

DEVELOPMENT OF RENEWABLE ENERGY SECTOR IN BANGLADESH: IS THE GOAL ACHIEVABLE?

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***Abstract-** Bangladesh is a small country with a huge population of 154.7 million (2013 data). Due to increasing population, economic and industrial growth, and aspiration for better living standards, the demand for energy is increasing day by day. Natural gas and oil are the main sources of primary energy supply. In Bangladesh, electricity is mainly produced from natural gas, which is accounted for 63% of the total installed electricity production (11,877 MW), followed by furnace oil (21%) and diesel (8%). The unsatisfied demand of electricity is increasing alarmingly which causes load shedding. Only 53% of the population has access to grid electricity. Areas that are not connected to the national grid, mainly use stand-alone diesel generators for electrification purpose. However, a large number of solar home systems are in operation in the grid remote areas around the country. Combustion of fossil fuel releases greenhouse gases (GHGs) into the atmosphere which is a big environmental concern worldwide. In Bangladesh, power sector is responsible for producing 40% of the total CO₂ emissions. The country already started to face problems due to global warming. To save the environment and supply electricity to the mass people who do not have access to grid electricity, it is very important to consider the alternative renewable energy sources. Bangladesh government has a plan to generate 10% of the total electricity from renewable resources (e.g. solar, wind, biomass, hydro, etc.) by 2020. The keynote speech will cover the whole power sector of Bangladesh, especially the renewable energy projects such as solar home system, solar irrigation, electricity from biogas and biomass, wind energy, hydro, mini and micro-grids, etc.*

To understand the environmental footprint of power generation from different fuel sources, a study has been conducted.

Keywords: Power generation, Renewable energy, Carbon footprint