



Socially Inclusive Development Through Off-grid Solar Photovoltaic Water Pumping Systems



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The Project

- The Solar Photovoltaic (SPV) water pumping system is a reliable and clean energy solution to address the energy-water-food nexus.
- SPV water pumping systems can replace diesel pumps to reduce dependence on fuel imports while reducing emissions of pollutants and greenhouse gases (13,624 tons of carbon dioxide annually).
- The respective outputs of the project is (i) about 2,000 SPV water pumping systems installed with an estimated total 18.3 MW-peak of solar capacity;
- and (ii) undertaking socially inclusive and gender activities related to SPV water pumping systems.





Why Socially Inclusive & Gender?

- The energy access enables people to do or achieve.

Energy in general, and its use is valuable not in itself, but for what it enables women and men “to do or achieve”. (Moss and McGann 2012, drawing from A. Sen and M. Nessbaum)

→ So, how to design the project to “Do or Achieve” better?

- The SPV system requires regular maintenance as such villagers especially women and vulnerable group can be involved in the activity.
- The communities can use the solar energy for other livelihood measures during monsoon season when pumping is not required to generate addition income.
- Thus, the project linked this project aspects to socially inclusive and gender sensitive benefits to the communities in the project areas.
- This good practice can be an exemplary model and replicated in other similar projects.



The Activities

Awareness campaign on the SPV water pumping system

- Awareness campaign including workshops for potential users on benefit, cost and technical aspects of the SPV water pumping system, and project application and implementation process (target: minimum 25% of women's participation)

Skill training to avail of energy based livelihood opportunities

- Training carried out for communities' members to conduct regular cleaning and simple maintenance of the solar panel. Part-time job opportunities provided and cleaning equipment introduced (target: 30% of the part time employees to be women)
- Training carried out for communities to initiate energy based livelihood activities (target: 200 users trained of which 30% of women's participation)

End-user education in the safe and efficient use of energy

- Raising awareness about the safe and efficient use of electricity to the users of the new SPV water pumping systems (target: 200 users of which 30% women's participation)





How it works in the field?





What Else in Energy Sector in Bangladesh?

Bangladesh Power System Enhancement and Efficiency Improvement Project (BREB & PBS)

- Providing energy-based livelihood training with a focus on women's microenterprises development and employment opportunities.
- Improving environment in the rural electricity cooperative for women employees and lifeline customers.

Rupsha 800-Megawatt Combined Cycle Power Plant Project (NWPGCL)

- Supporting safe and inclusive education environment for schools nearby.
- Providing technical and skills training to avail of employment and livelihood opportunities with a focus on women.
- Improving social and gender awareness in the energy sector.

Southwest Transmission Grid Expansion Project (PGCB)

- Scholarship for student exchange program
- Scholarship program for continuation of study for engineers and staff



Thank you.

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