**TECHNICAL STUDY ON BIOGAS PLANTS INSTALLED IN SOME SELECTED AREAS IN BANGLADESH**



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**LIST OF ABBREVIATION**

|  |  |
| --- | --- |
| Abbreviation and Symbol | Elaboration |
| % | Percent . |
| *et al.* | And his associate. |
| CVASU | Chittagong Veterinary and Animal Sciences University. |
| Cft | Cubic feet (28.3 liters) |
| BDT | . Bangladesh Taka |
| NGO | Non Governmental Organization |
| HH | House hold |

**ABSTRACT**

The overall objective of the proposed study was to conduct a technical review of existing biogas plants constructed across Bangladesh over the past years to facilitate the preparation of implementation plan for the proposed National Domestic Biogas Programme. The field study was carried out during the period January 17 to September 17, in 8 randomly sampled biogas households from three different districts. Analysis and interpretation of the result have been done with the data and information from only eight households. The average family size in studied households was 7.25, with a maximum of 15. The average land holding size of 5.25 acre, average cattle holding of 31.5 indicated that biogas plants have been installed by relatively well-off peoples in the society. Economic benefits including saving of time and money, environmental benefits, availability of subsidy and health benefits including the reduction of smoke-borne diseases were the main motivational factors for the users to install biogas plants. The average size of biogas plants was found to be 8.75 m3  gas production per day, which is rather oversized if viewed from domestic purpose. The cost of installation ranged from an average of BDT 13575 for 100 cft gas producing plant to BDT 30500 for 300 cft size. 94% of the total plants were constructed without taking loans. Taking loan was not a common practice and the reason mentioned for not taking loans were good economic conditions (44%), attitude against the philosophy of taking loans (21.5%), cumbersome process of loan sanctioning (15%), higher interest rates (3%), lack of collateral to fulfill the requirements of credit institutions (1.5%) and ignorance on the availability of loan facility Biogas plants in general were reported to have positive impacts on the users. The findings of the study revealed that average annual saving of conventional fuel sources accounted to be: 84901.04 which is a significant amount.

**Key words**: Biogas, Biogas plant, Biogas slurry, Bangladesh.