Achievements in Eco-Village Development in South Asia: Experience from Bangladesh

Abdul Arif
Project Manager, Grameen Shakti

17th October, 2022
Grameen Shakti was established in 1996 as a Not-for-profit company by Nobel Laureate Professor Muhammad Yunus with the Objective of providing Access to Energy to the rural people of Bangladesh.
Major Achievements

**Solar Home System**
- 1,80,0000 units installed
- 397,417 CO2 reduction/annum

**Improved cooking stove**
- 1,000,000 units installed
- 124,069 CO2 reduction/annum

**Biogas plant**
- 35,000 units installed
- 890,862 CO2 reduction/annum

*Total 15,00,000 CO2 reduction/annum*
Eco-Village Development

Grameen Shakti is Country **Focal Point** of INFORSE as well as one of the **Founders** for INFORSE-South Asian Chapter

**Eco-village Development (EVD)** is an integrated socio-economic development concept, in which Individual Solution combines in clusters to provide synergic benefit to the **COMMUNITY**
Phases of EVD

Phase-1: The Initiation

Phase-2: Creating Evidence
- Implementation, Impact assessment & Advocacy

Phase-3: Expanding Horizon
- Feasibility for expansion of the project

Phase-4: Sustainable impact
- Expansion through sustainable model

Scoping the Problem & Solutions
## EVD Solutions (phase-2)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to clean drinking water</td>
<td>Solar power pump (drinking water)</td>
</tr>
<tr>
<td>Access to Electricity</td>
<td>Solar Street Light</td>
</tr>
<tr>
<td>Environment Pollution</td>
<td>Biogas plant with Low cost Bamboo made slurry pit</td>
</tr>
<tr>
<td>Inefficient cooking</td>
<td>Retained Heat cooker</td>
</tr>
</tbody>
</table>
Model Village: Area Selection

- *Majher chor* village was chosen after assessing the findings of baseline survey

**Population**
- Total: 800+
- Male: Female = 52:48

**Agricultural products**
- Rice, Pumpkins, Melons

**Natural Resources**
- River, Forest, Sunshine

**Major Economy**
- Fishing, Agriculture, remittance

**Major Challenges**
- Salinity intrusion, Flood, cyclone

**Access to Energy**
- Access to electricity: 80%
- Primary cooking fuel: fire wood

**Infrastructure**
- No permanent road, One cyclone Centre, one primary school, utility grid existing, no water supply system
Village Development Plan (VDP)

VDP was conducted in Mar’22, consisting of around 50 people from the Majher char village.

- **Biogas Plant**
  - 3 Households
    - Cost share GS: HH = 75: 25

- **Improved Cook Stove**
  - 50 Households
    - Cost share GS: HH = 50: 50

- **Rain Water harvesting System**
  - 5 Households
    - Cost share GS: HH = 70: 30

- **Solar Street Light**
  - 50 Households
    - Cost share GS: HH = 80: 20

- **Community Based Biogas**
  - 1 cluster
    - Cost share GS: HH = 50: 50

- **Home garden**
  - 5 Households
    - Cost share GS: HH = 50: 50

- **Vermicompost**
  - 3 Households
    - Cost share GS: HH = 75: 25

- **Saline tolerant Crop**
  - 5 Farmers
    - Cost share GS: HH = 80: 20
• Biogas plant
  3 Units (completed)
• Improved Cookstove
  50 units (completed)
• Solar street lights
  6 units (Ongoing)
• Bamboo made slurry pit
  3 units (Ongoing)
• Rainwater Harvesting System (RHS)
  5 units (Ongoing)
• Kitchen garden
  10 units (planned)
• Solar home system
  5 units (planned)
Local Networking/Advocacy

Local Government Office, Mathbaria

Agriculture Extension Department, Pirojpur

Engaging community Leaders in VDP, Mathbaria
A model for community based biogas plant has been developed and was shared with partners in midway meeting in Nepal.

Followed by that, we’ve conducted a session with Social enterprises who work in the cattle farming sector.

Selection of potential enterprise for pilot testing community based biogas plant is in progress.
Database

Solar Home System  Biogas Plant  Improved Cook Stove  Retained Heat Cooker

Solar System For shop  Bamboo-made slurry pit  Solar Water Pump  Solar Street light
Thank You

Do it with Joy