



GLOBAL CLIMATE CHANGE SARI/ENERGY

MAY 2008



The South Asia Regional Initiative for Energy Cooperation and Development (SARI/Energy) encourages the countries of South Asia to take a cooperative regional approach to energy development and trade in clean energy resources. SARI/Energy is at the center of efforts to strengthen public-private sector partnerships and regional economic cooperation. By promoting rational use of regional energy supplies, SARI/Energy contributes to energy security, reduced greenhouse gas emissions, and overall improvements in environmental quality and human health in the region.

BACKGROUND

The USAID South Asia Regional Initiative for Energy (SARI/Energy) is an eight country program that promotes regional energy security through energy market development, cross-border energy trade, and increased access to clean energy. SARI/Energy countries include: Afghanistan, Pakistan, India, Nepal, Bhutan, Bangladesh, Sri Lanka and the Maldives. SARI/Energy has been in operation since 2000; Afghanistan and Pakistan joined the program in 2004.

Rapid economic growth is driving energy demand in South Asia at approximately 6-8% a year. South Asian national electricity grids are powered by a mix of domestic coal, natural gas and hydropower, with some wind power. But inefficiencies and the slow pace of reform result in persistent and costly electrical power outages throughout the region. Petroleum consumption in the industrial and transportation sectors is increasing South Asia's dependence on imported oil and natural gas.

At present, there is little exchange of energy across borders in South Asia, or with Central Asia. However, within South Asia there are significant but disparately located energy reserves such as low quality coal, hydropower, and a significant unharnessed wind and solar resources. The neighboring Central Asian region offers potential low cost sources of hydro and thermal electricity.

These South Asian energy resource and demand trends are coupled with a growing Indian capacity for world class engineering and construction among both the parastatals and the private sector. However, there remains a broad lack of strong institutional, legal and commercial structures to facilitate sustainable energy sector investment and growth. Encouragingly, there is a nascent trend toward harnessing the strengths of the marketplace, primarily in India, to capture energy sector cost, finance and investment opportunities. Coupled with the opening of regional and trans-regional relations and trade, and integrated with global markets, this trend could be the most significant step toward energy security that South Asia has seen for decades.

PARTNERS

USAID's partners in SARI/Energy climate change activities include:

- National Renewable Energy Laboratory (NREL)
- PA Consulting Group
- United States Energy Association (USEA)

Because partners change as new activities arise, this list of partners is not comprehensive. There are at least 32 participating organizations from South Asia, 20 from the United States, and 24 other organizations based in countries throughout the world.

For more information, visit:
<http://www.sari-energy.org>

SECTOR-SPECIFIC CLIMATE CHANGE ACTIVITIES

To address the aforementioned issues, the USAID SARI/Energy program promotes energy security and clean energy production in South Asia through three major activity areas: 1) Cross border energy trade, 2) Energy market formation, and 3) Regional clean energy development.

The third activity is crucially relevant to USAID's climate change mitigation objectives. Through policy interventions, feasibility studies and demonstration projects, clean energy sources are continuously being developed to meet increasing energy demand in the South Asia region. In 2007, the SARI/E program had many notable accomplishments in countries throughout the region:

- Wind and solar energy resource assessment maps were completed for Afghanistan and Pakistan;
- Following a request from the Government of Pakistan, a National Policy Framework for Liquefied Natural Gas (LNG) was prepared to address clean energy regulatory management, revenue and tariff related issues;
- In Sri Lanka, the Ceylon Electricity Board signed letters of intent with four commercial developers to build 34 megawatts (MW) of wind power on the island's west coast; and
- In India, the program assisted in the launch of a nationwide power exchange that would serve as a platform for clean energy trading.

In addition to catalyzing clean energy trade, improved regional energy markets is an important component in enhancing energy efficiency, rural energy supply, energy regulation, and private sector involvement – all important goals for sustainably reducing carbon emissions over the long term. The network of energy sector professionals in Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka, created by SARI/Energy, has led to widespread sharing of best practices, models of institutional reform and restructuring, and documented performance improvement. These professionals are helping to put in place the building blocks for more robust regional trade and sustainable economic development.

Notable SARI/Energy accomplishments over the life of the project include:

- Over 5,000 participants from South Asia trained under the technical assistance, training, and regional partnerships activities of the SARI/Energy program;
- A performance based incentive system established in the Bhutan Power Corporation through the SARI/Energy distribution partnership; and
- Preparation of Nepal Electricity Authority's first ever transmission grid code with SARI/Energy assistance.