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GENDER ASSESSMENT: SOUTH ASIA REGIONAL INITIATIVE FOR ENERGY

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25 February 2010

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Gender Assessment: South Asia Regional Initiative for Energy

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Executive Summary

Energy services are linked to well-being and have the potential to affect almost every area of human life, from increased economic activity to improved child literacy, safe drinking water and women's empowerment. Because women have primary responsibility for energy procurement and management to meet basic needs, they are severely affected by energy poverty. In working to promote energy security in the South Asia region and promoting access to clean sources of energy, the South Asia Regional Initiative for Energy's (SARI/Energy) goals are also aligned with fighting energy poverty and lack of access to modern energy services.

This Gender Assessment is intended to be a practical guide for conscientiously integrating gender considerations to enhance the SARI/Energy Program's objectives, impact, and equity. Wherever possible, examples and case studies are used in the assessment to illustrate how to operationalize gender integration within SARI/Energy.

This assessment also addresses USAID compliance issues arising under the SARI/Energy Program. However, SARI/Energy itself has already gone beyond basic compliance with USAID policy to make gender considerations an important part of its programming. In line with this, the assessment looks more broadly at the potential for gender-responsive programming within SARI/Energy that may help improve access to energy and combat energy poverty. The assessment's recommendations fall under three broad areas: Strengthening Gender Work within SARI/Energy, Engendering Existing Operations, and Building Knowledge.

As such, SARI/Energy's gender work under the South Asia Women in Energy (SAWIE) task order was reviewed and recommendations proposed to lay a foundation of additional efficiency and sustainability for both the network and proposed Regional Centres of Excellence. Several measures are suggested to enhance network cohesion and efficiency. For example, hiring a coordinator devoted to steering the network and its activities would help in articulating the network's agenda and strategic goals. Further, clarifying the mission and goals of the network is important to its long-term sustainability. As such, a unifying theme may serve to unite and energize the SAWIE network. Recommendations are also made to codify membership and institutional commitments to the network as well as map core competencies to build on members' strengths and experiences. Guidelines to boost the impact and learning from SAWIE events are also proposed.

The SARI/Energy program is planning to establish a Regional Centre of Excellence for South Asia Women in Sustainable Energy Research (WISER). A number of points for consideration are raised to assist in near-term decisions that need to be made. These include further clarification of the mission and objectives of the Centre of Excellence, its expected activities, and an optimal

organizational profile to accomplish these activities. Collaboration with other energy programs may also serve to strengthen the network and the Centre.

Chapter 5 of this report, “Engender Existing Operations,” makes recommendations to further engender two areas of work under SARI/Energy. Through refining gender guidance given by the Small Grants Program and supporting gender in the three existing Regional Centres of Excellence, the program has the opportunity to make demonstrable, on-the-ground progress on equitable clean energy access. Key gender points to be considered at each stage of the project cycle are presented, so as to engender future SARI/Energy activities where appropriate.

Last, this assessment identifies potential opportunities for filling gaps in gender knowledge and institutional capacity in the region. By taking a comprehensive view of energy security, the SARI/Energy program may help fill gaps in knowledge related to energy access and poverty in the region. By doing so, SARI/Energy would help to redress chronic inattention to gender and energy priorities in many of the South Asia region’s energy policies and programs. In addition, a proposed program on the relevance of gender to power sector interventions would leverage SARI/Energy areas of expertise, build the capacity of energy professionals in the region, and help elucidate best practices for gender-responsive programming in the power sector.

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Acronyms

AKRSP	Aga Khan Rural Support Program
AKDN	Aga Khan Development Network
BREA	Bangladesh Renewable Energy Association
CEWDC	Coastal Electrification and Women's Development Cooperative
CO	Community Organization
dTS	Development & Training Services, Inc.
EMC	Energy Management Centre
FG	Functional Group
GDI	Gender Development Index
GEM	Gender Empowerment Measure
GNI	Gross National Income
GVEP	Global Village Energy Partnership
HDI	Human Development Index
IFRTD	International Forum for Rural Transport and Development
kgoe	Kilogram Oil Equivalent
PSL	<i>Prokaushali Sangsad</i> Limited
PV	Photovoltaic
MOU	Memorandum of Understanding
NGO	Non-Governmental Organization
NMT	Non-Motorized Transport
NREL	National Renewable Energy Laboratory
RCE	Regional Centre for Excellence
RCEEEL	Regional Centre for Excellence for Energy Efficient Lighting
RCERE	Regional Centre for Excellence for Rural Electrification
RCESHP	Regional Centre for Excellence for Small Hydropower
REDP	Rural Energy Development Program
REEEP	Renewable Energy and Energy Efficiency Partnership
RET	Renewable Energy Technology
RRP	Rural Roads Project
SARI/ Energy	South Asia Regional Initiative for Energy
SAWIE	South Asia Women in Energy

SGP	Small Grants Program
SHS	Solar Home System
SNV	Netherlands Development Organization
TERI	Tata Energy Research Institute
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
USEA	United States Energy Association
WID	Women in Development
WISER	Women in Sustainable Energy Research

Chapter I. Background, Introduction, and Approach

I.1 Background and Objectives

USAID's South Asia Initiative for Energy (SARI/Energy) is an eight-country program (Afghanistan, Bangladesh, Bhutan, the Maldives, Nepal, India, Pakistan and Sri Lanka) that promotes regional energy security. The SARI/Energy program focuses on regional approaches to meet South Asia's energy security needs by increasing access to clean energy through trade and investment. The principal means of doing so are providing assistance in the spread of models, technologies, and information on clean uses of energy, and improving market structures to enable investment in and trade of clean energy.

Development & Training Services, Inc. (dTS) was contracted to conduct a gender assessment of the SARI/Energy program, aimed at "identifying gender-related concerns arising from project activities as well as opportunities for engaging women under SARI/Energy that will result in improved project performance" (Scope of Work included in Annex I). The assessment is expected to feed into the design, implementation and monitoring of various SARI/Energy program activities.

The gender assessment was carried out between April and July 2009. This report is a presentation of the findings of the gender assessment, and is divided into six chapters:

- Chapter 1 provides the background of the Gender Assessment, outlining the objectives and the methodology adopted.
- Chapter 2 presents an overview of the gender and energy situation in South Asia, challenges faced, solutions to address these, and best practices and lessons learned.
- Chapter 3 gives an overview of the SARI/Energy program, its institutional framework and how it relates to USAID's policy on Women in Development.
- Chapters 4 through 6 present the findings and the conclusions of the Gender Assessment, and make recommendations in each of the three identified Action Areas: Strengthening Gender Work within SARI/Energy, Engendering Existing Operations, and Building Knowledge (see Figure I).

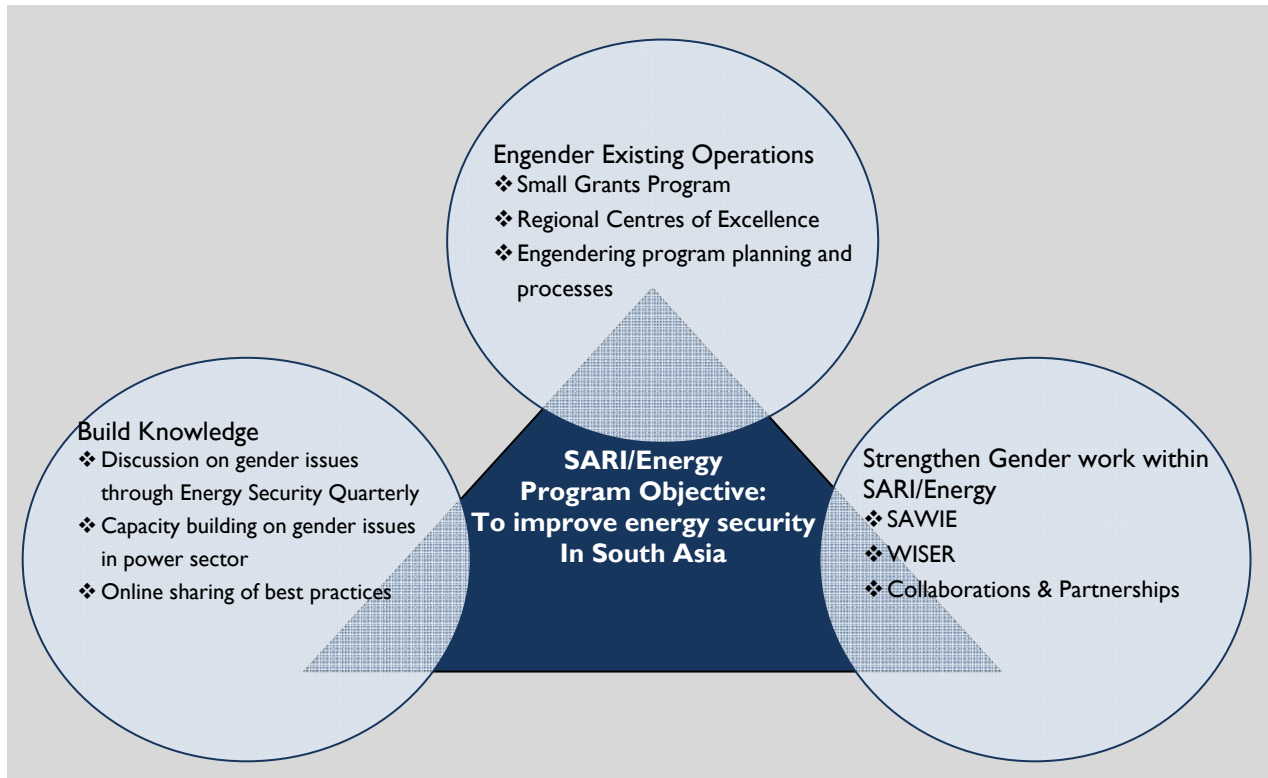


Figure 1: Action Areas Emerging from the Gender Assessment

1.2 Approach and Methodology

Conceptual Framework for the Gender Assessment

The Gender Assessment comprised a review that addressed the following questions:

- What are the key gender and energy challenges in the South Asia region? What has been the experience in addressing these, and what are the best practices and lessons learnt from these?
- What are USAID's requirements for incorporating gender into all USAID programs (http://www.usaid.gov/our_work/cross-cutting_programs/wid/)?
- How does the gender policy of USAID get translated at the program level within SARI/Energy? In other words, what are the gender strategies in the three SARI/Energy activity areas of cross-border trade, energy markets and clean energy access? What are the associated institutional capacities and mechanisms to achieve the same?
- What concrete opportunities and entry points exist for addressing gender in SARI/Energy's existing task orders and activities?

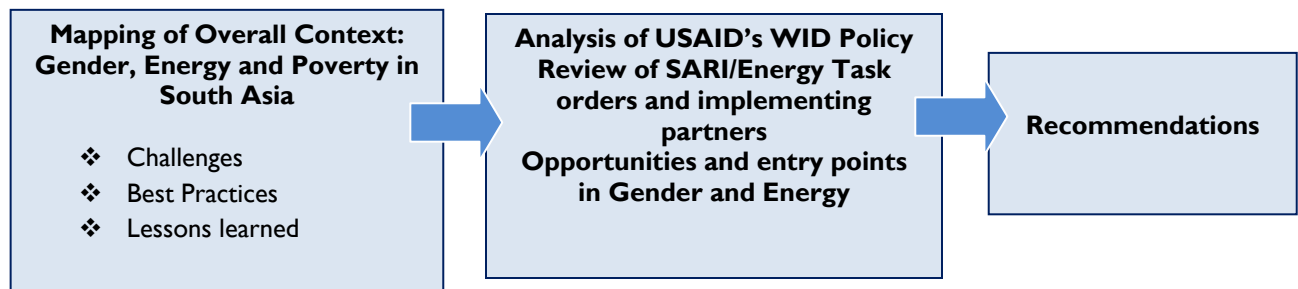


Figure 2: Framework for the SARI/Energy Gender Assessment

Towards the beginning of the assessment, the gender assessment team met with both USAID and PA Government Services to understand and clarify expectations related to this report. These discussions highlighted the need for the assessment to address three primary points related to the SARI/Energy program:

- What are the major initiatives related to gender that have been undertaken by the SARI/Energy program and how can the impact of ongoing gender and energy activities under the SARI/Energy be enhanced?
- Do the current activities bring the SARI/Energy into compliance with USAID policy on gender? What, if any, additional actions must be done to ensure compliance?
- Are there new entry points and opportunities for addressing gender that may be considered in the future?

Elements of the Gender Assessment

The assessment methodology combined a number of assessment tools or elements:

- A sectoral review of gender and energy in South Asia, to map key issues related to both gender and energy in the region as well as identify good practices from energy and other sectors. A list of referenced documents is included in Annex 2.
- Review of existing documentation within SARI/Energy produced in the current phase of SARI/Energy (starting in April 2007). A list of SARI/Energy documents reviewed is included in Annex 3.
- Discussions with SARI/Energy program managers, USAID country coordinators in SARI/Energy countries, partners and other stakeholders. Discussions were also held with members of the SAWIE (South Asia Women in Energy) network, representatives from networks such as ENERGIA, and gender and energy experts in the region. A list of individuals consulted is included in Annex 4. The interactions were focused on four discussions points:
 - What are the key gender and energy issues faced in South Asia today?

- What are the opportunities for addressing gender issues in the energy sector in South Asia?
 - What concrete activities can be undertaken by the SARI/Energy program to address these issues?
 - Which are the gender and energy programs/activities, within the South Asian region and outside, that the SARI/Energy can learn from or build on?
- In order to track how the SAWIE network and associated activities have affected the work of its members, a short questionnaire was administered to the SAWIE members. The following questions were asked:
 - In what ways has the SAWIE network and associated activities helped you in your work?
 - Have you initiated any new gender-related energy activities as a result of the information you have received through the SAWIE network? Please elaborate.
 - Have you established working relationships with other SAWIE network members? Can you tell us how you have collaborated?

The preliminary findings and recommendations emerging from the assessment were shared with PA through a presentation. The discussions helped to further refine the recommendations and add new areas of enquiry. Recommendations focused on few high priority areas, which the team thinks are of high value in terms of strategic importance, efforts needed and expected benefits.

Chapter 2. The Energy Sector

Context: Gender and Energy Access Issues in South Asia

This chapter outlines the linkages between energy security, gender, and poverty. It also provides an overview of gender and energy issues in South Asia, challenges faced, experiences with gender-sensitive energy access programs, and best practices and lessons learned from these, which would be relevant to the SARI/Energy program.

2.1 Gender, Energy Security, and Poverty Linkages

Access to affordable energy services is an essential prerequisite for achieving economic growth and poverty reduction. Energy services are linked to well-being and have the potential to affect almost every area of human life, from increased economic activity to improved child literacy, safe drinking water and women's empowerment. Worldwide, 2.4 billion people still rely on traditional biomass for cooking and heating. Another 1.6 billion lack electricity (IEA 2002). Estimates show that 70% of these are women, who have less access to resources and decision-making than men. Furthermore, women's primary responsibility for energy procurement and management (and the invisibility of these tasks in national energy statistics) gives energy poverty a particular gender bias.

Energy is a critical input in the daily lives of women. They need enormous quantities of energy for their household chores such as cooking and space heating; for agricultural uses, including post-harvest processing; and for rural industry uses such as milling and process heat. In the absence of modern energy services, they devote long hours to gathering biomass for energy, often across long distances, and on unpaid household and farming tasks, leaving little time for much else. Energy poverty¹ is a problem that has a disproportionate effect on women and girls. The most obvious and well documented burden is that as fuel resources become increasingly scarce, women are forced to walk longer distances and invest a greater portion of time each day in gathering fuelwood and water.

¹ Energy poverty has been defined as the absence of sufficient choice in accessing adequate, affordable, reliable, high-quality, safe and environmentally benign energy services to support economic and human development.

The SARI/Energy program focuses on regional approaches to meet South Asia's energy security needs by increasing access to clean energy through trade and investment. Key gender concerns that are important in this context are discussed below; some are within the purview of energy, but several others are outside as well.

Box 1: The gender-energy-poverty linkage

- Women represent up to 70% of the rural poor, earn only 10% of the world's income, and own only 1% of the world's property; they also account for two-thirds of the total number of illiterate people.
- Women play a major role in the survival strategies and economy of poor rural households across all geographical regions.
- Women are affected most by energy scarcities, as they are responsible for nearly every aspect of the domestic energy system, especially in rural areas.
- Research findings suggest that there are welfare and efficiency gains from improving women's education level, access to resources and infrastructure, and control over income.
- Increasing the economic productivity of the rural poor is largely about enabling women to realize their socio-economic potential more fully and improve their own and their families' quality of life.
- Energy services can contribute to increasing women's economic and social empowerment.

Source: World Bank (2005). *Gender Issues in Monitoring and Evaluation in Rural Development: A Tool Kit*, World Bank.

The Gender Face of Poverty and Deprivation

Gender inequalities in energy access have their genesis in the fact that in much of South Asia, gender inequalities are prevalent in society and within households. This means that women generally have less access to productivity-enhancing resources, such as labor, collateral, credit facilities, information, and training. These inequalities stem from household-based discrimination and from broader societal and cultural constraints, and restrict their ability to benefit from available opportunities. Data on some gender indicators in South Asia is presented in Table I.

Some observations from Table I are:

- The Gender Development Index (GDI), an indicator of the overall development of women, measures achievements in the same dimensions using the same indicators as the Human Development Index (HDI), but captures inequalities in achievement between women and men. South Asia accounts for some of the lowest GDIs in the world. Except for Sri Lanka, all the SARI/Energy countries are below the halfway mark in the 140 countries ranked for GDI.
- The gender empowerment measure (GEM), which measures the extent of female deprivation in income and decision-making power, is consistently low in the region. All the SARI/Energy countries ranked within the region fall in the bottom 20% of the 80 countries (worldwide) that have been ranked on GEM.

- The GNI (gross national income) per capita for women is extremely low and is often less than half of that of men. To a large extent, the reason for the low GNI per capita for women and the reporting of women as economically less active is determined by their low social status. Another universal phenomenon is that when both household and “productive labor” for a market are considered, women work considerably longer hours than men do. This gap is particularly pronounced in poor households. The time that women allocate to agriculture or land-based labor is three to four times greater than that of their male partners (Kelkar and Nathan 2005).

Table I: Gender Indicators for South Asian Countries

Country	GNI/Capita for women, US\$ (2002) ²	GEM (Gender empowerment measure rank) ³	GDI (Gender Development Index) rank	Economically active population (% of working age population) (2002) ⁴		Adult literacy rate (%) ⁵	
				Female	Male	Female	Male
Bhutan				57*	88*	9 ⁶	31
Sri Lanka	850	72	66	33.6	67.6	88.6	92.2
Nepal	230		106	57.0*	86.0*	34.9	62.7
Bangladesh	370	79	105	55.9*	87.2*	31.4	50.3
Pakistan	490	71	107	13.7	70.4	35.2	61.7
Maldives	2150		-	37.4*	71.7*	97.2	97.3
India			98	48.8	87.5	47.8	73.4

* for year 2000

Note: Data for Afghanistan are not available.

Given the above gender-based disparities, it is evident that it cannot be assumed *a priori* that energy or any other developmental interventions that benefit men will necessarily benefit women as well. This necessitates that energy projects and programs may have to create enabling conditions for women to participate in and benefit from energy access interventions, at par with men.

Gender-Differentiated Use and Benefits from Energy Services

Different household and productive activities imply that women use and benefit from energy services differently than men. For example, decisions on how/where electricity and electricity services (such as information and communication technology packages) are provided to

² Compiled from WDI Database, www.worldbank.org. These data are not available for Bhutan and India.

³ 80 countries have been ranked on GEM (UNDP 2005). Bhutan, Nepal, Maldives and India have not been ranked on GEM.

⁴ Compiled from WDI Database (www.worldbank.org)

⁵ Compiled from

<http://web.worldbank.org/wbsite/external/topics/extgender/extanatools/extstatinddata/extgenderstats/0,contntmdk:21442699~menupk:4851776~pagepk:64168445~pipk:64168309~thesitepk:3237336.00.html>

⁶ Literacy rates for Bhutan are from <http://www.populstat.info/Asia/bhutang.htm>

households and communities influence women's ability to take advantage of these services. Unfortunately, despite this close link between gender and energy, women's preferences and interests are not typically accommodated in energy policy, planning and projects.

Continued Reliance on Traditional Biomass for Cooking

Perhaps the most important gender concerns in energy access for the poor are the continued reliance on biomass as a cooking fuel, and the relative lack of attention to this sector. Rural women (and their children) are the primary collectors of wood and residue fuels. Solid biomass⁷ accounts for over 30% of total energy consumption in many developing countries, and its share in some South Asian nations is as high as 95% (see Table 2). The burden of this traditional energy use falls disproportionately on women in more ways than one and the implications are many and well documented, starting from the time and effort spent in fuel collection in fuel-scarce areas, ranging from 1 to 5 hours per household per day. Smoke from burning biomass, which is the fourth-greatest risk factor for death and disease in the world's poorest countries, is linked to 1.6 million deaths per year (Warwick and Doig 2004) and missed opportunities for employment, education and self-improvement. It is a grim reality that the dependence on traditional fuels for a large section of the poor in the South Asia is likely to continue in the foreseeable future.

Table 2: Energy Usage in South Asian Countries⁸

Country	Per capita energy consumption (kgoe) 2001	Population relying on solid fuels	Percentage of households with access to electricity
Afghanistan	NA	86.9	2 ⁹
Bangladesh	145	>95	20
Bhutan ¹⁰	NA	41.6	68.5
India	514	81	43
Nepal	350	>95	15
Pakistan	441	76	53
Sri Lanka	423	89	62
Average (Asia)	890	75	70
Average (developing countries)	828	67	67
Average (world)	1631	56	73

⁷ Solid biomass includes any plant matter used directly as a fuel or converted into other forms before combustion, including wood; vegetal waste including wood waste and crop waste used for energy; animal materials and wastes; and other solid biomass.

⁸ Data from IEA 2005, unless indicated otherwise.

⁹ IEA 2002.

¹⁰ Figures for Bhutan are taken from UNDP 2009.

The Critical Role of Energy Services in Women-Operated Small and Micro Enterprises

Women's participation in the workforce in South Asia has largely been restricted to the informal economy. Women's micro-enterprises, which make an important contribution to the household income and women's empowerment, are heat-intensive (food processing); labor-intensive; and/or light-intensive (home-based industries with work in evenings). Lack of quality energy – and other coordinated support – for these activities affects women's ability to operate these micro-enterprises profitably and safely.

Gender in National Energy Policies and Institutional Framework

In most South Asian countries, energy policy and programs to concentrate on commercial energy carriers: electricity, coal, gas and petroleum products, which do not substantially address the lives of the rural poor or women. The energy-poverty links are seldom addressed and gender concerns are completely sidelined (UNDP 2007). In general, access to modern energy services is generally taken to be synonymous with electrification. This is of significance in light of the facts that 1) cooking accounts for the largest share of household energy consumption, 2) biomass continues to be the predominant used fuel for cooking, and 2) electricity provision does not address rural cooking needs in most cases. The unsuitability of electricity to address cooking energy needs, especially in rural areas, means that electricity does not address the energy need that impacts women's lives the most.

2.2 Experience with Gender-Responsive Energy Access Programs

Within the region, most technology programs for improving energy access for women have not moved beyond pilots. Renewable energy technologies (RETs), like biogas plants and improved cookstoves, have demonstrated direct gender benefits and are well documented. Benefits accruing from these technologies to women include time saved in fuelwood collection and cooking, and positive health impacts including reduction in drudgery and indoor air pollution. However, most programs have failed to make a significant impact, primarily because they have not been up-scaled. The gender impacts of other energy interventions such as grid-based electricity, solar PV (photovoltaic), and micro hydro are typically neither recognized nor monitored.

This section presents four examples of good practices of integrating gender concerns in energy projects, three from South Asia and one from Peru.

Rural Energy Development Programme (REDP), Nepal

Enhancing access to energy is an extremely challenging task in Nepal, where one-third of the population lives below the US \$1 per day threshold. Poverty is widespread across the country and communities. The situation is worse for women, who fare the lowest on the human development and empowerment index. The literacy levels in the hill districts are very poor, especially for women (less than 10%), who also face additional constraints of high workloads, near total absence of exposure to the outside world, isolation and poor social infrastructure.

REDP, which was initiated in 1996, aims to enhance rural livelihoods through the installation of micro hydro-power systems. The expansion of sustainable rural energy systems is seen as an entry point for economic development and poverty reduction. The program stresses community mobilization, bottom-up participatory planning, and decentralized decision-making. Productive income generating activities are promoted as end uses of the energy supplied, and skills training is provided to promote agricultural and home-based businesses.

The program has initiated several measures to promote women's involvement in the project:

- Women have been identified as one of the vulnerable groups, and their empowerment has been highlighted as one of the six basic principles of REDP's community mobilization process.
- At the community level, REDP's operational modality requires one man and one woman from each household to participate in program activities such as the formation of community organizations (COs) and functional groups (FGs)¹¹, training, implementation and benefit sharing, thereby ensuring gender balance.
- In program communities, separate male and female COs are formed, which meet on a weekly basis and are provided targeted capacity building inputs.
- REDP's monitoring system collects and analyzes gender-disaggregated data regularly.
- It is mandated that gender balance is achieved not only in the COs, but also in the leadership positions in the FGs and cooperatives that are formed from COs. REDP's proactive measures to empower rural women have had a visible and positive impact in mobilizing women and integrating them into mainstream community activities.
- The women in COs have a distinct voice in local affairs and their capability for independent and collective action has increased. Some of the micro hydro schemes in

¹¹ Community Organizations are organizations of people living in close proximity and willing to work together for the micro hydro project. Members constitute at least one male and one female member from each beneficiary household. The Functional Group is a higher-level community organization, set up to manage the micro hydro systems and is responsible for decisions about electricity distribution, electricity tariffs, employee management, operation and maintenance of the schemes.

the remote districts in far-western Nepal (an area where women have the lowest social status) are even chaired by women.

- At an individual level, the project has directly resulted in reduced drudgery in household tasks and an increase in productive and community roles.
- Women's involvement in small-scale and cottage enterprises has increased. The number of such enterprises increased from 400 in 1996 to 700 in 2005.

Women's Micro-enterprise in Bangladesh

Prokaushali Sangsad Limited (PSL), a Dhaka-based consultancy firm, has been promoting a rural women's micro-enterprise, through a cooperative model, in Bangladesh. The project is located at Char¹²Montaz, an isolated rural island in southern Bangladesh, a five-hour motorboat journey from the nearest commercial center. Char Montaz has a population of about 2 million people; however, an electric grid extension to this area will not be economically viable within at least the next 20 years. Therefore, there is a high demand for alternative modern lighting.

In September 1999, 35 women came together to form the Coastal Electrification and Women's Development Cooperative (CEWDC), a women-owned cooperative. Since its establishment, the co-operative has been providing energy services to the un-electrified rural areas of Char Montaz and four neighboring islands.

- The cooperative manufactures high-quality DC lamps and charge controllers suitable for solar home systems (SHSs). Other services include battery charging, selling, installing and maintaining SHSs, selling electrical goods and market electrification.
- The women involved in the project run the manufacturing plant that produces the lamps, and are certified by the local government to run their business as a cooperative.
- Besides lamp manufacturing, women are also learning about quality control, business development and marketing. If a woman constructs and sells two lamps a day, her daily income increases by 100 Taka (approximately US \$2). This is equivalent to the daily wages of a skilled laborer, and thus raises both her income and social status.
- The cooperative advertises its products by organizing public meetings, distributing handbills, setting up billboards and posters, and demonstrating at several locations.
- A detailed marketing plan was developed by the women covering such factors as business location, customer characteristics, target markets, competition, electricity demand, marketing goals and strategies, and budget considerations.

¹² A *char* is an island formed by deposits of previously eroded land. Their stability is variable; some remain for decades while others may be eroded away within a year.

- Profits have been used for investments in other income-generating activities, such as raising poultry and livestock, and fishing.
- Since 2003, the solar electrification program also offers micro-credit for purchasing small solar home systems by the rural households. Currently 100 households in Char Montaz are enjoying the services from the co-operative.

Some salient features of the Char Montaz implementation approach are:

- Systematically identifying community- and gender-based needs
- Tapping opportunities for rural women and their families to generate non-farm income
- Using the capacity of rural women in micro-credit management
- Empowering rural women through technical and business training and skills.

Over time, the DC lamp manufacturing has been scaled up to meet demand beyond the islands in the region, and in fact, the cooperative is now one of the project organizations under the World Bank-supported the Rural Electrification and Renewable Energy Development Project. Under the Sustainable Energy Program of the Shell Foundation, the co-operative is now planning to set up two micro-enterprises, which will be engaged in sales and maintenance of solar home systems and operation of a diesel platform¹³ on a commercial basis¹⁴.

The PERU Rural Roads Project (RRP)

Access to transport is often a critical precondition for rural development. The Peru Rural Roads Project (RRP) is a rural transport project that, by involving rural women in its design and implementation, was able to deepen and broaden the project's development impacts. The RRP was implemented in Peru's Andean region, an area with difficult mountainous terrain and a largely indigenous and poor population in which women play key economic roles in agriculture, small-scale marketing and animal husbandry. In rural Peru, poverty is highly correlated to the education level of the head of household (20% of which are women) and to the absence of employment opportunities.

Between 1995 and 2007, the project rehabilitated 14,750 km of rural roads (31% of the total registered Peruvian rural roads network), improved 3,500 km of non-motorized transport (NMT) tracks, developed 532 micro-enterprises performing the routine maintenance of rehabilitated roads, and created 121 Provincial Road Institutes.

The project adopted several measures to ensure women's needs were met, and that they were empowered through the initiative:

¹³ A platform built around a simple diesel engine that can perform a variety of tasks such as operating a cereal mill, seed press or battery charger.

¹⁴ <http://www.psl dhaka.net/enterprice.htm>

- At community consultation workshops, separate sessions for women and men were convened to ensure that women were able to freely express their transport needs and constraints.
- Roads committees were set up to undertake and contract out maintenance in the local area. The committees involved women's groups to ensure that the transport needs of all community members were met. The project also incorporated targets for women's participation in the committees, with the goal of at least 20% of road committee members being women.
- In direct response to the needs expressed by women, the project supported improvements not only to the roads connecting communities, but also to 3000 km of NMT tracks – tracks that are most often used by women and are commonly ignored by road upgrading programs.
- The project promoted micro enterprises and stipulated that at least 10% of micro-enterprise members and at least 30 percent of the direct beneficiaries be women.
- The initially proposed criteria for microenterprise membership were also adapted to counter some of the constraints faced by women in the project area, for example, by prioritizing female-headed households, reducing the weight given to education level in determining membership, and recognizing previous experience in specific tasks needed for road maintenance rather than in actual road building.

The action yielded several significant outcomes:

- 24% of members of the micro-enterprises are women.
- 46% of treasurers of Rural Roads Committees and 21% of members are women.
- 22 to 50% women's participation in the design of local development plans and in the definition of public and private projects (local development window).
- 67% of women felt safer traveling, 77% traveled more and further, and 43% increased their income.
- An unexpected outcome was that the program contributed to greater voter participation in the municipal elections, particularly for women.

Aga Khan Rural Support Programme's (AKRSP) Micro-hydro Plants in Pakistan

AKRSP has been implementing a large number of micro-hydel plants in remote, hilly villages of Pakistan. The project communities are scattered, isolated and far removed from conventional electricity supplies. They have traditionally used smoky and unreliable pinewood torches and more recently, costly kerosene lamps for lighting.

The region's many fast-flowing rivers, however, make it well suited for electricity generation through small-scale hydro power. In the northern province of Chitral, AKRSP has established 172 micro-hydel power units, benefiting more than 20,000 households.

The projects adopted several measures to increase the involvement of women and to ensure that the project meets their energy needs.

- The micro-hydel plants are implemented, maintained and managed by village management committees in which women play an active role.
- The women have been linked to various AKDN (Aga Khan Development Network) programs and government institutions, which has enabled many of them to start small businesses, such as manufacture of *Shu*, a traditional woolen fabric.]
- The program has a strong emphasis on women's capacity building.

The impacts of the strategies are visible:

- The availability of electricity has improved women's economic productivity in many ways, by increasing incomes, improving work conditions, and reducing the drudgery of labor-intensive tasks.
- There has been a significant improvement in women's education rate in Chitral. Young girls, who remain engaged in various kinds of works in the household during the day time, take advantage of light in their studies at night.
- Another significant impact of electrification has been the access to international media through satellite television, which is both informative and entertaining. The Chitral women, most of who are unable to attend colleges and universities, make use of educational channels on television and virtual university courses to get higher education and technical education courses.

2.3 Conclusions and Lessons Learned from Past Experience

Over the years, some progress has been made in improving access to energy by poor women; however, women's roles continue to remain mostly unacknowledged, and relative to men, they are still left behind. As such, women are the worst affected by energy scarcities, and their energy poverty is only compounded by the impacts of climate change, which are further degrading the dwindling resource base that the poor depend on for meeting their energy needs.

Women's involvement through active participation in project planning, design, implementation, and evaluation empowers women and gives them a stronger sense of ownership and a more pronounced stake in project success. Better access to resources also allows women to devote more time to income-producing activities and to caring for their own needs as well as those of their families. Experience has shown that access to energy services helps women:

- *By freeing up their time* from repetitive tasks and drudgery – gathering fuelwood, hauling water, milling grain – to providing electrical power to extend working hours.

- *By expanding the ability for women to engage in income-generation activities.* Many enterprises become viable once there is access to a reliable modern energy source: mechanical power, electricity, process heat, or transport fuel. Energy projects and energy enterprises are also a source of employment and income generation that should be made equitably accessible to both women and men.
- *By making possible positive long-term, intergenerational impacts.* Freed from the drudgery of fuelwood collection, children, especially girls, can go to school. Women also have more time to attend to themselves and their families, and the impact can be expected to be intergenerational. Income earned when modern energy services become available to households and communities is reinvested in home improvements, children's education, and further business development, incomes and employment.
- *By empowering women.* Involvement in energy activities can empower women when energy services are linked to income-generation and productive resources, when women are involved in decision making roles in project processes, and by providing women with opportunities to gain technical knowledge.

Unfortunately, through their activities and strategic objectives, many energy projects and programs do not systematically target these outcomes. There are strong needs to mainstream gender into national energy policies as well as programming; to sensitize government, utilities, financing institutions and program implementers on the importance of gender issues in the energy sector; and more importantly, to increase awareness on available gender approaches, tools and methodologies.

Chapter 3. Gender in SARI/Energy: Policy and Programming

The SARI/Energy program promotes energy security in South Asia through three activities areas: 1) cross-order energy trade, 2) energy markets, and 3) clean energy access partnerships. Through these activities, the program facilitates more efficient regional energy resource utilization, works toward transparent and profitable energy practices, mitigates the environmental impacts of energy production, and increases regional access to energy.

The three SARI/Energy areas are implemented on a task order basis, with specific task orders contained within each activity area. The work under each task order is laid out in an annual work plan, although the program is flexible enough to accommodate changes and new ideas throughout the year as well.

3.1 Institutional Framework of SARI/Energy

There are three primary partners responsible for implementing the overall SARI/Energy program: PA Government Services, the United States Energy Association (USEA), and the National Renewable Energy Laboratory (NREL). Each partner has a different focus area of work under SARI/Energy and therefore varying degrees to which gender may be relevant in its programming. Figure 3 illustrates the relationships between implementing partners.

PA Government Services: PA is responsible for implementing a major portion of the SARI/Energy program, and has primary responsibility for providing technical assistance and training related to technical assistance initiatives. As such, many of the initiatives that have been identified as having gender-related implications fall under the purview of PA. The firm has already undertaken considerable work on gender under the SARI/Energy program by spearheading many of the activities related to the Women in Energy task order and through the Small Grants Program. These activities and others for which PA is responsible have been identified as important vehicles for addressing gender in the SARI/Energy program. It is anticipated that PA will be an important partner in addressing potential future gender work under SARI/Energy.

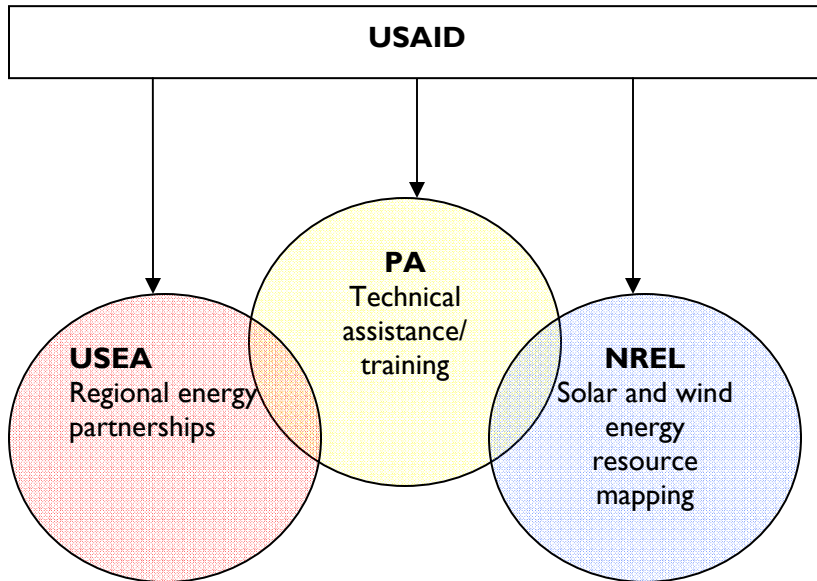


Figure 3: Institutional Framework of SARI/Energy

United States Energy Association: USEA’s work under SARI/Energy is focused on promoting regional energy partnerships to develop and strengthen long-term relationships among key stakeholders around such issues as regulatory policy, transmission, and energy markets. USEA has also undertaken gender work through its organization of the South Asia Women in Energy Executive Exchange: Efficient Energy Management and Renewable Energy. It is possible that, in addition to work on Women in Energy, USEA may play a role in identified future gender work under SARI/Energy.

National Renewable Energy Laboratory: Under SARI/Energy, NREL has been responsible for developing high-resolution solar and wind resource data for several South Asian countries. As such, the study team did not find clear gender links with NREL’s current work. There is a potential that NREL will join a proposed Regional Centre of Excellence for South Asia Women in Sustainable Energy Research (WISER) as a resource organization or knowledge partner. A potential collaboration between the proposed Centre and NREL would allow for access to important technical knowledge on renewable and household energy technologies and appropriate sources of household energy to meet various needs. In this case, future NREL work under SARI/Energy may have a gender dimension.

3.2 SARI/Energy and USAID's Policy on Women in Development (WID)

As a starting point for this assessment, the study team determined whether SARI/Energy activities were in compliance with the USAID policy on gender. Although a formal document delineating USAID's gender policy could not be found, the USAID website provides some guidance on how to approach gender in its programs.

Box 2: Excerpts from the USAID website on gender integration in its programming

...USAID's effectiveness is directly linked to its ability to recognize and address the gender-related issues that are holding back progress in developing countries.

...When gender-based constraints are considered as a part of programming, development programs are more likely to achieve their desired outcomes, result in greater social equity and lead to lasting transformational development.

...As a cross-cutting theme throughout Agency programming, it is the responsibility of each operating unit to address gender considerations when setting overall priority goals.

Source: http://www.usaid.gov/our_work/cross-cutting_programs/wid/

A common tool used to address gender considerations in USAID programs is a gender analysis. USAID's approach to gender analysis of programs and projects is built around two key questions:

- How will gender relations affect the achievement of sustainable results?
- How will expected results affect the relative status of men and women?

Using these questions, the study team reviewed documents pertaining to the SARI/Energy to see whether gender might be a relevant issue in terms of both enhancing sustainable results, and whether program outcomes might have significant gender impacts. A list of SARI/Energy documents is contained in Annex 3. Table 3 maps out the various task orders, the issues with regard to compliance with USAID's WID policy, and where they are addressed in this report.

Table 3: Compliance of SARI/Energy Task orders with USAID's WID Policy

Workplan activity area	Task order	Compliance issues identified	Actionable/ priority area
Activity 1: Cross-Border Trade	1.3 India Sri Lanka submarine cable	None	
	1.4 Pakistan advisory services	None	
	1.7 Clean coal partnership	Yes- Clean technologies for cooking with coal	None- Work under the Task Order is concluding
	1.9 Maldives interconnection study	None	
	1.10 South Asia Transmission Utility Regional Partnership	None	
	1.11 Nepalese Energy Authority transmission service agreement	None	
Activity 2: Energy Markets	2.5 Global energy markets and trade program	None	
Activity 3: Clean Energy Access	3.2 Nepal Hydro Equity Fund	None	
	3.3 Regional Centre for Excellence in energy-efficient lighting	Yes- discussed below	Yes- discussed in Section 5.2
	3.4 Regional Centre of Excellence for small hydropower	Yes- discussed below	Yes- discussed in Section 5.2
	3.5 S3IDF Merchant Bank Model study	Yes- reaching women energy entrepreneurs	No- activity concluded
	3.7 Women in energy	Yes- discussed below	Yes- discussed in Chapter 4
	3.8 Small grants program	Yes- discussed below	Yes- discussed in Section 5.1
	3.9 Regional Centre of Excellence in rural electrification	Yes- discussed below	Yes- discussed in sSection 5.2
Activity 4: Project Management, Administration, Outreach	4.2 Program brochure	None	
	4.3 Quarterly report	None	
	4.6 Energy Security Quarterly	Yes- discussed below	Yes- discussed in Section 6.1
	4.9 Women in energy workshop	Yes- discussed below	Yes- discussed in Chapter 4
	4.13 Gender analysis	Yes	N/A
Activity 5: Afghanistan power sector capacity building	Overall activity workplan	Yes- gender issues in power sector, recruiting women for capacity building programs	Yes- discussed in sSection 6.2 (Capacity for gender in power suggested later)

Chapter 4. Recommendation I: Strengthen Gender Work within SARI/Energy

Starting with an update of the efforts SARI/Energy has made to date on gender and energy, this chapter reviews the program's ongoing work in these areas, in particular, the SAWIE network and the WISER, and makes recommendations to further strengthen this work.

Much of the gender and energy work in SARI/Energy is organized under Task Order 3.7, titled "South Asia Women in Energy." The activities undertaken within this task order so far:

- The First USAID/SARI/Energy Regional Application Workshop on Women in Energy, held in Trivandrum from 21-25 April 2008, was organized by PA and conducted by the Energy Management Center, Kerala. This event culminated with the launch of the South Asia Women in Energy (SAWIE) Network, and subsequently, the formation of four working groups within the network to take the lead in pursuing the SAWIE objectives and lead discussions on specific thematic areas:
 - Capacity Building, Best Practices and Information Sharing
 - Gender Streamlining and Gender Auditing
 - Micro Finance and Income Generation
 - Renewable Energy Technology and Green Architecture.
- The second SARI/Energy Regional application workshop on "Efficient Energy Management and Renewable Energy" was held at Dhaka, Bangladesh from 17-19 November 2008. The workshop was organized by PA, co-sponsored by UNDP Dhaka, and facilitated by two knowledge partners: Bangladesh Renewable Energy Association (BREA) and Grameen Shakti of Bangladesh. The workshop was attended by 35 women professionals working in the energy sector.
- A memorandum of understanding (MOU) was signed between SARI/Energy and ENERGIA: the International Network on Gender and Sustainable Energy¹⁵ in November

¹⁵ ENERGIA is an international network that is hosted by the ETC Foundation in the Netherlands. It operates through 22 national focal points: 9 in Asia and 13 in Africa.

2008 to work together on common areas of interest related to gender and energy issues within the South Asia region.

- A South Asia Women in Energy Executive Exchange on “Efficient Energy Management and Renewable Energy” was held in Washington, DC from 12- 19 May 2009. Hosted by the U.S. Energy Association (USEA), this exchange facilitated meetings between SAWIE delegates and their counterparts at U.S. energy companies and organizations, and related initiatives. Discussions addressed new technologies and approaches, models of efficient energy applications and conservation, as well as the role of women in the energy sector that had potential applications within the South Asia region.

Currently, some of the areas of support in this area, as planned by USAID,¹⁶ are:

- Initiating a web-based forum and hosting it for a period with the understanding that the SAWIE network will take it over eventually.
- Exploring the concept of a Small Grants Program specifically orientated to SAWIE issues and initiatives.
- Assisting the SAWIE network with the development of a booklet on women active in the energy sector in the region.
- Providing technical support to SAWIE working groups as required. PA’s role would be that of a catalyst to support initiatives from various working groups, with the majority of the work being done by working group task leaders.
- Backstopping working groups in their efforts, including support on such specific issues as finalizing a mandate and identifying key activity areas, institutions and resources.
- Involving the private sector and women entrepreneurs in SAWIE who can then take ownership of the network.
- Exploring options for setting up other networks such as “Youth in Energy.”

The discussion in this chapter is structured around the two main clusters of activities that are being planned in the near future: strengthening the SAWIE network and the creation of a Regional Centre of Excellence for South Asia Women in Sustainable Energy Research (WISER), as well as future collaborations and new areas of work.

4.1 The SAWIE Network

Aims and Objectives

“South Asian Women in Energy” (SAWIE) is a network created under SARI/Energy to bring together women energy sector professionals from Afghanistan, Bangladesh, Bhutan, India,

¹⁶ Extracted from “SAWIE – The Growing Baby.” Presentation by Mercy Thomas, South Asia Regional Project Coordinator, SARI/Energy, USAID/American Embassy New Delhi/India. At the SAWIE Executive Exchange and Third Application Workshop on “Efficient Energy Management and Renewable Energy” 12-20 May 2009, Washington DC. USA.

Maldives, Nepal, Pakistan and Sri Lanka to understand, identify and develop sustainable approaches to providing low-cost efficient energy to poor women and men in rural and urban areas throughout the region.

SAWIE started with a membership of about 32 women professionals from these eight South Asian countries and today has more than 70 members. SAWIE was envisioned to be constituted from varied stakeholder groups, starting with women representatives from NGOs (women-led NGOs or community organizations), small-scale women entrepreneurs, and representatives from government sector/*panchayat* leaders/policy makers.

The aims and objectives of the SAWIE network have been discussed through the various meetings and exchanges, and the key areas of work that have emerged are:

- To bring together women energy sector professionals
- To understand, identify and develop sustainable approaches to providing low-cost efficient energy to poor women and men in rural and urban areas throughout the region
- To provide a platform for the empowerment of women in the energy sector in South Asia

Achievements of the SAWIE Network

During the course of the gender assessment, a number of SAWIE members were consulted and their views obtained on various subjects including the key gender and energy issues in the region, perceptions regarding the SAWIE network, and future activities for the SARI/Energy program in gender and energy. The following are salient points from those discussions:

- SAWIE exchanges have been a useful platform for its members to exchange information and knowledge. Network members were unanimous in their appreciation for the exposure and knowledge sharing that SAWIE meetings have promoted, especially in terms of their personal growth and understanding of gender and energy issues.
- A few SAWIE members have been instrumental in spearheading gender and energy activities in their own countries. A case in point is Senator Rukhsana Zuberi, the head of the Pakistan Engineering Council, who, inspired by the concept of energy clinics of India's Energy Management Centre, has started a similar project through Pakistani universities in collaboration with the Ministry of Environment. She has also been instrumental in initiating a pilot project that will install SPV lighting systems at 55 locations in Pakistan. Another SAWIE member, Reba Paul from Bangladesh, has undertaken a gender impact assessment of the Bangladesh Power Development Board RET Project in Chittagong Hill Tracts. The project was jointly implemented by Shubashati and Rahimafrooz Renewable Energy Limited between 2004 and 2006. Deki Choden of Bhutan reported that she has "encouraged several Bhutanese NGOs to apply for the SARI/Energy small grants program for gender-related energy activities and committed her support to provide any necessary assistance." Some of the other

potential linkages that came out of the May 2009 Executive Exchange are:

- Pakistan initiated discussions for the installation of PV and other renewable energy applications through The Stella Group.
- The World Bank and The Stella Group are also assisting Bangladesh in researching the feasibility of solar installations for pump irrigation.
- The Energy Management Centre (EMC) in Kerala, India offered to assist in the future development of the South Asia Women in Energy program and serve as host to a Regional Centre. The EMC is currently reviewing ideas for green building designs and developing plans for training programs. The level of interest and engagement among the SAWIE members is also reflected in the high number of proposals that have been received from the SAWIE network members for the Small Grants Program under SARI/Energy.¹⁷ A number of these with innovative ideas to involve grassroots women have been selected for support.
- SAWIE members have represented the network in several fora, notable among them:¹⁸
 - In December 2008, SAWIE participated in a conference on Beyond Firewood: Exploring Alternative Fuels and Energy Technologies in Humanitarian Settings organized by Women's Council, USA, in New Delhi, India.
 - In February 2009, SAWIE contributed to a survey conducted by Students of Emory University, Rollins School of Public Health, on Community Needs Assessment of organizations working in fuel efficient Stove Programs.
 - In March 2009, SAWIE participated in a SAARC Women Conference on "Partners in Development."

Way forward for the SAWIE Network

At this juncture, when the SAWIE network is in the process of building its identity and deciding on a way forward, there are several core issues that should be addressed. These are discussed below. Some of the suggestions made are towards increasing the effectiveness of the way in which the network functions, while others are more substantive and directional in nature.

Hire a Network Coordinator. As a first step, it is recommended that a network coordinator be hired to steer the activities of the SAWIE network. This person may be positioned within the selected Regional Centre of Excellence and should have the necessary qualifications, especially a proven track record in gender, energy and development issues, managing networks, project management, as well as training and facilitating workshops and meetings.

¹⁷ Source: Presentation made by Dhahesan Unnithan. At the SAWIE Executive Exchange and Third Application Workshop on "Efficient Energy Management and Renewable Energy" 12-20 May 2009, Washington DC, USA.

¹⁸ Source: "SAWIE – The Growing Baby," op. cit.

The network coordinator would be expected to play a strategic role in defining gender and energy priorities for the network as a whole, ensure appropriate SAWIE representation to contribute to key regional initiatives, liaise among network members, USAID and other donors, and energy sector and civil society representatives outside the network. He/she would also be responsible for monitoring and reporting on the activities of the network, contributing to fundraising, and facilitating conflict resolution as and when required.

Further articulate SAWIE identity and mission. Most successful networks are identified with a well articulated mission or a *flagship agenda*. The mission statement must be a dynamic one, and reviewed periodically, so that it responds to the changing environment and changing needs and strengths of the network. Even though the individual organizational goals of each of the members may be different, it is the network's responsibility to build on common points of convergence and synergy between members' work. Unless this is done consciously, there is a risk of the network losing focus and, eventually, its identity. Therefore, it is strongly recommended that SAWIE select a specific theme it can focus on for a few years. The selection of the theme may be based on the most pressing issues in the region, as well as network members' specific skill sets. This would give the network a definite identity, as well increase the chances of obtaining concrete results in a particular area.

As such, within the broad area of gender and energy, there could be a plethora of themes – including livelihoods for women, biomass and cooking energy, biofuels, or technology – on which SAWIE could focus. In our discussions with the SAWIE members, the area of interest that emerged strongly is renewable energy technologies and projects, which may be a unifying theme for the network.

Map core competencies within the network. SAWIE members (existing and potential) have skills in a variety of subjects ranging from renewable energy technologies, to gender assessments and women's entrepreneurship. There is a need to ensure that the experience and expertise within the network are harnessed towards achieving the network's objectives. Building on this range of expertise can help increase the effectiveness of the network and minimize transaction costs of participating in and coordinating network activities. An example of how this could be achieved is Sa-Dhan, a network of micro finance institutions in India. Sa-Dhan offers regular training programs for the micro-finance sector. For this, it makes use of training programs developed by its members, which are knitted into coherent, high-quality programs. By doing so, Sa-Dhan identifies from within its network potential trainers and further builds their capacities. By iterating a particular course, certain organizations also develop core competencies in offering a particular subject, reducing, over time, the costs of building training capabilities. In the SAWIE context, mapping the expertise of network members would enable the network coordinator to identify leaders for particular themes that the network may want to work on, as well as for specific tasks such as developing proposals on a particular topic, leading a research activity, or representing SAWIE in regional and international workshops and conferences.

In line with the above, the study team proposes that the network develop an inventory of its members, documenting the skills available relevant to the gender and energy fields.

Enhance the effectiveness of SAWIE as a network: streamline the SAWIE network composition and structure. One of the objectives of the SAWIE network has been to increase the number of women professionals in the energy sector. The way the network is currently designed, the starting point for selecting network members has been that they are women already working in the energy sector. This, almost by default, excludes two sets of potential clients: 1) women who are not in the energy sector, but work in other developmental sectors and 2) women at the grassroots level: rural and urban women, who are most affected by energy poverty. While involving the latter directly in network activities may be unrealistic in practical terms, the network must consciously seek out women who are working in related developmental sectors such as natural resources management, livelihoods, and integrated rural development, as well as a mix of mainstream energy sector organizations/ academics/ NGOs.

The membership should ultimately be defined by the network members themselves, but some suggestions on membership are made below, as a starting point for the members to consider:

- SAWIE may have at least two categories of members: institutional members and co-opted members. Institutional members are the primary members of the network who have voting powers. This category can include non-profit organizations, public trusts, co-operative societies and non-profit registered companies working in the fields of rural energy, agriculture, integrated rural development, and natural resource management. Institutional members may join the network through a standard application procedure. Co-opted members, on the other hand, would be those individuals that the network may benefit from and should be “invited” to join the network, typically for specific tasks such as chairing an e-discussion or facilitating a meeting. These do not have any voting powers and at any time, will not constitute more than a certain percentage (say, around 5%) of the total members.
- Potential and interested members must be asked to fill in an application form, along with a letter of interest from the institution, demonstrating a commitment to gender and energy issues in general and an institutional interest in joining the network.
- It is suggested that an advisory group be formed within the network that provides strategic guidance to the network. Typically advisory groups can have 6-10 members, and would represent a certain level of expertise in a relevant field.

An illustrative example of defining network membership is presented in box 3.

Box 3: Defining membership: The International Forum for Rural Transport and Development (IFRTD)

The IFRTD is a global network of individuals and organizations working towards improved access, mobility and economic opportunity for poor communities in developing countries. As a Southern-driven global network, IFRTD works to improve policies and practices in transport operations, infrastructure, access and service provision that will benefit the lives of poor rural communities in developing countries through dialogue, information sharing, capacity building, research and advocacy. Members of the IFRTD network include representatives from governments, academia, multilateral and bilateral donor agencies, consultancies, technical institutions, national and international NGOs and community organizations.

Members range from subscribers to the IFRTD newsletter to more active participants in IFRTD's regional, national or international projects or activities. Anyone who participates in Forum activities is a member of the IFRTD network. IFRTD membership is voluntary, flexible and free, and members will find that they fall into one or more of the following categories:

- **National Forum Groups** are autonomous national networks that subscribe to the vision and mission of the IFRTD. They drive the Forum's activities at a local and national level and form the pillars of IFRTD's self-governance.
- **Institutional members** include organizations that contribute financially to the sustainability of the IFRTD and also those that forge strategic alliances with the network at an institutional level.

All members are entitled to a free subscription of *Forum News* (a magazine on rural transport published 3 times a year) and IFRTD's monthly e-newsletters highlighting news and events from across the IFRTD network.

Source: www.ifrtd.org

Enhance the effectiveness of SAWIE as a network: participation in SAWIE events.

The program has invested considerable effort and funds to organize the three SAWIE events so far. These have been unqualified successes in terms of cross-sharing as well as exposing the participants to new ideas and technologies. As part of this assignment, the study team tried to track to what extent the SAWIE members, after returning to their organizations, have taken the knowledge forward and initiated concrete actions. Out of the over 70 questionnaires sent to SAWIE members on this issue, 3 written responses were received. These and telephone discussions with a few members indicate that, barring a few isolated actions, there are not a significant number of instances where "individual knowledge" had been translated into institutional commitment and action. Taking gender and energy actions forward in institutions, especially in the mostly "gender-blind" energy sector, is a function of many factors including available funding, individuals' convening power within the institution to push the gender and energy agenda forward, and the alignment between gender and energy and institutional objectives and priorities, and time commitment.

The pertinent question that emerges relates to what the program can do to ensure that the expansion of gender and energy activities do not happen incidentally, or primarily because of the commitment of a single individual. Some suggested measures to further enhance the outcomes of SAWIE events are as follows:

- Selection of participants for events such as conferences, workshops and training programs should be on a semi-competitive basis. An example from the capacity building initiative of ENERGIA is included in Box 4. The study team proposes that a similar process be adopted for SAWIE events as well: the nominations from governments or country offices must be accompanied with completed application forms and letters of commitment from the parent institutions and the final selection of participants must be done by the resource team for the meeting. In open calls, it is critical that the call for applications be circulated as widely as possible.
- For any event, it is a good practice to start a process of engagement with participants well before the event. This could be in the form of a pre-meeting electronic discussion, or some preparatory work that the participants are required to complete before the event.

Box 4: Selection process of ENERGIA training programs

In ENERGIA training programs, a call for applications, clearly stating the selection criteria as well as the training process and expectations from the participants, is widely circulated through national focal points (see Annex 5 for a sample call for applications). Interested participants are required to fill in application forms, along with a letter from the management, committing to undertaking the planned follow-up of the training program. The final selection of participants is then made by the resource team. For training programs, applications are also solicited from potential partners with which ENERGIA is interested in collaborating for strategic reasons.

4.2 The Regional Centre of Excellence for South Asia Women in Sustainable Energy Research

The discussion on the proposed WISER has been an on-going one. Discussions have revolved around the organization's mission, proposed activities, and potential collaborations (Annex 6 contains a brief on the discussions held in Washington, DC). At present, the Energy Management Centre, based in Kerala in South India, has offered to host this center. Other institutions, such as the Pakistan Engineering Council and Shubashati in Bangladesh, have also expressed an interest to host the centre as well.

In setting up a Regional Centre of Excellence (RCE), there are several issues that merit a discussion before arriving at specific recommendations. Critical questions to be addressed are:

What are the mission and objectives of WISER? Discussions with USAID and other partners indicate that the RCE is being visualised as the driving force for all gender and energy activities within SARI/Energy, including providing leadership for the SAWIE network. At this stage, while there is general agreement on the overall objectives and areas of work, these need to be further fine-tuned. At the same time, however, the absence of a driving force/institutional base appears to be the hindering factor in doing so. For this reason, it is proposed that the finalization of its mission and objectives be taken up by WISER.

What is the package of activities that WISER needs to undertake to lead gender and energy work with SARI/Energy?

- Conceptualize program ideas and develop proposals
- Fundraise for activities of the network, identify and pursue concrete funding opportunities and host proposals on behalf of the SAWIE network, as required
- Coordinate events such as regional meetings, training workshops and exchange programs, study tours, lectures and seminars
- Undertake consultancy projects
- Forge functional partnerships with other relevant programs and institutions
- Financial management and coordination.

What package of activities does WISER need to perform to lead the SAWIE network? Networks are typically engaged in a range of diverse activities. The SAWIE network must be relevant, useful and responsive to the needs of its members so they are willing to invest time, funds and other resources to support its operation. Unless the members see a direct and tangible benefit accruing, they are unlikely to take a real interest in its activities. Experience shows that networks are effective at performing certain kinds of functions such as capacity building, information dissemination and advocacy, while not so effective at others including implementing field projects that require close monitoring or disseminating technologies. It is envisaged that the functions that the RCE must undertake on a regular basis include:

- **Record:** A network needs to find ways to record the experiences, opinions, view-points and perspectives of its members as well as the activities of the network. A major function in the life of a network is thus keeping track and recording its own activities in some ways, either in print or in audio-visual form.
- **Disseminate:** Disseminating information, experiences, viewpoints, and perspectives, both within and outside the network, is crucial. In fact, many members become part of the network mainly with the purpose of receiving information about the theme of the network. Technologies such as electronic list-serves as well as wikis are good means and can be used at minimal cost.
- **Exchange:** Networks need to facilitate the exchange of ideas, experiences, and concepts through exchanges of materials as well as people. This can be done through meetings, exposures, visits, or other forums. This is a most important link as it helps the members to personally get to know each other and helps increase the long-term viability and life of the network.

- **Advocate:** The needs and concerns of the members on the theme of the network need to be reflected and circulated to regional, national and international decision makers and policy makers through the network.
- **Innovate:** A network is an ideal forum for innovations and the development of methodologies. The Small Grants Program, in which some of the SAWIE members are implementing projects, is a good means for this. It is suggested that the innovative practices emerging from these experiences be disseminated widely, within and outside of the network.

What should be the organizational profile for effectively performing the above functions? It is suggested that the organization selected to be the RCE have the following prerequisites:

- A demonstrated interest and experience in working on gender and energy issues.
- Experience with working with regional and international institutions, and a regional profile
- Strategies to involve and engage a broad cross-section of stakeholders from government, NGOs, CBOs, women's groups, academic institutions, research organizations, private sector, existing gender networks, existing energy networks and funding agencies.
- Links with the national policy makers
- Ability to co-finance the activities of the network .

In line with the above discussion, a draft terms of reference for the RCE is presented by the study team as Annex 7. In terms of the sequence of activities, it is suggested that WISER should first set up a sub-committee to design and finalise a strategy document for the SAWIE network.

4.3 Collaborations and Partnerships

There are several regional and international initiatives working on energy access issues, and relatively few working on the specific issue of gender and energy. This section suggests two potential collaborations with which SARI/Energy should engage.

ENERGIA: The International Network on Gender and Sustainable Energy

In November 2008, PA signed an MOU with the ETC Foundation on SARI/Energy program. The ETC Foundation hosts the ENERGIA network, to formalize their collaboration to work on issues of gender and energy. Potential areas of collaboration focusing on energy related issues include the following:

- Joint cooperation on programs and/or projects that would benefit both parties
- Mutual cooperation in identifying international and/or regional organizations that may participate in the programs and activities run by the parties

- Participation in conferences, symposia, courses, workshops, exhibitions and other joint meetings relating to mainstreaming gender into energy policies and projects
- Exchange of technical data, information, case studies and other experiences related to mainstreaming gender into energy policies and projects
- Other forms of cooperation as agreed by the parties, including meetings between the two parties on a regular basis.

Under this partnership, there is a need to implement some concrete activities that build on the relative strengths of both in a synergistic manner. The ENERGIA network has a presence in nine countries in Asia, five of which (India, Nepal, Bangladesh, Sri Lanka and Pakistan) overlap with the SARI/Energy countries. Both ENERGIA and SARI/Energy have relative strengths in complementary areas: SARI/Energy's strengths are in the mainstream power sector, in influencing policies at the national level, and energy trade and markets. ENERGIA, on the other hand, has its strengths in capacity building, gender analytical tools, on-the-ground experience on energy access through its partners and engaging with civil society organizations. Information on ENERGIA's capacity building strategy is found in Annex 8, some of this information may be useful in considering how to proceed with future SAWIE capacity building programs.

As part of its policy influencing and capacity building strategy, ENERGIA is planning to organize a regional training workshop on Mainstreaming Gender Issues in Energy Policy and Practice. This is a follow up of a regional policy meeting that ENERGIA organized in collaboration with UNESCAP last year. The regional capacity building program will focus on building the capacities of key stakeholders in conducting gender audits/ gender reviews of national energy policies, and in mainstreaming gender into energy programs. Countries that would benefit from this in Asia include India, Pakistan (where a review of the renewable energy policy is to be initiated soon), and most importantly Sri Lanka (which is currently engaged in a policy review of its renewable energy and biomass policies. The study team suggests that the SARI/Energy program and ENERGIA collaborate on this: a collaboration of this nature would lead to attracting the "right" participants, ensuring that they are provided follow-up support to implement the reviews in their respective countries.

The Asian Development Bank's Energy for All Initiative

The recently launched Energy for All Partnership is focused on action, with a goal to provide access to energy to an additional 100 million people in the region by 2015 through:

- promoting exchanges of knowledge, ideas, and information
- demonstrating and mainstreaming appropriate financing mechanisms
- replicating and scaling up proven approaches
- building partnerships to develop, finance, and implement access to energy projects.

The Partnership is the outcome of extensive consultation on how to scale up access to energy at the regional level. The Partnership provides a platform for cooperation, knowledge and technical exchange, innovation, and project development, bringing together key stakeholders from business, financial institutions, governments, and nongovernment organizations.

As of now, it is planned that Partnership activities will be led by Working Groups, which will be created to address specific technological, geographic, or thematic challenges. The steering committee has agreed to support an initial phase of six working groups on domestic biogas (chaired by SNV), solar lanterns (TERI), LP gas (World LP Gas Association), energy enterprise development (GVEP International), financing (E+Co), and the Pacific region (REEEP). The study team suggests that, to begin with, SARI/Energy joins one or more of the Working Groups, so that as the activities and future plans become clear, it will have an opportunity to be involved in the gender and energy related work as well.

Chapter 5. Recommendation 2: Engender Existing Operations

SARI/Energy is now implementing a range of task orders. Two specific activity areas were selected in order to mainstream gender into current operations: the Small Grants Program and the Regional Centres of Excellence. This chapter reviews their current status in terms of how gender concerns are addressed, and makes recommendations on how these areas can be strengthened. It is important to mention that while some of the recommendations can be integrated directly within the existing programming framework of the Small Grants Program (SGP), taking others on board might mean expanding the scope of SGP itself.

5.1 The Small Grants Program

Program Overview

The SARI/Energy Small Grants Program is one of the main vehicles for public participation in SARI/Energy projects and is expected to raise awareness and involvement at the grassroots, local, national and regional levels by improving business and livelihood practices in SARI/Energy countries. The overarching objectives of the SGP are:

- Capacity building of local institutions by engaging a large number of local beneficiaries in clean rural energy initiatives
- Developing sustainable partnerships among regional institutions on matters of clean energy access
- Development and dissemination of results of cooperative research to various stakeholder groups in the region including senior policy makers
- Capacity building of local institutions to train energy and associated sector specialists in various regional energy cooperation issues.

SGP grantees' work falls within the following broad areas:

- Improved access to and quality of rural energy
- Energy efficiency and conservation
- Increased civil participation and awareness of energy issues
- Environmental impacts of resource development and energy use
- Familiarize communities on best practices in energy efficiency and energy conservation
- Introduction of renewable/clean energy applications
- Enhancing income-generation / livelihood opportunities by ensuring energy access.

The SGP looks to specifically target gender and energy issues by providing assistance to small-scale self-help endeavors of nongovernmental and community groups implementing relevant energy programs oriented towards women. Attention to gender is also a key component of the evaluation criteria for selecting grantees. The following evaluation criteria are used to select projects.

- Demonstrated sustainability of the project (maximum 20 points)
- Organization and qualifications related to the activity (maximum 15 points)
- Clear explanation of how the implementation plan will contribute to meeting project goals and component objectives (maximum 20 points)
- Feasibility of implementation plan (maximum 20 points)
- Cost realism/cost-effectiveness of budget and cost sharing (if cost sharing is applicable) (maximum 15 points)
- Inclusion of women and underserved segments of community (maximum 10 points).

By including gender as an evaluation criterion, the SARI/Energy program has indicated that it views gender as an important consideration for SGP grantees. The majority of proposals that are to receive funding through the small grants program either target women implicitly through their focus on household energy or explicitly by stating that they are to be the primary beneficiaries. Examples of SGP investments include: biogas plants, improved cookstoves, micro hydro, biomass briquettes, and solar energy to meet household and rural energy needs. The SGP is thus one of the most active vehicles addressing gender and energy concerns under SARI/Energy, with expected results that are demonstrable on the ground. The inclusion of gender and underserved populations as an evaluation criterion is also critical to the SARI/Energy goals of improving access to clean energy in the region.

The SGP intends to address women's roles and energy needs by:

- addressing energy needs that are important to women
- raising the awareness of women and the community at large about alternative and renewable energy technologies
- building the capacity of women to master new energy technologies to meet their own needs as well as generate income
- piloting out innovative approaches to involve women in energy projects.

Under the current SGP cycle, 24 projects have been selected for funding. Of these,

- Fifteen proposals include training local people to manage energy technologies.
- Nine explicitly include training women as energy managers and entrepreneurs as part of their objectives.
- Five mention community-based organizations such as village *panchayats*, village-owned energy cooperatives, and women's groups.
- Two mention ownership of new energy infrastructure by the local community.

Interestingly, none of the proposals received mention improving women's participation in community decision-making around energy as a goal of the project.

Way Forward

Provide guidelines for gender integration. To further promote a focus on gender and women's access to energy under the SGP, some minor changes to the Request for Application (RFA) and Project Evaluation form were recommended to the SARI/Energy project staff. It is recommended that the application be consistent in stating the evaluation criteria, especially with regard to gender and underrepresented groups. In addition, it is suggested that phrasing be added to make the evaluation criterion for gender more specific. In future RFAs, the SGP may consider a paragraph to elaborate on what each of the criterion means.

In addition, to promote gender integration among SGP activities and implementation, it is recommended that SARI/Energy develop guidelines for SGP grantees to explain why gender is an important consideration in their activities, and how to spot opportunities for gender integration. It is recommended that the SARI/Energy program talk with other donor-funded small grants programs, such as that funded by UNDP/GEF in India, to gain an understanding of lessons learned and best practices in gender integration. Although it is recommended that gender guidelines be formulated through a consultative process with grantees, some points recommended for consideration in those guidelines are outlined in box 5.

Using these gender guidelines and a project as a case study, Annex 9 gives examples of points that might be raised with SGP grantees to enable them to have a stronger gender thrust.

Encourage women to become positive change agents. Under the SGP, women are targeted as the one of the main beneficiaries for project interventions. This should be viewed as a gender-related achievement of the SARI/Energy program. The SGP as a program does not place particular emphasis on any specific technologies or applications. However, the study team is of the opinion that the program's stated objective of "improving business and livelihood practices in SARI/Energy countries" cannot be met in full unless applicants and grantees are encouraged look beyond the immediate benefits from energy technologies and aim for higher-order objectives such as women's empowerment in their projects.

Thus, the study team suggests that SARI/Energy promote women's capacity to address their own energy and income generation needs under the project and into the future. Many SGP project proposals have already committed to train women as energy managers and entrepreneurs. For the remainder of projects that mention training local people on energy technology, the potential for involving women in technical training programs could be explored. Project experiences from Char Montaz, Bangladesh, Peru Rural Roads Project (see Chapter 2) and Barefoot Solar Engineers (see Box 6) in India demonstrate that strengthening women's technical capacities improves project effectiveness and capacity to address their own infrastructure needs.

Box 5: Points for inclusion in SGP gender guidelines**Why is gender integration useful in energy projects?**

- Often, women use energy to meet basic needs for cooking and heating. A focus on women's energy demand aligns a program with a pro-poor orientation to meet basic needs.
- Women, particularly poor rural women in South Asia, lack access to modern energy services and are forced to rely on traditional biomass for fuel. This has negative implications for women's health, environmental protection, and carbon emissions.
- Time savings resulting from interventions to improve energy access for women may allow them to engage in additional income generating activities, with positive implications for them, their children, and the overall development of their communities.

How can we integrate gender in our program?

- Consider gender at various stages of the project cycle from planning, implementation, monitoring and evaluation (see Table 4 as an example).
- Use gender-disaggregated indicators to track improvements in access to energy for men and women.
- Focus on technologies that reduce drudgery and improve health.
- Promote affordable substitutions for biomass-based fuels.
- Support women's role as managers of energy resources through training them to master new technologies.
- Promote women's energy entrepreneurship by building their capacity to provide, market, and sell energy services and technologies.
- Obtain men's buy-in for women's income generation and track who controls how extra income is spent.
- Encourage women's participation in the project through outreach and capacity building as well as through institutional arrangements for women's participation in community-based organizations with decision-making responsibilities.

Box 6: Strengthening women's technical capacity: Barefoot Engineers of India

The Barefoot College is an NGO based in Tilonia, Rajasthan. Its barefoot solar engineers now work across eight Indian states (Rajasthan, Bihar, Andhra Pradesh, Orissa, Uttaranchal, Jammu and Kashmir, Assam and Sikkim) to establish solar energy systems in areas where electric supply is either non-existent or highly erratic. These engineers, mostly women, are illiterate or semi-literate at best. But they talk of transformers, coils and condensers like other women would talk of cooking and sewing. In the remote Himalayas, 270 barefoot solar engineers (57 of them semi-literate rural women) have installed 16 solar power plants of 2.5 kW each. The women also built 40 parabolic solar cookers and 71 solar water heaters as well as trained others in their communities so they could assist in establishing 23 rural electronic workshops.

During their six months of training, the women are taught by other semi-literate and illiterate women: to handle sophisticated charge controllers and inverters (solar cells produce direct current, which is converted into standard alternating current using an inverter), to install solar panels and link them to batteries, to build solar lanterns and to establish a local electronic workshop where they can carry out all major and minor repairs to the solar power system themselves. The mostly illiterate trainees learn to identify parts by shape and color, to develop the skills required by following mimed instructions, and to

execute technical tasks by example.

Barefoot's project partners are encouraged by the response to the program, which received the Stockholm Challenge Award for Environment in 2002. The project has demonstrated how solar energy provides a solution not just for cooking and lighting but also for education, agriculture, health, and income-generation. The project has empowered women: Illiterate and semi-literate women are operating and repairing energy systems. It has also freed them from the drudgery of searching for fuel-wood and reduced the health hazards of burning wood-fires.

As of December 2007 (http://www.kipo.ke.wipo.net/wipo_magazine/en/2009/03/article_0002.html), Indian Barefoot solar engineers had installed 8,700 solar units, generating 500 kilowatts per day, and manufactured 4,100 solar lanterns. As a result, 574 villages and hamlets (nearly 100,000 people) as well as 870 schools now have solar electricity (several villages have more than one school; average attendance is 25 to 30 children).

Sources: Women's Feature Service, January 2003 (infochangeindia.org/.../Barefoot-female-and-a-solar-engineer.html), http://www.kipo.ke.wipo.net/wipo_magazine/en/2009/03/article_0002.html

In addition to technical training for women, small grants projects should promote the increased participation of women in decision-making about energy infrastructure and services. Projects must not only create “institutional spaces” for poor women to participate in consultative processes, but also build the capacities of women to meaningfully participate in them. The projects should set goals for women’s participation and, where appropriate, develop guidelines for representation in decision-making institutions. Involving women through consultative processes and decision-making throughout the project lifecycle can mean the difference between a gender insensitive and gender responsive project. Table 4 gives an example of a gender insensitive and gender responsive improved cookstoves project.

Within the existing program framework, the best opportunity to expand the scope of SGP projects as explained above, would be through discussions between the project managers and the potential grantees, at the time of proposal improvement and finalization.

Table 4: Indicators of a Gender-Insensitive and a Gender-Responsive Improved Cookstoves Project

Project phase	Gender insensitive	Gender responsive
Planning	Has no explicit gender goal	Has the goals of improved energy access and builds women’s capacity to participate in income generation and decision-making
	Assumes design of cookstoves without consulting women on usage	Adapts design of cookstoves to women’s different usage for domestic and income generating purposes
	Made primarily with materials not available locally	Made with locally available materials to the extent possible
	Requires specialized artisans to build and maintain	Can be built and maintained by women themselves if given training
Implementation	Targets all households equally	Provides enabling conditions (concessional credit, for example) for women-headed households and those below the poverty

Project phase	Gender insensitive	Gender responsive
		line to purchase stoves
	Works with community institutions	Works to build women's representation and decision-making in community institutions
	Grantee markets, builds, and, maintains cookstoves	Grantee builds local women's capacity to market, build, and maintain cookstoves
	Assumes women's mobility and access to markets	Works to explicitly address any constraints on mobility
	Builds cookstoves solely for domestic use	Looks beyond household to see how cookstoves can be used for women's income generation
	Targets women exclusively in outreach	Targets both men and women in outreach, as men may need to be involved with decisions on household purchases
Monitoring and Evaluation	Counts number of cookstoves built	Looks at cookstove use by women and adoption rates
	Standardizes cookstove design	Collects women's feedback on cookstoves and adapts design accordingly
	Collects information on number of cookstoves sold	Collects information on number of cookstoves sold by men and women
	Does not engage with women once the cookstove program is over	Has mechanisms to support women's promotion of cookstoves in the long term

Recognize best practices in gender integration. The SGP grantees themselves constitute a pool of organizations, which, together, wield considerable gender expertise. Recognizing gender lessons learned and best practices in SGP projects would provide an incentive for grantees to innovatively and systematically integrate gender in their programs. In addition, it would promote regional learning and cross-fertilization of ideas to better integrate gender within various programs.

Each quarter, SGP grantees that had made particular strides in integrating gender in their projects could be spotlighted in a communications release going out to the grantees themselves and USAID, and posted on the SARI/Energy website. In lieu of simply setting a minimum requirement for gender integration, this positive recognition may serve to promote innovation and attention to gender in SGP grantees' programs.

5.2 The Regional Centres of Excellence

Several regional centers of excellence (RCEs) have been established under SARI/Energy corresponding to specific areas of clean energy access and energy efficiency. Through outreach and education, technical advisory services, demonstrations and case studies, as well as research on new technologies and approaches, it is hoped that these centers will promote best practices regionally. Three RCEs have been launched so far: 1) RCE for energy efficient lighting (RCEEEL)

in Sri Lanka, 2) RCE for rural electrification (RCERE) in Bangladesh, and 3) RCE for small hydropower (RCESHP) in Nepal. Each of these countries has relevant gender dimensions and a wealth of gender best practices that are important for the RCEs to consider, support, and scale up. Gender considerations related to the three RCEs are presented in Table 5.

Table 5: Best Practices in Gender Integration for Regional Centres of Excellence to Scale Up

Small Hydro Power	Energy Efficient Lighting	Rural Electrification
<ul style="list-style-type: none"> Targeted capacity building and leadership programs for rural women Reserved seats for women on Village Energy Committees Using off-peak power for applications such as milling/grinding Linking electricity-based women's enterprises to other income generation and women's empowerment programs 	<ul style="list-style-type: none"> Rural women manufacturing/assembling DC lamps and other components Women manufacturing/assembling SPV lights Consulting women about where lights and plug points/ready board should be placed 	<ul style="list-style-type: none"> Connections & bills in women's names Women-headed households eligible for connection subsidy; marketing materials emphasize benefits to women; schedule meetings when women are available Collaborative arrangements between product suppliers and MFIs Reserved seats for women on rural electricity cooperative boards
Select project experiences: <ul style="list-style-type: none"> AKRSP Pakistan REDP Nepal 	Select project experiences: <ul style="list-style-type: none"> Char Montaz, Bangladesh Barefoot Solar Engineers, India Grameen Shakti, Bangladesh 	Select project experiences: <ul style="list-style-type: none"> Rural Electrification Board, Bangladesh Lao PDR Rural Electrification Program Self Employed Women's Association, India (www.sewa.org)

As each of these RCEs becomes established, it may be helpful to designate a gender focal point who serves as a repository of expertise on gender integration. This resource person would promote best practices of gender integration within the RCE. In addition, the gender focal point could be a "champion" for gender within the organization by highlighting the potential for gender-responsive programming and interventions.

As discussed in Section 4.2, SARI/Energy is now considering the formation of a fourth RCE, the Regional Centre of Excellence for South Asia Women in Sustainable Energy Research (WISER). The study team proposes that part of the WISER work plan include collaboration with the three RCEs that have already been initiated to support the gender focal points and promote gender best practices. Linking the WISER with the other three RCEs would be beneficial for several reasons. First, it would promote regional linkages and learning among the RCEs. Second, it would help establish the nascent WISER through practical regional partnerships as well as

through work in specific technical areas that have gender relevance. Third, it would further gender-responsive programming initiated under SARI/Energy.

Of the three RCEs initiated thus far, the RCEEEL is the furthest along in its development. Under the RCEEEL work plan, there are several areas where gender considerations may be useful to consider. First, education and outreach are planned to target home and business owners that may be unaware of energy-efficient lighting technologies. A campaign that targets women's priorities with regard to lighting in the household and community, such as needs for lighting in the kitchen or back- and front-yards and streetlights for security purposes, may help address women's specific needs for lighting technology and help them understand the value of investments made in that regard. Second, demonstrations and pilot programs to elucidate best practices and technologies will, according to the work plan, rely on end-users feedback and consumer surveys. The gender disaggregation of data collected on some of these activities may help to target appropriate energy-efficient lighting interventions that meet women's specific needs and priorities. Finally, there may be opportunities to empower women through involving them in occupations and businesses related to lighting, as in the case of Barefoot Solar Engineers.

The RCEEEL also has a unique opportunity to work with displaced populations under its programming for research and demonstrations through piloting programs related to off-grid lighting and zero energy homes. Often, acute problems and high costs are associated with the provision and transport of lighting supplies and fuel. A single kerosene lantern, burning 4 hours per day, can consume as much as 50 kilograms of fuel per year (Mills, 2003). At displaced persons camps, which contain thousands of people the logistics burden and costs can be prohibitive. The use of kerosene- or biomass-based fuels can have negative implications for indoor air quality as well, particularly for women and children who are mostly confined indoors during evening and nighttime hours. Lack of sufficient lighting also negatively affects security in refugee camps. In addition, livelihood strategies are constrained when lighting is not available after daylight hours for home-based industries, many of which are run by women. Piloting the distribution and use of off-grid, renewable energy- efficient lighting technologies may have significant benefits for displaced people generally, as well as gender-specific benefits. This may be an important area of collaboration for the RCEEEL and the RCE-WISER.

5.3 Engendering SARI/Energy Program Planning and Monitoring and Evaluation

In SARI/Energy's Clean Energy Access activity, it is suggested that gender- and poverty- sensitive project planning procedures be used throughout the activity cycle to ensure that all stakeholders are properly accounted for in the project. Pertinent issues and questions that need to be asked at each stage of the project cycle are:

Activity design stage. The key questions arising from the gender analysis that should be asked when designing the activity include: 1) what are the *practical implications* of the different roles and status of women and men in the target area for the *feasibility* of the activity and its *effective*

design? and 2) what is the *strategic potential* of the activity for enhancing the status of women and promoting gender equity, and how can the activity contribute to long-term strategies to achieve gender equity?

Questions to ask at the design stage are:

- Who are the target beneficiaries? Disaggregate the purported beneficiaries according to gender.
- What are the main sources of income for men and women?
- Determine the gender division of labor in general.
- Are women's needs and capacities in the sector the same as those of men?
- How might the activity affect women? Is the activity likely to have the same positive and negative effects on women and men?
- Are there any cultural, social, economic and other constraints that may hinder women's participation and ability to benefit from these activities?
- Does the executing/implementing agency have the capacity to deliver benefits to or involve women?
- Is there a budgetary allocation for these design features, strategies, and mechanisms?

Implementation stage

- Develop a participation strategy for men and women during implementation.
- Promote women's representation in executive committees (e.g., chairperson, treasurer). Consider stipulating a mandatory number of women on the executive committees to ensure their representation. If necessary, form separate women's committees.
- Train and appoint female service providers from within the community, where possible.
- Use women as active agents, but be sure to involve husbands and male leaders.
- Develop feedback mechanisms in which both male and female beneficiaries have a voice.
- Identify organizations that could facilitate women's participation during implementation and monitoring and evaluation.
- Provide gender-awareness training for all project staff, male and female.
- Train executing agency officials and project staff in monitoring and evaluation.

Monitoring and evaluation indicators. The SARI/Energy program is required to report to USAID on four indicators that track improved energy access and management:

- Number of people with increased access to modern energy services as a result of USG assistance
- Number of people receiving USG-supported training in energy-related business management systems (no. of men and no. of women)
- Number of energy enterprises with improved business operations as a result of USG assistance
- Total public and private dollars leveraged by USG for energy infrastructure projects.

Of these, the two indicators involving training are gender disaggregated. The SARI/Energy program usually meets and exceeds all gender-related targets associated with these indicators; however, these targets are primarily met because of women's participation in SAWIE events.

Participation of women in other SARI/Energy training programs sponsored by the three implementing partners is fairly low.¹⁹

Additionally, an indicator that measures improved access to energy services is not gender disaggregated. It would be desirable for this indicator to be gender disaggregated and look at how SARI/Energy is affecting men and women's access to energy specifically; however, at this time, methodological issues of data collection make this impractical. Therefore, it is not recommended that current indicators be further disaggregated by gender at this time. In the future, if there are changes to data collected on indicators, further gender disaggregation of indicators may be considered.

An indicative list of gender-sensitive indicators for the activity area related to Clean Energy Access is:

- Level of energy system use and awareness among men and women e.g., level of satisfaction, level of awareness regarding technical package chosen, patterns of use, access rates, extent of service coverage.
- Reduction of use of and expenditure on traditional energy sources like kerosene and other electricity substitutes.
- Actual income increases for men and women as a result of the project.
- Availability of efficient equipment for cooking, heating, water supply, lighting.
- Number of men and women gaining access to energy services and credit.
- Gender-disaggregated time savings caused by different energy options, and the allocation of these savings to various productive and reproductive tasks.
- Effect of the project on time spent by women in household activities.
- Ownership of productive equipment by women.
- Increased acceptance of women as community decision-makers by both men and women.
- New, visible, and more effective women's organizations.

¹⁹ Cowlin, personal communication, and Blanford, personal communication.

Chapter 6. Recommendation 3: Build Knowledge

6.1 Discussion on Gender Issues in the Energy Security Quarterly

The January 2008 *Energy Security Quarterly* recognizes that both economic and environmental considerations may affect energy security calculations. The definition contained in Box 7 is set forth in the first *Energy Security Quarterly*; from this, it is clear that reliable access to modern energy is important for both economic and social development.

Box 7: Definition of energy security

“The availability of usable energy supplies, at the point of final consumption, in sufficient quantity and timeliness so that, given due regard for encouraging energy efficiency, the economic and social development of the country is not materially constrained.”

Source: UN Economic Commission for Europe (UNECE) Energy Security Forum.

Spiraling energy prices can affect the prices of commodities and services on which the poor rely, from food and cooking fuels to transportation and fuel for lighting. The high cost of energy to meet basic, household needs can cause vulnerable families, such as women-headed households, to slide deeper into poverty. Energy prices can also limit economic growth, leading to indirect negative impacts on the poor through rising unemployment caused by constrained growth as well as more restrictive lending for those who lack significant collateral.

Lack of modern energy services constrains pro-poor growth and consigns poor rural women to expending considerable time and effort in securing enough biomass to meet their families' basic needs. The drudgery and time expenditures imposed on women who are without access to energy has negative implications for their communities' social development. It may also prevent them from being able to engage in income generating and productive activities, helping to lift families' economic status. Lack of access to modern energy services also constrains rural economies by limiting the types of productive activities that are possible.

Past *Energy Security Quarterly* reports have helped energy policy makers and the private sector understand energy trends and opportunities in the region. Although economic considerations' impacts on energy security have been covered in detail through the *Energy Security Quarterly* reports, environmental and social considerations have been largely unexamined. The reports have focused on sources of energy and their supply within the region, as well as current consumption of different types of energy.

In addition to supply, it is important to look at questions of demand and access to modern energy services. Poor and rural households that do not have access to modern energy services constitute a large number of potential consumers whose needs and demand for energy are not currently being met.

A possible sub-theme, which affects the majority of the poor in South Asia, is the issue of lack of access to modern energy sources to meet the needs of the poor and the women. Attention to lack of access to modern energy services would give SARI/Energy greater latitude in producing gender-responsive analysis for energy policy makers in the region. As noted in the January 2008 *Energy Security Quarterly*, there is a lack of information on biomass energy use in the region. This lack of information should be seen as an opportunity to fill gaps in knowledge and analysis that may help policy makers understand how to improve energy access, thereby improving energy security in the region.

Specifically, this new analytical stream of work could do the following:

- Review the available information on the energy needs of the poor, and specific energy needs of women and men
- Outline the gaps in information and how these might be filled
- Detail policy initiatives in SARI/Energy countries to improve access to modern energy services
- Highlight best practices in improving access to energy services, whether through renewables or other sources
- Propose mechanisms for scaling-up best practices, such as additional policy measures, institutional resources and partnerships, and new technologies
- Disseminate information on the analytical work being done in this area by SARI/Energy to the private sector and policy makers through publications and regional forums that bring together policy makers.

6.2 Regional Capacity Building Program on Gender Issues in the Power Sector

Electrification by extension of the grid continues to be the largest energy program in most countries. There seems to be an implicit assumption in national energy policies that the benefits of electricity are gender neutral. This is actually not true. A safe, affordable, reliable supply of electricity helps women in numerous ways, and quite differently from how it affects men. Unfortunately, the gender dimensions of electrification are not well understood by the electricity sector, and it is felt that “everyone in the house uses electricity in the same way.” Box 8 highlights some gender issues related to electrification.

SARI/Energy is already working on capacity building for Afghanistan’s power sector, and regularly organizes exchanges and training programs for relevant stakeholder groups within the region. It is proposed that a regional capacity building program be organized on gender issues in

the power sector. This can be done through the RCE for rural electrification (RCERE). A potential collaborator is the ENERGIA network, which has been providing support on gender issues in the electricity sector in several countries like Bangladesh and Botswana. A training course on this subject would help capitalize on SARI/Energy expertise as well as fill gaps in knowledge on how power sector interventions may be made more gender responsive.

Box 8: Gender issues in electrification

- Women use energy and electricity quite differently from men. The EnPoGen Study launched by the ASTAE (Asia Alternative Energy Program) to assess the impacts of rural electrification in Sri Lanka (Masse and Samaranayake 2002) revealed that the major benefit to the women is the time they save, through avoided journeys (taking batteries to be charged, going to the city to buy kerosene, etc.).
- Decisions on how and where electricity and electricity services are provided to households and communities influence women's ability to take advantage of these services.
- Electrification can bring about significant improvements for women, through making possible home industries like basket making, net weaving and tailoring for women. Post-harvest food processing is one of the most drudgerous and tedious of rural women's tasks. Electrification of rice mills and other grain, oil and food processing facilities can reduce women's workload in the home.
- The technical staff involved in electrification projects is usually men and have stereotypical concerns about women's ability to read meters, change plugs, use electricity safely. However, experience has shown that semi-literate women have learnt about manufacturing and assembling of electrical appliances, as well as acquired skills in reading meters, billing, collect payments and repair minor faults as well.

Source: Compiled from UNDP 2007, Masse and Samaranayake 2002 and Khan 2001.

6.3 Online Sharing of Best Practices and Learning

As discussed in Chapter 2, there are several good practices in integrating gender concerns into the energy sector. This knowledge and information, however, are not widely shared. It would be useful if these best practices could be shared through an electronic media with all SARI/Energy stakeholders. This can be done through a series of e-discussions, organized thematically or by technology, and the project practitioners be invited to chair different sessions. This would contribute to the dialogue and learning that would foster best practices beyond the SAWIE network and more broadly in the region.

In addition to fostering best practices in gender integration, an electronic media could be used to build technical capacity for women in the energy sector. As noted in Chapter 5, the participation of women in many technical training programs in SARI/Energy is low for a number of reasons, including low representation of women in technical positions as well as a lack of initiative in partner organization for supporting and promoting women in technical positions. An online "pre-training" course for women energy sector professionals may help build technical capacity to participate and learn from these events. It may also provide a supportive forum for women to learn and enhance their skills.

Annex I. Terms of Reference for the Gender Assessment of SARI/Energy

USAID INDIA SARI/Energy Gender Scope of Work

Background

USAID's South Asia Initiative for Energy (SARI/Energy) is an eight country program that promotes regional energy security. SARI/Energy countries include: Afghanistan, Pakistan, India, Nepal, Bhutan, Bangladesh, Sri Lanka and the Maldives. The SARI/Energy program focuses on regional approaches to meet South Asia's energy security needs by increasing access to clean energy through trade and investment. The principle means of doing so are to provide assistance in the spread of models, technologies and information on sustainable and clean uses of energy, and improving market structures enabling investment in and trade of clean energy. Activities under SARI/Energy may involve technical assistance; training (workshops, seminars); advocacy and outreach; technical analysis and support; grants administration; public-private partnerships; and partnerships between institutions in two or more countries.

In South Asia, as in other parts of the world, men and women's roles in society are different. Women often have the double burden of productive, or income generating, and reproductive, or domestic and household, responsibilities. Consequently, they may value different kinds of energy services for different reasons. In both urban and rural areas, the mechanization of household tasks and fuel efficient cooking can save time, with positive implications for women's health, their ability to participate more fully in decision-making in their communities, and their potential to earn income. In rural areas, energizing productive activities for which women are typically responsible, such as agricultural processing or water collection, can also free women from drudgery. It is not surprising therefore that women see the primary benefits of energy as saving time, reducing workload, and improving health.

The limited analysis on gender-energy-poverty nexus has focused mainly on availability of biomass fuel for rural women. There is also a need to better understand the relationship between gender and modern energy services. SARI/Energy provides the opportunity to understand the linkages through appropriate action research and identify and evolve best approaches to provide low cost efficient energy to poor women and men in rural and urban areas.

Privatization and commercialization are two routes being promoted globally and in the region to improve efficiency and reduce costs. These approaches bring with them concerns such as how

will the private sector respond to the differential needs and demands of poor women and men; what will be their access to energy sources; how diversified will these sources be and whether there will be innovative financing that must be addressed while these strategies are being designed. South Asia has seen an emergence of strong women's groups especially in rural areas. The opening up of the market offers a potential to engage women's groups in managing energy services. SARI/Energy strives to promote the notion of women as managers and entrepreneurs rather than only beneficiaries of energy services.

Objectives of the Gender Analysis

With guidance from the India SARI Chief of Party, dTS will conduct a gender assessment of the SARI project that identifies gender related concerns arising from project activities as well as opportunities for engaging women under SARI/Energy that will result in improved project performance. dTS will present findings from the gender assessment to SARI project staff as well as USAID if required. It is envisioned that this presentation will highlight ways that project staff can implement gender related interventions in various streams of work.

Methodology

Technical assistance provided will be operational, rather than research oriented in nature. The gender analysis will be based on qualitative information gathered through interviews of project staff and partners as well as project documents.

Specifically, the consultant is expected to undertake the following activities as part of the analysis:

1. Analysis of Available Knowledge, Data, and Experience:
 - review relevant literature on gender, energy, and South Asia to gather information about existing efforts in the region, and to identify any best practices and challenges
 - review project documents; including work plans, quarterly reports, and performance monitoring plans
2. Data Gathering through Consultations
 - Consultation with and interviews of SARI project staff
 - Interviews of SARI stakeholders and counterparts including partners and others working in the field of gender and energy in South Asia
3. Integration of Gender into Program
 - develop recommendations for the overall program and by country for gender integration
 - develop monitoring and evaluation (M&E) indicators for gender to add to the existing M&E systems
4. Gender Integration Training and Dissemination of Findings
 - develop curriculum, incorporate project feedback and develop PowerPoint presentation
 - make presentations to project staff and USAID
5. Reporting
 - writing and incorporating feedback into draft and final reports

Deliverables

The consultant should be prepared to meet with USAID to present the gender assessment findings. Specific deliverables include:

- PowerPoint presentation of gender analysis findings
- Gender analysis draft report
- Gender analysis final report

Assignment Staff

dTS will provide the services of its Manager, Smita Malpani, and that of a local consultant (TBD).

Level of Effort

It is expected that the gender assessment be carried out from February 2009 – April 2009 as per the following.

TASKS	STAFF LEVEL OF EFFORT & LOCATION			
	EXPATRIATE		LOCAL	
	LOE	LOCATION	LOE	LOCATION
1. Analysis of Available Knowledge, Data and Experience <ul style="list-style-type: none"> ▪ review of relevant literature ▪ review of project documents 	5 working days	Home	5 working days	Field
2. Data Gathering through Consultations <ul style="list-style-type: none"> ▪ Interview SARI project staff ▪ Interview SARI stakeholders 	5 working days	Field	10 working days	Field
3. Integration of Gender into Program <ul style="list-style-type: none"> ▪ Develop gender recommendations ▪ Develop M&E indicators 	3 working days	Field	5 working days	Field
4. Gender Integration Training and Dissemination of Findings <ul style="list-style-type: none"> ▪ Develop curriculum ▪ Make presentations 	3 working days	Field	4 working days	Field
5. Reporting <ul style="list-style-type: none"> ▪ Preparing draft and final reports 	4 working days	Home	6 working days	Field
6. Program Management (local staff)	2 working days	Home		
7. Travel Days <ul style="list-style-type: none"> ▪ Expatriate: international travel ▪ Local: local travel 	3 working days		1 working day	
Total Estimated LOE by expert	25 working days		31 working days	

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UNDP (2009). "The Energy Access Situation in Developing Countries: A review focusing on Least Developed Countries and Sub-Saharan Africa" (Draft).

UNDP (2007). *Will Tomorrow be Brighter than Today? Addressing Gender Concerns in Energy for Poverty Reduction in the Asia Pacific region*. Regional Energy Programme for Poverty Reduction (REP-PoR), United National Development Programme.

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Annex 3. SARI/Energy Documents Reviewed

17 February 2006. USAID. South Asia Regional Initiative for Energy Request for Proposals.

21 August 2007. SARI/Energy First Year Workplan.

January 2008. Center for Energy Economics (University of Texas at Austin) with inputs from PA Consulting. *Energy Security Quarterly*.

21-25 April 2008. Workshop Summary, Women in Energy Application Workshop in Efficient Energy Management and Renewable Energy.

22 May 2008. SARI/Energy Annual Report.

July 2008. Center for Energy Economics (University of Texas at Austin) with inputs from PA Consulting. *Energy Security Quarterly*.

September 2008. Russell deLucia, Small-Scale Sustainable Infrastructure Development Fund, Inc. Nepal S3IDF Social Merchant Bank (SMB) Reconnaissance Study Final Report.

17-19 November 2008. USAID/ SARI/Energy. Notes from the South Asia Women in Energy (SAWIE) Follow-on Workshop at Dhaka, Bangladesh.

December 2008. Task Order 3.3 Regional Center of Excellence in Energy Efficient Lighting (RCEEEL)- Sri Lanka First Year Workplan.

February 2009. Activity 5.0 SARI// Energy Capacity Building Plan for Afghanistan- Workplan.

July 2009. SARI/Energy Small Grants Program project summaries.

July 2009. SARI/Energy Small Grants Program RFA draft.

SARI/Energy Program Brochure.

Small Grants Program Brochure.

SARI/Energy Small Grants Program Evaluation Form.

Regional Quarterly Updates Reviewed:

July-Sept 2007. SARI/Energy Regional Quarterly Update.
Oct-Dec 2007. SARI/Energy Regional Quarterly Update.
Jan-Mar 2008. SARI/Energy Regional Quarterly Update.
Apr-Jun 2008. SARI/Energy Regional Quarterly Update.
July-Sept. 2008. SARI/Energy Regional Quarterly Update.
Oct- Dec. 2008.SARI/Energy Regional Quarterly Update.
Jan-Mar 2009. SARI/Energy Regional Quarterly Update.
Apr-June 2009. SARI/Energy Regional Quarterly Update.

Task Orders Reviewed:

- 1.3 India-Sri Lanka Submarine Cable
- 1.4 Pakistan Advisory Services
- 1.7 Clean Coal Partnership
- 1.9 Maldives Interconnection Study
- 1.10 South Asia Transmission Utility Regional Network Partnership
- 1.11 Nepalese Energy Authority Transmission Service Agreement
- 2.5 Global Energy Markets and Trade Program
- 3.2 Nepal Hydro Equity Fund
- 3.3 Regional Center of Excellence in Energy Efficient Lighting
- 3.4 Regional Center of Excellence for Small Hydropower
- 3.5 S3IDF Merchant Bank Model Study
- 3.7 Women in Energy

Annex 4. List of Persons Consulted for the Gender Assessment

Mr. Chinmaya Acharya, Deputy Program Manager, USAID, American Embassy, New Delhi

Ms. Mercy Thomas, South Asia Regional Project Coordinator, SARI/Energy, USAID/American Embassy, New Delhi

Mr. Shankar K. Khagi, Country Coordinator, USAID, Nepal

Mr. Syed F. Hussain, Country Coordinator, USAID, Pakistan

Ms. Salma Peiris, Country Coordinator, USAID, Sri Lanka

Ms. Reba Paul, Team Leader: Renewable Energy Technology Working Group, SAWIE network

Ms. Tara Devi Shrestha, Team Leader: Micro finance/ Income Generation Working Group, SAWIE network

Ms. Rama Vijay, Alternate Team Leader, Capacity Building/Best Practices/Information Sharing Working Group, SAWIE Network

Ms. Svati Bhogle, SAWIE network

Dr. Nandita Mongia, Chief, Regional Coordinator & Team Leader, Regional Energy Program for Asia & the Pacific at UNDP - Regional Centre Bangkok

Dr. Govind Kelkar, Program Coordinator of the IFAD-UNIFEM Gender Mainstreaming in Asia Program, UNIFEM, New Delhi

Ms. Sheila Oparaocha, International Coordinator, ENERGIA Network

Ms. Ramona Miranda, Practical Action, South Asia, Colombo

Mr. Rohitha Ananda, Practical Action, South Asia, Colombo

Ms. Shannon Cowlin, Project Manager, Strategic Energy Analysis Center, National Renewable Energy Laboratory, USA

Ms. Sarah Blanford, Senior Program Coordinator, U.S. Energy Association

Annex 5. Call for Applications for the ENERGIA Training Course

Mainstreaming Gender Concerns in Energy Projects 22-26 October, 2007, Kathmandu

- ⇒ Are you a project manager, handling energy projects OR a trainer, involved in giving gender and/or energy trainings?
- ⇒ Do you recognize the need to address gender concerns in your projects, or energy training and want to *know how to*?
- ⇒ Are you interested in learning about how to identify and address gender in *your own, specific* projects; and how to monitor and report on performance in achieving gender results or in enhancing your capacity to train energy practitioners on this issue?
- ⇒ Would you like the *support of an expert team* to mainstream gender concerns into your projects and work situations, on a continued basis, or to conduct gender and energy training in your own country through coaching?

ENERGIA: the International Network on Gender and Sustainable Energy and UNDP are offering a Gender and Energy training course from 22 – 26 October 2007. The training course will be held in Kathmandu, and hosted by Centre for Rural Technology/Nepal, the Asia Regional Secretariat of ENERGIA. The training course is the first step in the Capacity Building strategy of ENERGIA in Asia that aims to build capabilities of development actors to mainstream gender concerns into energy access projects and policies.

The training course, for the first time, will bring together energy project practitioners and trainers, who will take back the knowledge into their work situations and projects that they are working on, and be supported in this on a continuous basis, by a team of experts. Together, they would form a core of resource persons at the national level within Asian countries.

The program is being jointly supported by the DGIS and the UNDP.

Who can participate: Target Audience and Course Objectives

This training program has two sets of target audiences: (i) *energy and development practitioners*, mainly from UNDP such as project managers who recognize the need to address gender issues in their work and want to know how to do this in practical terms; and (ii) *Gender and/or energy trainers* with at least 3 years of experience in delivering training courses in Asia and who are

willing to design and deliver gender and energy trainings in their respective countries, with support from Energia.

For UNDP and other project managers handling energy projects, the course aims to:

- (a) equip them with skills required to understand the gender/energy/poverty nexus, and
- (b) provide them with practical tools, which can be used during various stages of project cycle to ensure that gender differences are not inadvertently overlooked, and that project decisions are made with full recognition of what the differential effects are likely to be on women and on men.

For the gender trainers, the course aims to:

- (a) Provide them with knowledge of a set of gender tools specifically developed to use in energy projects that can be used to train practitioners. The training course will not provide trainers with the didactics of how to conduct training workshop as the trainers are expected to already come to the workshop equipped with this knowledge and experience.

A total of 25-30 participants will be trained, consisting of a combination of practitioners and trainers.

What does it involve: Capacity Building through Training and Hands-on Coaching

The training course is the first key step in the larger capacity building process that Energia has initiated in developing countries, and is collaborating with UNDP, in Asia. This capacity building process is planned to facilitate continued interactions and knowledge exchange between the participants and the training resource team, and is divided into three distinct steps.

- **Step 1** The training program will build on the *preparatory work* done as a build up to the workshop; be focused sharply on projects that the participants are handling in their work situations and on practical tips on what they could be doing in their projects to make them gender sensitive. Energia has already developed and used training modules on “Gender and Energy Concepts” and “Gender Tools for Project Planning”, which will be a source of case studies, exercises and simulations, and used and adapted, as necessary.
- **Step 2** The practitioners would come with specific projects that they will work on, at the *training workshop*. Trainers will come with a preliminary action plan for conducting in-country training workshops based on a needs assessment of pre-selected target group. During the preparation before the workshop, the resource persons will work with each participant through email and conference calls, so that each team is prepared with the necessary information when they arrive for the workshop. One month before the training participants will also be required to follow a short e-learning module which introduces the concepts of gender and energy that will be facilitated by the ENERGIA International Secretariat.

- **Step 3** During the training course, the participants are required to develop a follow up work plan with a token financial support provided, in addition to which ENERGIA will provide *coaching support* to participants during the implementation of the plan. For energy project managers, support would include, but is not restricted to, reviewing project documents; developing a gender mainstreaming strategy; planning, executing, analyzing and reporting results of participatory during project planning and evaluation stages; and writing documentation and developing case studies which will be used to facilitate and support participants to practice their newly acquired knowledge and skills and collaborate with the online coach. The trainers' follow-up activity would be the adaptation of the curriculum to their national contexts and to conduct training programs in their own countries, with Energia support. Coaching will be largely through internet-based technologies, such as e-mail, text chats, Skype, collective space on the internet etc.,

Selection criteria

- For practitioners, at least five years of experience in handling energy projects AND currently managing a rural and urban energy project
- For trainers, at least three years of experiences in planning and conducting gender/ gender and energy training and recommendation from ENERGIA National Focal Point.
- Willingness to undertake pre-workshop preparatory and post-workshop follow up work, backed by commitment from the management
- Willingness to work with multidisciplinary team of experts
- Understanding of energy, poverty, environment and development issues.
- Experience with participatory approaches of planning, monitoring and evaluation of programs and projects.
- Good analytical skills; resourceful with initiative, maturity of judgment and computer literate.
- Proficiency in English and computer skills. The course is run in English.
- Access to reliable computer facilities

Application procedure

Applications for this course are due 20 August. If you are interested and meet the above requirements, you need to do the following:

- Fill up the attached application form.
- Obtain a letter of nomination from the head of the organization, clearly demonstrating organization backup, and on the understanding that you would be undertaking preparatory work before the workshop, follow up to the workshop, and share information and reports as required.
- Contact the Energia national focal point in your country (contact details given at the end of this document), who will forward your application form to

A final selection of eligible candidates will be made by early September and the selected candidates will receive an approval letter, a formal invitation, and other practical information.

For any further information that you need on the content, please contact Ms. Soma Dutta.

Practical information

Financial assistance will be provided to the participants, and will cover the following:

- Tuition fees cover training and the costs of the required literature, stationery.
- Accommodation and meals
- Economy airfare and entry visa expenses.

Participants must ensure that they have appropriate insurance coverage, which will not be covered by Energia.

Workshop venue and accommodations will be in Katmandu Nepal and will be organized by Centre for Rural Technology, Nepal.

Annex 6. Discussion Summary on the Regional Center of Excellence for South Asia Women in Sustainable Energy Research (WISER)

This is based on the recommendations from the Break-Out Sessions conducted during the SAWIE Executive Exchange held in Washington DC during May 12-20, 2009 organized by USEA:

I. **Mission:**

Team: *DharsanUnnithan, India; Soma Dutta, India; Rita Bhandari, Nepal; SyedaUmmekulsumImam, Pakistan*

To provide a platform for the empowerment of women in energy in South Asia, through:

- i) Networking and information sharing
- ii) Awareness and alliance building
- iii) Research and knowledge creation
- iv) Technology transfer, development and certification
- v) Project formulation and implementation

II. **Proposed Activities of WISER**

Team: *Farzana Rahman, Bangladesh; Deki Choden, Bhutan; Tshering Choki, Bhutan, Mariyam Asra, Maldives; Tara Shrestha, Nepal*

Short Term Activities:

a) **Information Centre**

- Best practices
- Policies
- Database source
- Conference call set-up with other countries

b) **Communication and Outreach**

- Website, newsletters, brochures, leaflets, videos, mobile information centre

c) Training and capacity building

- Training of trainers
- Study tours
- Exchange programs
- Tailor-made programs
- Lecture sessions
- Internship program

d) Women of the Year Award

Long Term Activities:

a) Knowledge centre

- Learning centre
- Resource centre

b) Exhibition

- Market source for RE & EE technologies

c) Policy advocacy

d) Application testing

e) Fund raising

III. PARTERSHIPS, MOUs

Team: *Reba Paul, Bangladesh; Kama Krishna, India; Senator Rukshana, Pakistan; Badra Jayaweera, Sri Lanka*

Lead Partner: Energy Management Center (EMC) Kerala, India

Alternate: World Bank/Energy Sector Management Assistance (ESMAP) and Pakistan Council for Renewable Energy Technologies (PCRET)

Key Partners:

Knowledge Partners:

United States Energy Association (USEA); Energia, India; Women in Sustainable Energy (WISE) USA; Bangladesh Renewable Energy Society (BRES); Sustainable Energy Development Authority (SEDA) Sri Lanka; Massachusetts Institute of Technology (MIT) USA; Center for Efficient Lighting (CEL) India; National Renewable Energy Laboratory (NREL) Colorado; Pakistan Council on Renewable Energy Technology (PCRET); Energy Conservation Center (ENERCON) Pakistan; Alternative Energy Promotion Center (AEPC) Nepal; WINROCK International USA; Women's Council for Energy and Environment (WCEE) USA; Bhutan Electricity Authority (BEA); Alliance to Save Energy (ASE) USA.; Virginia Tech Advanced Res. Inst., USA.; Orb Energy, Bangalore/India.

Financial Partners:

USAID, World Bank, ADB, UNDP, GTZ, KfW, GEF

Technical Partners:

Grameen Shakti/Bangladesh; Rural Electrification Board (REB) Bangladesh; Prakousal Sangsad Ltd. Nepal; GE, Phillips, Godrej India; Tata India; Quetta University of Engineering - Science and Technology (QUEST) Pakistan, International Clean Energy Alliance (ICEA) USA; Virginia Tech Advanced Res. Inst., USA

General Partners:

Any organization working on Renewable Energy Technologies (RET), Energy Conservation (EC) and Energy Efficiency in South Asia

Annex 7. Draft Terms of Reference on the Regional Center of Excellence for South Asia Women in Sustainable Energy Research (WISER) as Proposed by the Study Team

1. Introduction

This Terms of Reference is to provide guidelines for an institution to hosting the Regional Center of Excellence for South Asia Women In Sustainable Energy Research (WISER). This document outlines the expected roles and responsibilities of WISER and outlines what is expected of the centre in terms of specific deliverables in a set time period.

2. Background

“South Asian Women in Energy” (SAWIE) is a program created by under the South Asia Regional Initiative for Energy (SARI/Energy), funded by the U.S. Agency for International Development (USAID) to bring together women energy sector professionals from Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.

SAWIE started with a membership of about 32 women professionals from eight South Asian Countries (Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka). Since then membership has more than doubled.

The key objectives of the SAWIE network are as follows:

- To bring together women energy sector professionals
- To understand, identify and develop sustainable approaches to providing low-cost efficient energy to poor women and men in rural and urban areas throughout the region
- To provide a platform for the empowerment of women in energy in South Asia

In order to steer the activities of this network, it is proposed that a Regional Centre of Excellence (RCE) be set up in the region.

3. Objective and role of the WISER

Working towards the mission “To provide a platform for the empowerment of women in energy in South Asia”, the WISER will play a lead role in steering the activities of the SAWIE network. In particular, it will work together with USAID and other stakeholders to ensure the successful operation and delivery of a work plan agreed upon by the network. Apart from providing administrative support in executing the work plan, the WISER has a key role in forging new collaborations (within and outside the region) and as a regional forum to raise and receive funds. The WISER will work closely with and under the supervision of USAID and its designates.

4. Duration of the appointment

The WISER will be appointed for a period of three years, starting from This appointment would be performance based and subject to annual reviews.

5. Tasks of the WISER

USAID seeks to subcontract the services of (name of organization) to host the WISER. The primary contact persons in WISER will be (names of person). The primary responsibilities and tasks that the WISER would be expected to perform and fulfill include:

- Providing organizational and logistical support to the SAWIE network
- Fundraising for activities of the network, identifying and pursuing concrete funding opportunities and host proposals on behalf of the SAWIE network, as required
- Conceptualizing program ideas and developing need based proposals
- Coordinating the organization of/host regional meeting, training workshops and other events such as exchange programs, study tours, lectures and seminars as and when necessary
- Disseminating information about the network and gender and energy issues amongst the members on best practices, policies, and upcoming events,.
- Establishing and maintain a website on the SAWIE network, linked to the USAID website
- Identifying and enrolling new members from the region
- Undertaking consultancy projects on behalf of the SAWIE network
- Forging functional partnerships with other relevant programs and institutions such as the ENERGIA network, ADB, and UNDP
- Financial management and co-ordination

In addition to the above, during the first year, WISER is expected to undertake several start-up activities, including:

- Mobilizing a task force from within SAWIE and regional experts to develop a strategy paper outlining vision, mission, objectives, and strategies, and annual work plan for the network

- Delineating the structure and membership rules for SAWIE and launching a membership drive
- Establishing the infrastructure required to undertake networking activities, including office facilities and conference calling.

6. Remuneration and other administrative details

Annex 8. ENERGIJA's Capacity Building Strategy

Objectives:

- To build capabilities of practitioners to apply acquired knowledge and skills on gender and energy in projects
- To translate capabilities among individuals into policy/practice changes in institutions.

Preparation:

- Step 1: Modular, multi-purpose gender training material with tools tailored to the energy sector
- Step 2: Selection of participants on basis of: management's commitment to post-training follow-up and energy and development organization at the national level

Training:

- Step 3: E-learning training module on concepts in gender and energy
- Step 4: Training of trainers and practitioners focused on gender tools for energy projects and participants' action plans
- Step 5: Training packages contextualized to national context
- Step 6: National training workshops focused on participant's action plans

Post-Training:

- Step 7: Specific coaching and financial support to project managers who have participated in the training
- Step 8: Creating a Community of Practice (learning and sharing)
- Step 9: Step-by-step guide with tools and case studies based on practitioners' project work

Annex 9. An Example of Engendering a Small Grants Project: TIDE's Women's Entrepreneurship for Domestic Lighting Systems

GRANT ACTIVITIES

Rationale

There is a pertinent need to spread awareness among rural communities and beneficiaries on the benefits of utilizing energy-efficient devices. It is also important that rural women from under-privileged communities be afforded an opportunity at meaningful income generation avenues.

NB: Grantee Agrees to provide all services & equipment details in their proposal.

Objective

Awareness generation among rural communities on energy-efficient household lighting systems and capacity building of 50-60 rural women on running micro-enterprises that tie-up with commercial suppliers to establish a steady market for such systems.

Project Description

TIDE will select and train 50-60 women on the benefits of energy-efficient devices, so that they can disseminate such information to their rural audience effectively. They will also be trained on running micro-enterprises that introduce such devices into rural households.

TIDE observers will be present to monitor initial sessions and will provide the women with constructive feedback. Linkages with commercial suppliers will then be fostered so that a steady market of such devices is established for sustainable future operation.

The duration of project is 52 weeks from May 1st, 2009 in accordance with the following schedule:

Activity	1	2	3	4	5	6	7	8	9	10	11	12
Identification of women entrepreneurs	√	√	√									
Train women in micro-enterprise development		√	√									
Materials for awareness creation			√	√								
Train women for awareness creation				√								
Setting up of enterprise and linkages				√	√	√						
Support for enterprise						√	√	√	√	√	√	√
Experience sharing												√
Documentation											√	√

Expected Outcomes and Results

Successfully implemented, the project will benefit 1800 households (9000 people) with increased awareness and strengthen the economic positions of the 6 women entrepreneurs and provide environmental benefits to 500 households.

It will also lead to better conditions within rural households that presently have to work with unhealthy kerosene lamps, and open up a beneficial mode of employment for the women involved in running the micro-enterprises.

Project Evaluation

Periodically, the project will be internally evaluated by the project team, based on the quality of the information submitted, and where applicable, the quality of stakeholder discussions, promotion of regional cooperation, and sustainable results as evidenced by target accomplishments.

Suggested Gender Dimensions to be considered by project grantee

- ✓ Why are energy-efficient lighting systems not currently being used? Is it purely lack of awareness? Do rural households lack the capital to invest in such devices?
- ✓ Is there a plan in the project to target support for the adoption of energy-efficient lighting systems among poor and women-headed households?
- ✓ Does the project actually strengthen the position of the women entrepreneurs at the household level? Do they have control over income earned? Is there a baseline assessment and way to monitor who makes decisions regarding household expenditures?
- ✓ Many energy-efficient lighting systems are longer-term investments, not consumables. Is there a plan for how these women might continue to sell beyond their own community once saturation of energy efficient devices has been reached?
- ✓ Will women be in a position to market these energy efficient lighting systems more widely? Are there barriers to their mobility?