

## BIOGAS DEVELOPMENT

- Biogas is a clean, non-polluting and low - cost fuel. It contains about 55 to 75 per cent methane, which is inflammable. Biogas can be produced from cattle dung, human waste and other organic matter by a process called "anaerobic digestion" in a biogas plant. The digested material, which comes out of the plant is an enriched manure.
- The Ministry of Non-Conventional Energy Sources has taken up following programmes for development and harnessing of biogas potential in the country:-



*Deenbandhu biogas plant in village Batyam,  
District Pampupare, Arunachal Pradesh*

- **National Project on Biogas Development (NPBD)** for setting up of family type biogas plants
- **Community, Institutional and Night Soil based Biogas Plants (CBP/IBP/NBP) Programme**
- **Research and Development on Biogas Production and Utilization Technology.**

## **National Project on Biogas Development (NPBD)**

- **Caters to family type biogas plants.**
- **Started in 1981-82 with the following objectives :**
  - (i) To provide fuel for cooking purposes and organic manure to rural households through biogas plants;**
  - (ii) To mitigate drudgery of rural women, reduce pressure on forest and accentuate social benefits;**
  - (iii) To improve sanitation in villages by linking toilets with biogas plants.**
- **Indigenously developed models of biogas plants are promoted.**
- **States have designated nodal departments and nodal agencies for implementation. Besides, Khadi and Village Industries Commission, Mumbai; National Dairy Development Board, Anand (Gujarat), and national and regional level non-governmental organisations are involved in implementation.**
- **NPBD provides for different types of financial incentives including central subsidy to users, turn key job fee to entrepreneurs, service charges to State Nodal Departments / Agencies and support for training and publicity.**
- **Cumulative achievement is 35.23 lakh biogas plants up to 31<sup>st</sup> March 2003 against an estimated potential of 120 lakh biogas plants.**
- **An evaluation survey study conducted in 18 States involving a sample of 5,165 biogas plants by National Council of Applied Economic Research, New Delhi in 1995 indicated that on an average 87.5 per cent of biogas plants were in working order.**
- **Target for 2003-2004**
- **Various kinds of training programmes are supported.**

- **Biogas Development and Training Centres, functioning in nine major States, provide technical and training back up to State Nodal Departments and Nodal Agencies.**
- **Commercial and co-operative banks provide loan for setting up of biogas plants under Agriculturally Priority Area. National Bank for Agriculture and Rural Development (NABARD) is providing the facility of automatic refinancing to banks.**

There are fourteen manufacturers of **ISI marked biogas burners** in the country besides quality besides quality biogas lamps are also manufactured.

## Community, Institutional & Night Soil based Biogas Plants Programme (CBP / IBP/ NBP)

Caters to the needs of village communities and institutions.

Biogas is utilised for generation of motive power and electricity also.



*Institutional Biogas Plant(4x85 cub. m.) at Dakor temple committee, Gaushala*

- Started in 1982-83 and later on in 1993-94, a scheme of setting up of large sized biogas plants lined with community toilet blocks was added.

### **The objectives of the Programme are :**

- To recycle organic wastes for harnessing fuel-gas at community and institutional levels for various usages, including generation of motive power and electricity.
- To provide benefits of biogas technology to weaker sections of the society; and
- To recycle human waste through linking of community and institutional toilets with biogas plants for improving sanitation.
- **State nodal departments and nodal agencies** are implementing the programme.
- **Cumulative achievement is 3,902 plants up to 31<sup>st</sup> March 2002.**

**Financial Incentives being given during the year 2004-2005  
under NBMMP**

**(i) Central Subsidy :**

Category	Amount of Central subsidy per plant.
Scheduled Caste, Scheduled Tribes, desert districts, small and marginal farmers, land-less labourers, terai regions of Uttaranchal, Western Ghats and other notified hilly areas	Rs.3,500/- (Restricted to Rs 2,800/- for 1 Cu. M fixed dome type)
All Others	Rs.2,700/- (Restricted to Rs 2,100/- for 1 Cu. M fixed dome type)

- (ii) Sanitary toilet linked biogas plants :** An additional central subsidy of Rs.500/- per plant is given for linking plants with sanitary toilets.
- (iii) Turn-key job fee linked with three years free maintenance warranty :** A sum of Rs.800/- per plant is given in North Eastern Region States (excluding plain areas of Assam), Sikkim, Jammu & Kashmir, Himachal Pradesh and hilly districts of Uttar Pradesh, Andaman & Nicobar Islands and Lakshadweep whereas Rs. 700 per plant is given in all States.
- (iv) Financial support for repair of old non-functional plants :** Financial support limited to 50 per cent of the rate of central subsidy, as applicable for different categories of beneficiaries and areas, is admissible for repair and revival of family type biogas plants, which are at least five years old and which are in dis-use at present for want structural repairs.

### **Models of biogas plants approved for promotion under NPBD**

<b>Model</b>	<b>Approved capacity (cubic metres gas production per day)</b>
Floating Drum Type Biogas Plant - KVIC Model	1 to 10
KVIC Model with ferro cement digester and / or fibre glass reinforced plastic (FRP) gas holders	1 to 10
Deenbandhu Model	1 to 6
Deenbandhu in-situ model with ferro-cement	1 to 6
Pragati Model	1 to 6
Bag digester made of rubberized nylon fabric - Flxi model	1 to 6

**Annexure-VI****NATIONAL BIOGAS AND MANURE MANAGEMENT PROGRAMME  
MONTHLY REPORT FOR 2004-05**

The report must reach MNES by 8th of the month following the month under report;

1. Name of State/UT/Agency :

2. Report for the month of : \_\_\_\_\_

3	Physical progress	Annual Target	No. of plants completed					No. of plants under construction
			Upto previous month	During current month	Cummulative (upto current month)	SC	ST	
3.1	Family type plants							
	Name of Districts: i)							
3.2	Sanitary toilet linked cattle dung Plants out of 3.1							
	Total							