

WHY AREN'T WE ADOPTING RENEWABLE ENERGY

Large initial investments
Renewable energy has a comparatively higher starting cost for the power that is to be yield.

Dwindling oil price
Due to sudden drop in fossil fuel globally, it is no much cheaper to produce electricity or energy.

Lack of suitable land area
Bangladesh is extremely burdened with high population for which we simple don't have suitable land area to support enough dedicated renewable energy harnessing infrastructure.

Dependency on nature
Most of the renewable energy sources are dependent on the mercy of mother nature hence somewhat unreliable.

High Transmission Costs
Renewables energy also charges higher transmission costs than conventional technologies and may be subjected to other discriminatory grid policies.

Market Transactions Barrier
Small projects have high transaction costs at many stages of the development cycle. Renewable energy technologies face considerable barriers in market transactions.

High Financing Costs
Renewable energy generators and customers may have difficulty obtaining financing at rates as low as may be available for conventional energy facilities.



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RENEWABLE ENERGY

SECTOR OF BANGLADEH

TOTAL INSTALLED CAPACITY

12,071 MW

RENEWABLE ENERGY

3.40%

of the total installed capacity of Bangladesh

MAX. AVERAGE OUTPUT DELIVERY CAPACITY

6,775 MW

BANGLADESH'S ACHIEVEMENT IN RENEWABLE ENERGY

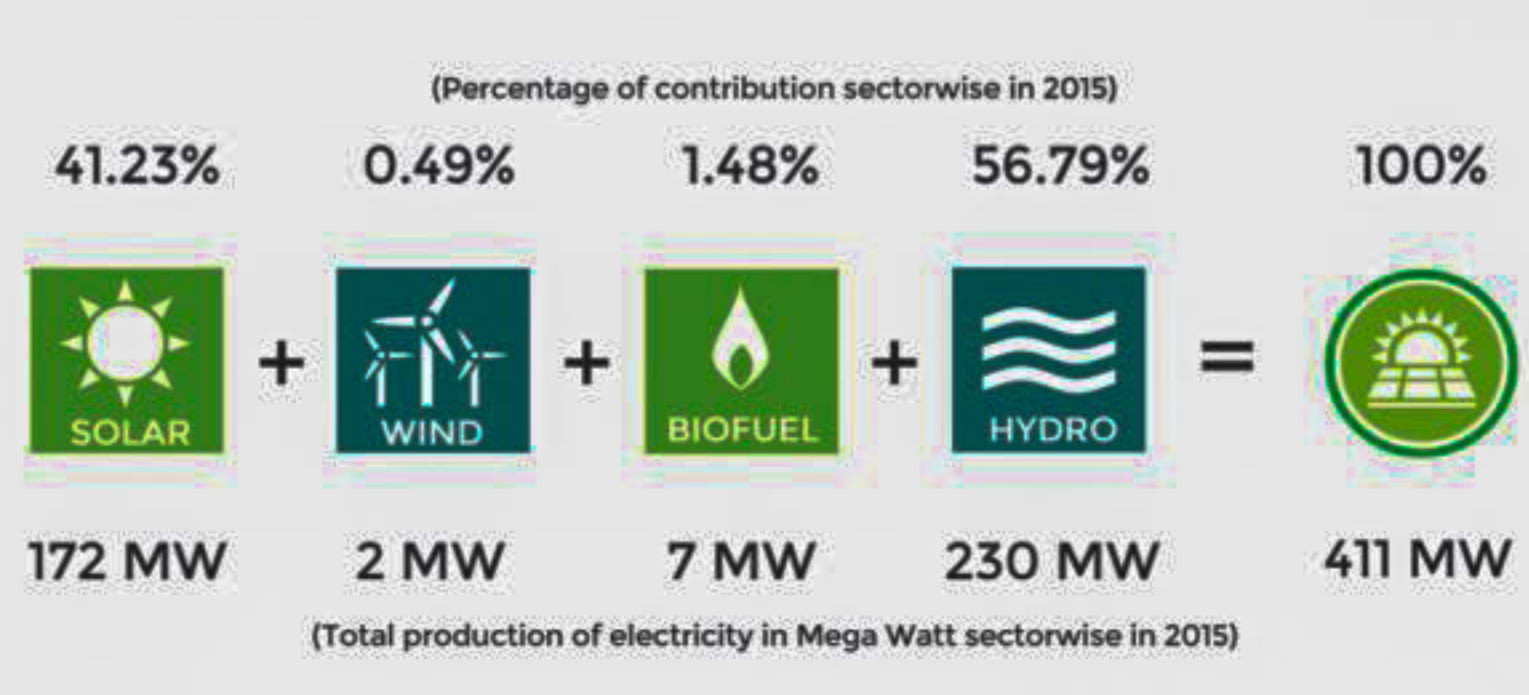
13% of the total population now covered by IDCOL SHS

IDCOL, which began the solar home system project in 2003, has installed 4.3 million households till Dec 2015 - (12 percent of total population)

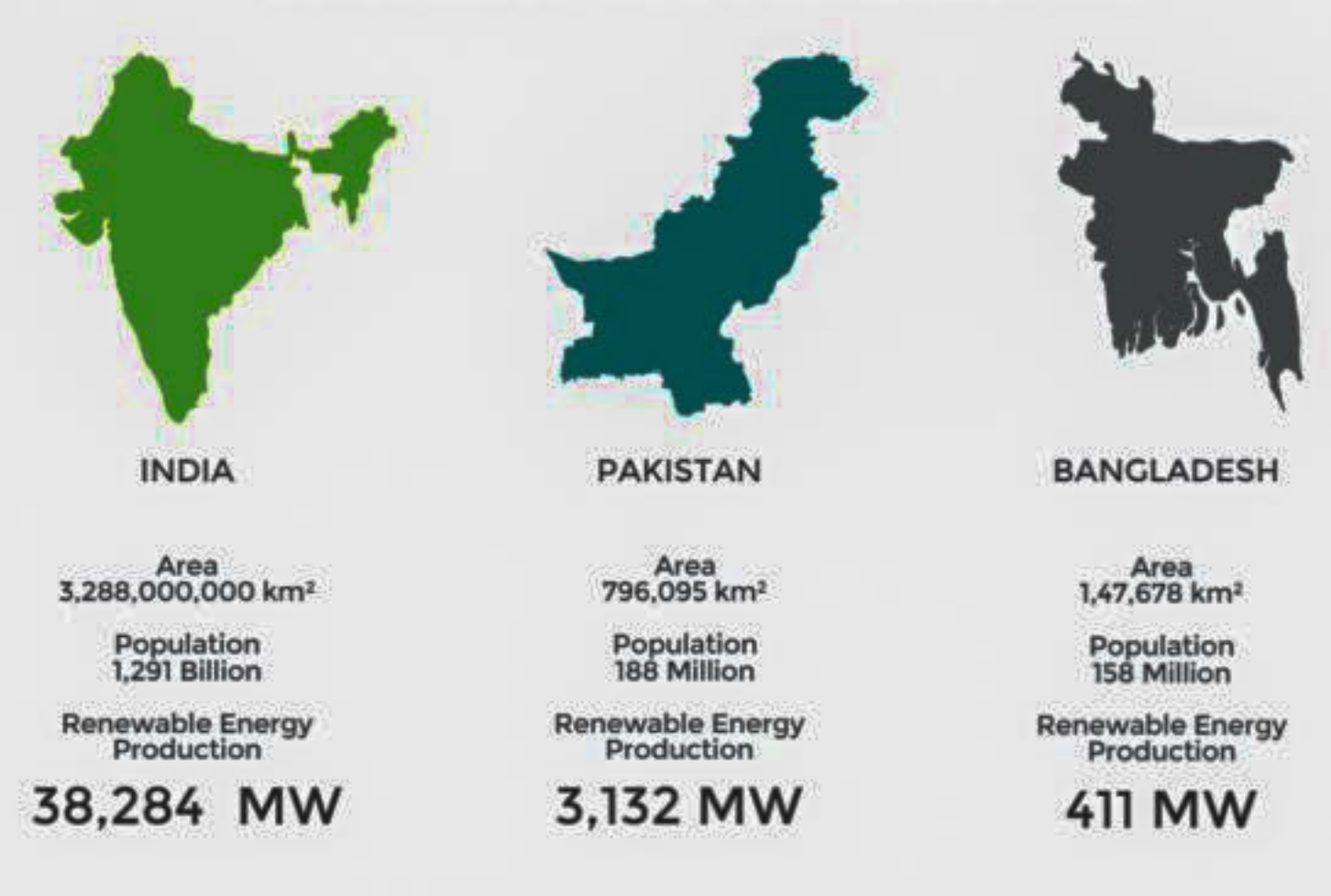
Bangladesh has become the first country to get funds from the United Nations for its fast growing solar home systems

UNFCCC issued 395,286 carbon credits worth €3.56 million to two Bangladeshi organisations: IDCOL & Grameen Shakti

SOURCES OF RENEWABLE ENERGY IN BANGLADESH



COMPARISON WITH OUR NEIGHBOURS



Feed-in-Tariff (FITs): Rays of hope for renewable green energy

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Bangladesh has been experiencing a huge gap between supply and demand of electricity; 40% of the population still do not have access to electricity. The majority of rural population have been relying on biomass fuel broadly. Electricity is the key to economic growth and development. Bangladesh is an energy starved country with only 321KWH/capita/year electricity use. The per capita energy use of us is much lower compared to neighbouring India and that of Pakistan as well.

Bangladesh has been making significant progress within the promotion of its electricity generation in recent years comparing to the recent past. There has been a paradigm shift, from a traditional centralised approach of electricity generation towards a public private sector energy development through where Independent Power Producers (IPP) has been playing the key role. The mechanism has resulted into a generation of almost 4700 MW of electricity. Likewise, the country has made an essential basis for the advancement of renewable energy fitting to the development where the main means of power has been biomass. The good news is this - efforts of renewable development to electrify rural homes through multilateral development funding has resulted into development of 135 MW energy from solar power alone. Since energy is the real currency for development we are in a serious need to develop our electricity and other form of commercial energy. As of September 2015, Bangladesh Power Development Board (BPDP) has managed to supply 11,088 MW of Electricity including its imported 500MW.

The government has a commitment to develop 5% share of energy through development of renewable energy sources by this year; and 10% by 2020. Solar energy development has been a great success story in rural development. However, the challenge is to reach up to the target of renewable on the mentioned time frame. In order to reach the target, there is a need of development programmes in cities where development of solar energy needs a big push from government, financial institutions, donor aided funding. The policy tool feed-in-tariff (FITs) is yet to come into force although the draft document has been done so far. Since it was supposed to come into force this June hope still remains that we will see the gazette notification soon.

Feed-in-tariff (FITs) has been a proven policy tool to develop renewable energy both in developed and developing countries. FITs is indeed a policy mechanism, which is specifically

designed to accelerate investment in renewable energy technologies by providing them a fee or tariff above the retail rate of electricity. It helps to encourage the use of new renewable energy technologies often from low carbon sources: such as wind power, biomass, hydro-power, geothermal power, tidal power and solar photo voltaic. Also, highlighting that technology such as wind power, for instance, are awarded a lower KWH price, while solar and tidal power are offered a higher price. Thus FIT helps by offering a higher price rather than paying equal amount in market rate. Reflecting the cost higher at the moment. It also provides an offer for long term contracts to green renewable energy producers typically based on the cost of each technology. The contract for majority of sources is usually 20 years, while for solar, it is 25 years. Therefore, the goal of FITs to allow reasonable tariff for different sources of green renewable at different levels of operations. Although generally

speaking without considering sustainability for economy and environment these sources are costlier than that of the traditional carbon based or other risky nuclear sources; nonetheless this green technology builds up economy increasing small entrepreneurs and employment, increasing electricity, helps environment and helps to offset carbon thus helps in climate change challenges mitigation.

Thailand has approved its FITs in 2006; while India in 2010, Uganda in 2011, China in 2011, Indonesia in 2012, The Philippines in 2012 (got approved in 2008 but implemented in 2012). They want fixed FITs regime for solar in India; otherwise solar project would lose its viability. Although having FITs in place, India has an auction system. India has reached a significant way forward (3000 MW) but still banking sector want reform in FITs by introducing fixed FITs regime with a 25-year contract. The Indian Prime minister also suggested a move from an auction

based to a fixed FITs in recent years. The global experiences have suggested that 70% of the renewable projects have been sustainable. Fixed FITs therefore, helped countries of Europe and North America to accelerate the investment in renewable. Germany for example, almost reached 30% share from renewable is a landmark. Majority of these country put solar tariff 20 cent US or above in FITs. It is worth mentioning that Germany, through its innovative approach has seen successful growth of renewable, from 6% in 2000 to 30% in 2014; the global leader in developing renewable has turned itself into the first major renewable economy where wind power comprises 9.7%, Solar 6.2%, Biomass 10% and hydro 3.5%. In addition, large number of people have been employed in this sector. Briefly speaking in Germany, 1.5 million PV systems have been installed so far ranging from solar rooftop to solar park. Germany as of June 2015, generated 38,850 MW electricity from Solar alone which is

ahead of China, Japan, Italy and U.S.A. Growth of Solar and other renewable in India is notably high. They have added 4089 MW in 2014-15 more than its targeted growth.

In Bangladesh there is a limited chance to boost renewable energy other than solar at the moment. Hydro has got some prospect for 5-10 MW small projects identified; while Sangu 140 MW and Matamuhari 75 MW having potential respectively. Biogas has some limited prospect. Prospect of Wind energy and its growth still depending upon the hard data which is expected to come out briefly; while only operational wind turbines are in Feni and Kutubdia. Therefore, government commitment of the targeted growth for renewable will be largely based on solar energy. The possible avenues been targeted such as off grid home systems in rural Bangladesh (successfully being implemented with IDCOL). Solar Irrigation largest

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