

INTREGATED **WATER & ENERGY** SOLUTIONS IN BANGLADESH

An Intervention Through “Peer-to-Peer” Solar Energy Trading

Sohel Ahmed

Managing Director of *Grameen Shakti*



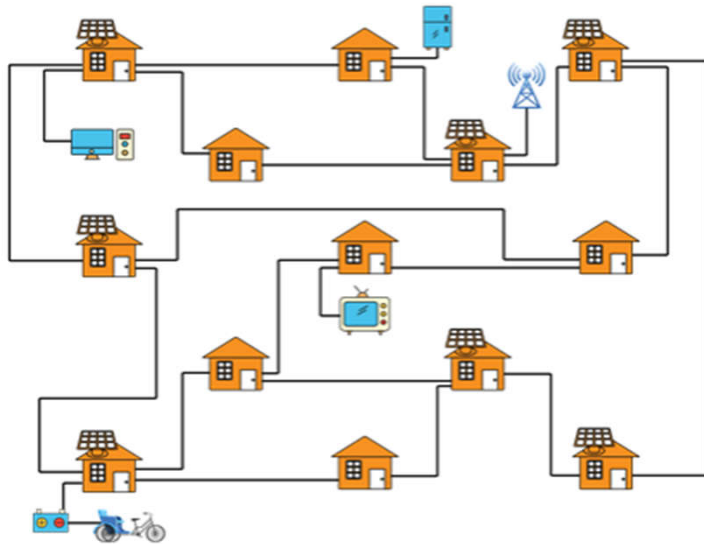
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Create a network. Share electricity.
Brighten the future

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OUR HOMEGROWN SOLUTION

PEER-TO-PEER SOLAR MICROGRIDS



*A platform where solar home system users and non-users
can exchange electricity seamlessly*



PRODUCT



SOLbox 3.1



SOLbox NG (Q1 2021)



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- 524 SOLboxes across
22 P2P microgrids
under the UNDESA
“Solar PV Program for
Rural Areas”

- Access to 2000+
beneficiaries



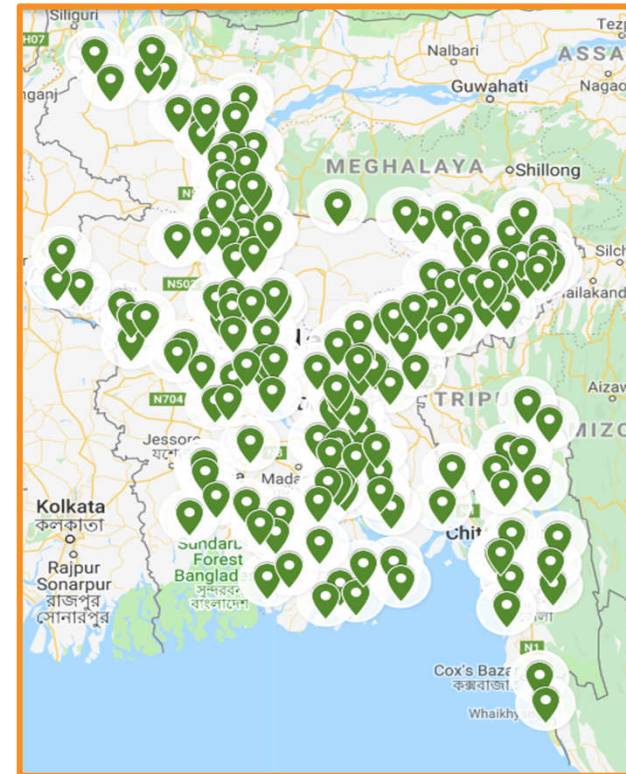
United Nations
Department of Economic and Social Affairs



UN DESA ENERGY ACCESS SCALING



Map of Bangladesh showing all **23** locations of **UNDESA's** microgrids



Map of Bangladesh showing all **77** potential location for **UNDESA's** future microgrids

THE IMPACT

1 NO POVERTY



84% of end-users live on less than **USD 5 per day**

600+ **households**, including >**1,000 women** access **75 MWh** of additional energy, valued at **USD 75k**

Selling excess energy of over **24 MWh** customers earned additional income worth approximately **USD 16,177**

7 AFFORDABLE AND CLEAN ENERGY



Serving over **4,000 beneficiaries** with access to clean energy

5 GENDER EQUALITY



40% of our beneficiaries are **women and children** who benefit most of the access to electricity

13 CLIMATE ACTION

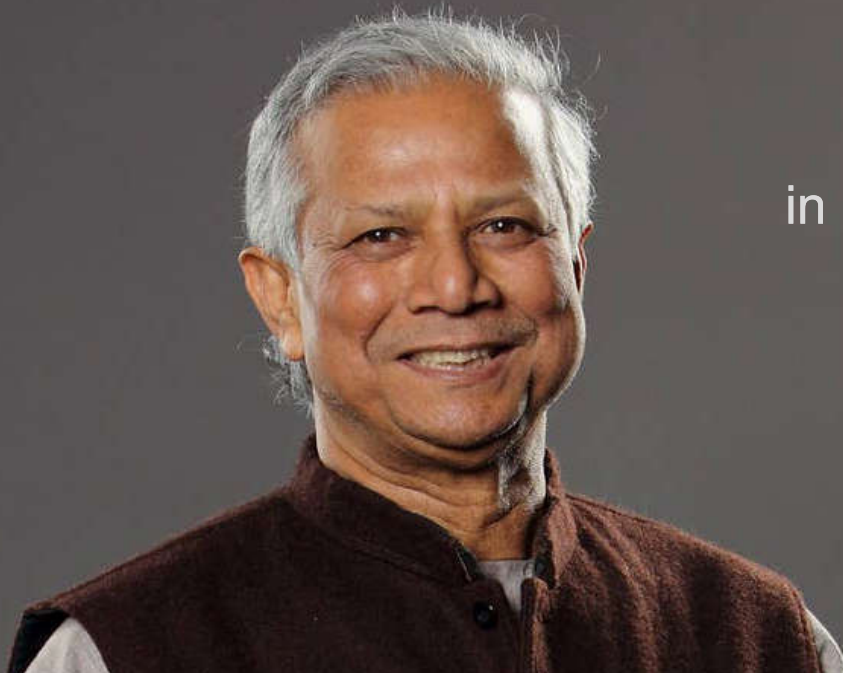


Reduced over **50,000 kgCO₂e₂** against clean energy consumed over grid energy





Grameen Shakti



Nobel Laureate
Prof. Muhammad Yunus
established **Grameen Shakti**
in **1996** with the Objective of providing
Access to Energy

Productive Use Appliance

Surplus energy of SHS are utilized to run different productive use appliances (PUAs) for various income generating activities.

Through UN DESA project we are introducing different PUAs

- 1) Solar Water Pump
- 2) Egg Incubators
- 3) Rice Huller
- 4) DC fridge
- 5) Sewing machine



DC Water Pump



DC Egg Incubator



DC Sewing machine



DC Rice Huller



DC Fridge

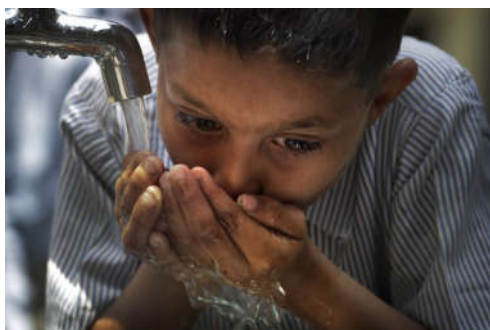
Energy & Water

Water Purification

Impact

- Reduced water borne disease
- Better Health

(In Bangladesh, 60% of the population has to endure unsafe drinking water
-source: WHO)



Household pump

Impact

- Reduced pressure on utility grid
- Proper Hygiene & sanitation

(Daily 15,000 MWh of electricity is consumed by the households to get access to water)



Drip Irrigation

Impact

- Income generation
- Livelihood improvement

(Currently, 1.34 diesel pumps in Bangladesh consumes 1.2 billion USD of diesel & causes 1,250,000 tCO2 emission/annum)

GS in Solar Irrigation



400
Solar Water Pump with
16MW solar array

6 CLEAN WATER
AND SANITATION



115,200 mil liter
Water/annum



375000 liter
Diesel Fuel replacement

7 AFFORDABLE AND
CLEAN ENERGY



22,000 acre land
coverage



2,000 MT CO₂
Reduction/Annum



54 mil kg
paddy production

COVID Responses

Relief Distribution

3,000 Beneficiaries



35,000 mask distributed

Mask Distribution

Energy Entrepreneur

Creating entrepreneurs to recover from COVID effect



Thank You!



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