of the work carried out with these funds include:

- A dung project in Lesotho: dung is collected from cattle held within police custody. This is then made into dung cakes for sale to the Qoaling and Katlehong, marginalised pastoralists, to meet their energy needs for cooking and space heating.
- A collaborative study in Sri Lanka to assess the impact of energy technologies on the empowerment of women.
- Training of women in Ghana in the use of improved stoves, as well as in the construction and supply of improved stoves for income-generation.
- The development of tools and methodologies in Nepal for gender analysis in the energy field.
- A pilot study in Botswana on how gender-disaggregated data can be collected.

In general, in these types of activities, the national networks focus on:

- Capacity building for national stakeholders and network members.
- Strengthening a gender and energy resource centre within the National Focal Point organisation.
- Developing proposals for national training on mainstreaming gender in energy projects and implementing such projects.
- Strengthening communication and information sharing between network members through developing websites, mailing lists, e-groups, newsletters, meetings and workshops, and increasing the membership base.

National training workshops in Asia

In the period from September to December 2008, a number of national training workshops will be held in Nepal, India, Indonesia, Lao PDR and Sri Lanka. These build on the Asia Regional Gender and Energy Training of Trainers workshop held in Chiang Mai, Thailand, in October 2007. The national training workshops will mostly target programme and project managers and explain how to mainstream gender approaches in their programmes and projects.

Financing clean energy for the poor and women

The Asia Development Bank and USAID (United States Agency for International Development) organised The Asia Clean Energy Forum in Manila, the Philippines, between 3 and 5 June 2008. Ms Soma Dutta, Regional Network Coordinator for ENERGIA in Asia, was invited to speak at this event. This opportunity was used by ENERGIA to:

- Draw attention to the importance and advantages of a gender and poverty focus in clean energy and energy security initiatives.
- Launch/seed ideas for a new financing mechanism to support gender and poverty-sensitive financing of clean energy services.

In line with the above, an open space session on 'Financing Clean Energy for the Poor and Women' was held on 4th June. The session was moderated by Mr K.V. Ramani, together with Soma Dutta. The session saw a presentation of the concept note on the proposed financing facility –developed by Mr Ramani- and three case studies of financing experiences in Asia: from the SEWA Bank (India), the Institute of Community Economics and Businesses (IBEKA) in Indonesia and from APPROTECH Asia.

Using financing mechanisms to improve energy access is a new approach: although there have been a few individual attempts, there are no nationwide efforts to set up or manage a dedicated fund for energy access in any Asia-Pacific country. This lack of precedent means that any action to establish such a mechanism must stem from some form of collective agreement on the core idea and principles among a number of countries in the region. Although the side event at the Asia Clean Energy Forum was too limited in scope to serve such a purpose, it has sown the idea to a diverse regional audience and given ENERGIA the opportunity to receive input. ENERGIA is now determining some concrete steps with which to follow-up the initiative.

Panellists at Financing Clean Energy for the Poor and Women. From left to right: Mr K.V. Ramani, Ms Deval Thakar (SEWA Bank), Ms Tri Mumpuni (IBEKA), Ms Soma Dutta, and Ms Bernadette Parado (APPROTECH). (Photo: ADB)

SAWIE: a new group of women in energy in South Asia

A 'Women in Energy' workshop was held in India, from 21-25 April 2008, organised by USAID. A South Asia Women in Energy Network (SAWIE) was formed at the event by 32 women professionals from eight Asian countries. SAWIE will be working on various issues in efficient energy management and on promoting renewable energy with an objective of mainstreaming gender in the energy sector.

We are very pleased to inform you that Soma Dutta, the Regional Network Coordinator for the ENERGIA Asia network, has been elected chair of SAWIE's working group on gender mainstreaming. ■

Nature conservation within the context of gender and energy

Lorena Aguilar and Nadine McCormick

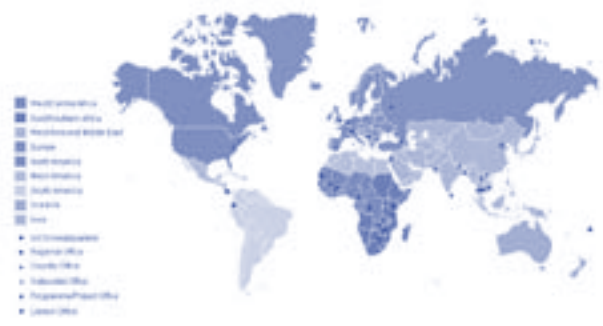
Introducing IUCN

For sixty years, IUCN, the International Union for Conservation of Nature, has led the development of conservation science and knowledge, and brought together governments, NGOs, scientists, companies and community organisations to help the world make better conservation and development decisions. IUCN is the world's oldest and largest global environmental network - a democratic union with more than 1,000 government and NGO member organisations, and some 10,000 volunteer scientists. With headquarters in Gland, Switzerland, IUCN works in more than 60 offices. We have members in more than 160 countries worldwide, hundreds of project sites and partners in public, NGO and private sectors around the world.

What we do

Our mission is to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.

IUCN helps in developing conservation science, manages field projects all over the world, and brings together players from different domains and sectors to develop and implement policy, laws and best practices that help the world find pragmatic solutions to our most pressing environment and development challenges. In a nutshell, how do we balance the needs of people with the needs of the planet that supports us?



Where we work © IUCN 2008

IUCN and mainstreaming gender

IUCN places great importance on the promotion of gender equity and equality, and has made great strides in the long process of mainstreaming a gender perspective. IUCN began incorporating gender issues in its work programme in 1984. However, it was not until 1996 that an internal process was clearly defined. This was followed, in 1998, by the adoption of a Gender Policy by the IUCN Council and later by the creation of a Senior Gender Adviser position and subsequent internal procedures to ensure that gender considerations are included in IUCN's daily work.

"IUCN's commitment to gender equality and equity is Union wide and it should be an integral part of all policies, programmes and projects".

Externally, IUCN enjoys worldwide recognition for the extensive work it has carried out over the past 12 years addressing gender equality issues within the environmental sector. This includes the development of sector-specific gender tools, capacity building for more than 10,000 people worldwide, gender mainstreaming efforts, action plans with global forums, including the Convention on Biological Diversity and the United Nation Environmental Programme, and the establishment of gender entities in environmental ministries throughout Mesoamerica.

IUCN has also developed a unique platform for knowledge management through a specific website on gender and environment www.genderandenvironment.org which is widely considered to be the most specialised portal in relation to gender and environment.

Gender and climate change

In line with our groundbreaking work linking gender roles with environmental protection, in 2007 we assembled a group of global institutions, governments and civil society in what has been dubbed the Global Gender and Climate Alliance. The alliance has attracted former Presidents, a Nobel Prize winner, and countless institutions and networks who are now collectively tackling the human face of climate change. Our efforts to unite women environment ministers have allowed them to speak with one voice at climate change negotiations. We put together the first comprehensive study on how gender interacts with climate change and made sure that this issue is taken seriously in global climate change debates. Most importantly, we convinced the world's climate change negotiating body (UNFCCC) to work with us in developing a global gender strategy, one which will help guide communities in dealing with climate change and protecting their environment.

Why is a nature organisation looking at energy

In the same way that IUCN is broadening its reach with knowledge, tools and expertise to other new sectors such as climate change, poverty and green markets, we are also targeting the energy sector. Not only has the consumption of conventional fossil-based energy sources clearly been the major cause of indirect impacts on the environment through climate change, it has also had direct impacts related to infrastructure, mining and pollution. All energy options (even those that are portrayed as "green") have some impact on the environment.

At the same time, the environment also provides valuable services for energy provision, such as the provision of water flows (important for hydroelectricity as well as fossil fuel production) and biomass (linked to traditional as well as modern forms of bio-energy, including biofuels). The sustainability of an energy source depends on how these natural resources are managed. IUCN aims to reduce and manage these risks while maximising the potential opportunities for the environment and for development. Previous work in this area includes promoting

Female owner of a private nursery in Hawata village in eastern Sudan. The nursery provides the family with fuelwood and other forest products and thus increases their livelihood. (Photo: Agni Klintuni Boedhihartono, IUCN)

best practice in managing biodiversity in the context of energy developments such as oil and gas exploration and dam construction and, more recently, addressing sustainability concerns surrounding biofuels.

Linking nature, gender and energy

More than two billion people worldwide depend on traditional biomass fuel as their primary energy source for cooking, heating and lighting, and it is women and children who are mostly responsible for sourcing firewood in most developing countries. It follows that the links between energy supplies and gender roles are strongest in countries with low availability of electricity and modern fuels. In addition to limiting the potential for social and economic development through the time spent gathering fuel, and the health impacts associated with inefficient and poorly-ventilated burners, the knock-on impacts on biodiversity – land degradation, deforestation and reduced water flows – are also important since they reduce the future availability of local resources for energy and other uses.

Greater attention to energy needs and the concerns of women in developing countries can improve the effectiveness of energy policies and projects, and can also help promote overall development goals such as poverty alleviation, increased employment and improved health and education levels – as well as biodiversity conservation (UNDP, 2000). As women are, in effect, the managers of natural resources and the producers of energy, they are a key partner in the development of sustainable energy services in developed as well as developing countries.

Future engagement with ENERGIA through the MoU

IUCN is committed to mainstreaming gender in all its work and has explored collaboration with the ENERGIA International Network on Gender and Sustainable Energy as a way of strengthening its capacity to implement its energy programme in a gender-sensitive way while, at the same time, providing ENERGIA with access to additional platforms to promote its message. It is within this context that, on July 8 2008, ENERGIA and IUCN signed a Memorandum of Understanding to formalise this collaboration, which will be formally launched at the World Conservation Congress in Barcelona on October 9 2008.

Initial areas for potential collaboration have been identified as follows, and other areas are likely to be added to the list:

- Demonstrating conditions under which women are effective managers of natural resource and energy systems.
- Capacity building, training and technical support to projects, especially in integrating gender elements.
- Strengthening research on gender and other key issues for IUCN and ENERGIA in order to influence programme and policy implementation.
- Promoting the integration of gender issues in ongoing and emerging biofuel and bio-energy processes.
- Advocating for the greater participation of women in energy decision-making processes.
- Linking IUCN and ENERGIA networks at national and regional levels.

We very much look forward to bringing together the respective networks of ENERGIA and IUCN, and of other partners, to assist in the transition towards a truly sustainable and equitable energy future. ■

Further information

- Gender and environment platform www.genderandenvironment.org
- IUCN's gender pages http://generoyambiente.org/
- IUCN's energy, ecosystems and livelihoods initiative www.iucn.org/energy
- IUCN's World Conservation Congress www.iucn.org/congress
- The Nature of Energy, IUCN World Conservation, July 2007, pp.15-16, http://cmsdata.iucn.org/downloads/01_world_conservation_2007_07.pdf

◆ Lorena Aguilar was born in San José, Costa Rica, and has more than two decades of practical experience in projects and initiatives involving public policy development and design, and the incorporation of social and gender issues in the use and conservation of natural resources.

Presently IUCN's Senior Gender Adviser, Ms Aguilar has provided technical assistance to international organisations, governments and universities in areas such as water, environmental health, gender and community participation. Ms Aguilar has written extensively on gender and environment, environmental health and public policies involving gender equality. She has also been instrumental in the design of gender action plans in a number of major environmental institutions, such as UNEP and the Convention on Biological Diversity.

◆ Email: lorena.aguilar@iucn.org

◆ Nadine McCormick coordinates IUCN's Energy, Ecosystems and Livelihoods Initiative, where she is responsible for policy development, communications and fundraising, and serves as IUCN's focal point for biofuels. Nadine joined IUCN Headquarters in 2005, working with the Chief Scientist and Senior Advisers for Social Policy and Economics, before joining the Business and Biodiversity Programme in January 2007. She had previously been a volunteer with Azafady, an NGO based in Madagascar, and had worked as an assistant financial controller in France and the UK. Nadine, a British national, holds a Masters Degree in Environment and Development from the University of Edinburgh and a BSc in International Management and French from the University of Bath.

◆ IUCN Headquarters, Rue Mauverney 28, Gland, 1196, Switzerland; Tel: +41 (22) 999-0000; Fax: +41 (22) 999-0002; Email: Nadine.McCormick@iucn.org

Meeting ENERGIA Members

Nozipho Wright

ENERGIA Africa Regional Network Coordinator

Interview by Anja Panjwani

ENERGIA members may already know you through your work for CSD and the Botswana gender audits, but could you tell us a little more about your previous involvement in ENERGIA and how you became engaged in the field of gender and energy?
I have worked in the area of gender and energy since 2001, having become involved in this field through my own initiative and motivation to assist poor, rural women in Botswana. Having lived a life of fuelwood collection into my early teens, I empathise with girls and women who continue to live in this way, struggling to provide for the energy needs of their families. As a result, I strive to improve women's lives in any possible way, while the environmental consequences of fuelwood overuse are an additional concern.

Although not originally trained in the field of energy, I have developed myself in this subject through short courses, training, workshops and the masters programme at the University of Twente in the Netherlands. In 2003, while studying in the Netherlands, I travelled to ETC to ask ENERGIA to allow Botswana to join as a member of the Network. This request was successful and the following year we received seed funding from ENERGIA to form the Gender and Energy Network of Botswana (GENBO). BOTEC (the Botswana Technology Centre) was selected by stakeholders to host GENBO. I was the first chairperson, a position I held until recently. I have become a key person in raising issues on gender and energy in Botswana and have taken on the task of creating capacity in this area, particularly for policymakers.

Could you share with us your experiences with advocacy work at CSD and for the gender audits and how this affected your work at BOTEC and your connections with the government?
The advocacy work at CSD presented an opportunity for me to work with the Botswana government delegation in inputting gender into the country report. The Environment Minster's CSD speech contained gender issues which had been drawn from the report I prepared prior to this event. The CSD gave me a lot of confidence as I was able to lobby other African government delegates to include gender in the CSD report. The experience also enabled me to obtain support and create greater awareness of gender at BOTEC and in the Department of Energy.

Work done during the gender audits of energy policies and programmes raised more awareness in Botswana, and I have been able to stay in touch with the development of a national energy policy since the audits. The Department of Energy recognise me as the gender contact person in terms of the policy, and will rely on GENBO to mainstream gender into the policy when it comes to us for consultation.

What has driven you to become the Regional Network Coordinator (RNC) and BOTEC to host the Regional Secretariat, and what do you feel you and BOTEC can contribute to the ENERGIA Africa regional network?
I have developed good networking skills since I started working for BOTEC. Mobilising local stakeholders on gender and energy since 2003, and also the advocacy work I did for the CSD, has given me the confidence to want to move to a higher level. When I saw the RNC advert, I said to myself, 'this is an opportunity for me to have an even greater impact'. I see mobilising and coordinating 13 National Focal Points and other related projects as a great challenge. I wanted to share my coordination and liaison skills with the ENERGIA Africa Network and I could only achieve this through the position of RNC.

BOTEC has an energy programme within which the ENERGIA Africa work sits. BOTEC's mandate calls for the development and adaptation of technologies that contribute to improving lives in Botswana. Hosting the ENERGIA Africa Regional Secretariat realises BOTEC's mandate on an international scale. Further, BOTEC expects that hosting the RNC and the RS will make a significant contribution to capacity building, not only for BOTEC staff, but for the country as a whole.

The stable political and economic environment in Botswana, together with its good infrastructure including transport, communications, accommodation and conference facilities, BOTEC believes will benefit ENERGIA Africa. Such conditions encourage good networking partnerships and participation in international projects.

How do you plan to build on the activities carried out under TIE-ENERGIA[1]?
I envisage using the skills acquired from TIE-ENERGIA by NFPs and other network members in contributing to the capacity-building component of the ENERGIA Phase 4 programme. Action plans developed by various ENERGIA countries will be referred to during the implementation of this component.

What is your long-term vision for the ENERGIA Africa network?
I would like to see ENERGIA Africa being known by governments and other interested organisations as the organisation to go to for advice on how to mainstream gender in energy policies and programmes in African countries.

On a more personal note, could you tell us a bit about yourself?
I am a very confident person. Approaching policymakers and others to convince them to include gender in energy policies and programmes seems to come naturally to me. I believe that we all have a contribution to make to the development of our countries, and I see the gender and energy and the renewable energy work that I do as my specific contribution to the development of Botswana, and now to 12 other African countries.

I enjoy travelling and meeting new people, of all nations, some of whom have now become family friends. When not engendering the world, I read, cook, do aerobics, yoga, run and support Arsenal Football Club. I am lucky to have a very supportive husband, whose expertise as an economist often contributes to my work. ■

[1] *ENERGIA's programme 'Turning Information into Empowerment: Strengthening Gender and Energy Networking in Africa', TIE-ENERGIA in short, was implemented in 13 African countries from 2005-2007. It developed a generic training programme on gender and energy and implemented gender audits of national energy policies. For more information, see ENERGIA News 10.1, pp 7-9.*

◆ Nozipho Wright, BOTEC, Private Bag 0082, Gaborone, Botswana;
Tel: +267.39.141 61;
Fax +267.39.746 77;
Email: noziphom@botec.bw

Empowering women through electrification: experiences from rural Zanzibar

Tanja Winther

Approaching gender and energy

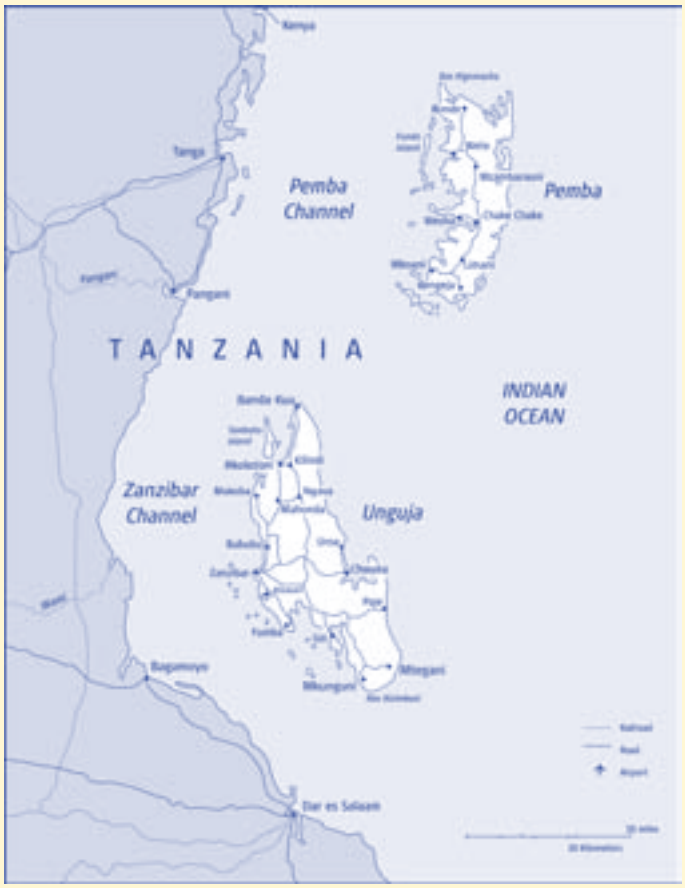
This article discusses the extent to which the arrival of electricity in Islamic rural Zanzibar has empowered women. Commonly, a gender perspective in development thinking involves a twofold focus. On the one hand, it concerns women's and men's equal right to participate and be involved in decision-making during a project's implementation phase. On the other hand, men and women, who tend to have distinct roles, responsibilities and needs in a given community, are end-users of the outcomes of such projects. Correspondingly, a gender perspective also involves being attuned to a project's potentially different effects on women and men, and an equitable distribution of long-term benefits is seen as a central goal. There is naturally a link between the concerns for 'participation in the process' and for 'end-use benefits'. In the Zanzibari village of Uroa, which has been seen as a success story in terms of the high level of participation (Winther 2008), two important female institutions remain unconnected to the electricity grid: the village mill and the kindergarten. In comparison, male institutions such as mosques and the fish market are connected. This discrepancy in whose interests are represented is linked to women's exclusion from the planning process. Such exclusion has long-term effects when major infrastructures are involved. For the remainder of this article, I focus on electricity's uses in the aftermath of the intervention and highlight some of the ways in which these dynamics affect the situation of women. Electricity carries a potential for women's empowerment but, in Zanzibar, several barriers stand in the way of such potentials being fully realised.

The material reported here is based on 16 months of fieldwork and visits to rural Zanzibar covering a time span of 15 years (1991, 2000-01, 2004, 2005 and 2006). Methods include participant observation, interviews and a household survey, supplemented with technical data obtained through the electricity company. The main village studied, Uroa, is located on the east coast of Unguja Island, Zanzibar, and was electrified in 1990.

Improved access to electricity and public services

The electricity supply in rural Zanzibar used to be very poor but dramatically improved after 1986 when Norad helped finance the construction of an electricity grid on Zanzibar's two islands, Unguja and Pemba. Today, 80% of the rural population have access to electricity. The project had an explicit focus on gender issues and, in an early phase, addressed the question of how to include women among its project staff. Subsequently, 12 women and 12 men were invited to attend a surveying course during the time of my first fieldwork (1991), and the exam results would determine who would get a position in the project. Based on this simple model of equal representation in the training phase, the outcome of the tests resulted in all 12 women (and only two men) being hired for the project. Fifteen years later, five of these women continue to be employed by the project/electricity company.

In rural Zanzibar, having access to electricity in a village means that the water pumps are likely to run steadily, that the schools and health centres are likely to be connected and, at least in the village of Uroa, there is street lighting at night time. Women have benefited tremendously from these improvements in public services. In addition to the positive effect on people's health, electricity leads to a reduction in transport costs (necessary medical treatment etc. can now be obtained in the village) and time savings. Households, in practice women and girls, save 25 hours per week on average on water collection when a village tap is introduced. As a result, girls attend school to the same extent as boys, and women have more time for productive activities and even some time to relax in the evenings. Through its use for public services, electricity has improved women's lives in significant ways.



Map 1. Zanzibar (Pemba and Unguja Islands) - part of Tanzania.

Barriers to female control of electrical appliances

Turning to private consumption, we enter a more complex analytical field when trying to explore electricity's impact. On Unguja, 20% of private rural households have become connected to the grid (Winther 2006). Just like men, women in Zanzibar express a desire for a range of appliances. Among the 131 electrified homes visited in Uroa in 2001, the following appliances were observed: incandescent lights (99%), radios (88%), fans (44%), television sets (33%), irons (20%), freezers (19%), fluorescent lights (19%), fridges (4%), water kettles (2.3%), blenders (1.5%) and a video (0.8%). With the exception of some radios, all the electrical appliances had been purchased by men and were owned by them. I will now try to explain why this is so, and touch on some of the implications of this male association with appliances.

In Zanzibar, Islamic law is said to prescribe that each person is free to buy whatever he or she chooses. In Zanzibari homes, when asked,

people would quickly and precisely respond to the question of to whom a given item belongs: the owner would be either the wife or the husband, never both. Given women's interest in appliances, their moral right to purchase and own what they want, and the fact that they have some access to money through seaweed farming, why is it then that they do not purchase and own appliances?

Here, other principles that guide people's finances and ownership of things become important. It is claimed that because of Islamic rules on inheritance women in rural Zanzibar seldom own houses. They further tend to move to the husband's place on getting married and they leave the house in the event of a divorce. Divorces are not uncommon in rural Zanzibar, and they are more easily obtained by men than by women. The likelihood of divorce influences a woman's choice as to what she invests in.

The rules of inheritance and divorce, and the settlement patterns, mean that men become owners of, and associated with, houses. Consequently, as a fixed extension of the house, electricity in Zanzibar becomes a male realm. Men install electricity and engage in the customer relationship with the utility company and pay the monthly bill. Here we touch on a vital characteristic of electricity's organisation in Zanzibar (centralised grid, conventional kWh meters) which also ultimately affects women's limited control of the technology. Since electrical appliances consume current, they represent a cost to the male customer each time they are used. This technical/economic feature is relevant when explaining the fact that women in rural Zanzibar never receive electrical appliances as wedding gifts (see Winther 2008). Similarly, the shape and organisation (or 'script' cf. Madeleine Akrich 1994) of the technological system acts as a hindrance for women when it comes to making decisions about what to buy.

There is also some degree of ambiguity as to whether the norm of individual ownership of objects applies in practice. A new, integrated cupboard had been installed in Hija and Zawadi's home. On being asked who it belonged to, Zawadi said in Swahili 'It's his. It doesn't leave.' (Ya yeye. Haitoki.) Women leave the house in the event of a divorce, physically-integrated objects stay. However, not only fixed objects may remain. One of my male friends elaborated in English: 'If there is a divorce, big things must stay in the house.' He gave the hypothetical example of a large, electrical stove. According to this understanding, it is irrelevant who first provided, or owned, the item: its physical quality largely determines whether it will stay. These glimpses illustrate that certain grey zones exist, and that uncertainty itself may keep women from investing in appliances.

Furthermore, over time, objects may increasingly be regarded as a part of the house and thereby become irremovable. Most people contest such ideas, and say that a woman has the right to take with her every item she has acquired. However, many would add that regretfully this is not always the case. If there is a conflict, and the man is angry, he might just 'throw her out' (anamtupa nje). Implicitly, she is forced to leave her 'big things' behind under such circumstances. The inherent uncertainty in what a woman can take with her - probably a locus of conflict in real cases – could also be a reason why they do not become owners of major electrical appliances.

Indirectly, however, women contribute substantially to the purchase of such devices. Women's income from seaweed farming constitutes at least one-third in monetary value of what men make from selling fish at the market, the most important source of income in the village (Winther 2008). To an increasing extent, women use their income to support their families in everyday life, something that traditionally was seen as the man's duty. Thus, while men increasingly tend to tie up their resources in long-lasting items (houses and appliances), women are supporting the family's everyday expenses to a greater extent than before. The concern with this pattern is that women face significant long-term financial insecurity.

When it comes to using appliances, their male ownership has limited implications. Women spend more time at home than men, and they frequently and readily administer the use of freezers, lights, televisions and the like. In so doing, they try to keep consumption to a minimum. If new objects are introduced, the household and all of its members gain prestige vis-à-vis the extended family and neighbours.

Foodways: keeping electricity at a distance?

Rural Zanzibaris keep their food at a distance from electricity, and women continue to cook with firewood on the three-stone hearth. As discussed above, there are structural reasons as to why women do not own electrical appliances, and electricity's organisation and costs also play a role. Nevertheless, other factors are relevant in understanding the apparent rigidity in cooking practices, such as people's fear of electric shocks. Figure 1 provides a summary of relevant factors.

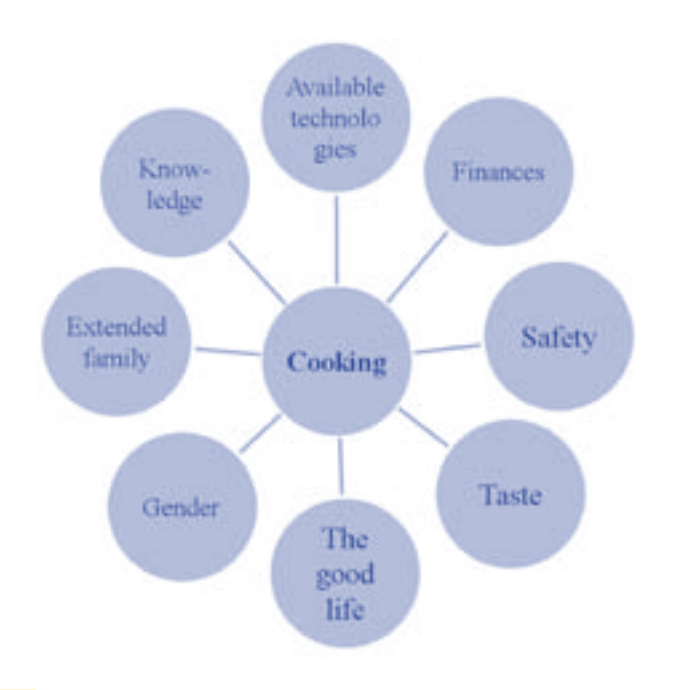


Figure 1. Relevant factors in exploring cooking practices and how they change

In 2001, only two electric cookers were to be found in Uroan homes, and they were not in regular use. I agreed with one of the women that I could come for a period and observe her cook while paying their electricity bill for the same period. During our conversations, she listed all the precautions that had to be taken to reduce the risks involved. The cook should wear gloves and rubber sandals, use wooden spoons for stirring, keep the device on a table inside the house instead of working on the earth floor in the semi-open kitchen, and especially keep children away due to the hazards associated with the appliance. When I arrived to watch her cook, I found that she had arranged for her younger sister to come, she was too afraid to use the stove herself.

Electricity determines the kind of vessels that can be used. The common clay pot has a curved bottom and so aluminium vessels (dishi) have to be used. Electricity also limits the types of meals that can be made. Dishes that need heating from above and below, or dishes that need extensive beating - difficult on an unstable stove which is dangerous to hold on to - cannot be prepared on the available electric cookers.

Given these socio-technical constraints and the feeling of fear involved, I find it interesting that women still tended to evaluate the potential for cooking with electricity quite positively. This was in con-

Women do not own freezers in rural Zanzibar, but they do administer their use, which is mainly for producing ice sweets for sale. (Photo: T. Winther)

trast to men, who would tend to stress the superior taste of food cooked with firewood. The cooks had rather different and more pragmatic concerns: they highlighted the time one could save by using electricity, not only in the cooking itself but also in not needing to make so many trips to the bush to collect firewood. Many women also complained about the smoke from the wood fire and highlighted electricity's advantage in improving health conditions.

Despite their positive evaluations of electric stoves, cooks face a range of barriers to modifying the way they prepare food. The male ownership of houses and appliances has already been noted. Cooking by electricity is expensive, and paid for by men, in comparison with firewood which is available for 'free'. The aforementioned 'lock in' to existing cooking technologies, vessels and utensils also appears as a conservative force.

Nevertheless, women in electrified villages on the east coast of Unguja have changed their cooking habits in a striking way. Instead of cooking three meals per day as they used to before electrification, they now only cook twice a day (still over firewood) and serve leftovers for the family's third meal. The combination of electric light and the ability to watch television programmes in the evening, together with women's access to income-generating activities (seaweed production), has resulted in women cooking fewer meals per day. Thus, cooking practices are already changing in some respects, as they probably always have. A further example is that women today are increasingly using aluminium pots rather than clay ones because the latter tend to break more easily.

The perspective adopted to grasp these changes recognises that transformations tend to involve negotiations between parties with different interests and concerns. Such processes take place when new technologies are introduced, on the village level as well as on the micro-level in every household. When I revisited Uroa in 2004, twelve women had taken out loans and had purchased electric stoves with either one or two rings. One of the women said that she had agreed to share the electricity bill with her husband, but that he would still be the one to go and pay the monthly bill in a public space. The women stressed the time-saving argument when explaining why they had decided to change their cooking practices. Here, we see how barriers produced by electricity's organisation can be overcome in creative ways and, at the same time, how the ideal of the male family provider is maintained.

Sustainable energy solutions: putting gender first

The availability of new technologies produces a new realm of possibilities. The shaping of the content and form of this is partly determined by the material objects and the way these are linked in chains, but also by the gender ideologies incorporated through existing practices, cultural values, social relations and agencies of the people involved. Energy is involved in virtually all human activities and closely linked to power relations of various sorts. A gender-sensitive perspective should be the starting point for any study or intervention in this field. ■

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◆ Tanja Winther holds a Masters degree in Power Engineering and a PhD in Social Anthropology. She has researched the social impact of electrification in rural Zanzibar over a period of 15 years. Her work has been published in both Swahili and English. She has also been employed as a consultant in development projects. Currently she lectures, researches and acts as the secretary of the reference group for the Norwegian-Finnish Trust Fund for Environmentally and Socially Sustainable Development (TFESSD) in the World Bank.

◆ Centre for Development and the Environment (SUM), University of Oslo, P.O.Box 1116 Blindern, N-0317 Oslo, Norway;
Email: tanja.winther@sum.uio.no;
Website: http://www.sum.uio.no/staff/tanjaw/

Women and the supply side of energy in Sahelian countries

Smail Khennas and
Elhadji Mahamane Mahamane Lawali

PREDAS[1] is a regional programme to promote household and alternative energies in the Sahel. The programme is implemented by the permanent Interstates Committee for Drought Control in the Sahel (CILSS) with support from the European Union and the Federal Republic of Germany. CILSS was set up in 1973 and involves nine countries: Burkina Faso, Cape Verde, Chad, The Gambia, Guinea Bissau, Mali, Mauritania, Niger and Senegal. CILSS aims to achieve sustainable development in the Sahel through regional cooperation.

The overall objectives of PREDAS are to contribute to the sustainable management of natural resources, on the one hand, and to poverty reduction in the Sahel, on the other. It aims to do so through the sustainable and low-cost supply of wood-based energy to the populations. Three specific objectives structure this programme:

- Help member states to design and implement their household energy strategies.
- Contribute to setting up a network of Sahelian professionals in household energy and the initiation of a Technological Information System on Energy.
- Develop a methodological framework for environmental monitoring of forest wood energy resources.

This article provides insights into the specific Sahelian household energy needs, and the supply-side energy processes to meet these needs. Recent case studies commissioned by PREDAS in several of the member countries have shown that women have an increasingly important role to play in the supply of energy. Individual cases will be presented, which clearly show the involvement of women along the whole biomass supply chain in most Sahelian countries.

Household energy needs: the importance of charcoal and firewood

Firewood and charcoal are by far the most important sources of household energy in Sahelian countries. In all the countries, apart from Senegal, they account for more than 80% of household energy consumption, used mostly for cooking although they are also used in other household activities such as ironing. Firewood and charcoal also have important roles in some income-generating activities, such as the traditional breweries in Burkina Faso, street restaurants and bakeries. Such activities are crucial for the livelihoods of poor people and consequently those of women since they make up the majority of the world's poorest people. The earnings from these income-generating activities are very much related to the price of firewood and charcoal.

In most rural areas, firewood is still collected at zero financial cost. There are trends, however, such as the extension of cultivated land, monetisation of rural economies and increasing distances to firewood that, in some rural areas, are causing a transition to buying fuels, increasing the financial pressure on the poor.

Charcoal is a commercial commodity mainly used in urban centres. It is better adapted to the urban lifestyle, as it is cleaner and easier to handle than firewood. In addition, charcoal, due to its higher calorific value, becomes a more cost-effective option than wood when forests are far from the consumption centres. Despite its higher cost, the transition to charcoal in most Sahelian cities, with Niamey being a notable exception, is spectacular and unlikely to be reversed. This is related to the development of Sahelian cities, where urbanisation has led to nuclear families replacing extended families as the norm, which consequently puts time constraints on women in managing their household chores. Cooking with firewood is a very slow process: the cook must be patient, especially during the rainy season when wood is very often wet. As a result, in Bamako, the Malian capital, where wood was the main energy source for 90 % of households in 1990, today very few households use wood as their main source of energy.

At the macro-level, the wood energy sector, from forest exploitation to the sale of firewood and charcoal in rural and urban areas, makes a significant contribution to national economies. It is estimated that, in Sahelian countries, about 10 % of the population currently rely directly or indirectly on wood energy for their income. The table below shows the importance of charcoal in the economy of some Sahelian capitals.

City	Estimated turnover 2004 (US$)	Comments
Bamako	30 million[2]	of which US$24 million charcoal and US$6 million firewood
Dakar	16 million	Charcoal only, wood is barely used in Dakar. At the beginning of the 1990s, charcoal sales amounted to US$ 40 million
N'Djamena	24 million	US$16 million charcoal and US$8 million firewood

Table 1: Importance of charcoal in the economy of some Sahelian capitals

The sector supports a wide range of jobs including woodcutters, charcoal makers, rural and urban traders, wholesalers and retailers. Women fill several vital roles, as traders in rural and urban areas, and also as producers of wood and charcoal. For instance, in Mali, a large number of women are woodcutters and charcoal makers.

Biomass supply chain and women's involvement

Increasingly, women are involved in all the segments of the wood energy sector including activities which traditionally were allocated to men such as wood cutting and charcoal making. They do so for financial reasons, and forest management schemes offer further opportunities for women to be involved in such activities. The following cases are examples of women's involvement in the biomass supply chain in the Sahel.

Forest exploitation for wood energy

In Burkina Faso, forests are exploited for wood energy by legally recognised forest management associations. Men and women are trained to manage village forests in a rational way that generates incomes for the local communities. In Mali, a permit from the forestry department is required to cut wood, and illegal woodcutters face heavy fines.

Oumou and Alibi are woodcutters in Kassena, Mali, and in Dana, Burkina Faso, respectively. Both women cut wood in a managed forest and sell it in order to meet their daily expenses. "Since I started this activity, I have become more independent financially", Alibi discloses, "In the village, our essential needs include food, our children's education and a little money to cater for social events. I earn more money now and I can afford to buy cooking utensils and even financially help my husband to buy food." According to Oumou, the advantage is that "one can engage in this business with limited financial capital, unlike other income-earning activities. Also, the money earned from this trade contributes a great deal to improving our quality of life. For example with two cartloads of firewood in a week, I can earn between US$7 and US$10." On average, her income from wood cutting is estimated at US$50 per season (January to April). Although this seems rather low, she supplements her income by selling wood at roadsides, earning another US$30 per month.

Although woodcutting is considered as a business that enables one to earn a relatively substantial income when coupled with trade, it is also a dangerous and painful activity. The distance to be covered between the village and the forest, while head-loading bundles of wood, often leads to heart palpitations. There is also the risk of injury from the axe, from tree stumps, and from poisonous snake and insect bites.

Commercialisation of wood and charcoal

Six to eight kilograms of wood are needed to produce one kilogram of charcoal depending on the efficiency of the kiln used in the carbonisation process. While there are environmental arguments against the production of charcoal, it is perceived as a more convenient and cleaner fuel than wood.

In Senegal, charcoal commercialisation in urban and peri-urban areas used to be controlled by men ("diallos keurigne"). However, today, women are increasingly engaged in the commercialisation of charcoal in urban centres for part of the year or even throughout the entire year. Women mostly engage in the charcoal trade to earn money and help meet family and social expenses such as children's education, food supply, health care and the organisation of social events. The women engaged in this activity are usually the heads of family or live in polygamous families where they are forced to cover basic needs when the husband remarries.

In Burkina Faso, women pack charcoal into small bags to sell for upwards of 10-20 US cents per bag depending on the size of the bag. The average net daily profit is estimated at US$3-4.

In Chad, Mrs Am-Rakhie says that she sells bags of charcoal for US$6 of which her profit is approximately US$1.50 per bag even though she pays half a dollar per bag in tax to the forestry administration. "I manage to sell about fifteen bags of charcoal a week, from which I make approximately US$90 of profit every month, and this has dramatically improved my livelihood."

In most cases, women engage in wood energy activities to improve their income. In some instances, micro-loans have been instrumental in enabling entry to the wood energy business. Madina, from Niger, explains her choice as follows: "At first, I was only selling doughnuts but I realised that this activity could not adequately cover my family's needs. Therefore, in order to increase my income, I started, as a trial, to sell wood thanks to a US$200 loan, which I obtained from our women's association."

Florence in Ouagadougou used to sell cola nuts but switched to selling wood and charcoal which she sees as a profitable business. Florence emphasises that she makes between US$3 and US$3.50 profit on a cartload costing US$30. She estimates her total profit at approximately US$80 per month.

In Chad, Akhaye says she makes a 100% profit from this activity. She buys a stack of wood for 10 US cents and resells it for 20 US cents. Many women make substantial profits in the wood business.

In Niamey, 15 steres (≈ 10 m^3) are supplied to Madina every three days and she says, "I make a profit of about US$ 10 every three days; that is US$100 a month." Madina says that, in Niger, during the wet season, "wood is scarce and very costly. Most of the lorries are in poor condition and access to forest areas is almost impossible whenever it rains heavily."

In Mali, Badje has reached the same conclusion. For Florence, in Burkina Faso, "during the rainy season, it is difficult to get supplies of wood due to the poor maintenance of roads that access the forests. Furthermore, people are also occupied with working their fields and have little time for the wood business. The wood prices are therefore very high." Florence has realised that this supply problem would be resolved if she had had sufficient money to stock wood during the dry season for sale in the rainy season.

Mrs Am-Rakhie in Chad, who has greatly improved her livelihood by selling charcoal. (Photo: PREDAS)

Charcoal making

In the traditional division of tasks, charcoal making was an activity exclusively reserved for men, while women were responsible for the trading activities. However, women facing hardship are almost compelled to seize any opportunities to make an income. This was the case in Kassela, Mali, where wood and charcoal provide some of the few income-generating opportunities open to women. Alima Sacko is 46 years old and has been engaged in the charcoal trade for the past 15 years. She is a member of a charcoal producers association involving five other women and some men. Alima produces charcoal with wood that she buys from traders who operate in the nearby managed forests. She produces between 10 and 15 large bags every week, which are sold on average at US$6 a bag.

Alima has been trained in new carbonisation techniques, which she adopted for two years. With the improved kilns, the time involved in the production of charcoal was shorter (2 to 4 days) against a week for the traditional technology. However, she has stopped using it because, according to her, "the new technology is profitable but it requires a large quantity of wood which I cannot afford because of a lack of financial capital." Her current equipment is rudimentary: a barrel and two shovels. Alima accepts that charcoal making is a very tiring activity, and she would give it up if she could find better opportunities with similar earnings.

PREDAS' household energy strategy

PREDAS' focus on household energy strategies for member states is aimed at making a significant impact in a sector in which women play important roles, not only as consumers, but also as an important component of the biomass supply chain. For instance, PREDAS' household energy strategy development guidebook prioritises the biomass sub-sector and interventions along the whole supply chain including natural forest management, improved stoves and kilns, and establishing an enabling environment.

The importance of women's roles in the production, commercialisation and consumption of household energies is explicitly spelled out in Part 3 of the guidebook "Conditions for the viability of an implemented household energy strategy"[3]. The objective is to ensure that women gain access to the additional resources generated by the implementation of household energy strategies, and that their specific needs in this sector are properly addressed. The sensitisation of policymakers is geared towards the formulation of specific recommendations that will be reflected in interventions. Several member states, with the support of PREDAS, have elaborated household energy strategies that pave the way for the implementation of large-scale programmes, particularly in the biomass sector. ■

[1] PREDAS: Progamme Régional de promotion des Energies Domestiques et Altenatives au Sahel
[2] All figures are converted from the local currency at the following exchange rate 1US$= 500 FCFA
[3] Household energy strategy development: a guidebook, April 2004, PREDAS technical guidebooks collection.

A woman woodcutter in Burkina Faso. Many women are now entering this line of business, which used to be completely male-dominated. (Photo: PREDAS)

◆ Dr Smail Khennas was the international energy adviser for PREDAS from May 2003 to June 2006, based in Ouagadougou, Burkina Faso. He is currently acting as an adviser to regional intergovernmental organisations in Africa, and to Practical Action Consulting in the United Kingdom, with a particular emphasis on small-scale decentralised energy systems for West Africa. He has also been providing technical expertise to ENERGIA regarding mainstreaming gender in energy policies. His expertise in energy is internationally recognised. He has published, as author or co-author, eight books and more than fifty articles.

◆ Email: smail_khennas@yahoo.fr

◆ Elhadji Mahamane Mahamane Lawali is a forestry expert. Since 2002, he has been the coordinator of PREDAS, implemented by the Interstates Committee for Drought Control in the Sahel (CILSS). He was previously the director of the household energy component of the Energie II project in Niger funded by DANIDA and the World Bank. He was also in charge of following up the post-Rio outcomes at the Ministry of the Environment in Niger.

◆ PREDAS Regional Coordinator, CILSS Executive Secretariat, 03 BP 7049 Ouagadougou 03, Burkina Faso;
Tel. +226.50.3741 25/26; Email: mahamane.lawali@cilss.bf;
Website: www.cilss.bf/predas

Gender analytical tools for monitoring and evaluation

Joy Clancy

This article is based on one[1] that appeared in Boiling Point[2] 55: Monitoring and Evaluation (June 2008 edition, pages 29-38). We are very grateful to Dr Joy Clancy and the HEDON Household Energy Network for permission to include it in this issue of ENERGIA News.

The article first presents a fictitious household energy project dilemma, followed by the response by Joy Clancy to the project team on how to address the dilemma by taking a gender perspective.

Case study scenario

The meeting earlier that week had brought some very good news for Savita and the rest of the BALA team. Having spent much of the previous year assessing whether a new type of efficient wood burning stove was suitable for use in their area, they had just managed to secure some significant funding with which to scale up the project. However, now she was sitting at her desk wondering what to do next, the scale of the task ahead was suddenly becoming apparent…

The funders had been quite specific: they would give support for an initial three-year period with the requirement that 5,000 stoves were to be produced in the first year, 10,000 in the next and 20,000 in the third year. The money would come from a variety of sources, a local Government agency, an international NGO and a private company, and each one had a different agenda. They had all specified what they wanted from the programme, and Savita had a list of targets and indicators on a range of health, social, environmental, technical and economic issues. The whole point of the project was to see if numbers could be increased, in terms of both demand and capacity (including manufacturing, engagement of local financial institutions, support and distribution networks). If successful, the scheme would then receive increased funding to scale up and roll out the programme to other areas of the country.

Last year's pilot project had gone well, with over 200 households taking part in a field study as well as the stove undergoing numerous performance and safety tests. The stove design needed a bit more work to make it acceptable to users, and the manufacturers seemed capable of producing the quantities they needed, but these were not Savita's main concerns.
She would need to work closely with her own project team as well as other local organisations, and then she had to satisfy the many demands of the funders as well as her own organisation's management. How was she going to design and implement a programme of this size? With all the day-to-day issues she would face, how would she monitor overall progress and check that the work was going as planned?

How were they going to tell what users thought of the stove and how often they used it, and what about marketing and after-sales – she has been involved with many of these issues before but never all at once! Savita knew she had to develop a Monitoring and Evaluation (M&E) system but was not sure where to start. In previous work, she had tried to develop one but, being honest, this had always been a last minute thing and now she was beginning to feel out of her depth…
So in terms of M&E, how should Savita run the various stages of the programme so that everyone is kept happy and how does she prove that the various objectives of the project are being achieved?

Disclaimer: The story presented in this case study is fictitious and, as such, any characters and organisations within it are not based on real life.

Case study response by Dr Joy Clancy

Savita would be wise to include gender analysis as part of her approach to monitoring and evaluating her stoves project. She might be surprised to read this because in a household stoves project the target group is usually women, and gender is about men and women. So what has gender got to do with stoves? Well, quite a lot actually.

There is plenty of evidence to show that when household equipment is bought, even equipment for the kitchen, men are involved in the decision-making process (see, for example, Dutta, 1997). Therefore, the men within the household need to be convinced of the benefits of buying the BALA stove. Often men and women will also have different selection criteria for a stove, for example, women might want one that is easy to light and gives a clean kitchen whereas men may want a stove that delivers quick meals. So, the BALA stove will need to meet both women's and men's needs. Another reason for including gender is that it will probably be a requirement of the international NGO, particularly if they are using donor funds. Gender could be included as one of the social indicators that Savita has to measure. However, there are also sound practical reasons for paying attention to gender issues. There is a growing belief that ignoring gender in projects is a contributory factor to project failure (Fong and Bhusan, 1996), while paying attention to gender can lead to a better fit of project interventions with the intended beneficiaries and this creates greater management efficiency in terms of delivery (Skutsch, 1998). In other words, by including gender analysis in her monitoring and evaluation methodology toolbox, Savita will increase the chances of meeting her project targets.

Help is at hand for Savita: the Department of Technology and Sustainable Development (TSD, University of Twente) and ENERGIA have developed gender analytical tools specifically for use in the energy sector. These tools can easily be combined with existing procedures and, in particular, they fit into the project cycle. They differ from other gender analytical tools in two ways. Firstly, they make explicit the 'gender goals' of a project, i.e. they identify which gender issues will be addressed, and, secondly, they assess the gender capacity of organisations involved in project delivery (Skutsch, 2004).
The reasons for the various stakeholders getting involved in a project, and the outcomes they expect, vary. For example, a typical stoves project, such as BALA's, usually aims to improve women's lives. However, do all stakeholders have the same expectations about these improvements? BALA might be aiming at improving women's health (reduced smoke) and saving women's time in fuelwood collection (reduced drudgery). In other words, the focus is on women's welfare.

This 'gender goal' is also likely to be held by the international NGO, which quite possibly will also be interested in women's empowerment being a result of the project. The NGO may be less clear as to what they actually mean by "empowerment" – economic? social? The gender goal of women's empowerment may be viewed with suspicion by some stakeholders and can lead to resistance to projects. It is better to be clear and realistic about the gender goals that have been set by the project, so that the target is visible and an evaluation of the project can be made on the basis of agreed and accepted goals. All the stakeholders in the project should also be clear about the goals. Reaching agreement can help overcome any resistance and avoid disappointments.

BALA also needs to assess whether, as an organisation, it is equipped to deal with a gender approach to project implementation. For example, are its staff gender-sensitive to cultural issues in the region where the stoves are to be promoted (e.g. are women able to attend training sessions at night or at some distance from home?).

ENERGIA's gender-analysis tools consist of a framework with a number of steps. Within each step, there are questions that need to be asked in a logical order, and the required data can be gathered using a number of methods, including desk studies and participatory approaches. The questions are not meant to be prescriptive and can be adjusted to suit the context. The data collected are then used to complete a number of tables which can then be used to analyse the data, to aid decision-making and to help identify areas requiring remedial action (for example, increasing women's participation in stove design).

The tools were designed for use in the planning phase of energy projects, although they have also been shown to work for energy project evaluation (Clancy et al., 2007). ENERGIA members who have used the tools report that they are easy to work with. There is an easy-to-follow manual that BALA can use, and it is free to download . The tools provide comprehensive data, although they do need to be adapted for a particular context either to prevent the collection of redundant data, or to ensure the collection of sufficient context-specific data. So, BALA has some work to do, but Table 1 *(see page 16)* gives some suggestions.

[1] *The article entitled Boiling Point 55: Monitoring and evaluation case study scenario can be found at www.hedon.info/QUJA*

[2] *Boiling Point is a practitioner's journal for those working with household energy and stoves. It deals with technical, social, financial and environmental issues, and aims to improve the quality of life for poor communities living in the developing world. Boiling Point is published under the HEDON Household Energy Network (www.hedon.info). HEDON is an international forum dedicated to improving social, economic and environmental conditions in the South through the promotion of local, national, regional and international initiatives in the household energy sector.*

An improved stove in an improved, clean kitchen in India with extra shelves to store the pots and pans. Apart from being able to cook smoke-free, many women appreciate the cleanliness and tidyness of an improved kitchen layout. (Photo: Willeke Parmentier, ETC Energy)

A woman demonstrating improved stoves on a mobile stove tour in rural India. Many women are expected to be reached when touring with the colourful tractor with sound system. (Photo: Willeke Parmentier, ETC Energy)

Questions to be asked	Source of data	Work plan (for data collection)
Identifying stakeholders and gender goals		
Which stakeholders?	Stakeholders should include all agencies involved (such as the local government agency, the international NGO, stove producers) and target households, (men and women should be considered as separate stakeholder groups)	Preparation phase and fieldwork planning
Gender capacity of agencies?	Assess whether BALA is capable of responding to the gender issues in a positive manner. May also consider assessing stove producers.	
What obstacles?	Take advice from key informants regarding the local situation. Be prepared to hold different meetings at different times for men and women.	
What stakeholder goals?	Separate focus group meetings for men and women from the target communities to identify motivations for buying a new stove. Other stakeholders' goals can be found from analysing documents or from the discussions around what indicators to use (see next question).	Consultation and orientation phase
What indicators?	Indicators can be developed by BALA alone or with the stakeholders. The latter approach can help clarify the gender goals of the stakeholders.	
Genderised context definition		
What are the selection criteria for a stove?	This is a market analysis based on gender-disaggregated data. BALA should carry out a survey of a representative sample of households – with men and women interviewed separately. The data collected form a reference source that can later be expanded in focus group sessions to provide feedback on stove acceptance.	Sample survey using detailed interviews with households
Who is responsible for making decisions about stove and fuel purchases?	This information can be collected in the household survey and followed up in the focus group sessions.	
What priority is a new stove within the household?	This information can be collected in the household survey and followed up in the focus group sessions.	
Genderised appraisal of stove		
Does the stove meet the criteria of men and women?	The answer to this question allows for adjustment in stove design and marketing approaches.	Focus group of users and non-users.
Has the project met the gender goals?	Assessment by the project design team.	Final step in the appraisal.

Table 1 Gender analysis of BALA Stoves Project

◆ Dr Joy Clancy is a Reader/Associate Professor in technology transfer in the Department of Technology and Sustainable Development at the University of Twente in the Netherlands. Her first degree is in Chemistry (University of London) and her PhD is about alcohol fuels in stationary engines (University of Reading). She joined the University of Twente in 1989, since when her research has focused on small-scale energy systems for developing countries, including the technology transfer process, the role that energy plays as an input for small businesses and the potential that the opening up of energy markets offers entrepreneurs through providing new infrastructure services. Gender and energy has been an important factor addressed in this research. Dr Clancy is a founder member and a technical adviser to ENERGIA.

◆ TSD/CSTM, University of Twente, P.O. Box 217,
7500 AE Enschede, The Netherlands
Tel: +31.53.4893 537; Fax: +31.53.4893 087;
Email: j.s.clancy@utwente.nl;
Website: www.utwente.nl/cstm/tsd/

ENERGIA members consider the gender dimensions of biofuels

Gail Karlsson

Not long ago, production of liquid fuels from crops and plant residues was widely viewed as an answer to national fuel security, an economic boost for farmers, and a way of reducing global greenhouse gas emissions. Recently, however, the enthusiasm for producing biodiesel and ethanol from farm-grown crops has been dampened by concerns about rapidly rising food prices which have been blamed, at least in part, on a shift by farmers from food to fuel production. In addition, critics charge that, in some areas, new biofuel plantations threaten traditional land uses by local communities, put pressure on surrounding ecosystems, and even lead to increased greenhouse gas emissions, as more land is cleared to produce biofuel crops.

A recent report from the UN's Food and Agriculture Organisation (FAO), Gender and Equity Issues in Liquid Biofuels Production: Minimizing the risks to maximize the opportunities, provides a gender perspective on the biofuels controversy. The report outlines some of the potential gender-differentiated social and economic issues related to biofuel production, such as barriers that prevent smallholder farmers, and particularly women, from taking advantage of new commercial opportunities. These barriers include the lack of legal rights to land and water, and the lack of access to collateral for credit to invest in necessary fertilisers and pesticides. In addition, the report raises concerns that converting so-called 'marginal' lands or forests to biofuel production could adversely impact on the food security and livelihoods of women who rely on those lands for subsistence agriculture and for the collection of wild plants, fodder and fuelwood. The report is available online at www.fao.org/docrep/010/ai503e/ai503e00.htm.

ENERGIA members are concerned about problems that could emerge in different situations as a result of increased biofuel production, and are also considering strategic measures to overcome them. If the concerns can be adequately addressed, new biofuel production enterprises could have positive impacts in developing countries by providing new markets and opportunities for farmers, including women, and offering locally grown alternatives to increasingly expensive imported fossil fuels.

In addition, biofuel production for local use could perhaps provide a solution to energy poverty in rural areas where there is very limited access to modern energy sources. For example, in sub-Saharan Africa, a number of UNDP-GEF Small Grant Programme projects are testing the viability of extracting oil from jatropha and using it to run diesel engines, motorised equipment and electricity generators, or as an alternative cooking fuel and lamp oil. Production of biofuels through village-level cooperative operations would require significant labour and organisational activities, as well as new types of agricultural inputs and expertise. However, in appropriate locations (with adequate support and capacity building) biofuel-based cooperatives could potentially provide much-needed local, sustainable sources of energy for electrification, enterprise development and the empowerment of women.

The FAO report on gender and biofuels has highlighted the need for more research on identifying and documenting gender-differentiated risks and opportunities, including field assessments at the household level. This sort of research is especially needed to support calls for gender sensitivity in programmes promoting national biofuel programmes.

For example, the international multi-stakeholder 'Roundtable on Sustainable Biofuels', which is coordinated by Switzerland's Ecole Polytechnique Federale de Lausanne, has just produced draft principles and criteria for sustainable biofuels production. One of the proposed principles is that: "Biofuel production shall contribute to the social and economic development of local, rural and indigenous peoples and communities." A subsection adds that: "special measures that benefit women, youth, indigenous communities and the vulnerable in the affected and interested communities shall be designed and implemented, where applicable." www.bioenergywiki.net/images/f/f2/Version_zero.pdf. Clearly, more specific information is needed in order to clarify what sorts of special measures would ensure that women, and their communities, benefit from biofuel projects.

ENERGIA is proposing additional research that focuses on ways in which production and processing of biofuels can stimulate rural development through improved energy access and value chains that promote sustainable income generation. The main question is how can the position of poor women - as well as men - in such value chains be strengthened? Issues to be taken into account include: local feedstock choices; secure rights to usable land; access to necessary inputs such as seeds, water and fertilisers; training and capacity building for producing, processing and marketing newly-introduced crops; appropriate sizes and forms of local enterprises and organisations; and whether to produce for local or international fuel markets.

Activities of ENERGIA members

Following discussions at the 2007 session of the UN Commission on Sustainable Development (CSD 15), which focused on energy and climate issues, several members of ENERGIA's CSD 15 team began looking at the gender dimensions of biofuel production. The CSD 16 and 17

Women in Tanzania extracting the oil from jatropha seeds with an inexpensive, locally made, hand-powered press. (Photo: ProTREE project team, Pamoja Inc.)

Young woman collecting seeds from a jatropha hedge in Mali. (Photo: Malifolkecenter, Mali)

sessions are on agriculture and rural development, with a special focus on Africa, and biofuel concerns are central to those discussions.

ENERGIA team member Sabina Anokye Mensah, from the GRATIS Foundation in Ghana, has continued in her role as one of the representatives of Women as a Major Group for the next CSD cycle. In her own work, she has emphasised the potential for local production of jatropha oil to support sustainable livelihoods for women. In Ghana, GRATIS has supported successful projects in which women's groups have planted jatropha, harvested and processed the seeds. This produces plant oil which they extract using a manual press designed by GRATIS. The plant oil is mixed with 30% biodiesel for use in shea butter processing machines. GRATIS is now proposing to scale up the production and use of jatropha oil and replicate the project in other regions of the country.

In March 2008, Gail Karlsson represented ENERGIA at the World International Renewable Energy Conference in Washington, DC, where she made a presentation on "Engaging Women in Small-scale Production of Biofuels for Rural Energy" at a side event organised by the Stockholm Environment Institute. Building on findings from ENERGIA's CSD 15 publication Where Energy is Women's Business, she discussed how women's traditional roles as energy providers could be transformed into sustainable energy enterprises – including the production of biofuels where feasible and appropriate. A summary of that presentation is available at http://www.energia.org/pubs/index.asp.

Then, in May 2008, at CSD 16, Sabina Anokye Mensah from Ghana and Khamarunga Banda from South Africa took part in a panel discussion co-sponsored by ENERGIA on "Biofuels, Food Security and Rural Development". The panel was moderated by Gail Karlsson, and broadcast on the Internet by the American Clean Skies Network, a web TV company. A videotape of the event can be found at www.cleanskies.tv in the archives under the heading 'United Nations Commission'.

Khamarunga Banda, who was involved in the Roundtable on Sustainable Biofuels discussions, has teamed up with Wendy Annecke, another ENERGIA member from South Africa, to gather information from women farmers in South Africa about their thoughts on growing crops for biofuels. In South Africa, the commercial agricultural sector is well positioned to take advantage of the new biofuels market, but the opportunities are not so apparent for small-scale women farmers who see themselves at the bottom of the rural hierarchy. The field study on "Gender and Biofuel Production" focused on whether these women were in a position to take up growing crops for biofuels, and asked them what conditions they thought would be needed to allow them to benefit from this emerging market. A more detailed description of their work will be published in the first ENERGIA Africa regional newsletter, to be published later this year.

Wendy Annecke also participated in a 'gender think tank' organised by the Energy Sector Management Assistance Program (ESMAP) in May 2008, and presented a seminar for the Africa Region of the World Bank energy sector on "The biofuels debate: is jatropha curcas the answer for small-scale women farmers?" She concluded that, under certain conditions, rural women could benefit from growing or harvesting jatropha (or other oil bearing seeds) to address their need for energy services, but that the conditions may be difficult to realise. For example, in South Africa, although there are land policies concerning women's access to land, in practice many women lack secure land tenure. In addition, women may have difficulties accessing the seeds, water, fertilisers and labour necessary to support ongoing jatropha cultivation.

Meanwhile, in Sri Lanka, another member of ENERGIA's CSD 15 team, Professor Anoja Wickramasinghe, has expanded her biomass energy research to include perspectives on biofuel development. She is looking at entrepreneurial options for poor, small-scale farmers, and ways in which local capital can be mobilised for using biofuels in decentralised renewable energy options for rural women. In June 2008, she took part in a regional meeting of the Roundtable on Biofuels in Delhi, India, where she drew attention to gender equity concerns.

In July 2008, at the 10th World Renewable Energy Congress (WREC) in Glasgow, Scotland, Gail Karlsson worked with Barbara Farhar from the University of Colorado (US) to organise a session on gender and biofuels at a special one-day workshop on "Engaging Women in Energy Enterprises". Gail presented an overview of small-scale biofuel projects with benefits for women, and also asked for inputs on recommendations relating to biofuels that could be included in the 'Priorities for Women as a Major Group', which will be one of the official documents presented at CSD 17.

Also at the WREC workshop, Sabina Anokye Mensah spoke about "Women, Jatropha Oil and Multifunctional Platforms in Ghana", emphasising the potential for using locally grown biofuels in diesel engine systems for village power run by women's cooperatives. Professor Wickramasinghe from Sri Lanka gave a presentation at the workshop on "Micro-finance and Enterprise Development: Two Windows for Channelling Energy for Gender Equitable Development" then, later in the week, followed this up with another presentation on "Biofuel for local enterprises: prospects and issues of sustainability". She is particularly interested in integrating biofuels production into farming in ways that would allow women to benefit from growing and processing oil for local use and, depending on the context, also feeding into a larger supply chain.

ENERGIA is currently pursuing options for sponsoring additional studies on gender and biofuels issues in a number of different countries. The intention is to present the information found at CSD 17, and at other venues, and to recommend follow-up actions on gender sensitivity in biofuel programmes, for practitioners as well as policymakers.

One exciting development is that ENERGIA will be pursuing biofuels research as part of its recent Memorandum of Understanding with the International Union for Conservation of Nature (IUCN) which is described in more detail elsewhere in this issue of ENERGIA News. As noted earlier, there are various groups considering sustainability criteria for biofuels but, so far, there is little specific information concerning gender considerations, which is one reason why further research is especially important at this time. ■

◆ For contact details of the author, please see page 3 of this newsletter.

◆ The contact person within the ENERGIA International Secretariat on gender and biofuels is Heleen Broekkamp. She can be reached by phone on +31.33.4326 000, or by email at h.broekkamp@etcnl.nl

Gender audit of India national energy policy

Dr J. Parikh and Dr K. Sangeeta

"We congratulate the IRADe-ENERGIA team and thank them for these recommendations. I hope they will be further discussed at MNRE and will be implemented in the near future in line with the Government policy for inclusive growth that has to reach out to a large number of women, especially from the economically weaker sections."
Mr V. Subramaniam, Secretary, Ministry of New and Renewable Energy, New Delhi, 2 June 2008.

Introduction

India is witnessing an increasing demand for energy in its rapidly expanding economy and is making large investments in exploration, fuel production, generation, transmission and distribution of power and in setting up a grid infrastructure. However, gender-based empowerment, the needs of women and their access to and control over energy resources are seldom considered in India's energy development planning. The 11th Five Year Plan (2007-2012) foresees an investment close to US$100 billion in the energy sector, involving coal, oil, nuclear, hydropower and other renewable energy technologies. However, less than 2% of this national investment is targeted at management and conversion technologies for traditional biomass energy. This is unfortunate given that traditional biomass energy, which is almost entirely used and managed by women and children, constitutes 28% of energy consumption at the national level.

This lack of attention to gender concerns in India's national energy policies may in part be due to the lack of knowledge about the gender dimension in the energy sector and perhaps be due to uncertainties about how to incorporate gender in a sector that has primarily been technically driven. It was against this backdrop that IRADe, ENERGIA's national focal point for the Indian gender and energy network, undertook a gender audit of national energy policies, using the programmes of the Ministry of New and Renewable Energy (MNRE) as the focus of the study. In keeping with the wishes of the Ministry's Secretary, not to have a gender audit that focused 'on the past and was judgemental', IRADe used the audit as a forward-looking tool to propose a road map on how to make the MNRE's policies and programmes more gender-responsive in terms of content and process. The specific objectives of the gender audit were to:

A woman in Gujarat, India is preparing slurry for her biogas digester. Biogas, in some areas of India, is a good alternative to biomass for meeting a household's cooking energy needs. (Photo: IRADe)

- Identify and assess gender gaps in energy policies and programmes – the mismatch between commitments and implementation.
- Work with stakeholders to formulate strategies and actions that could address these gaps at the national level.
- Make gender and energy issues visible to wide audiences in ways that support national and international networking and advocacy initiatives aiming to influence energy policies and programmes.

A key output of the gender audit was the endorsement of the report 'Gender Audit of National Energy Policy in India: Present Status, Issues, Approaches and New Initiatives for Renewable Energy' by the MNRE. The report is primarily addressed to policymakers and those concerned with gender and energy issues in India.

Approach and methodology

Unlike a standard gender audit of an organisation, the gender audit of the MNRE focused its analysis on the impacts that the Ministry's policy and strategies have on gender relations, and in particular MNRE's capacity to provide an enabling environment to support the delivery of energy services that meet the practical and strategic needs of women. At the **macroeconomic level,** the analysis focused on national level investment in management and technology, while at the **meso-level** it focused on MNRE programmes, and at the **micro-level** on the benefits accrued to end-users.

IRADe made a deliberate choice to focus the gender audits on those of MNRE's policies and programmes that relate to household energy for the following reasons:
- 625 million people in India do not have access to modern cooking fuels (Parikh. J, 2007);
- Nearly 300 million people do not have access to electricity; and
- Of the energy used in poor Indian households, 70% comes from non-commercial fuels such as fuelwood, agricultural wastes and animal dung that are primarily managed by women.

In this context, the key government document that provided the overall framework for the study was the **'Integrated Energy Policy Report of the Expert Committee'** (IEP) prepared by the Government's Planning Commission. This explicitly acknowledges and includes a gender approach and, in this respect, is the first of its kind in the energy sector in India. Further, some of the programmes and schemes of the MNRE, including the National Programme on Biogas Development, National Programme on Improved Stoves, Village Energy Security Project (VESP) and solar energy programmes, were reviewed.

A multi-pronged methodology was used for the collection and analysis of data and information. This involved literature reviews; a background study of gender, energy and poverty issues; the use of checklists, structured interviews, case studies and focus group discussions with officials from relevant ministries. A technical adviser, Dr Govind Kelkar of UNIFEM, and a Think Tank Group, comprising experts in the field, provided strategic guidance, advice and feedback throughout the audit. The report was peer reviewed and the gender audit analysis was synthesised into key findings and recommendations for policy actions.

Although the methodology built on the approach used for the ENERGIA gender audits in Africa, it was unique in the sense that it included a 'gender rating system' designed by IRADe to rank the effectiveness of MNRE's various programmes in delivering benefits to women, relative to the budget outlay in MNRE's 10th Five Year Plan. This enabled the programmes to be categorised as Not Relevant (N); Partially Relevant (P); Mostly Relevant (M) and Specifically Relevant (S), which were assigned weights of 0, 0.2, 0.4 and 1 respectively. Thus, for example, a biogas plant would be assigned a weight of 1 because of its specific relevance to women's cooking energy needs. Although this analysis does have its limitations and needs further development, it provides a quantifiable indicator that identifies how

gender-responsive a programme is, something that resonated with policymakers.

Key findings and recommendations from the gender audit

Reorienting monitoring and evaluation protocols to reflect gender concerns in energy programmes:

Findings and identified gaps

- Non-commercial energy, in the form of traditional biomass that is collected and used by women primarily for cooking, accounts for 28% of India's primary energy consumption, compared to the 2% from modern renewable energy technologies (wind, solar PV, solar thermal, ethanol, bio-diesel, biogas, etc.). The reliance on traditional biomass is likely to continue into the foreseeable future. Unfortunately, the level of national investments in the management and conversion technology of traditional biomass is limited and no ministry has a mandate to ensure its sustainable supply.
- Important barriers to women's participation in renewable energy projects are their lack of access to financial resources, their lack of ownership of productive resources such as land, inadequate technical education and training, and unequal power relations in the household.
- None of the existing programmes collect gender-disaggregated data, and this makes it difficult to assess the impacts and benefits of any policies and schemes on women's wellbeing.

Recommended actions

- In order to strengthen the accountability of various ministries, in terms of their performance on gender and energy, monitoring and evaluation (M&E), using strategic gender indicators should be made a regular and compulsory part of ministerial programme cycles. The use of gender-disaggregated data in the M&E of policy and programmes will highlight the gendered distribution of benefits and identify inequalities between men and women.
- Equally important is the identification and clear articulation of gender goals in the preparation of energy programmes using explicit and measurable variables and indicators.
- Gender budgeting should be made an easily accessible tool to be used by ministries to assess how each ministry uses its financial resources to address women's practical and strategic energy needs, which includes women's ownership of energy infrastructure and their participation in management.

Linking women's empowerment with energy development

Findings and identified gaps

- An analysis of the budget outlay of the MNRE's 10th Five Year Plan calculated that only 12.67% of the ministry's budget addressed women's specific energy needs. This percentage will vary depending on the perceptions of the person who conducts the ranking and the weights they choose, but it is unlikely to exceed 20%. It should be noted that these figures are only indicative given the limitations of the study in terms of funds, time and scope.

Table 1: MNRE's 10th five-year plan: budget allocation for women

Women at an improved stoves dissemination meeting in Gujarat, India. One of the findings of the gender audit of national energy policies in India was that only a small part of the Ministry's budget actually addresses women's energy needs. (Photo: IRADe)

- The energy programmes for women have failed to recognise the potential contribution that energy services could make to women's empowerment within a socioeconomic context, and been limited to meeting their immediate needs for cooking and lighting. For example, the mandate of the National Programme on Improved Stoves was limited to constructing improved stoves, and there was no focus on cookstoves as a potential instrument for improving the status of women.

Recommended actions

- Set up a mechanism within MNRE to ensure that the budget earmarked to address women-specific needs is utilised while simultaneously instituting a clear mandate for more programmes to incorporate gender-responsive goals and activities.
- Incorporate the experiences of NGOs and other private sector organisations in MNRE programmes and planning processes. Given that the MNRE has only two women employees at the level of energy officer, it is also important for the ministry to address the gender imbalance in its staffing and employ more women officers.
- Publish an annual report that shows the benefits of energy systems in improving women's social status, increasing their employment and their decision-making within communities and households, and the percentage of energy assets managed and owned by women. This report could be used as an awareness-raising tool for policymakers.

Category	Allocation (Pro-women Component) ($ Million)	Not relevant to women ($ Million)	Percentage of total ministry budget	
			Relevant	Not relevant
Specifically relevant for women (S)	104.5	0	5.86	0
Mostly relevant (M)	117	174	6.45	9.67
Partially relevant for women (P)	7.5	30	0.42	1.67
Not relevant to women (N)	0	1362	0	75.71
Total outlay to Ministries	228	1566	12.67	87.05

Inter-ministerial coordination

Findings and identified gaps

Non-commercial energy is not solely the responsibility of MNRE, as fuelwood and agriculture products are also the concerns of other ministries such as the Ministry of Environment and Forests, the Ministry of Rural Development and the Ministry of Agriculture. Similarly, electricity, kerosene and LPG, that also contribute to household energy, are within the remit of various energy ministries, i.e. the Ministry of Power and the Ministry of Petroleum and Natural Gas. A stakeholder meeting, organised by the India Planning Commission, acknowledged that the lack of coordination and an effective inter-ministerial set-up, involving the various energy ministries and other ministries, has led to poor supply networks and inefficient delivery mechanisms which have had disproportionate impacts on women's wellbeing and economic development.

Recommended actions

- Develop a working relationship between ministries, in conjunction with regular consultative meetings with MNRE, with the priority of developing gender-responsive programmes.
- Give a mandate to MNRE's Gender Budgeting Cell (GBC) to collaborate and advise GBCs in other ministries on how to integrate energy in their gender budget programmes.
- Develop training and capacity building programmes within each ministry on understanding and using gender budgets.

Making cooking fuel available within one kilometre of rural habitations

Findings and identified gaps

Biomass fuels are likely to remain the primary fuels for process heat and cooking for years to come as commercial energy options are, even when subsidised, still expensive and inaccessible for India's rural poor. This scenario increases the importance of the target, endorsed by the IEP and subsequently included in the 11th Five Year Plan, for there to be "access to fuelwood plantations within one kilometre of all habitations". Such a target is equally important for other clean and affordable forms of cooking energy in order to reduce women's drudgery, the time they lose in gathering fuel and the health impacts of indoor air pollution.

Recommended actions

- Strengthen the goal of establishing fuelwood plantations within one kilometre of all habitations to include access to other fuels such as LPG, kerosene and biogas.
- Establish a mechanism through which the various ministries can cooperate in operationalising this goal depending on the state, the district, the ecosystem and the economic status of the target group.
- Provide finance and capacity building support to women's groups in organising fuelwood plantations as a component of projects implemented at the village level. Crucially, self-help groups, Panchayati Raj institutions and community-based organisations can be efficient institutions to manage such initiatives at the local level. Such organisations, with their wide constituencies, could encourage farmers, and women farmers in particular, to actively participate in energy management and village decision-making processes. Their participation in energy policies and programmes would reduce the transaction costs of inputs and outputs to energy enterprises (such as wood lots, biogas, solar energy, LPG) at the local level, and the gaps between policy commitments and implementation. ■

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◆ **India Gender Audit Team**

- Dr Jyoti Parikh, Executive Director of IRADe and team leader for the gender audit. Dr Parikh was responsible for liaising with the Planning Commission, MNRE and the Think Tank Group.
- Dr K. Sangeeta, consultant with IRADe with a doctoral degree in Environmental Science from Pune University, India, is a senior gender and energy researcher and contributed substantially to the compilation of the gender audit report.
- Mr Chandrashekhar, Research Analyst with IRADe with a Masters in Economics from Pune University, India, was responsible for the economic and statistical analyses in the gender audit.
- Ms Aysecan Oztop, a Researcher at IRADe who obtained her degree from Bogacizi University, Istanbul, Turkey, conducted the extensive desk reviews of the government's policy documents, programmes, and gender and energy papers.

◆ IRADe is an advanced research institute which aims to carry out research and policy analysis, train people and be a network hub linked to many stakeholders. Its main focal areas are environment and climate change; energy and power systems; impact of policy reforms; poverty alleviation and gender; action projects with communities; training and capacity building; and policy advocacy and dissemination.

◆ Integrated Research and Action for Development (IRADe), C-50, Chotta Singh Block, Asian Games Village Complex Khelgaon, New Delhi-110049, India; Tel: +91.11.2649 5522; Fax: +91.11.2649 5523;
Email: jparikh@irade.org; Website: www.irade.org

UNDP Training Manual "Gender Mainstreaming: a Key Driver of Development in Environment & Energy"

Review by Joy Clancy

The United Nations Development Programme (UNDP) has developed a training manual entitled "Gender Mainstreaming: a Key Driver of Development in Environment & Energy" to help build greater understanding among UNDP staff and partners about the essential gender dimensions involved in ensuring environmental and energy sustainability. The manual is freely available for anyone to download from the UNDP website (see end of article for details) making it a very valuable resource.

The manual has two parts. The first part is divided into six modules that explain basic concepts, give an overview of gender issues in environment and energy, make the case for mainstreaming gender in the programmes of multilateral development organisations, as well as within the organisations themselves, and give suggestions on how to mainstream gender in policy and practice. The main text in the modules is well supported by data and short illustrative examples. At the end of each module, there are discussion topics and case studies drawn from various sectors including water, energy, land management, chemical and biodiversity conservation. There are also suggestions for further reading (in which ENERGIA's own training manual is featured) as well as a list of assignments, which are to be found in Part 2 of the manual.

Part 2 gives suggestions on how to present the material in Part 1 which will be valuable for facilitators. The approach is one of sharing ideas and experiences rather than listening to lectures, to be achieved through a variety of group exercises, role-playing activities and plenary discussion topics. For each assignment, there is an estimate of the time needed and suggestions on how to approach the session, as well as a helpful list of materials required. Handouts for the assignments have also been included.

The emphasis throughout the material is on why including a gender perspective can make UNDP environment and energy programmes more effective and how this can be achieved. The examples and case studies are drawn, not surprisingly, primarily from the experiences of UNDP and other development organisations. Despite this focus, the manual is a fantastic source of best practice in gender mainstreaming in the energy sector, even for non-UNDP people. However, those who are looking for a more critical analysis, for example as to whether or not more than ten years of gender mainstreaming has really led to a shift in gender relations (in other words, whether the results of all these efforts has transformed the lives of women), will have to look elsewhere.

There is also a tendency by the authors of the manual to assume that we all share the same understanding of terms and concepts, in particular that loaded concept 'empowerment'. My own experiences in running gender and energy training sessions have shown that people come in with very different understandings about what 'empowerment' means, and what it implies in practice for their work. The UNDP manual does not define the term, but points out that power relations between men and women tend to disadvantage women, and views gender mainstreaming as a way of providing support so that women, individually or collectively, can build their capacity to challenge the current situation. However, my colleague, Margaret Skutsch, has questioned whether energy projects can really bring about changes in gender relations[1].

Further, empowerment is a term that is viewed with a lot of discomfort by many men (and some women) working as professionals in the energy sector, as well as by many villagers. To avoid misunderstandings and frustrations when we incorporate gender in energy policy or in an energy project we need to be clear about the reasons for doing so, and what we hope to achieve. To avoid resistance, there needs to be a dialogue that tries to reach agreement on gender goals that are acceptable to all parties. This may require compromise, particularly when donors are keen to push a more transformational agenda than communities are initially willing to accept, at least until trust and understanding have been built.

Perhaps the facilitator's instructions could have been more helpful in this regard, and it is a pity that the authors did not draw on ENERGIA's training material to address this point. For example, Module 1 Unit 1.4 of the Gender Face of Energy describes the concept of gender goals, and the types of gender needs and interests that can be met through energy projects.

I would urge anyone thinking of using the UNDP material to read Handout 3.8 "Recommendations for commissioning gender training" – it has some very sound practical advice on doing gender training, including one recommendation that ENERGIA would wholeheartedly support: using a male gender trainer as part of the team! Having a man as part of the team can help reduce the feelings of discomfort referred to above.

The manual is well presented with a clear layout. There are some beautiful photos, carefully selected with a gender balance and a global spread. The manual is a welcome addition to the growing literature on how to mainstream gender in energy policy and projects. I would recommend obtaining a copy of the manual, even if you are not a trainer, since it has a lot of useful material that can be used in advocacy or project work. ■

[1] *Margaret M. Skutsch Tooling Up for Gender and Energy. Paper prepared for ENERGIA. Available at http://www.energia.org/pubs/papers/skutsch_tooling.pdf*

Part 1 of the training manual can be found by clicking on the photo of the cover on the web page http://www.undp.org/energyandenvironment/gender.htm. To find Part 2, you have to click on the Gender, Environment and Energy Library link at the bottom of that web page.

◆ For contact details of the author, please see page 16 of this issue of ENERGIA News.

The Bulletin Board

AWARDS

May Sengendo receives Award at the World Renewable Energy Congress
World Renewable Energy Congress-X (WREC-X), July 2008, Glasgow, Scotland
ENERGIA is very pleased to announce that Dr May Sengendo has been awarded a Solar Pioneers Award at WREC-X. The award acknowledges May's significant career achievements in institutional and policy development for energy analysis, planning, and programme implementation in many countries in Africa.

May has worked on the financing of and access to solar photovoltaics in Uganda, providing best practices for livelihood and gender-focused financing mechanisms through village banks. May has also facilitated public-private partnerships that develop energy for productive uses and focus on reducing women's and men's poverty in rural and urban areas. She has provided technical guidance for gender audits of national energy policies in Botswana, Kenya and Senegal and has provided economic and technical guidance on project designs to tackle indoor air pollution in Africa and so enable women and children to enjoy smoke-free kitchens.

Barbara Farhar PhD, chair of the energy and gender section at the Congress said: "We are all proud of May Sengendo's accomplishments at the intersection of energy, gender and poverty, and we are delighted that she has received the Solar Pioneers Award."

EVENTS

SNV International Workshop on Financing Domestic Biogas Plants
22-23 October 2008, Bangkok, Thailand
The workshop will present the various facets of a range of financial instruments and their use in the framework of national biogas programmes in selected countries including China, India, Nepal, Bangladesh and Rwanda. A large part of the programme will be reserved for discussing the advantages and disadvantages of the various instruments (and combinations thereof) and the way forward. More information can be found on the HEDON website at: www.hedon.info

International Research Conference on Household Energy Interventions in Humanitarian Settings
11-12 December 2008, New Delhi, India
The Women's Commission for Refugee Women and Children will be hosting this conference which will bring together developers, practitioners and users of alternative fuels and energy technologies from all over the world. The aim is to share experiences and create new linkages and networking technologies, as well as build an empirical basis for fuel-related interventions in humanitarian settings. For more information, please visit the ENERGIA website at: www.energia.org

PUBLICATIONS

Gender, Climate Change and Human Security
Irene Dankelman et al., July 2008, WEDO
The study presents a gendered analysis of how climate change impacts on human security. It also assesses whether there is adequate scope for women to participate in improving human security in a scenario of changing climate. Based on this analysis, recommendations are given for enhancing the integration of a gender perspective in climate change and human security policies and programmes.

While the study focuses on gender equality, it emphasises the effects of climate change on women, the most disadvantaged and neglected societal group. Women's contributions to climate change adaptation are also examined, as are related policies including National Adaptation Programmes of Action (NAPAs). Global policy frameworks and goals are reviewed, including the Hyogo Framework, the United Nations Framework Convention on Climate Change (UNFCCC) and the Millennium Development Goals (MDGs).

Two of the co-authors, Yacine Diagne Gueye and Rose Mensah-Kutin, are ENERGIA members. The report can be accessed through the online ENERGIA publications database at: www.energia.org/pubs/index.asp

Response of the Poor and Marginalized Communities to existing Energy Environments
Anoja Wickramasinghe, March 2008, Practical Action Sri Lanka
ENERGIA member Anoja Wickramasinghe analyses, by referring to the situation in the field, how poor and marginalised communities are affected by national and provincial energy policies and practices, and how they respond to existing energy environments. The field information reveals that marginalised communities are not directly involved in either energy decisions or the planning process, but only respond to the existing energy environments in satisfying their immediate requirements. Energy planning is seen as a vehicle which could integrate the social and economic development needs of the marginalised communities.

This document can be accessed and downloaded through the online ENERGIA publications database at: www.energia.org/pubs/index.asp

RESOURCES

Gender Mainstreaming: A Key Driver of Development in Environment & Energy
UNDP, November 2007
This manual examines environment and energy development projects, policies and decision-making processes from a gender perspective. It was written for UNDP staff working with national counterparts in governments and in non-government organisations, but it is available for use by other development practitioners working in the field of environment and energy.

A review by Dr Joy Clancy of this training manual is available on page 22 of this issue of ENERGIA News.

The manual is available for download through the online ENERGIA publications database at: www.energia.org/pubs/index.asp

Awareness of health effects of cooking smoke among women in the Gondar Region of Ethiopia: a pilot survey
M. Edelstein, E. Pitchforth, G. Asres, M. Silverman and N. Kulkarni, July 2008
The burning of biomass fuels results in exposure to high levels of indoor air pollution, with consequent health effects. Possible interventions to reduce the exposure include changing cooking practices and the introduction of smoke-free stoves supported by health education. Social, cultural and financial constraints are major challenges to the implementation and success of interventions. The objective of this study is to determine the awareness of women in Gondar, Ethiopia of the harmful health effects of cooking smoke and to assess their willingness to change cooking practices.

The publication is available for download at: http://www.biomedcentral.com/1472-698X/8/10

ENERGIA News

Children looking on while their mother cooks food over her improved woodstove. This photo was taken during a field visit as part of the gender audit of national energy policies in India. (Photo: IRADe)

ENERGIA is an international network on Gender and Sustainable Energy, founded in 1995 by a group of women involved in gender and energy work in developing countries. ENERGIA's objective is to "engender" energy and "empower" rural and urban poor women through information exchange, capacity building, research, policy influencing and action aimed at strengthening their sustainable energy development.

ENERGIA's approach is to seek to identify needed activities and actions through its membership, and then to encourage, and if possible assist, members and their institutions to undertake decentralised initiatives. ENERGIA News is the principle vehicle for this approach. The focus is on practice, with a conscious effort to interpret and learn from this practice.

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ENERGIA Secretariat
c/o ETC Energy
P.O. Box 64
3830 AB Leusden
The Netherlands
Tel: +31.(0)33.432 6044
Fax: +31.(0)33.494 0791
E-mail: energia@etcnl.nl
Website: www.energia.org

EDITORIAL TEAM FOR THIS ISSUE

Guest Editor:
Gail Karlsson
258 Broadway 5A
New York, NY 10007 USA
Tel. +1 212 267 4239; Fax +1 419 781 2862
Email: g.karlsson@worldnet.att.net / gkarlsson@igc.org

ENERGIA Editors:
Anja Panjwani and Sheila Oparaocha
ENERGIA Secretariat
P.O. Box 64
3830 AB Leusden
The Netherlands
Tel. +31 33 432 6044/0000; Fax +31 33 494 0791
Email: a.panjwani@etcnl.nl

English Language Editor:
Giles Stacey
ENGLISHWORKS
Wim Sonneveldstraat 50
7558 LW Hengelo
The Netherlands
Tel: +31.(0)74.278 3115; Fax: +31.(0)842 290 062
E-mail: stacey@dds.nl

Design
Kon. BDU Grafisch Bedrijf bv

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Englishworks, Hengelo

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