

بسم الله الرحمن الرحيم



Islamic Republic of Afghanistan

# **Women in Energy & Impact of Afghanistan's Involvement with SAWEI**

**International Conference on Conservation, Energy Efficiency & Solar  
(ICCEES)-2010**

**By**

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# Map of Afghanistan



Republic People of China

Republic of Uzbekistan

Republic of Tajikistan

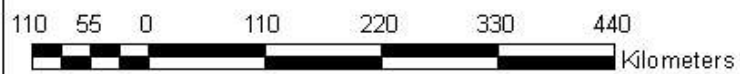
Republic of Turkmenistan

Islamic Republic of Iran

Pakistan

## Legend

- Province Centers
- ★ Capital
- Primary Roads
- lakes
- Province Boundary



# General Information



|                    |                   |            |
|--------------------|-------------------|------------|
| Capital            | Kabul             |            |
| Total Population   | 28 Millions<br>M  | 49% F, 51% |
| Growth Rate        | 2.69 %            |            |
| Rural Population   | 75%               |            |
| Area               | 647,700 square Km |            |
| Official Languages | Pashto and Dari   |            |
| Provinces          | 34                |            |

# Energy Situation of Afghanistan



Access to electricity  
in urban area

- 15.6% from public utility
- 9.2% from private sources

Rural electrification

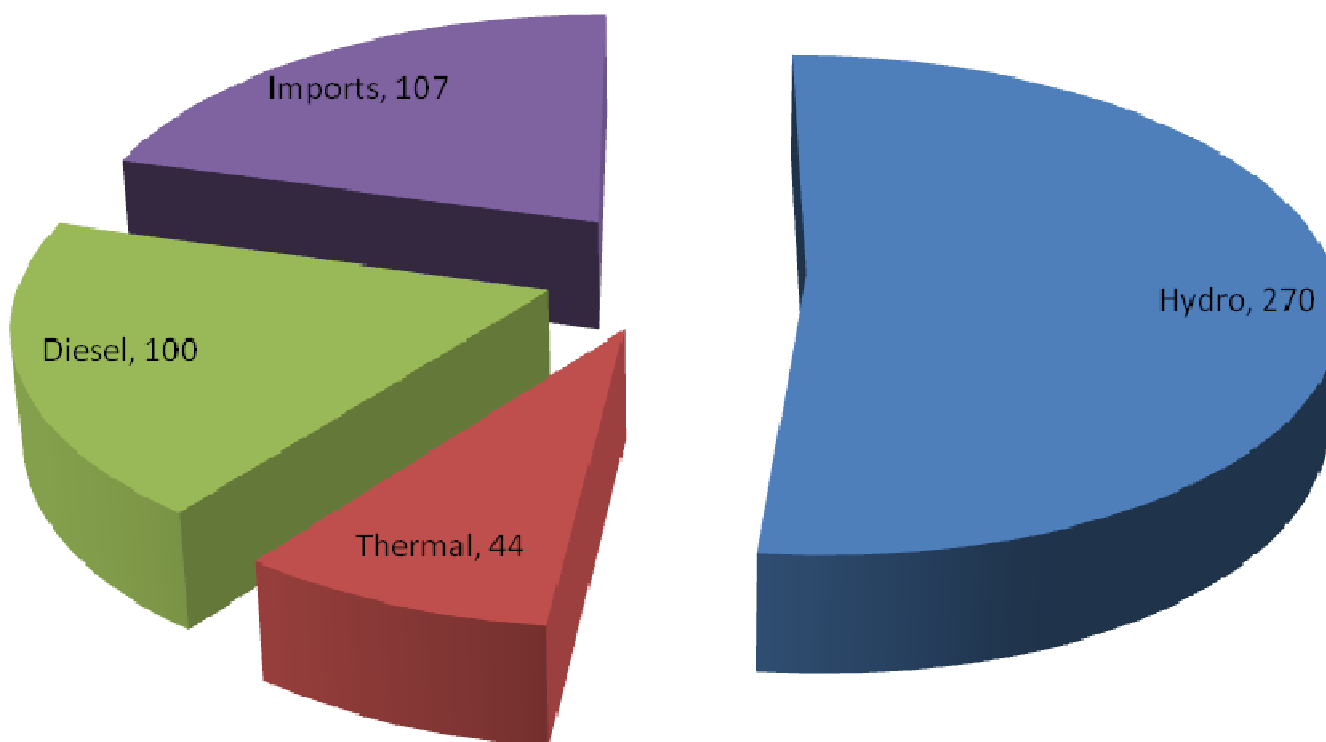
- 4.3% from public sources
- 9.8% from private sources

## Afghanistan National Development Strategy (ANDS) Energy Benchmark

**By end of 2010 electricity will reach at least:**

- 65% of HHs in urban areas
- 90% of non-residential establishments in major urban areas
- 25% of households in rural areas

# Power Capacity of Afghanistan (MW)





## Potential Areas for RE Projects

- Herat Province is known for its 120 days of very strong winds. Even during the remaining part of the year, good winds are available therefore it has been identified for wind demonstration site.
- Kabul, Nangarhar, Laghman, Heart and Logar Provinces has been identified for biogas demonstration as it has favorable temperature for biogas generation and the villagers have sufficient numbers of animals. More than 100 units have already been constructed in the target area.
- ICS will be demonstrated in all pilot project areas





# **Women in Renewable Energy in Afghanistan**

**By**

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UNFAO-Kabul**

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## Rural Population and Renewable Energy



- Due to the isolated nature of the rural population, renewable energy offers the best solution for electrification for the majority of Afghanistan's rural population that currently does not have access to electricity and has no real expectation of connection to the grid.
- Most of Afghans have no access to modern forms of energy.
- Fuel wood accounts for an estimated 75% of total rural energy supplies which have adverse impact on forests.



## Rural Population and Renewable Energy



- Burning these fuels increases indoor air pollution, which adversely affects the health of women and children in particular.
- Extreme poverty in rural areas also is related to lack of income earning opportunities.
- The productive use of electricity helps reduce poverty by providing alternative sources of livelihoods and increase educational and training opportunities.

# Energy Involved Organizations in Afghanistan



## 1. Government

### ➤ MoEW

Mini and small hydropower projects

### ➤ NSP-MRRD

Micro-hydropower & solar PV at CDC level through IPs (UN-Habitat, AKDN, CONCERN, DACAAR, MADERA, GAA, ACTED, CARE, BRAC, and Afghan Aid)

## 2. UN Agencies and International NGOs

### ➤ USAID/ACEP

Power generation, energy efficiency, renewable energy integration  
Capacity building and policy support/ SRAI/E solar and wind

### ➤ UNFAO

Supports MAIL in central and rural area

# Energy Involved Organizations in Afghanistan



## ➤ **UNDP**

Supports MRRD for ERDA-NABDP

## ➤ **GTZ**

Technical support to MoEW

Support to private companies

## ➤ **JICA**

Construction of 5 micro-hydropower projects.

## ➤ **Korea**

Funded the Istalif Mini Hydropower project (300 kW).

## ➤ **World Bank**

Support energy projects through the NSP

# Energy Involved Organizations in Afghanistan



## ➤ **ADB**

Constructed the Bande-Amir (9 kW) micro-hydropower project.  
Preparing a project to construct 5 MW of mini hydro in 4 mountain provinces

## ➤ **Norwegian Church Aid**

Invested in 5 villages

## ➤ **GERES (Group for Environment Renewable Energy & Solidarity)**

French NGO, working energy efficiency in public buildings such as thermal insulation & double glassing)

## **3. Private Companies/ Association**

### ➤ Sesa

### ➤ Tole Shams

### ➤ AWEA

## Challenges and Constraints

- Lack of a clear national policy of RE.
- Weak technological base and low capacity in the country.
- Weak coordination among stakeholders.
- Weak donor coordination on rural energy investments.





## Light in Women Life Organization (LWL)



**Increasing access to energy  
brings major changes in:**

- **Education**
- **Health care facilities**
- **Employment**

**Green environment, happy  
family and healthy society**





# Light in Women Life Organization (LWL)



## **The Mission**

Benefiting the rural population specially the rural women through clean, sustainable and renewable energy.

## **The Mission Statement**

To ensure the social, economic and environmental well-being of the rural communities, specially poor and vulnerable people, through the provision of basic access to sustainable and clean energy.

## **Overall Goal**

To enhance green environment, healthy society and promote equitable growth through access to renewable and clean energy in rural Afghanistan



**AWEA**

**Afghan Women in Energy Association**

An Initiative of the  
USAID Afghanistan Clean Energy Program (ACEP)



# How AWEA Started



- SARI/Energy-USAID organized serial of workshops in India, Bangladesh , Washington D.C- USA and Pakistan on Women in Energy (SAWIE).
- Afghan Women have been participating the workshops since 2008.
- USAID/ACEP assisted Afghan Women to establish AWEA.
- AWEA has organized its first meeting on October 7<sup>th</sup>, 2010.

# How AWEA Started

- Beside SAWIE trained participants, several interested Afghan women attended the meeting.





# Objective:

- To encourage more participation of Afghan Women in Energy
- Creating a network of communication between Afghan Women.

## AWEA'S Proposed Activities

- To raise awareness
- Capacity Building (ToT, Community based trainings on energy efficiency, saving energy and other related topics).
- Women should be trained for the operation and maintenance of energy equipments





AWEA Meeting at ACEP office  
in Afghanistan





# AWEA Members



- Engineers, professors, program managers, a medical doctor, a finance manager, and politicians.
- Current Involved Organizations:  
SESA, Flag International, CBFA, HZA, Tole Shams, ICC, MRRD, Ministry of Women, UNFAO, GERES and Kabul University.
- Technical assistance of SARI/Energy India.



# Where is AWEA right now?

- Formalization of the Association
- Elections of board of directors
- Preparing Plan of Work
- Development By Laws







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FROM THE AMERICAN PEOPLE

**AFGHANISTAN**

## SUCCESS STORY

# Afghan Women Form Energy Association



Photo: Ben Barber/IRG

Professional Afghan women meet in Kabul Oct. 7, 2010 to form a new group called the Afghan Women in Energy Association aimed at spreading knowledge about energy as well as promoting opportunities for women in various jobs related to energy.

**KABUL --** In Afghanistan, where women have just emerged from years of repression and restrictions, a new association has been formed for professional women engaged in energy issues to share experiences, training and economic possibilities.

Sitting around a table in the office of a USAID contractor, 13 Afghan women ranging from a doctor to engineers to a financial manager and even a candidate for parliament discussed how they could help themselves and help their struggling country cope with energy shortages and needs.

"Fortunately, we all agreed that for women to be able to have more participation in this society, we should be very well organized," said Dr. Alma Cota, an engineer who helped launch the Afghan Women in Energy Association (AWEA).

"I explained to them the purpose of an association; they all looked very excited. We decided that we definitely want this to become real."

Cota, who teaches renewable energy at Kabul University's Faculty of Engineering under a USAID project, the Afghanistan Clean Energy Program (ACEP), has already obtained space for an office for the new women's group at the university.

ACEP is a USAID-funded effort to introduce solar, wind and hydro power for lighting, refrigeration, water pumps and other power needs in rural areas of Afghanistan unconnected to the electric power grid. The projects improve health, education, nutrition and income.





## **Small Drops Makes Ocean !!!**

Reference person for more information

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SARI / E

**USAID / SOUTH ASIA REGIONAL INITIATIVE FOR ENERGY (SARI/Energy)**

# **WOMEN IN ENERGY**

**APPLICATION WORKSHOP ON EFFICIENT ENERGY MANAGEMENT**







USAID / SOUTH ASIA REGIONAL INITIATIVE FOR ENERGY (SARI/Energy)

SARI / Energy

# SOUTH ASIA WOMEN IN ENERGY (SAWIE)

November, 17 -19, 2008, Dhaka, Bangladesh





USAID / SOUTH ASIA REGIONAL INITIATIVE FOR ENERGY (SARI/Energy)  
**Capacity Development Program for Afghan Women**  
**(Clean Energy Access)**



March 22 - 27, 2010, Thiruvananthapuram, Kerala  
 March 29 - 30, 2010, Bangalore, Karnataka, India

Top row (left to right): Padmakumar, Johnson Daniel, Anil G, Amena Husseni, Marghalay Saleem, Mercy Thomas, Cecile Warner, Meetha Parthi, Mehboba, Hosay Rahimi, W2E, Dr. Indira Shakaya, Tara Shrestha, Rissy George, Latha, Leji, Sathichandran, Subhash Babu B.V.

Middle row (left to right): Bhagavahty, Vinita Kathuria, Deepa S. Kumar, Michael Hajny, Nandita Mongia, Nafisa, Shaima, Fayeqa Haider, Shannon Cowlin, Shafiqa, Laila, Samiya, Safiya Azizi, John Bruce Wells, Rahima, Fatima, Sandeep K, Sandeep T.R., Viju P.M., Ratna Kumar

Bottom row (left to right): Zarghuna Bashary, Fawzia, L. Radhakrishnan, Nabati Safi, Sreemathy Teander, Elizabeth Warfield, Mina, V.K. Damodaran, S. Padmanaban













***Thank You***

