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# SARI/Energy Small Grants

South Asia Regional Initiative for Energy Cooperation and Development (SARI/Energy)

A quarterly newsletter of the SARI/Energy Small Grants Program with support from USAID

## Editorial

by Robyn McGuckin, *Regional Coordinator and Program Manager, South Asia Regional Initiative/Energy Program, USAID*

## SARI/Energy Small Grants Program Expands to Afghanistan and Pakistan

After successfully launching four rounds of small grants in the South Asia region, USAID/SARI/Energy has expanded the fifth round to Pakistan and Afghanistan. Winrock International, along with the Institute of International Education and Winrock International India, has been implementing the program, and seven institutions in Pakistan and Afghanistan have been awarded grants to the tune of US$ 200,000 under Round V for the following activities:

- Capacity Building Initiatives on Energy Conservation in identified areas of Pakistan's North West Frontier Province (NWFP): The grant is awarded to BEFARe, Pakistan to conduct training and capacity building for 1,000 BEFARe school teachers and 2,000 community members through School Management Committees, on energy conservation.
- Enhancing the Training Capacity of the Lahore Electricity Supply Company (LESCO) relating to rural electrification and implementation of community-based rural electricity supply systems in Pakistan: This activity will build the institutional capacity of the Regional Training Center, LESCO for imparting training to its employees and other stakeholders, and take steps towards implementing a community-based rural electricity supply system in LESCO's area, learning from experiences in other South Asian countries.
- Transiting the Electric Industry from Government Utilities to Private Entities – The Case of Pakistan: This award is given to the Lahore University of Management and Sciences (LUMS), Pakistan to build the institutional capacity of the National Electric and Power Regulatory Authority of Pakistan (NEPRA) by imparting training to energy and associated sector specialists on issues attendant with privatization, regulatory reform and restructuring of the sector, with a view to promote the development of competitive markets.
- Solar Water Pumping and Home Electrification in a Balochistan Village: Under this activity, the National University of Sciences and Technology (NUST), Pakistan in partnership with Islamic Relief Pakistan (IRP) will conduct a pilot project that will provide solar water pumping and home electrification to 30 households in Balochistan, the most under-developed and poorest area of Pakistan.
- Promoting Informed Consumer Choices on Energy Efficiency and Labeling in South Asia The award is given to Voluntary Organization in Interest of Consumer Organization (VOICE), India in partnership with Consumer Rights Commission of Pakistan (CRCP) to identify issues and problems with respect to market presence, labeling, popularity, and test protocols for five select electric home appliances through a survey of 500 retailers and 100 consumers in two metro cities of Pakistan.

*contd on pg 8*

**Participating Nations**

*Afghanistan Bangladesh Bhutan India Maldives Nepal Pakistan Sri Lanka*

# Sharing Experiences & Lessons Learned

We have been covering the grantees' progress from earlier rounds in each newsletter issue. This time we present highlights of the progress made by Round 5 (awarded in late 2005) grantees (focusing on Pakistan/Afghanistan) in their endeavors to promote regional energy cooperation in South Asia.

## Promoting Consumer Choices on Energy Efficiency and Labeling in South Asia

### *Energy Home Appliances in Pakistan: Promoting Informed Consumer Choices*

The use of electric and natural gas home appliances (such as fans, bulbs, tube lights, irons, lamps, stoves, etc) has increased substantially in Pakistan due to rapid urbanization, population growth, and changing consumption styles. As a result, the market of home appliances has also expanded offering a variety of local and imported brands. However, consumers – literate or illiterate, urban or rural, poor or rich, have to pay additional money in the form of high utility bills, as many brands, although not all, available in the market, do not meet energy efficiency standards. In 2004, a comparative study conducted by the Consumer Rights Commission of Pakistan (CRCP) with support from the Global Environment Facility (GEF)/UNDP showed that none of the ceiling fans tested met efficiency standards, and that they consumed extra 12.67 watts/8 hours on an average. Similarly, bulbs that were found energy inefficient consumed extra energy equivalent to 2.3 watts/8 hours. Compliance with national labeling protocols was also very poor.


It is in this context that CRCP is implementing a regional project, in partnership with Voluntary Organization in Interest of Consumer Education (VOICE), India for promoting informed consumer choices on energy efficiency and labelling in South Asia with the support of USAID's SARI/Energy's Small Grants Program. The aim of this project is to promote labelled, safe, and energy efficient home appliances through creating an environment for informed consumer choices in the purchase and use of energy appliances, and facilitating the supply side to become more responsive to consumer needs.

Under this project, CRCP has launched a market survey of 500 retailers of five electric products: fluorescent lamps, electric fans, ballasts, refrigerators and air conditioners in Islamabad and Lahore. The information being collected covers market presence of various brands, popularity, prices, labelling and availability. Moreover, a survey of 100 consumers/users of these home appliances is being conducted to map the level of their knowledge and preferences. In addition, the project would bring forth an interesting study on compliance with labelling standards. In this regard, a sample of available brands would be drawn and the labelling information provided by the manufacturers would be matched with the national labelling protocol of the Pakistan Standards and Quality Control Authority (PSQCA) to identify information gaps. The information generated through the survey, a study on labelling, and review of secondary sources would be shared with a wide range of stakeholders in all South Asian countries.

Besides the market survey, and discussions with retailers and consumers, CRCP has networked with many consumer and civil society organizations, national standards bodies, and testing laboratories for experience sharing and dissemination of research findings. The project team has prepared a database of stakeholders with whom the information would be shared regularly. This database would be further developed to broaden the list. Moreover, an email group of these stakeholders is being created. CRCP expects that this project would lead to productive regional partnerships on the one hand, and help consumers make informed choices while purchasing and using home appliances on the other.

CRCP is running a Consumer Complaints and Redress Forum (CCRF) for handling consumer complaints related to goods and services. The Forum handles, among others, consumer complaints about substandard home appliances, guarantees/warranties and other concerns related to home appliances. Any person who has a complaint against a manufacturer or retailer can approach CCRF in Pakistan.

Courtesy: Mazhar Siraj, Program Coordinator, Consumer Complaints and Redress Forum (CCRF), Consumer Rights Commission of Pakistan (CRCP), Islamabad, Pakistan
Email: ccrf@crcp.org.pk; Web: www.crcp.org.pk

## Capacity Building Initiatives on Energy Conservation

### *Solar Water Pumping and Home Electrification in Pakistan*

Under this pilot project under USAID's SARI/Energy Small Grants program, the National University of Sciences and Technology (NUST) and Islamic Relief Pakistan (IRP) are together providing solar water pumping and home electrification to 63 households in two villages in Pakistan.

A village named Killi Haji Dost Mohammad was selected for this project. It is located at a distance of 80 km from Kharan in the Union Council Sarawan. It has 47 households with a population of 329 with an average of seven household members. There are approximately equal number of females and males and around 45 children under the age of 5. It has multi-tribal inhabitants with major tribes of Sasooli, Mohammad Hasani, Mulla Zai, Jamaldini and Mengals who speak the Brahvi and Balochi languages.

The people of the area are mostly dependent on agriculture, livestock, and some are surviving on daily wages. They cultivate wheat, onions, *zeera*, melons and barley. In the orchards they grow grapes, palm garnets, and dates.

## The Problem

The people of the village are facing two problems – one is the shortage of water and the other is no access to electricity or light. People of the area obtain contaminated drinking water from open wells, which is unhygienic and not suitable for drinking. There is one hand pump but it is not sufficient for the whole village.

## Progress Made

A community organization was formed in November 2005 in the Killi Haji Dost Mohammad village by IRP's social mobilization staff to help them identify and solve their problems. There are 16 and 10 members in the male and female community organizations respectively. They initiated the thinking for the development of their village in the shape of education for their children, and health and hygiene for all by constructing latrines. The community identified the need for clean drinking water and solar lights on a priority basis. As of now, they are using candles and oil for lighting.

### Survey & Work Plan

A technical survey was conducted in March 2006 for solar lighting and a water pump. The water well was studied, and the site for construction of a water tank and water point was visited. Measurements were recorded. A cost estimate for the water tank and water point was prepared.

The estimate was discussed in the community meeting and terms of partnership (ToP) signed. The community agreed to contribute construction material like sand, crush, unskilled labor and some transportation cost. Total community contribution is Pak Rs 27,474 with which a water tank of 2,000-gallon capacity was designed.

*(above) Villagers build the tank for the solar pump, and stand proudly near the completed tank (left).*

The water tank construction was completed in May 2006. At the same time, purchase of other items like the solar water pump and equipment for lighting is underway.

## Conclusion

This is a small pilot project but it will have a great impact on the lives of the villagers. Being a very backward province Balochistan has two natural resources in abundance – air and sunlight. We think the future of solar energy is bright in Balochistan.

Courtesy: Saeed Kazmi, General Manager, NUST Consulting, Pakistan; Email: saeedk@nustconsulting.com

## Capacity Building for LESCO Training Institute (Phase I)

### *Sharing Experiences*

The environment and structure of the power industry throughout the world is undergoing dramatic change. The power sector is moving from monopolies to privatization, and from centralization to decentralization. To keep pace with this change, the Water and Power Development Authority (WAPDA) in Pakistan has been unbundled into nine distribution companies (one of which is the Lahore Electric Supply Company or LESCO). In addition, the Karachi Electric Supply Company (KESC) has been privatized, and the Faisalabad Electric Supply Company (FESCO) is expected to be privatized this year.

LESCO's area of responsibility covers the civil districts of Lahore, Kasur, Okara and Sheikupura, most of which is rural. Almost all the main villages in these districts have already been electrified. The Government of Pakistan intends to electrify all the un-electrified villages and settlements by 2007.

LESCO understands the challenges of providing

*The LESCO team visits Narela Village in India (below) and the Center for Power Efficiency in Distribution at NDPL (right)*

improved access and quality power supply to rural areas, and its plans include involvement of local communities. In addition, they have availed of a SARI/Energy Small Grant to build their own capacity. Under this activity, LESCO's team is collecting comprehensive data from different resources towards preparation of training programs on rural electrification.

As a preliminary step, LESCO officials visited New Delhi Power Limited (NDPL) and Noida Power Company Limited (NPCL) in India during March 2006, and the Rural Electrification Board (REB) in Bangladesh during April 2006, to study community-based rural electrification and possibly utilize their modules for implementation in Pakistan. It is observed that community participation in rural electrification is encouraged to reap the benefits of electricity as a means of social lifestyle improvement. It will ultimately lead to improvement in agricultural production and enhancement of small trade. Local self-help groups are encouraged to build partnerships with electricity supply companies. Valuable lessons were learned from the ideas, policies, and practices of learning-based community development that are evolving around the South Asian Region, a few of which are given below:

- There is strong evidence that the rural poor and communities can mobilize and control resources and put them to effective use.
- The key to success is transparency and accountability at all levels. A good dissemination strategy is testament of rules being clear and understood by all at various levels.
- There is a need for institutional intervention for improved regulatory framework in government organizations, NGOs, and the private sector.
- An important aspect for this approach to work is decentralized decision-making that involves local governments in the community-based rural electrification right from the beginning.
- Changing mindsets of senior bureaucrats, middle-level officials, technocrats, local-level staff and other stakeholders is a pre-requisite.
- Effective facilitation and technical assistance is needed to develop planning and implementation capacity at the local level.
- The services of a public representative have been introduced to undertake social intermediation in villages, and cultivate commercial behavior among consumers.
- It is essential to ensure that there is a participatory needs assessment and planning, and flexibility in community choice of project design, organization, rules, and activities.
- A rigid administrative system will not allow the approach to reach its full potential and thereby its intended objective.

Now LESCO is in the process of studying and analyzing this data for adapting it to their system. Consequently, suitable criteria shall be evolved for consideration of professionals from other South Asian countries to visit Pakistan. They are also developing a Computer Based Training (CBT) module using the curriculum already developed for rural electrification.

Courtesy: Mr Saqib Jamal, Deputy Manager, Regional Training Center, LESCO, Lahore, Pakistan; Email: saqibjamall@yahoo.com

## Transiting the Electric Industry from Government to Private Entities in Pakistan

### *Capacity Building to Support Regulatory Reforms/NEPRA*

The SARI/Energy small grant awarded to the Lahore University of Management Sciences (LUMS) to build the technical capacity of the National Electric Power Regulatory Authority (NEPRA) and support the regulatory reform process in Pakistan through training programs is a most timely initiative.

In Pakistan, the power generation sector was liberalized through the Government of Pakistan's (GoP) 1995 power policy. The liberalization process succeeded in attracting considerable foreign direct investment and addressed Pakistan's power shortage problems. The 1995 power policy was a step forward in GoP's long-standing commitment to reform and restructure Pakistan's power sector. As part of the restructuring process, the state-owned Water and Power Development Authority (WAPDA) was vertically and horizontally unbundled. The unbundling entailed the separation of generation, transmission and distribution functions, which resulted in three state-owned generation companies (GenCos) - all to be privatized at a later stage, a National Transmission and Dispatch Company (NTDC) and eight* distribution companies.

The unbundling process highlighted the need for a regulatory authority for the sector, which was established in the form of NEPRA in 1997. The power sector reformation and restructuring is still in its nascent stage,

** WAPDA was unbundled to form 8 distribution companies. However, in June 2002, the Peshawar Electric Supply Company was divested to create a new company to provide electicity to tribal areas (www.privatisation.gov.pk/power/PESCO.htm).*

and the Government has a long way to go before realizing its goals of providing "safe, reliable, efficient and affordable electric power to electricity consumers in Pakistan" by introducing competition in the sector.

As the industry gets more competitive, new regulatory and competition issues will be raised, which NEPRA, as a regulator, needs to address. Recognizing the need and importance of addressing emerging regulatory and competition issues in the power sector, LUMS, with the support of SARI/Energy, has undertaken research in this area, and will offer training programs for industry stakeholders. Four themes for the training workshops have been identified that are topical and require immediate debate. These are:

- Power Sector Restructuring and Regulation
- Managing Regulatory Systems
- Tariff Structure and Analysis
- Consumer Advocacy in Regulation

Under the grant, LUMS will conduct one five-day workshop on one of the four identified topics during the summer/fall of 2006. The course materials for these workshops have already been collected and are now being reviewed and tailored to meet the specific needs of the Pakistani regulatory environment. We at LUMS look forward to regional participation in our workshops, and welcome the SARI/Energy community to the workshops so as to enrich the learning process through sharing of experiences.

Courtesy: Dr Joseph Wilson, Assistant Professor of Law & Project Director, LUMS, Pakistan; Email: Joseph@lums.edu.pk

## BEFARe Capacity Building Initiatives on Energy Conservation in NWFP Areas

The Energy Conservation and Capacity Building initiative under USAID's SARI/Energy Small Grants Program involves coaching and building capacities of BEFARe school teachers and community members representing School Management Committees (SMCs) on energy conservation, and the efficient use of available resources in identified areas with no previous exposure to such initiatives. The implementation staff of the sub-project was provided with necessary training before the initiation of field interventions.

*(top) Outdoor training session of SMC representatives, while actively participating in group activities and discussions.*

The target group, in addition to training local Pakistani communities, has also encompassed Afghan refugees housed in different camps throughout Pakistan's North West Frontier Province (NWFP). The inclusion of Afghan refugees is also seen as a direct contribution to the goals of SARI/Energy initiatives, as these refugees are expected to utilize the acquired skills and knowledge on energy conservation once they repatriate to their country.

In March and April 2006, the sub-project began its training activities by training 717 individuals in Peshawar and Mardan who were representing 60 SMCs of BEFARe. Active participation of the community was witnessed during the training sessions.

Likewise, in the month of April, 250 male and female teachers of BEFARe were trained with the help of a Training Manual specifically developed for this initiative. The training process comprised energy conservation techniques covering the use of energy efficient cooking utensils, production of heat energy for domestic purposes, energy-saving practices including application of low cost materials as fuel in homes, etc. The training programs took place in the Jalozai, Kachagari, Hajizai, Naguman, Khazana, Baraki, Kababian and Azakhel areas of NWFP.

Courtesy: Sayyed Jonaid Shah, Divisional Manager, Programming and Implementation, BEFARe, Pakistan; Email: jonaid@befare.org

### Energy Conservation Training

| Month 2006 | Teachers Trained | | SMCs Trained | | SMC Members Trained | |
|---|---|---|---|---|---|---|
| | Male | Female | Male | Female | Male | Female |
| March | - | - | 30 | - | 311 | - |
| April | 131 | 119 | 13 | 17 | 167 | 239 |
| Total | 131 | 119 | 43 | 17 | 478 | 239 |

## Restructuring the Electricity Sector: *A Study of Electrical Consumers & Service Quality in Kabul*

The use of electricity in Afghanistan dates back to 1894 when a generator was installed in the King's palace. Thereafter, in 1916, a hydropower station was commissioned (installed capacity 1,500 kW) in Jabaloseraj for industrial use. Despite this, and the hydropower and thermal potential *(see next page)* in Afghanistan, only 6% of the population have access to electrical energy.

The energy sector is one of the least developed in the country. The total installed generating installed capacity of power plants, including hydro and thermal, is around 450 MW.

## Potential (in MW)

| | |
|---|---|
| Hydropower | 23,007 |
| Thermal (coal) | 514 – 524 |
| Thermal (natural gas) | 350 – 500 |
| Thermal (petroleum) | 125 – 200 |

The last power plant was a gas turbine power plant commissioned in 1985. Since then, due to years of war, there was no increase in generation capacity. Also, parts of existing power plants and transmission and distribution network were destroyed. The current demand for electricity is more serious due to the fact that the population has increased dramatically.

The government of Afghanistan is attempting to reconstruct ruined electricity infrastructure to meet the demands of a growing population. The Government and supporting multilateral donors (USAID, ADB, and the World Bank) have planned to import electricity from Central Asia republics in order to increase domestic supply up to 300 MW by the end of 2008. This electricity will be carried by the new multi-million dollar transmission system known as the Northeast Transmission Power Systems (NEPS), which is funded by the Government of India and other international donors.

There are still some major problems, as below:

- In some construction efforts, destroyed networks were reconstructed with the original design, which did not take into consideration the increase in population, the displacement of people from rural to urban areas, and returning refugees.
- The level of power supply service quality in areas covered by electrical networks is very low.
- There is a lack of national norms for determining electrical loads within the country.

Therefore, field research and survey programs are needed to supplement existing reconstruction data for the energy sector. Additionally, this research will aid in defining the possible role of Afghanistan in energy trade for regional energy security.

The Power Engineering Department of the Kabul Polytechnic University (KPU), with support from USAID's SARI/Energy small grants program, is carrying out a nine-month research project titled "Study of Electrical Consumers and Service Quality for Rational Reconstructing of the Electricity Sector in Kabul City". Since Kabul is the capital city of Afghanistan and the largest center of population in the country, the framework of this project is a survey of electrical consumers and service quality that will be conducted, and entered into a database to be evaluated. A team of four professors as managing staff and ten students as surveyors were commissioned to carry out the project *(see photos below)*.

A four-day training course was held for the surveyors that covered statistics, the preparation of databases, questionnaires, and information on electrical appliances, capacity, power quality, service quality, etc. In addition, the students were trained to consider local culture and traditions, and accordingly deal with the people being evaluated.

## Sampling Methodology

Kabul city, as with other cities in the world, has its own characteristics, which are the result of historic, traditional and cultural affairs. These differences, along with differences in the economic level of people may affect electrical energy consumption. Therefore the study of electrical consumers in homes needs to take into account all these factors.

A survey of all consumers is not being planned. Data from a random survey may achieve the desired results. To obtain accurate data it is recommended to consider the following:

- Official division of the city by districts
- Population of districts
- Number of houses in districts and the following differences in them:
  - Houses inside/outside the municipal plan
  - Houses, apartments and detached types
  - Number of stores in houses
  - Economical level of living of the people

## Results to Date

In addition to training the student surveyors, a database has been developed in MicrosoftAccess2003. Around 2,642 houses and 729 other buildings were surveyed from 1-30 March 2006. The data is being collated and analyzed presently. Future plans include obtaining comments from a consultant in India, followed by discussions with the local Ministries of Energy & Water/Education, and the media.

Courtesy: Prof. Abdullellah Rasooli, Kabul Polytechnic University, Kabul, Afghanitan; Email: abrasooli@yahoo.com

# Regional Workshop on 'Sustainable Off-Grid Rural Electricity Systems for Communities'

The Energy Forum of Sri Lanka together with the Rural Energy Access Network (REAN) conducted a regional workshop on 'Sustainable Off-Grid Rural Electricity Systems for Communities' from 27-29 April 2006 in Colombo, with funding support from Winrock International and Nexant Inc. under USAID's SARI/Energy program. REAN partners from Pakistan, Bangladesh, India, Nepal and Sri Lanka participated in the workshop, along with representatives from the government, private sector, NGOs dealing with policy, financing and management of off-grid services, micro-financing agencies, and other organizations responsible for the development of rural energy community-based systems.

The **Regional Energy Access Network (REAN)** was originally constituted as the Rural Energy Training Network in 2004 under the SARI/Energy program. REAN is now the premier regional organization for promoting, developing and implementing community- and consumer-based approaches to sustainable clean energy access throughout South Asia.

**Founder Members of REAN include:**

- Rural Electricity Board, Bangladesh
- Nepal Electricity Authority, Nepal
- LESCO, Pakistan
- Bangalore Electricity Supply Company (BESCOM), India
- Institute of Rural Management Anand (IRMA), India
- Institute for Social and Economic Change, India
- Energy Forum, Sri Lanka

There are several stakeholders involved in off-grid energy service delivery schemes. The absence of adequate regional training facilities and software training materials for capacity building, misconduct practices, and trade barriers need to be addressed at the local and regional levels.

## Workshop Objectives

The objective of the regional workshop was to evaluate training activities taking place in Sri Lanka on sustainable off-grid rural electricity systems for communities. Capacity building requirements for establishing and managing such systems were discussed. A training curriculum developed by Energy Forum was presented, tested and evaluated at the workshop. The curriculum development process and the regional event were funded by the SARI/Energy Small Grants program *(see box above)*.

*(right) Mr MC Ferdinando, Secretary, Ministry of Power & Energy, Sri Lanka, addresses the workshop; (below left) USAID and REAN officers during the opening session of the workshop*

*Participants at the regional workshop*

The **content of the developed curriculum** under this project includes the following modules: Off-grid electricity planning and data collection; Design/ installation of power systems; Project administration/ financing; Operation & maintenance; Customer Care; Accreditation/certification; and Project Monitoring.

Mr MC Ferdinando, Secretary to the Ministry of Power & Energy, Sri Lanka, in his opening remarks stated, "I believe this is a timely move not only for Sri Lanka but also for the rest of South Asia, as there are a number of activities taking place by governments and the private sector/civil society organizations for providing better energy services to rural communities in off-grid areas. Providing modern energy services to off-grid communities cannot be done by the government alone. We appreciate the contributions made by private organizations such as the Energy Forum, in reaching our goal of providing electricity to all. We have done a lot. But there is more to be done. We invite our overseas participants to share their experiences on off-grid energy technologies with us."

The workshop focused on the formation of community/consumer-based electricity organizations for off-grid systems, including policy, financing and community mobilization prerequisites for developing off-grid systems. Consumer care issues, financing models, training aspects of rural energy services and decentralized energy planning mechanisms were broadly discussed after sharing information on best practices of off-grid energy services

in the South Asia region. Based on the training modules developed, the design and installation of different types of decentralized technology options were discussed, along with their potential, limitations and cost of implementation.

In the curriculum developed, several **decentralized technology options** were covered such as micro hydro, solar PV, small wind turbines, biogas and biomass-based electrification technologies. For isolated villages and clusters in hill areas, micro hydro can be recommended; solar PV and small wind turbines can be installed in most dry zone areas; biogas for heating and lighting purposes and biomass-based electrification for farming communities in off-grid villages were also discussed in the curriculum. Conducting feasibility studies, installation procedures and operational and maintenance issues are key subject areas with regard to each technology option. These options can be introduced and adapted for suitable geographical and climatic areas in South Asia.

The developed modules target several potential stakeholders such as decentralized energy planners, project developers, bank managers and micro finance institution (MFI) credit officers, project administrators, verification engineers and technical officers, village leaders and general consumers. The India and Bangladesh presentations focused on their local experiences in grid-connected community-based systems and participatory consumer-based distribution models.

The participants commented on each of the modules developed. The activity plan for promoting training facilities in the region was discussed and rural energy training capacities of participated institutions were identified to establish a regional training core group for off-grid community based energy services.

As an outcome of the workshop a work plan for the promotion of training activities among regional stakeholders was developed, with a view to establish a quality workforce for the promotion of off-grid energy services in the region. The REAN Business Plan was discussed and finalized during the final session of the workshop. As an outcome of the discussion REAN members agreed to sign Memorandums of Understanding (MoUs) committing to REAN's vision and objectives.

Courtesy: Bandula Chandrasekara, Programs Coordinator, Energy Forum, Colombo, Sri Lanka; Email: eforum@sltnet.lk; Web: www.energyforum.slt.lk

*contd from pg 1*

- Study of Electrical Consumers and Service Quality for Rational Restructuring of the Electricity Sector: This award is given to Kabul Polytechnic University to identify consumer interests and patterns in the use of electricity, and quality of services within the city of Kabul, Afghanistan.
- Silk Processing through Solar Energy: Under this grant, the Aga Khan Foundation will demonstrate the use of solar energy in two industries — silk processing and commercial poultry farming, in the Baharak and Jurm Districts of Badakhshan in Afghanistan, that are highly depend on electricity/light. If successful, this project is expected to be replicated further in the region.

These grants are aimed at two areas – training and research/outreach. We are sure that both these will enhance the SARI/Energy objectives of building a higher level of understanding on energy security and advocacy in the region.

Progress till date on some of the above is described in this issue, along with their contact information. All the above grants are progressing well and are expected to be completed by 30 September 2006.

## Round 5 Grantee Announced

### Project Title

Promoting Silk Processing through Solar Energy

### Project Description

This is a pilot project to demonstrate the use of solar energy in two industries—silk processing and commercial poultry farming—that are highly dependent on light. It lays the foundation for possible replication of similar projects in the region.

### Grantee contact

Dr Henri Suter, Aga Khan Foundation, Afghanistan; Email: henri.suter@akdn-afg.org

*Editor:* Anita Khuller

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