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UNFCCC COP 25 SIDE EVENT 13/12 2019 13:15-14:45 ROOM 6



Local Climate Solutions with Poverty Reduction in NDCs

Experiences from South Asia

by Sohel Ahmed, Grameen Shakti, Bangladesh



Proceedings: <http://www.inforse.org/cop25.php3>

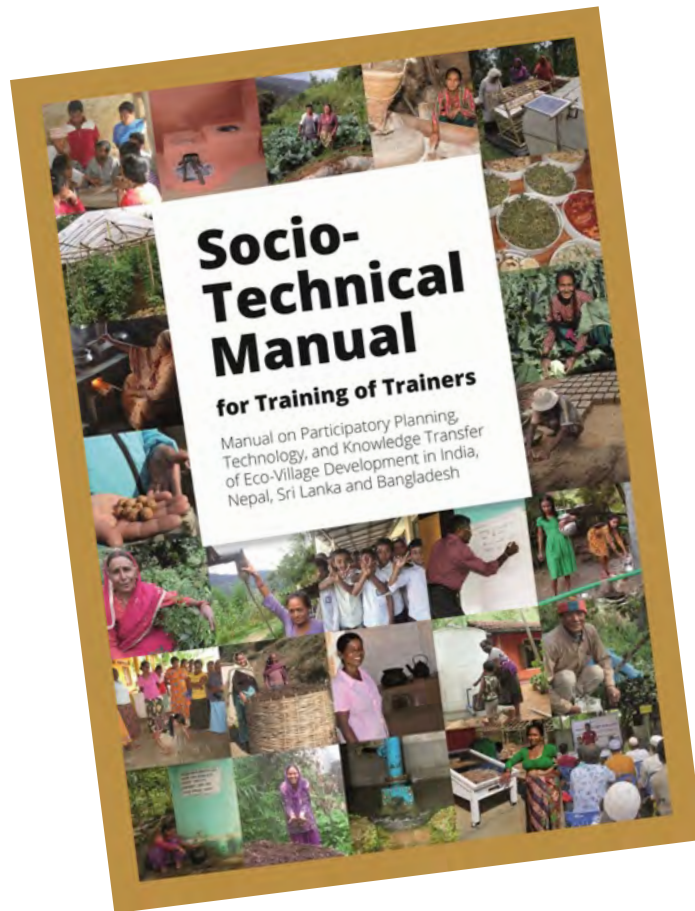


India Nepal Sri Lanka Bangladesh



INFORSE-South ASIA
International Network for Sustainable Energy

Basket of Local Solutions to Reduce Poverty: Eco-Village Development



Eco-Village Development
as Climate Solution
Proposals from South Asia



Publications:
Available in English,
Hindi, Bangla, Nepali,
Sinhala

More: www.inforse.org/EVD.htm

About us...

Bangladesh

4.13 Million SHS
installed by IDCOL

166 Million
Population

20+ Million
Beneficiary of SHS

470 KWh
Per Capita Consumption

605 MW
Renewable Energy

90%
Access to Energy



Grameen Shakti

Grameen Shakti



Initiation

1996

Founder

Nobel Laureate

Prof. Muhammad Yunus

Our Programs



Solar Home System

1,80,000

(30% World share)



Improved cook stove

1,000,000

(35% national share)



Biogas Plant

35,000

(40% national share)

****14,00,000 CO₂ reduction/annum**

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

Grameen Shakti, in association with INFORSE is implementing **“Eco-Village Development”** Project in Bangladesh, Since 2015. This is multi-country project comprises of Bangladesh, India, Nepal & Sri Lanka



Grameen Shakti

Eco-Village Development



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**



From a basket of tools comprising different Renewable energy technologies, Grameen Shakti has implemented following solution

1. **Solar power pump (drinking water)**
2. **Solar Street Light**
3. **Biogas plant with Low cost Bamboo made slurry pit**
4. **Retained Heat cooker**



EVD Village meeting



Community was engaged

- ❑ *for* Need assessment
- ❑ *for* Selection of the right solution
- ❑ *in* Implementation phase
- ❑ *for* post implementation Assessment



Discussion with the community people

Solar Homes System

Solar Home System (SHS) is a off-grid solution distributed through “pay-to-own” program scheme

4.12 Million benefiting 20 million people

Direct Impact

Income generation

- Shops/business/trade can run for extended hours
- Solar light facilitate Woman to produce handicrafts/similar things

Job creation

- Thousand of green jobs created, for manufacturing, distribution, installation and after sales services of SHS

Indirect Impact

Education

- In thousands of villages, kids can study after dark. Education improves social-economic status



Solar Irrigation System



Bangladesh has ambitious plan to replace diesel run water pumps with solar irrigation systems (SIS)

*1500 SIS has been installed already,
with a target to install 50,000 SIS by 2025*

Direct Impact

Income generation

- Irrigation is a key firming component for crops cultivation
- Stable rate of solar irrigation contributes to competitive cost of cultivation

Stable price of staple food

- Ensuring required yield lead to adequate supply & economic price

Enhance agriculture production

- SIS ensures irrigation for cultivation in many remotest corners of the country

Job creation

- Thousand of jobs created for installation and operation of SIS



Improved Cook Stoves (ICS)

ICS facilitate efficient cooking conserve use of biomass and improve IAP (Internal Air Pollution)

So far around 2 million ICS distributed in Bangladesh

Direct Impact

Competitive cost of cooking

- Reduce consumption of fuel results in cost saving

Reduction in Health Service cost

- Reduced IAP results in less expense on Healthcare service

Job creation

- Thousand of green jobs created, for manufacturing, distribution, installation and after sales services

Indirect Impact

Productive activity

- Due to time saving, woman can get engaged in different productive activities



Biogas



Biogas plant is a combined solution for waste management and for facilitating clean cooking

around 80,000 Biogas Plants distributed in Bangladesh

Direct Impact

Zero cost of cooking fuel

- Cooking is done from the own Biogas plant

Income from Organic fertilizer

- Slurry from biogas digester is a great resource of organic fertilizer with good monetary value

Job creation

- Thousand of jobs created, for sales and construction of biogas plant

indirect Impact

Productive activity

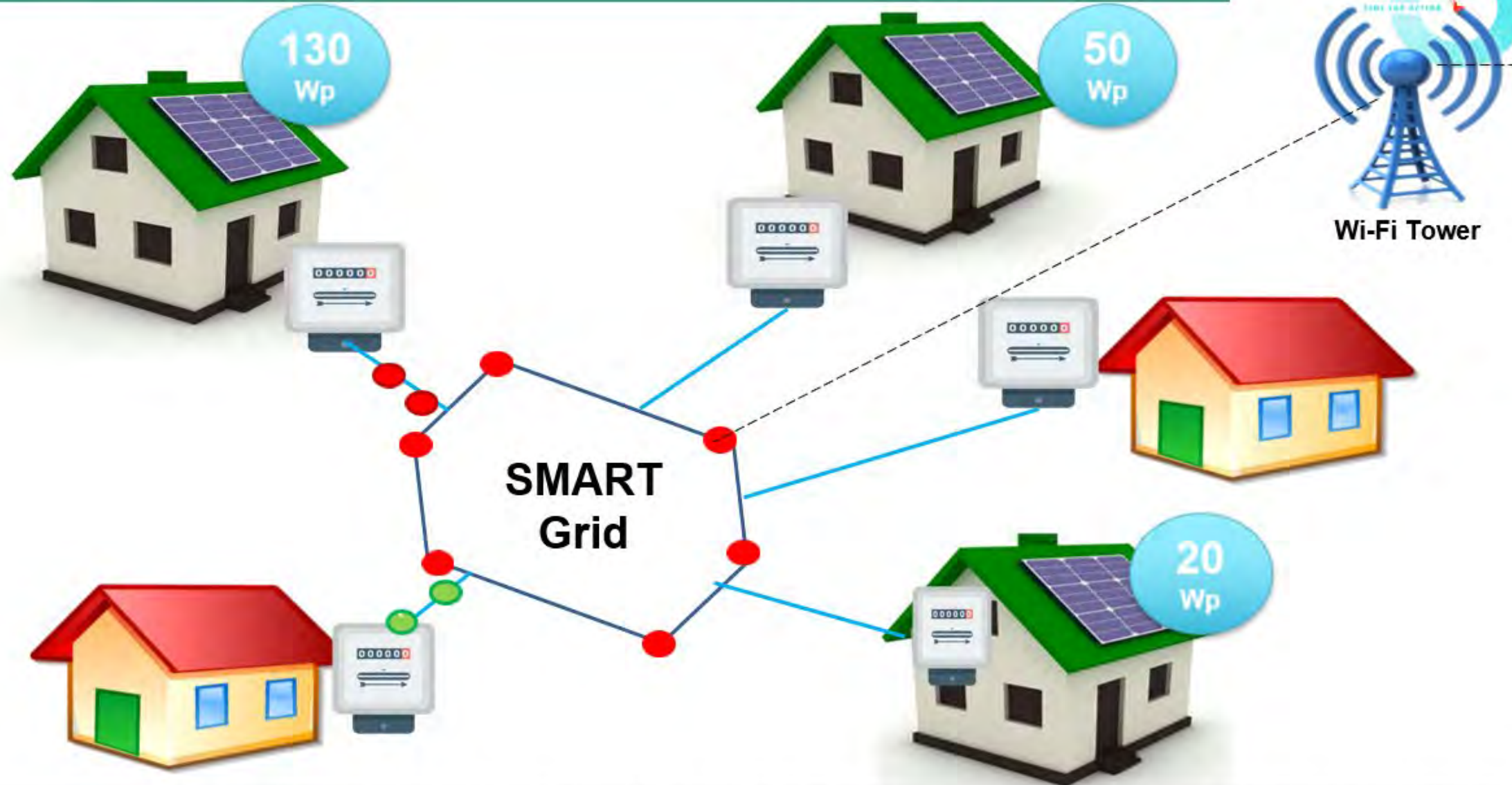
- Due to time saving (faster cooking and less blackened utensils), woman can get engaged in different productive activities



UN DESA Project



UN DESA Project



COP25
CHILE
MADRID 2019
UN CLIMATE CHANGE CONFERENCE

Solar Peer-to-peer Energy Trading



Grameen Shakti is implementing peer-to-peer energy trading Solar Grid for UN DESA to develop the scale-up model

*the project will establish **100 SMART grids**, benefiting **15,000 people***

Direct Impact

Better Affordability

- People get access to electricity with very low upfront cost

Better Availability

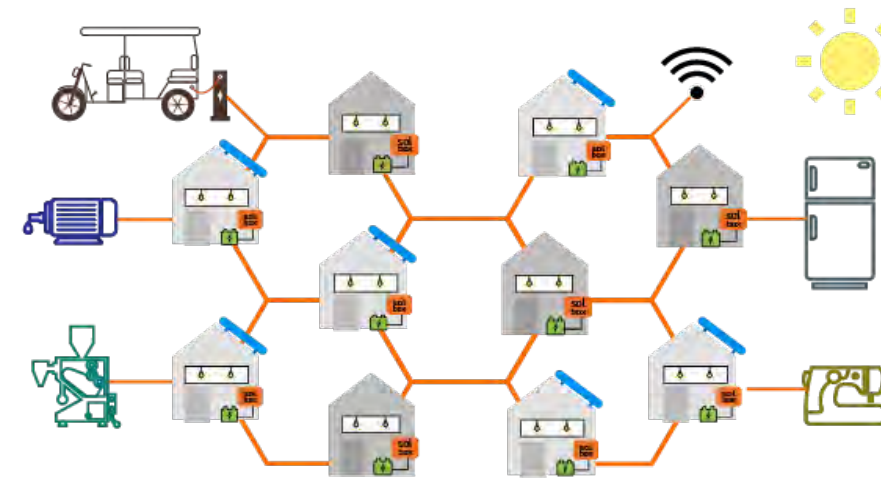
- Better availability of energy increase efficiency in trade and business

Extra Income

- Income generation from selling of surplus energy

Productive energy use

- Income generation from Productive Use Appliances



Indirect Impact

Education

Increase in access to electricity, contributes to education



Contribution of GS to Mitigation

1,711,529 SHS reduce consumption of **184,845,132** Litre of Kerosene, and contribute to reduce **397,417** Ton CO₂, every year



952,022 ICS reduce consumption of **856,820** Tonne of wood, and contribute to reduce **890,862** Ton CO₂, every year

34,437 Biogas Plant reduce consumption of **59,683** Tones of wood, and contribute to reduce **124,069** Ton CO₂, every year



THANK YOU

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