

EXPANDING RENEWABLE ENERGY IN BANGLADESH

Providing power without intensifying the effects of climate change is a priority for the people of Bangladesh, who know all too well what rising seas and more frequent storms can do to their coastal nation. The Government of Bangladesh has established a goal of providing electrical power to all its citizens. Renewable energy is a key component of the initiative, and Bangladesh has already made impressive gains in reaching the 85 percent of the country's population that lives in rural areas.

However, in many rural areas, people live too far from the main electrical grids to make connections reliable or affordable. Without access, these families are forced to rely on more expensive—and nonrenewable—energy options such as kerosene or batteries. Even with 400,000 new households gaining access to electricity every year, it could take another 40 years for all the people of Bangladesh to have power.

To help speed that process, the GEF is undertaking an ambitious effort with the Government of Bangladesh, the World Bank, and Bangladesh's Infrastructure Development Company Limited (IDCOL) to increase the spread of off-grid, renewable energy technologies, such as solar home systems. The Renewable Energy and Rural Electrification project seeks to reduce barriers to the use of these climate-friendly energy systems and grow the market for renewables. The project is building capacity through access to financing, business skills, training and technical skills, institutional capacity, and consumer awareness. It has already reached its goal of connecting 50,000 households with solar home systems three years ahead of schedule.

IMPROVING ACCESS TO FINANCING AND BUILDING BUSINESS SKILLS

The renewable energy project cooperates with and builds on the tremendous efforts of such organizations as Grameen Shakti, a subsidiary of the Grameen Bank, and the Bangladesh Rural Advancement Committee, the country's largest nongovernmental organization (NGO). Both are active partners in a program managed by IDCOL that has installed more than 25,000 solar home systems in the two years since the GEF project began.

The project works by combining a GEF grant with a line of credit to microfinance institutions and NGOs to purchase solar home systems. Those organizations, in turn, provide small loans to individual consumers and village cooperatives interested in purchasing such systems. By shifting a portion of their monthly energy budget away from kerosene and batteries, families can afford modest investments in more reliable 20–40 watt solar home systems. That's enough to provide lighting at night, help pump clean water, or keep critical medicines cold.

Payback periods on the loans vary from one to three years, and past experience has shown that even the poorest households make very reliable partners. To date, the vast majority of IDCOL's partner organizations are reporting a better than 98 percent return rate on loan installments.

BUILDING INSTITUTIONAL CAPACITY

Fully developing the infrastructure for renewables in Bangladesh requires more than just putting solar

systems on the market. The project also works to remove the barriers to more widespread use of renewable systems and builds the skills of its partner organizations. The project provides a package of interventions to support Bangladeshi institutions in overcoming major market barriers. These institutions include rural electricity cooperatives, community-based organizations, NGOs, microfinance institutions, and private-sector groups.

A key institution is the Rural Electrification Board, which functions as a quasi-regulator and financial manager of the rural electricity program. The project supports the institutional development of the Rural Electrification Board by providing technical assistance for financial restructuring, monitoring and evaluation, and environmental safeguards.

The renewable energy project is also expanding the number of NGOs engaged in providing energy services. One of the project's new partners is Upakulio Biddutayan O Mohila Unnayan Samity (UBOMUS), a women's cooperative based in a very remote area of the Barisal District. UBOMUS is one of five new partner organizations that have joined in this effort since the GEF project began.

IMPROVING TECHNICAL SKILLS AND PROVIDING TRAINING

Two important aspects of the project's capacity building are improving the managerial skills of grassroots organizations involved in providing renewable energy services and increasing the number of technicians trained to install and repair solar home systems. Thanks to project support, IDCOL has developed a well-regarded database to monitor the program's progress and verify the

technical performance of the solar home systems. Five general inspectors, two technical inspectors, and 40 local schoolteachers are part of a verification team that examines the systems before and after installation.

PROMOTING CONSUMER AWARENESS

The renewable energy project is helping the private sector, NGOs, and microfinance institutions expand the solar energy program and establish it on a commercial and sustainable basis. Recognizing the importance of an informed public, the project is increasing awareness among consumers and suppliers about the benefits and the correct use of solar home systems.

LOOKING TO THE FUTURE

Because solar home systems may not be as efficient in some areas of the country, the project is also developing pilot renewable energy programs: two wind energy projects, two micro-hydro projects, and two biomass projects. These efforts will be critical to providing Bangladesh with the diversity of clean power sources it needs to bring the benefits of electricity to all of its 140 million citizens.

PROJECT BENEFITS

On a global scale, this project is expected to displace nearly 260,000 tons of carbon dioxide over the next 15 years, primarily by reducing kerosene use. But the most critical impacts will take place at the local level, in the form of improved health, more reliable water supplies, and greater opportunities to improve livelihoods and promote truly sustainable development.

FOR MORE INFORMATION

Clare Fleming
Global Environment Facility
1818 H Street NW
Washington DC 20433 USA
Tel: 202-473-0508
Fax: 202-522-3240