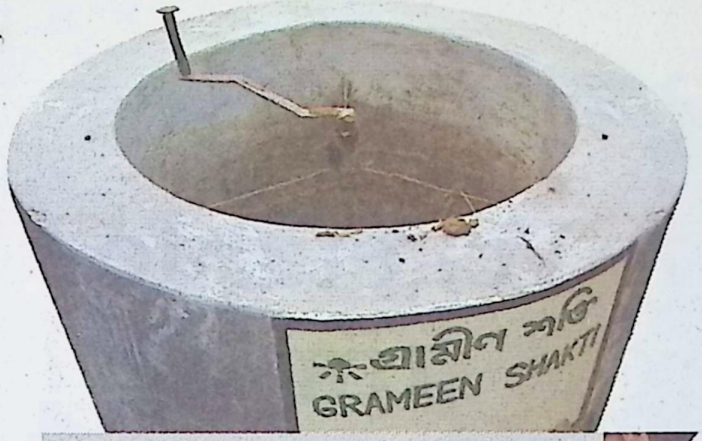


Green Energy Revolution of Grameen Shakti

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THE non-renewable energy resources that we have been using for decades after decades on the planet are now running out. Moreover, the traditional hydrocarbon based energy sources like fuel or coal are degrading the environment continuously. Hence, one of the biggest challenges the human race faces today is finding and using alternative energy sources which will fulfil our energy demand in the future without degrading the environment. Green energies such as wind and solar are the sources of energy that are considered to be environmental friendly and sustainable. Some developmental organisations and private sector entrepreneurs are working on introducing some alternative energies and technologies in Bangladesh. The *Grameen Shakti (GS)*, a sister organisation of Grameen Bank, has been trying to introduce green energy since 1996 and became a successful pioneer in sustainable energy revolution.

I had a dream to work on the alternative energy sources, and thus I wanted to visit some successful project areas to attain knowledge on the green energy practices in Bangladesh. I was given the opportunity to visit one of GS's branch offices in Singair, Manikganj on 9 April with two faculty members and a group of students from the School of Environmental Science and Management (SESM) of Independent University Bangladesh (IUB). It was an interesting and successful field trip as we gained knowledge on some of their energy projects, especially the solar energy and organic fertilizer.

After a short introductory briefing, the branch manager took us to an ideal house to visit a biogas plant which was initiated by GS. The person in-charge gave us a tour of the plant and explained how the biogas plant works. Cow dung is collected from a cattle farm located inside the farm house, and then it is used as raw material in the biogas plant. The plant is divided into three main parts- raw materials mixture chamber, underground tank for processing the biogas, and another separate tank for collecting the residue. The dry residue is used as fertilizer in agricultural lands and food for the pond fish. The man uses that biogas for cooking purposes and sells the extra gases to the villagers.

Then, we were taken to visit the solar energy project in the local bazaar. From villagers to shopkeepers, everyone is interested in solar energy as a viable energy alternative to sustain energy demand. Most of the villagers have already set up the solar energy plants and are benefiting from this source of energy. GS offers different solar panel packages ranging from Tk. 9,500 to Tk. 68,000. The 10 watt power covers 2/3 LEDs (a special type of energy efficient lighting), while the 130 watt power covers 11 tube lights and 1 black and white television. The villagers use this solar system usually during summer, and particularly at night when the electricity outage affects their daily lives.

In conclusion, GS provides alternative energy technologies which are cost effective and affordable to the rural people. They have developed an integrated and sustainable model for expanding biogas program. This biogas technology can be used to implement a sustainable waste management program for rural and urban areas, as wastes of all sorts are transformed into biogas or slurry. The solar panels have become increasingly popular among villagers because they do not need to pay any monthly bills, fuel costs or maintenance costs. Moreover, it is easier to install anywhere and barely needs regular maintenance. The only negative impact I have discovered is the lack of electronic waste disposal system that are coming from the electronic equipments using for solar energy. However, GS gives the rural people a chance to improve their quality of life and also establishes income generating activities.

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