

Environmental Concerns

In Bangladesh, 27 million cattle and buffaloes available produce about 24 million tons of dung annually (FAO, 1989), but the above quantity is to be utilized in integrated cultivation to maintain the soil health. The matter is to be considered very seriously for the future management of dung and poultry manure for environmental concern and sustainable farming in the country.

IDCOL (Infrastructures Development Company Ltd) has been implementing NDBMP (National Domestic Bio manure program) program with support from government of Bangladesh and SNV Netherlands. About 24 thousand bio gas plants have been constructed in Bangladesh by them and under this program 60 thousand bio gas plants were planned to be constructed during 2006 to 2011 but fell below the expectation.

In Bangladesh major food crops tantamount to 3 million tons nutrient removal annually which is alarming for causing infertility in the soil? Depleted fertility stands against achieving a good return on even adapting intensive cultivation. Hence use of cow dung and poultry manure along with inorganic fertilizer should be the common practice in improving the soil and balancing other macro and micro elements needed by plants. Information on use of bio slurry on crops is inadequate showing the efficiency of cow dung and poultry slurries along with the optimum inorganic fertilizers can bring a good result.

Including 24 thousands set by IDCOL, a total of more than 25 thousand bio gas plants have been established by different agencies in different parts of the country for utilization of bio slurry. Researchers

Moreover, use of organic fertilizers make a gradual shift towards

are mostly based on crop production and animal husbandry (live stock) in an instigated way, hence bio gas has a potential chance to provide them with less expensive fuel improving their livelihood. The objective of NDBMP and IDCOL is to promote development and disseminate domestic plant in rural areas with ultimate goal to develop and establish a sustainable and commercial biogas sector. The achievement up to 2012 as depicted, construction of 25000 domestic biogas plant and is running smoothly in all the Districts of Bangladesh and by the end of phase 1 it is expected to reach up to 32000 bio digesters. Also planning is going ahead for the establishment of a market based biogas sector in view of the 95% of the plants in operation. SNV – IDCOL has an ambitious marketing program for the bio digester users should

with concept of bio slurry. 65 trials were not conducted for this reason. The concept of bio slurry as a nutrient.

Bio-slurry project was started in the month of November which was one month delay from starting rabi season. As a result, some of the on farm trials were not conducted. So, the analyzed initial soil and manure sample were less than the planned number of samples.

Conclusion

Since this biofertilizer in Bangladesh is increasing very fast in an alarming speed we must motivate the growers and farmers to use

training were conducted during the phase II. The details of training are given in Table 6.

Future Extension Program in Bangladesh

- Bio gas extension program (CD), Bangladesh:** Bangladesh has a long history in bio gas extension program since 1972, which started experimenting under the auspices of Bangladesh Agricultural University Mymensingh, followed by BARD BSCIR on a pure primary Experimental basis. A part of their research work and their adopted technology for the utilization of farmers showed a very poor picture up to 1984. Eventually putting the bio gas program in harness actually Govt. started this extension program in 1995 that continued by SNV which showed a ray of hope for its performance of the years and helped the rural farmers depending on the cattle live up to certain number which felt below the expectation giving rise to the cost analysis for consumptions and domestic level. Meanwhile, other NGOs showed their interest to participate in this ongoing programme like Grammshakti and other POs and Govt.
- Current Bio gas extension program:** The idea of bio gas extension program was taken by NDBMP under supervision of IDCOL: who tried to develop and disseminate in rural areas and set a target for accumulation which during last five years could not materialize to higher point of expectation than what was forecast before the inception and on the probable users all around the village in this country could not properly appreciate the ambitious program and fell much below the optimum point. The Extension program later on was modified as a Bio slurry program which the rural consumers also accept to its innovation, so to say the SNV- IDCOL was trying to encourage the Govt. Agricultural Program under DAE to train its extension worker for reasonable explanation and made exploration of bio slurry to the rural users
- Present capacity position in Bangladesh:** Though the Pos are interest to build large number of plants in the country but they seldom have attainable targets yet program as ambition outlook concerned training the masons and supervisors to meet the sustainable plant required may require additional financial subsidy to reach a higher target. IDCOL and others Pos have a strong financial support who are leaders in this rural areas can play a role in developing is present infrastructure level along side with other perspective NGOs under integrated policy environment

project have been under taken by different NGO's and other organizations to help promote bio gas technology to every nook and corner of the rural Bangladesh, in spite of hardest challenge in restoring a forestation which is deforested every day by the people for their cooking device which is a very unhealthy sign for growing economic balance in the country. So we should try to encourage the rural people to curb down their dependence on fire woods for cooking and instead adoption of our ideas can play a very vital role amidst international energy crisis prevailing all over the world.

- Global energy demand continues to surge and is set to double in the first half of this century, thanks to improved living standards and development in emerging economics. Many of the world's remaining supplies of oil & gas are in harder-to-reach places such as under deep oceans or in the frozen Arctic. (Shell Oil).
- Besides, the basic mission to increase food growing to optimum capacity could reach substantial increase thereto using bio

slurry against all organic and inorganic fertilizers accruing much cost on the rural economy. In this context, I would like to mention that the concerned authorities already tried to adopt this biogas and bio slurry program in rural areas of Bangladesh but not properly ventilated till 2006 when SNV –IDCOL ventured forward to popularize the concept of biogas and bio slurry throughout the country to meet up the growing needs of gas and fertilizers friendly to our eco system already BARI has experimented this program for the last four years and reached a mile stone bringing its approval of BARC for bio fertilizer use. Data compiled by BAU, BARC, BARI and other ancillaries for fact findings and observations with a view to making the project a successful one considering the intensity of the situation about the crisis of energy ahead of us.

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