Case Study: From Manufacturing to Micro-financing Solar Home Systems by Rural Women of Bangladesh

“UPOKULIO BIDDUTAYAN O MOHILA UNNAYAN SAMITY”

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**Project Goal**

- Empowering women through energy technology related services
- Enhancement of Off-grid Rural Electrification by Utilization of Renewable Energy Technology
- Poverty reduction

**Main objectives**

- Scope of income generation for women
- Business model for off-grid electrification
- Local capacity for RET utilization
- Improving social inclusion
The project was designed on the basis of experience gained during solar electrification of some cyclone shelter in the remote coastal areas. It was obvious that those areas would not be connected to the grid in the next 100 years.

The people living there could be helped with modern lighting using renewable technology provided they could operate and maintain the systems themselves.

Giving women the opportunity to assemble the components and run the business of SHS could achieve the double benefits of empowering the women and increasing access to energy of the population.
Scenario during the Starting Period of the Project

- There were a lot of social hindrance to work with cooperative
- Women were very conservative
- Women had no power to take any decision & their economic status were very poor
- No access of electricity, so there is very little scope to work after evening
- Most of them have a very little academic qualification
Main features

- 35 women owner members
- Factory/head office in Char Montaz
- Management of the energy business
- Implementation of Solar Home System sales program
- Assembly of high quality lamps and charge controllers for solar systems
- Operation of solar battery charging station
- Technical assistance from PSL
Activities of the cooperative

Private sector suppliers
- batteries
- other BOS

Import of controller kits and solar panels

Char Montaz Women's Microenterprise

Supply of Lamps and Controllers

- Sustainable Energy Project (SEP) 4micro-enterprises
- National SHS Program
- Services to Private Rural Consumers
- Supplier of SHS to NGO
BCS's Performance (Mar`01 to Apr`04)

<table>
<thead>
<tr>
<th>Battery Charging Station</th>
<th>Income</th>
<th>Expenses</th>
<th>Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBCS</td>
<td>6,693</td>
<td>5,945</td>
<td>748</td>
</tr>
<tr>
<td>RBCS</td>
<td>3,961</td>
<td>3,449</td>
<td>512</td>
</tr>
<tr>
<td>BBCS</td>
<td>2,912</td>
<td>2,709</td>
<td>203</td>
</tr>
<tr>
<td>GBCS</td>
<td>42</td>
<td>291</td>
<td>249</td>
</tr>
</tbody>
</table>
Members of the Cooperative
Assembling the charge controller
Assembling the Lamp Circuit
Testing Lamp Circuit
Inspection of Charge Controller Circuit
Checking the Circuit
Testing Charge Controller
Working with Office Accounts
Participating in a Exhibition at Dhaka
Taking a SHS to consumer's home
Solar Battery Charging Station
Cooperative’s Shop
User of SHS of Cooperative
Project Impact

Individual and collective benefits

• poverty alleviation through income generation
• enhanced physical and intellectual skills of women through electronics assembly
• Improve the lighting & indoor air quality by replacing traditional kerosene lamps with modern fluorescent lamps
• spin off business for rural enterprises
• overall expenditure pattern changes towards ensuring better quality of life for the family
• Overall enhanced status of women. Ability to participate in local level negotiations
• Removed some social and cultural barriers on gender role
Runu’s (a Cooperative member) own shop at the market
Shahida’s (a Cooperative member) own shop at the market
Dissemination of Improved Cook Stove
Capacity Building on ICS Construction
Lessons Learnt on “Empowerment”

- Opportunity for Women in Renewable Energy Technology in Bangladesh demonstrates the capability of rural women in clean energy service delivery.

- Micro-enterprise development as removed some of the social and cultural discrimination associated with gender role to be played by women: An opportunity aimed towards poverty alleviation.

- Women got the opportunity to use their intellectual skills, to make decisions on their business, have meetings with the elites, make presentation on their progress.
Thank You