

**NO. 5-5/2009-BE**  
**GOVERNMENT OF INDIA**  
**MINISTRY OF NEW AND RENEWABLE ENERGY**  
**(BIO-ENERGY TECHNOLOGY DEVELOPMENT GROUP)**

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**BLOCK NO.14, CGO COMPLEX**  
**LODI ROAD, NEW DELHI-110003.**  
**DATED: 27<sup>th</sup> November, 2009**

To

1. State Nodal Departments - All States/ UTs.
2. State Nodal Agencies - States and Union Territories concerned.
3. Khadi and Village Industries Commission, Mumbai.
4. M.P. Rural Livelihoods Project, Panchayat & Rural Development Deptt., Govt. of M.P.
5. Biogas Development and Training Centers.
6. Indian Renewable Energy Development Agency (IREDA).
7. National Bank for Agriculture and Rural Development (NABARD).
8. Grameen/ Prathama Banks.
9. Financial Institutions.

**Subject:- Implementation of National Biogas and Manure Management Programme (NBMMP) during 11<sup>th</sup> Five Year Plan – Administrative Approval – reg.**

Sir,

I am directed to convey the sanction of the Government of India for implementing Centrally Sponsored Scheme – National Biogas and Manure Management Programme (NBMMP) during the remaining period of the 11<sup>th</sup> Five year Plan in all States and Union Territories. The programme forms part of 20-Point Programme. The detail of the programme are as follows:-

**1. Objectives**

- (i) To provide clean bio- gaseous fuel mainly for cooking purposes and also for other applications for reducing use of LPG and other conventional fuels;
- (ii) To meet 'lifeline energy' needs for cooking as envisaged in 'Integrated Energy Policy';
- (iii) To provide bio-fertilizer/ organic manure to reduce use of chemical fertilizers;
- (iv) To mitigate drudgery of rural women, reduce pressure on forests and accentuate social benefits;
- (v) To improve sanitation in villages by linking sanitary toilets with biogas plants;
- (vi) To mitigate Climate Change by preventing black carbon and methane emissions.

**2. Special and Innovative Features**

'Special and Innovative Features' of the programme during the remaining part of 11<sup>th</sup> Plan are given below:

- (i) Introduction of competitive bidding on pilot basis for setting up biogas plants with the recommended Central Financial Assistance as upper limit.
- (ii) Large scale installation of biogas plants with possible CDM benefits subject to a suitable tie-up and restricting per plant Central Financial Assistance to the existing level of subsidy applicable during 2008-09.

- (iii) Taking up implementation through Biogas-Fertilizer Companies/ Entrepreneurs (BGFCOs/BGFES), Banks, IREDA, financial institutions, Self-Help Groups, Cooperatives and NGOs in addition to State Government Nodal Departments/ Implementing Agencies and Khadi & Village Industries Commission (KVIC).
- (iv) Five per cent of proposed outlay to be used for establishing innovative models for financing and implementation.
- (v) Repair of the old non-functional biogas plants may be supported upto 5 percent of the outlay for the programme after, at least, five years of installation of such plants.
- (vi) Putting up of beneficiary- wise list of installation of biogas-fertilizer plants, on websites of the respective organizations, has been made mandatory.
- (vii) Focus on capacity building through various organizations.

### **3. Programme for remaining period of 11<sup>th</sup> Plan (w.e.f. 1st November 2009)**

#### **3.1 Physical targets**

During the 11<sup>th</sup> Plan the programme will be implemented with a physical target of 6.47 lakh biogas fertilizer plants at this stage. The details of year-wise physical targets/ achievement and financial outlay / expenditure for the 11<sup>th</sup> Plan are given at **Annexure-I**. State wise physical targets for installation of biogas- fertilizer plants the year 2009-10 are given at **Annexure-II**. Physical targets for organization of various types of training programmes are given at Annexure-III. Physical targets for installation of biogas-fertilizer plants for the year 2010-11 and 2011-2012 would be fixed in accordance with the demand and performance of various states and implementing agencies.

#### **3.2 Release of funds in advance**

The Central Financial Assistance (CFA) will be released for various components of the programme to the concerned State Nodal Departments (SNDs)/ State Nodal Agencies (SNAs) and other implementing agencies @ Rs.16,700/- per plant for NER States and Rs.10,000/- for other States at an estimated unit cost for advance release of funds per plant for the allocated target on lump-sum basis . The funds released as advance can be used for expenditure on Central Financial Assistance, turn-key job fee, administrative charges, publicity, training, etc. The Central Finance Assistance (CFA) will be released in two installments on the following pattern:-

- (i) Advance amounting to 50% of the Central Financial Assistance(CFA) corresponding to the allocated target, after adjusting the unspent balance, if any, will be made to all States and agencies after issue of the sanction order for physical targets and on receipt of U.C. for the previous releases.
- (ii) The balance 50% of the CFA will be released as second installment after the receipt of Utilization Certificate of the previous releases and receipt of audited Statement of Account up to previous to previous year and based on the satisfactory progress made during the implementing year.
- (iii) State Nodal Departments/ Agencies and NGOs should submit the claim for settlement to the Ministry on prescribed format given at (**Annexure-IV**) along with consolidated utilization certificate and audited Statement of Expenditure as soon as after the close of the financial year but not later than 30<sup>th</sup> June of the implementation year.

#### 4. Pattern of Central Financial Assistance (CFA)

Pattern of Central Financial Assistance (CFA) for different component of National Biogas and Manure Management Programme (NBMMP) is given below:-

**Table-I**

**Pattern of Central Financial Assistance under National Biogas and Manure Management Programme w.e.f Ist Nov. 2009 for 11<sup>th</sup> Plan**

Sl. No.	Items for Central Financial Assistance(CFA)	Family type Biogas Plants under CDM		Family type Biogas plants under NBMMP**	
		1 cum	2-4 cum	1 cum	2-4 cum
<b>A. Central Financial Assistance to beneficiaries of Biogas Plant (in Rs. per plant)</b>					
1.	NER States, Sikkim (except plain areas of Assam)	11,700	11,700	14,700	14,700
2.	Plain areas of Assam	9,000	9,000	9,000	10,000
3.	Jammu & Kashmir, Himachal Pradesh, Uttrakhand, Niligiri of Tamil Nadu, Sadar Kursoong & Kalimpong Sub-Divisions of Darjeeling, Sunderbans (W.B.) and Andaman & Nicobar Islands	3,500	4,500	4,000	10,000
4.	All Others	2,100	2,700	4,000	8,000
<b>B.</b>	<b>Turn-Key Job Fee including warranty for five years (in Rs. per plant)</b>	7,00		1,500	
<b>C.</b>	<b>Additional CFA for toilet linked Biogas Plants (in Rs. per plant)</b>	5,00		1,000	
<b>D.</b>	<b>Incentive for saving Diesel and other conventional fuels by using biogas in engines/ gensets and/ or biogas based refrigerators (in Rs. per plant)</b>	2,500		5,000	
<b>E.</b>	<b>Administrative Charges- for target range of plants (in Rs.)</b>				
1.	100-3,000	50,000@		1,00,000^	
2.	3,001-7,000	8,90,000#		10,50,000^^	
3.	Above 7,001	14,90,000\$		24,50,000 *	
<b>F. Training Courses (in Rs.)</b>					
1.	Users course	1,000		2,000	
2.	Staff Course	5,000		8,000	
3.	Refresher/ Construction-cum maintenance course	19,000		35,000	
4.	Turkey-key operator & management course for	38,500		67,500	

	workers of companies/ entrepreneurs		
<b>G.</b>	<b>Biogas Development &amp; Training Centers</b>	As per existing pattern	As per existing pattern
<b>H.</b>	<b>Communication &amp; Publicity –for target range of plants (in Rs.)</b>		
1.	Up to 1,000	1,00,000	1,00,000
2.	1,001- 10,000	2,50,000	2,50,000
3.	More than 10,000	5,00,000	5,00,000
<b>I.</b>	<b>Support for Repair of Non- functional Plants with the restriction of utilization of upto 5 % of the outlay of the programme in that year of the concerned State/ UT</b>	Nil	50% of applicable CFA category subject to sharing of 50% of the cost of repair by the beneficiary.

<b>Family type Biogas Plants under CDM</b>	<b>Family type Biogas plants under NBMMP</b>
@ Extra Rs.300 per plant in excess of 200 biogas plants.	** Maximum of 50% of the cost of the biogas plant for low cost models.
# Extra Rs.150 per plant in excess of 3000 biogas plants.	^ Extra Rs. 350 per plant in excess of 100 biogas plants.
\$ Extra Rs.100 per plant in excess of 7000 biogas plants & maximum of Rs.30 lakh.	^^ Extra Rs.300 per plant in excess of 3000 biogas plants.
	* Extra Rs. 250 per plant in excess of 7,000 biogas plants subject to maximum of Rs. 50.0 lakh.

## 5. Implementation

The programme will continue to be implemented by State Nodal Agencies, District Rural Development Agencies, other State Government Agencies/ Organizations/ Departments etc. However, within the State, the implementing agencies could also identify other organizations but which would function within their overall responsibility and coordination.

## 6. Biogas-Fertilizer Plant Models and Appliances

### 6.1 Approved Models of Family Type Biogas Fertilizer Plants

Appropriate models of family type biogas plants should be selected on the basis of preference of the beneficiaries and considering technical requirements, such as location, distance between kitchen and cattle shed, availability of water and feed-stock like dung, kitchen, loose and leafy biomass, sanitary and other biomass wastes. Approved models for such plants are available for 1 to 10 cubic metre capacities for fixed dome and floating dome type plants. The commonly used capacities of these models are 1-4 cubic metres. Pre-fabricated models of biogas plants are also available based on High Density Polyethelene (HDPE), Fiber-glass Reinforced Plastic (FRP) and Reinforced Cement Concrete (RCC) material in addition to ferro-cement and brick-masonry biogas plants.

. No.	Biogas Fertilizer Plant Models*	Specifications/ Ministry's letter No. and date
1.	<p><b>Pre-fabricated model Biogas Plants:</b></p> <p>i) Pre-fabricated RCC fixed dome model.</p> <p>ii) Pre-fabricated RCC digester KVIC model family type Biogas Plants.</p> <p>iii) Pre-fabricated HDPE material based complete Deenbandhu Model Biogas Plants.</p> <p>iv) Pre-fabricated BIOTECH make FRP Biogas plants.</p> <p>v) Pre-fabricated HDPE material based KVIC type floating dome Biogas Plants.</p>	<p>Ministry's letter No.13-10/96-BG dated 10-1-2002</p> <p>Ministry's letter No No.13-1/2007-BE dated 29.2.2008.</p> <p>Ministry's letter No No.13-1/2007-BE dated 3.09.2007.</p> <p>Ministry's letter No No.13-1/2007-BE dated 29.2.2008.</p>
2.	<p><b>Floating Dome Type Biogas Plants:</b></p> <p>i) KVIC floating metal dome type Biogas Plants.</p> <p>ii) KVIC type plant with Ferro Cement digester and FRP gas holder.</p> <p>iii) Pragati Model Biogas Plants.</p>	<p>Code of Practices (Second Revision), IS 9478:1989 of the BIS, New Delhi.</p> <p>Code of practice IS-12986:1990 of BIS, New Delhi.</p> <p>Code of Practices (Second Revision), IS 9478:1989 of the BIS, New Delhi.</p>
3.	<b>Bag Type Biogas Plants (Flexi model)</b>	Ministry's letter No.7-39/89-BG dated 14.7.95
4.	<p><b>Fixed Dome Biogas Plants:</b></p> <p>i) Deenbandhu Model with Brick masonry.</p> <p>ii) Deenbandhu ferrocement model with in-situ technique.</p> <p>iii) Prefabricated HDPE material based prefabricated dome for Deenbandhu Model family size Biogas Plants.</p>	<p>Code of Practices (Second Revision), IS 9478:1989 of the BIS, New Delhi.</p> <p>Ministry's letter No.13-11/99-BG dated 5-3-1999</p> <p>Ministry's letter No No.13-1/2007-BE dated 3.9.2007</p>

\*Newer Models would be added depending on technology development.

## 6.2 Appliances

ISI marked (BIS code IS - 8749: 1988) burners having a minimum of 55% thermal efficiency. Only double burner biogas stoves/ chullas will be provided under the programme.

## **7. Turn-Key Job Fee (TKJF)**

### **7.1 Turn-Key Job Fee for in-situ construction of Biogas Plants**

The Turn-key job fee is linked with five years' warranty for trouble-free functioning of biogas plants set up on turn-key basis. It is payable to corporate bodies, registered societies identified by the State Governments and approved trained entrepreneurs. This is subject to the condition that the turn-key worker would visit the plants twice in a year at least during the warranty period. Guidelines and procedure for payment of turn-key job fee for setting up family type biogas plants were issued to all the States and agencies vide letter No.17-4/82-Biogas dated 18<sup>th</sup> December, 1982, relevant extract of which are given at **Annexure-V** for ready reference. TKJF should be paid to the TKJF workers preferably through ECS or account payee Demand Draft/ Cheque only, it should be paid in Five installments. The first installment to be of Rs. 700/- in the first year and second, third, fourth and fifth installment @ Rs. 200/- each per year after completing the inspection and providing satisfactory warranty services.

### **7.2 Turn-Key Job Fee for Prefabricated Biogas Plants**

Turn-key job fee of Rs. 700/- only is payable for bag type digester made of rubberized nylon fabric ("Flexi" model), HDPE, FRP and RCC material based prefabricated complete family type Biogas Plants as it does not involve any supervision of construction and manufacturers are supposed to provide a guarantee for five years. However these plants do involve feeding, supervision for installation and guidance for operation and maintenance. For such prefabricated plants the turn-key job fee may be provided in three installments of Rs. 300/- in the first year and two installments of Rs. 200/- each at the end of second and third year for taking care of operation and maintenance problems.

## **8. Additional Central Financial Assistance (CFA) for cattle dung based biogas plants linked with sanitary toilets.**

The additional Central Financial Assistance (CFA) can be used only for meeting the extra cost involved in raising the toilet level, if required, and its connection with a biogas plant. However, SNDs/SNAs should ensure that plants are set up only after assuring the requirement and preparedness of the beneficiary to use biogas from the plant attached with the toilet and the biogas plants should be completed in all aspect. The targets for the plants are included in the over all targets mentioned at **Annexure-II**. States and agencies concerned with implementation of rural sanitation programme are requested to make effective coordination with the Departments/Agencies concerned at the State and district level in identification of beneficiaries for linking of biogas plants with sanitary toilets, wherever feasible.

## **9. Additional CFA for saving of diesel/ other Fuels by using Biogas based Engines/ Gensets/ Refrigerators**

The additional incentives will be given for purchase of biogas based engines/ Gensets (100% or dual fuel) and refrigerators, plastics or rubber balloons/container for storage and transportation of biogas from the site of the plant to the site of the engine subject to the condition that the cost of such appliances be equal or more than the CFA.

## **10. Training Courses**

State and agency-wise allocation of targets for Construction-cum-Maintenance/ Refresher training courses and users' courses are given in **Annexure-III**. The Fact Sheets for different types of training courses are given in **Annexure-VI to IX**.

## **11. Administrative charges**

The rate of Administrative Charges for SNDs/SNAs/ Implementing Agencies is linked with actual achievement. No Administrative Charges will be given for achievement of less than 100 nos. of biogas plants. The manpower required for the programme may be outsourced. The manpower engaged by SNDs/SNAs, KVIC and other Implementing Agencies should not be treated as employees of Ministry of New and Renewable Energy, Government of India.

## **12. Biogas Development and Training Centers (BDTCs)**

Biogas Development and Training Centers (BDTCs) are supported for providing technical training and monitoring & evaluation and preparation of technical booklets/ guidelines/ material support for quality implementation of biogas programme in addition to technology development. The financial break-up for all the BDTCs is given in **Annexure-X**. The BDTCs should engage manpower in project mode on contract basis for all the vacancies instead of appointment on regular basis and the manpower should not be treated as employees of Government of India.

BDTCs should submit their claims indicating training-wise details (viz: venue, periodicity, number of participants, expenditure incurred etc.) as also the number and names of manpower engaged, emoluments etc.

## **13. Communication and Publicity**

State Nodal Departments and Implementing Agencies may prepare standard publicity materials such as Do's and Don'ts, leaflets, booklets, posters, etc. for wider dissemination in the State availing the financial assistance. Broad items of publicity campaigns to be taken up by the States are: (a) advertisements in local dailies; (b) preparation and display of posters in Panchayat Offices and schools, Kisan Sewak Kendras; (c) booklets and Folders on Biogas for biogas users and for distribution during gatherings at exhibitions, fairs, etc.; (d) Local folk dances/ dramas/songs; (e) exhibitions and demonstrations including exhibits at Regional/District Rural Development Training Institutes; (f) documentary Films/ Video Films; (g) Wall paintings/ hoardings/ wall calendars; (h) participation in exhibition/fair, etc., including setting up of Biogas plants for demonstration; (i) Radio jingles/ TV spots in local language; (j) complaint cards to biogas owners; (k) evaluation of publicity campaign, etc.

## **14. Support for Repair of Old Non-functional Plants**

Support is provided for repair and revival of old family type biogas plants which are at least five years old and which are in dis-use at present for want of structural repairs, excluding replacement of gas pipelines, gas cock, burner, etc. The 50 percent expenditure of the repair of the old plant would be borne by the concerned beneficiary. The State Nodal Departments and Programme Implementing Agencies are required to carry out a detailed block/district-wise field assessment on the number of non-functional plants to be repaired and details of repair costs, along with expected contribution from the beneficiaries, support from the State Government and financial support needed from MNRE. SNDs/SNAs may undertake repair of non-functional biogas plants intensively in chronic districts and complete the repair work of the plant, subject to above conditions, utilizing the advance funds released by MNRE and submit the claims along with other items for adjustment/ reimbursement. The expenditure towards repair of old non-functional plants is restricted to 5 percent of the outlay in accordance with the target for that year of the concerned State/ Agency. The repaired plants are to be got verified by BDTCs/ independent organizations.

## **15. Implementing Organizations**

The multi-agency approach will continue to be adopted for the implementation of the National Biogas and Manure Management Programme (NBMMP). The programme will be implemented by State Governments/ Union Territories, Departmental agencies, KVIC (in all States/UTs), corporate bodies/ societies, State Nodal Agencies, State Agro-Industries Corporations Scheduled Banks, Grameen and Prathama Banks IREDA, NABARD, and other financial institutions.

## **16. Methodology, Procedure and Guidelines for Implementation**

### **16.1 Implementation through Biogas- Fertilizer Companies/ Entrepreneurs, Banks**

The SNDs/ SNAs will also involve Biogas-Fertilizer Companies/ Entrepreneurs (BGFCOs/ BGFES), Scheduled Banks, Grameen/ Prathama Banks, Co-operative Societies, Self Help Groups (SHGs) and NGOs for implementation of the programme in order to have alternate mechanism for implementation to help in driving demand for biogas plants.

### **16.2 Introduction of Competitive Bidding on Pilot Basis**

The SNDs/ SNAs, KVIC and other Implementing Agencies will introduce competitive bidding on Pilot Basis for setting up biogas plants and bid for subsidy with the recommended CFA as upper limit. Necessary formats will be prepared and modalities worked out by the Departments/ Agencies.

### **16.3 Preparation of District and Micro Plans following Cluster of Village/ Area Approach**

The programme will be implemented based on 'Cluster of Village/ Area Approach' for selection of biogas-fertilizer plant beneficiaries. The States and Agencies should prepare District and Micro Plans keeping in view the following factors and others as applicable for a given village/ area for implementation of NBMMP:-

- (i) People's involvement in finding out demands for biogas plants.
- (ii) Proper identification and selection of 'Cluster of Village/ Area Approach' based on maximum cattle population and largest number of households having 2 (stall-fed) or more cattle heads and availability of Kitchen waste and other suitable biomass feed material.
- (iii) Allocation of remunerative targets to Biogas-fertilizer Companies/ Entrepreneurs matching with availability of trained masons and manpower with them.
- (iv) Allocation of higher targets to districts, which have high rate of functionality of plants and have adequate arrangements for maintenance services.
- (v) High targets for areas where response of Commercial, Co-operative and Grameen/ Prathama Banks for providing loans for biogas plants is favorable.
- (vi) Planning no or minimum targets for areas prone to drought/ shortage of water/ floods and those suffering from high rate of non-functionality.

**State Nodal Departments and Implementing Agencies should minimize their role in actual installation of biogas plants and focus only on promotion, awareness raising, quality control, training, etc. A major emphasis should be laid on achievement of entire programme through Biogas-Fertilizer Companies/ Entrepreneurs and Turn-Key Workers.**

### **16.4 Implementation for availing CDM benefits**

For Implementation of Biogas plants for availing CDM benefits the SNDs/ SNAs Implementing Agencies bid out the work using bidding documents of PEDAs circulated by the Ministry. Applicable rates of CFA have been shown separately in Table -I. For using CDM benefits,

'Biogas Funds' may be created with each State Nodal Agency and shared on the basis of mutually agreed guidelines prepared in consultation with BE division of MNRE.

### **16.5 Coordination Committees at the State and District Levels**

NBMMP envisages multi-agency approach for setting up of biogas plants. Besides, State Government departments/nodal agencies, KVIC and a few NGOs have also been involved in implementation of the programme. With a view to ensure proper monitoring, coordination and review of programme implementation, all States nodal departments and agencies should include the subject in the meeting of District Advisory Committees on Renewable Energy. The details of the meetings of the Committee held during each quarter may be included in the quarterly progress report attaching the list of important decisions and sent to MNRE headquarters.

### **16.6 Demarcation of area of operation for KVIC and other Agencies**

SND/SNA may demarcate the area of operation for KVIC, etc. based on a mutual consultation in the beginning of the financial year earmarking specific area for implementation for each organization. It would also be necessary that one Agency/ Organization is allowed to operate in an identified area. The plants set up by these agencies may also be monitored on a random basis by the SND/SNA concerned.

With a view to avoid duplication in reporting of physical achievement and payment of Central Financial Assistance (CFA), it is obligatory on the part of KVIC and NGOs to keep the State Nodal Departments and Agencies posted with the relevant information about the biogas plants set up by them from time to time.

Implementing Agencies such as KVIC and others should send lists of beneficiaries to concerned Nodal Departments/ Agencies at appropriate level, i.e. to State/District Authorities concerned for checking with the lists of Nodal Departments/ Agencies and get it cleared within a maximum period of 30 days before disbursing CFA. States Nodal Departments/ Agencies are requested to send suitable instructions to District Nodal Officers in this regard.

### **16.7 Review of Biogas Development and Training Centre by SNDs/ SNAs**

With a view to ensure proper coordination and periodic review of the performance of BDTCs by the State, SNDs/SNAs may set up "BDTC Programme Advisory & Review Committee" under the chairmanship of the Secretary, State Nodal Department/ Chief Executive of the State Nodal Agency. Co-coordinator, BDTC, is to be represented on it. The committee should meet periodically for formulation of the annual action plans, review of performance, etc.

### **16.8 Payment of CFA after commissioning of plants**

Central Financial Assistance (CFA) is to be disbursed to the beneficiaries after completion of construction of biogas plants, including pipeline, burner, and commissioning of biogas plants **preferably through ECS or account payee Demand Draft/ Cheque.**

### **16.9 Placing of advance funds at district levels**

The State Governments/Implementing agencies, KVIC may, if necessary, place funds received in advance from MNRE at the disposal of the State/district/block programme executing agencies and concerned banks. However, the Central Financial Assistance (CFA) should be paid to beneficiaries/organization only after commissioning of the plants. Efforts should be made to minimize burden of investment made or interest on the loan amount, availed by the beneficiary organization.

## **17. Institutional Financing**

### **17.1 Interest- Free Loans to Biogas- Fertilizer Companies / Entrepreneurs/ Turn-Key Workers/ Operators**

In order to create business model and infrastructure for installation of Biogas – fertilizer plants it is proposed to provide ‘Interest-Free loans’ to Biogas-Fertilizer Companies/ Entrepreneurs and registered Turn-Key Workers/ operators upto Rs. 20 lakh per promoter for a period of five years through IREDA and Banks. IREDA will work out suitable modalities and funds would be released through IREDA who would in turn, release funds to the concerned Banks for onward lending to BGFCOs/ BGFES/ TKW.

### **17.2 Provision of Bank loan for Installation of Biogas-Fertilizer plants**

The scheduled banks, NABARD, Grameen and Prathama bank will be involved in implementation of NBMMP and funds will be released through IREDA. These Banks may provide loan to individual beneficiaries and/ or group of beneficiaries bunched by Biogas-Fertilizer Companies/ Entrepreneurs based on collateral guarantees and mutually agreed terms and conditions between Banks and Promoters, for the purpose;

(i) Efforts may be made for getting Block/ District-wise targets reflected in the service area plans prepared by different banks. Bank-wise targets may also be worked out in the States/ Districts/ Block level meetings for monitoring purposes.

(ii) Efforts should be made to prepare applications for banks in the beginning of the financial year. The banks, in turn, may chalk out a programme for expeditious clearance of the loan applications so that construction activities can start in full swing before the commencement of the monsoon. Close liaison should be maintained with the banking institutions for timely release of bank loans. State Govts./Agencies may provide bank-wise/ branch-wise details of loan applications pending for more than 3 months for taking up the matter with Banking Division, Ministry of Finance or RBI.

### **17.3 Fixation of Unit Cost**

State Governments have Unit Cost Committees at the State Level to examine all issues relating to fixation of unit cost of installation of various models and sizes of biogas plants. This exercise is being done in collaboration with NABARD and financial institutions. Since periodic revisions in unit-costs are necessary for sanctioning realistic loan amounts, State Nodal Departments and Implementing Agencies should take initiatives for getting the regular meetings of Unit Cost Committees organised by NABARD. This will avoid problems created by non-availability of adequate bank finance for biogas plants.

## **18. Safeguards and Maintenance of Records for Audit Purposes**

### **18.1 Safeguard for Maintaining Quality of Plant Construction and Appliances**

Beneficiaries/ field functionaries should be advised to get biogas plants constructed by trained masons only. Building materials like bricks and cement of only specified quality and gas holder as per standard specifications should be used. Due emphasis should be laid on adoption of proper procedure for installation and supervision of plants. HDPE, FRP and RCC based prefabricated biogas plants may also be promoted for faster growth of the pace of implementation.

### **18.2 Database of Village-wise Beneficiaries**

The State Governments/ Nodal Agencies are required to maintain computer based database of detailed particulars of the beneficiaries at the Block or District and State Headquarters and

Headquarters/ State Offices of KVIC in the form of permanent registers which should be readily available for inspection of the officers of MNRE and also for post audit verification purpose. Each plant may be serially numbered in the register. The details should include particulars of the beneficiaries viz., name, father/ husband's name, address, category of farmer, number of cattle-heads owned, size and model of the plant, amount of CFA disbursed with date(s) of disbursement, details of voucher, whether installed on turn-key basis, name & address of the turn-key agency, date of completion, date of commissioning, name & address of the trained masons who constructed the plant, etc.

### **18.3 Beneficiary-wise List on Websites**

It has been made mandatory to put beneficiary wise list of installed biogas plants on the websites of the respective organizations. Funds to SNDs/ SNAs/ Implementing Agencies will be released on fulfillment of this condition.

### **18.4 Maintenance of Records of Completed Biogas Plants**

Completion certificates in respect of commissioned biogas plants will be signed by either Block Development Officer or equivalent officer of State Nodal Department or Development Officer of the KVIC, State Agro-Industries Corporation, Non-Conventional Energy Development Agencies, etc. and will be maintained for audit purposes. States/Agencies must also keep the details of manpower employed for implementing the programme during the year, in support of their administrative charges claimed. Similarly the details of Turn-key Job Fee paid should also be maintained in support of TKJF claimed.

State Governments/ Nodal Agencies/ KVIC should ensure that these records are computerized and updated on regular basis.

### **18.5 Identification Mark on the Biogas Plants**

Each plant should be serialized with pre-determined code for District/ Block (along with name of SNDs/ SNAs/ Programme Implementing Agency) and the number embossed/ carved out on the plants or the serial number on a metal strip/ piece is welded on the gas outlet pipe in the dome portion or gas holder depending on the model to avoid duplication of claim. These may also be carved on the body of digester while plastering on prefabricated models it is to be mentioned on various components of the plants.

### **18.6 Photograph of the Beneficiary in CFA Claims**

A photograph of the beneficiary with the completed biogas plant would also be kept along with the CFA disbursement records.

## **19. Submission of Reports**

### **19.1 Monthly Progress Reports**

A monthly report indicating the number of biogas plants set up during the month should be sent by FAX (011-24361604), e-mail: shuklaar@nic.in, pdhamija.nic.in, glmeena@nic.in, gautamrouth1955@yahoo.co.in, by the **10<sup>th</sup> of the following month** in the prescribed performa (**Annexure-XI**). State Nodal Departments and implementing Agencies may send this report on a fortnightly basis from January to March, 2009 especially if the conditions for release of 2<sup>nd</sup> installment are fulfilled in middle of the month.

## **19.2 Quarterly Progress Reports**

The quarterly progress report must reach to this Ministry by **15<sup>th</sup> of the month** following each quarter in the prescribed format. (**Annexure-XII**)

## **19.3 Material for Annual Report and Website of the Ministry of New and Renewable Energy**

All State Governments and implementing agencies may send a brief write-up on implementation of the programme by 15<sup>th</sup> December for inclusion in the Annual Report of the Ministry for the implementing year. The write-up may highlight the implementation strategy, development of business model and registration of BGFCOs/ BGFES, development of CDM projects, involvement of panchayats and non-governmental organizations, linkages with other rural development programmes, methodologies adopted for publicity and awareness raising, details of physical verification and highlights of feed-back survey, etc. Few photographs of the biogas plants set up during the year may also be sent along with the write-up. Success stories on installation of biogas plants in most of the households of a village/ area and other innovative features may be sent for hosting on MNRE website.

## **20. Monitoring of Programme**

### **20.1 Physical Verification and Sample Village-wise Monitoring Reports**

In order to ensure that incomplete/ un-commissioned plants are not included for monthly reporting and for claiming CFA, it is mandatory that all the plants set up during each quarter are physically verified and a certificate to that effect recorded by the officers concerned for post-audit purposes.

State Governments and Implementing Agencies are requested to select at least two villages each month for determining the status of biogas plants earlier set up in these villages and send reports thereto in quarterly progress reports.

All SNDs/ SNAs, KVIC and other Implementing Organization are requested to include information on sample village monitoring report in the Quarterly Progress Report and the action taken on revival of non-functional plant to be sent to MNRE (**Annexure-XII**).

SNDs/ SNAs are to make arrangements for inclusion of inspection of family type biogas plants set up in various districts/ blocks in the inspection reports of the District Magistrate/ Sub-Divisional Magistrate/ Block Development Officer concerned.

### **20.2 Field Inspections by Biogas Development and Training Centers (BDTCs)**

Biogas Development and Training Centers (BDTCs) setup under National Biogas and Manure Management Programme (NBMMP) has been asked to conduct inspection of 1000 biogas plants in a year in certain Blocks of districts selected on a random basis in their allocated States. State Governments/ Programme Implementing Agencies, KVIC, etc. are requested to extend help and co-operation for carrying out inspections on a regular basis. The BDTCs would also be carrying out inspection of all the biogas based distributed power generation projects and biogas purification and bottling projects in additional to family type biogas plants as mentioned above.

Inspections should be carried out preferably by a team consisting of three members, one each from BDTC, State Government and KVIC or other implementing agency as the case may be. Biogas Development and Training Centers (BDTCs) may select districts in consultation with implementing agency at the commencement of programme.

States and agencies may take immediate remedial action on the inspection reports of the Biogas Development and Training Centers (BDTCs) and confirm the action taken to the BDTCs concerned under intimation to MNRE on a quarterly basis.

### **20.3 Evaluation Study by Independent Organizations**

State Nodal Departments and implementing agencies may also involve independent organizations and reputed NGOs in the monitoring and evaluation of the programme. A copy of the report of such evaluation study, if any, conducted may be sent to MNRE for information. Such evaluation studies are to be supported within the provision of the administrative charges.

**20.4** In addition to monitoring by SNDs/ SNAs/ KVIC, and other implementing Agencies, Ministry of New and Renewable Energy will also be taking up concurrent monitoring and evaluation studies of the programme periodically.

### **21. Settlement of Accounts**

SNDs/ SNAs/ KVIC, and other implementing Agencies may submit Claims in (**Annexure-IV**), Utilization Certificate and audited Statement of Expenditure as early as possible after the close of the financial year, but not later than **30<sup>th</sup> June, of the implementing year**. For the year 2009-10, SNDs/SNAs should submit their claims in two parts. The first part would cover the plants installed upto 31.10.2009 and the second part should cover plants installed during the remaining part of the year (November 2009 to March 2010.).

22. This sanction issues in exercise of the powers conferred on the Department in consultation with the Integrated Finance Division of this Ministry vide Dy. No. 985/SS&FA, dated 27.11.2009.

23. Receipt of this Administrative Approval may please be acknowledged.

Yours faithfully,

(B. Routh)

Under Secretary to Govt. of India

#### **Copy for information and necessary action to:-**

1. The Accountant General (Audit) - All States/ UTs.
2. The Director of Accounts - (All States/ UTs).
3. The Principal Director of Audit (Scientific Deptt.), DGACR Building, I.P. Estate, New Delhi.
4. Secretary, Finance/Planning Department/Department Concerned (All States/UTs).
5. RBI, Bombay/ NABARD, Mumbai.
6. Ministry of Programme Implementation, New Delhi.
7. Sr. PPS to Secretary, MNRE.
8. PS to AS and Financial Adviser, MNRE, New Delhi.
9. Advisor (BE), MNRE
10. PA to Joint Secretary, MNRE, New Delhi.
11. All Advisers/ Directors, MNRE, New Delhi.
12. Dir.(Fin.)/ US(Fin)/ AO(IFD)
13. PAO, MNRE.
14. Individual files of States/ UTs/ Agencies/ Guard file.

(B. Routh)

Under Secretary to Govt. of India

**Year- wise Physical Goals & Financial Outlay for 11<sup>th</sup> Plan**

<b>S. No.</b>	<b>Year</b>	<b>Financial (Rs. in crore)</b>	<b>Physical (in lakh nos.)</b>
1.	2007-08	55.90*	0.92*
2.	2008-09	56.99*	1.08*
3.	2009-10	150.00	1.50
4.	2010-11	150.00	1.50
5.	2011-12	150.00	1.50
	<b>Total</b>	<b>562.89</b>	<b>6.47</b>

\* Actual

**National Biogas and Manure Management Programme (NBMMP)  
Allocation of tentative targets for setting up of family type biogas plants for 2009-2010**

<b>Sl.No</b>	<b>State / UT / Agency</b>	<b>Target Purpose for Allocation</b>
1	Andhra Pradesh (NEDCAP)	16500
2	Arunachal Pradesh (APEDA)	200
3	FDA, Forest Department, Assam	10000
4	Bihar (BREDA)	300
5	Chattisgarh (CREDA)	5000
6	Goa	50
7	Gujarat (GAIC)	10000
8	Haryana	1500
9	Himachal Pradesh	150
10	Jammu & Kashmir	100
11	Jharkhand ( JHREDA)	500
12	Karnataka RD&P Organic Farming Mission	10000 10000
13	Kerala (Deptt. of Agril.) ANERT	3000 3000
14	Madhya Pradesh - MPSAIDC MPUVN MP Rural Livelihoods Project	12000 2000 2000
15	Maharashtra	8000
16	Manipur (MANIREDA)	50
17	Meghalaya (MNREDA)	400
18	Mizoram	100
19	Nagaland	350
20	Orissa (OREDA)	5000
21	Pondicherry	50
22	Punjab - PEDA	10000
23	Rajasthan	50
24	Sikkim (SREDA)	200
25	Tamilnadu	1500
26	Tripura (TREDA)	100
27	Uttar Pradesh	4000
28	Uttarakhand (including UREDA) RDD	500 400
29	West Bengal (WBREDA)	15000
30	KVIC, Mumbai	18000
	<b>TOTAL</b>	<b>150000</b>

**Annexure-III****National Biogas and Manure Management Programme (NBMMP) –  
Allocation of physical targets for training courses for 2009-10**

S. No	State/UT/Agencies	CMC/Refresher training courses	Users courses	Turn-key workers course	Staff course
1.	Andhra Pradesh	5	400	-	-
2.	Arunachal Pradesh	1	20	-	-
3.	Assam	1	20	-	-
4.	Bihar	1	50	-	-
5.	Chhattisgarh	1	50	-	-
6.	Gujarat	2	150	-	-
7.	Goa	1	10	-	-
8.	Haryana	1	20	-	-
9.	Himachal Pradesh	1	20	-	-
10.	Jammu & Kashmir	1	10	-	-
11.	Karnataka	5	100	-	-
12.	Kerala	1	50	-	-
13.	Madhya Pradesh				
	MPSAIDC	4	100	-	-
	MPUVN	1	50	-	-
	MP Rural Livelihoods Project (P&RD, Govt. of MP)	20	50	-	8
14.	Maharashtra	5	200	-	-
15.	Manipur	1	20	-	-
16.	Meghalaya	1	20	-	-
17.	Mizoram	1	20	-	-
18.	Nagaland	1	20	-	-
19.	Orissa	5	200	-	-
20.	Punjab PEDDA	1	50	-	-
21.	Rajasthan	1	10	-	-
22.	Sikkim	1	20	-	-
23.	Tamilnadu	2	50	-	-
24.	Tripura	1	20	-	-
25.	Uttar Pradesh	5	200	-	-
26.	Uttaranchal	1	50	-	-
27.	West Bengal	5	200	-	-
28.	KVIC	10	400	-	-
29.	Bangalore BDTC	5	100	2	2
30.	Coimbatore BDTC	5	100	2	2
31.	Indore BDTC	5	100	2	2
32.	Kharagpur BDTC	5	100	2	2
33.	Lucknow BDTC	5	100	1	2
34.	Ludhiana BDTC	5	100	1	2
35.	Palampur BDTC	5	50	1	2
36.	Udaipur BDTC	5	50	1	2
37.	Pantnagar. BDTC	5	50	1	2
38.	Guwahati, BDTC	5	40	2	6
38.	IIT Delhi, BDTC	2	20	2	10

**NATIONAL BIOGAS AND MANURE MANAGEMENT PROGRAMMES****PROFORMA FOR SUBMISSION OF CLAIMS (MNRE share only)**

1. Name and address of the State Nodal  
Department/State Nodal Agency/Implementing Agency.
2. Physical Target.
3. Achievement.
4. Details of the CFA claims.

		<b>Size of the Plant</b>	<b>No. of Plants actually installed</b>	<b>Rate</b>	<b>Total amount of CFA distributed</b>	<b>Remarks, if any</b>
(a)	N.E Region States and Sikkim (except Plain areas of Assam)					
(b)	Plain areas of Assam					
(c)	Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Nilgiris of Tamil Nadu, Sadar Kurseong and Kalimpong subdivisions of Darjeeling Distt.(WB), Sunderbans and A & N Islands.					
(d)	All others					
	Total:-					
(e)	Additional CFA for sanitary toilet liked Plants disbursed.					
(f)	Additional CFA for diesels and other fuels by using in engines and/or biogas based refrigerators.					

**5. Details of claims of Turn-Key job fee.**

		<b>No. of Biogas Plants setup on turn-key basis</b>	<b>Rate</b>	<b>Amount disbursed</b>
(a)	Hills			
(b)	Plains			

**6. Training Courses:**

	<b>Category of Training course</b>	<b>Target</b>	<b>Achievement</b>	<b>Venue</b>	<b>Periodicity (dates from to)</b>	<b>No. of trainees</b>	<b>No. of plants constructed during training</b>	<b>Actual Expenditure incurred</b>
(a)	Construction –cum- maintenance training course							
(b)	Turn- Key Workers training courses							
(c)	Users Training Courses							
(d)	Staff Training Courses							

**7. Details of Administrative Charges:** \_\_\_\_\_ :

- (i) Physical Achievement \_\_\_\_\_ :  
 (With reference to CFA claims. \_\_\_\_\_(No. of Plants)
- (ii) Amount of Claim \_\_\_\_\_ : Rs.  
 (As per range contained in the Administrative approval).

**8. Details of Publicity**

- (i) Physical achievement \_\_\_\_\_ :  
 (with reference to CFA claims) \_\_\_\_\_(No. of plants)
- (ii) Amount of claims \_\_\_\_\_ :  
 (Give details of expenditure on specific items(s) listed for publicity at Annexure-XII of the Administrative Approval for NBMMP for 1998-99).

## 9. Details of repair of old non-functional plants.

S.No.	Category of the beneficiary	No. of plants repaired	Rate	Beneficiary share	Total expenditure
1	N.E region States and Sikkim(except Plain areas of Assam)				
2	Plain Areas of Assam				
3	Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Nilgiris of Tamil Nadu, Sadar Kursoong and Kalimkpong subdivisions of Darjeeling Distt., Sunderbans(W.B) and A & N Islands.				
4	All others				
	<b>Total</b>				

Certified that:

- The plants for which CFA to beneficiaries, service charges, Turn-Key job fee etc. have been claimed have actually been commissioned during the period from \_\_\_\_\_ to \_\_\_\_\_ and requisite completion certificates in respect of these plants are available at the State agency/Headquarter.
- These plants have been physically verified. Sample test checks have been conducted and claims sent herewith relate only to the commissioned plants.
- The CFA in respect of \_\_\_\_\_ plants has been disbursed to the beneficiaries concerned according to the rates prescribed for the respective category of beneficiary and size of the plant, after the plant was commissioned and physically verified by an officer authorized for this purpose. The CFA respect of the remaining \_\_\_\_\_ plants will be disbursed to the beneficiaries concerned according to the rates prescribed for the respective category of beneficiary and size of the plant after receiving the required funds.
- A photograph of the beneficiary with the completed biogas plant has been keep along with the CFA disbursement records.
- Beneficiary-wise details regarding the category of beneficiary, model size and location of plant installed (with date of completion, amount of CFA paid to beneficiary and date of payment) have been maintained hosted on the Website of the State Agency and the above mentioned details are in accordance with these details.
- Out of \_\_\_\_\_ biogas plants installed during the year \_\_\_\_\_, \_\_\_\_\_ biogas plant have actually been completed on turn-key basis and turn-key job fee for these plants have not been claimed earlier from the Central or State Govt./KVIC/other Agencies.
- The concerned beneficiaries are satisfied with the construction, fabrication and functioning of the plants and certificate to this effect have been obtained from them for record.

8. A written undertaking has been given to the beneficiaries concerned for free of cost service, inspection, guidance and to repair defects, if occurred during the period of five years from the date of commissioning of the plants.

9. It is certified that the old non-functional plants for which claims of repair charges have been preferred are functioning properly and 50% of the cost of repair has been taken from the beneficiaries.

10. It is certified that detailed accounts/vouchers have been maintained for each training course at an appropriate level for post facto audit purposes.

11. It is certified that action for rectification of the plants found to be non-functional in the inspections carried out by BDTCs / independent agencies has been carried out and that such plants have been made functional.

12. It is also certified that all the terms and conditions stipulated in the Administrative Approval of the financial year .....have been followed.

Place:

Date:

Signature

Designation

Seal

**Guidelines and procedure for payment of turn-key job fee for setting up of family type biogas plants under the National Biogas and Manure Management Programme (NBMMP)**

Extract from letter no.17-4/82-Biogas dated 18th December, 1982 issued to all State Governments and implementing agencies, etc.

XXX

XXXX

XXX

(A) Eligibility

- (i) Corporate bodies/Registered Societies identified by the State Governments and intimated in advance to Government of India.
- (ii) Approved trained private entrepreneurs registered with the State Nodal Departments/agencies/KVIC and other programme implementing agencies.

The private entrepreneurs selected should fulfill inter-alia the following requirements before approval for undertaking turn-key jobs:

- (a) received training in the construction and maintenance of biogas units.
- (b) Possess requisite facilities like workshop for fabrication of steel gas holders and storage space for pre-fabricated biogas plants, gas holders, cement, bricks, gas appliances, etc.
- (c) Possess requisite financial resources and credibility.

A list of such duly trained and registered persons should be maintained at the State /Agency headquarters/ KVIC headquarters etc. as well as in the field offices at the district and block levels.

To start with State Governments and implementing agencies may consider registration of persons who have already been trained in the construction and maintenance of biogas units in the training programme organized under the National Biogas and Manure Management Programme after proper evaluation of their technical capabilities and resources to undertaken turn-key jobs.

(B) Mode of release of funds by G.O.I

Payment of fee at the rate mentioned in Paragraphs 7.1 and 7.2 for biogas plants set up and service provided and support on turn-key basis by the Corporate bodies/registered societies/ approved trained private entrepreneurs will be made by the Govt. of India after satisfactory completion/ commissioning of the plants and on receipt of claims in the proforma at Annexure I/annexure-II(whichever is applicable ).The funds will be released by the Govt. of India on receipt of claims may be sent in different lots to ensure timely release of funds.

(C) Suggested procedure for payment to approved trained private entrepreneurs.

(a) The State Governments and implementing agencies should disburse the payment of fee to approved trained private entrepreneurs in five yearly installments. First installment of Rs.700/- after satisfactory completion /commissioning of the plant and second ,third, fourth ,and fifth installments of equal amount of Rs.200/- each after satisfactory warranty services based on reports signed by the beneficiary and local official/ Panchayat.

(b) It will be the sole responsibility of the State Government, Departments/implementing agencies to ensure terms and conditions of the turn-key job fee provisions.

(c) State Governments may also keep some caution money / surety bond from the private persons/entrepreneurs.

#### D) Guarantee

The agencies / private entrepreneurs involved for undertaking turn-key jobs and receiving turn-key fee shall give a guarantee of the satisfactory working and free of cost service for inspection and guidance to repair defect, if any, occurred during a period of one year from the date of commissioning of the plant. In case of defaulters, the State Government / implementing agencies may decide to blacklist the concerned agencies, entrepreneurs and may forfeit the caution money ,etc. for setting the plants repaired/ re-commissioned.

#### (E) Area of Operation

In case of Corporate bodies/ Registered societies, the area of operation should be clearly demarcated by the State Governments and implementing agencies so that there is no duplication in efforts. Similarly, for approved trained entrepreneurs possibility of allotting specific areas may also be considered by the State Governments.

Wide publicity may be given to these provisions and list of approved trained entrepreneurs registered by the State Governments and implementing agencies under the turn-key job provisions may also be put on the Website and notice boards of field offices at district and block levels for information of beneficiaries.

**Model syllabus for Users' Training Course on Biogas**

**1. Objective:**

To raise awareness about the benefits of biogas plants among users specially women beneficiaries, and (ii) operation and maintenance for day-to- day up-keep of biogas plants.

**2. Venue/No. of Participants:**

Villages having about 1-5 biogas plants in operation will be selected as venue and 50-60 household of the selected village will be contacted and invited for attending users'course. Efforts should also be made for involving in all such course.

**3. Medium of instruction:** Local language

**4. Duration of training :** One day

**5. Topics to be covered:**

**(a) Women education programme for awareness raising**

- Benefits of biogas plants
- Operation and maintenance of biogas plants
- Financial and other assistance.
- Preparation of loan applications.
- Field visits and practical demonstrations.

**(b) Users' course on operation of biogas plants**

- How to collect dung free from sand, gravels etc.?
- How to prepare dung slurry and how and when the slurry should be put into a biogas plant.?
- How to light burner and lamp.?
- The method of cooking of chapattis on biogas (direct blowing of chapattis should be demonstrated).
- Type of utensils to be used.
- Methods for increasing gas production during winter months.
- How to store and make best use of digested slurry for manuring of crops?
- How to keep a biogas plant site clean and tidy?
- When a burner has been left open and the gas has leaked out in the kitchen, what precautions should be taken?
- 

**( C) Maintenance of biogas plants**

- How to clean /wash burner and lamp periodically?
- Cleaning of gas holder.
- Removal of water from the pipeline.
- Checking of gate valve, joints in the pipeline, pressure tube, gas cook, etc.

**6. Financial Provisions:**

**Estimated cost for Users' Training Course**

<b>Sl. No.</b>	<b>Item at existing cost</b>	<b>Estimated existing cost (Rs.)</b>	<b>Item at proposed cost</b>	<b>Estimated proposed cost (Rs.)</b>
1.	Tea/ snack	300	Tea/ snack	600
2.	POL	250	POL	500
3.	Honorarium @ Rs.100 per lecture	200	Honorarium @ Rs.200 per lecture	400
4.	Contingency (Shamiana, audio and visual aids, chairs, banners, misc. items)	250	Contingency (Shamiana, audio and visual aids, chairs, banners, misc. items)	500
<b>5.</b>	<b>Total</b>	<b>1,000</b>		<b>2,000</b>

**NATIONAL BIOGAS AND MANURE MANAGEMENT PROGRAMME**

**TRAINING COURSE FOR GOVT.FUNCTIONARIES**

**1. PURPOSE**

To expose Supervisors/govt.Functionaries /Bank Staff to various aspects of biogas technology and to familiarise them with the present status of biogas programme, inter- alia ,construction of biogas units.

**2. PARTICIPANTS**

The course is intended for field supervisory functionaries involved in the implementation of biogas extension programme. Persons of following categories may be selected/nominated for such training courses :-

- i) Block and District level Supervisory Functionaries involved in the promotion and execution of National Biogas and Manure Management Programme. These functionaries include Block Development Officers, Agriculture, Extension Officers, Assistant / Junior Engineers, Agricultural Inspectors/ Assistant Directors and Development officers of Khadi and Village Industries Commission and Village Industries Board, Field Supervisory, Staff of State Agro-Industries Corporation /Dairy Development Corporations, Entrepreneurs of Agro-Services Centres, Field Supervisory Staff of recognized Voluntary Organisations /Registered Societies.Women-functionaries could also be nominated.
- ii) Instructors/Teachers from selected training centres /Extension Training Centers/Gram Sevak Training Centre/ Gram Sevak Training /Gram Sevika Training Center, etc. Such centres would be the venue for the organization of subsequent training courses for local masons in the construction of biogas unit.

**3. MEDIUM OF INSTRUCTION** : Hindi/ English

**4. DURATION** : 4 days

**5. NUMBERS OF PARTICIPANTS** : 10

**6. SYLLABUS /CURRICULUM :**

<b>DAY</b>	<b>Subject Matter</b>
1 <sup>st</sup>	- Introduction to the biogas technology - National Biogas and Manure Management Programme.
2 <sup>nd</sup>	i) Design of different approved models of biogas plants, capacity determination, selection of building materials and accessories, etc. ii) Motivation /Selection of beneficiaries/model, socio-Economic aspects. iii) Disbursement of subsidy/utilization of funds, Maintenance of Accounts iv) Institutional support for the programme.
3 <sup>rd</sup>	i) Construction methodologies for models popular in the REG. ii) Details of Burners/ appliances/Diesel engines, etc. iii) Identification of faults and their rectification iv) Night-soil based biogas plants.
4 <sup>th</sup>	- Field visit to : i) Operational plants. ii) Plants under construction

- iii) Non- functional plants.
- iv) Operation & maintenance of biogas plants
- v) Handling and application of biogas plant effluent
- vi) Valedictory and concluding.

## 7. FINANCIAL PROVISIONS

### Estimated cost per course is as under:-

Sl. No.	Item at existing cost	Estimated existing cost (Rs.)	Item at proposed cost	Estimated proposed cost (Rs.)
1.	Transportation charges	1,500	Transportation charges	2,500
2.	Technical books, literature, blue prints, etc.	1,000	Technical books, literature, blue prints, etc.	1500
3.	Tea/ lunch @ Rs.30/ per head per day	1,500	Tea/ lunch @ Rs.60/ per head per day	2,500
4.	Contingency including honorarium to guest speakers @ Rs.100/-	1,000	Contingency including honorarium to guest speakers @ Rs.200/-	1,500
<b>5.</b>	<b>Total</b>	<b>5,000</b>	<b>Total</b>	<b>8,000</b>

**NATIONAL BIOGAS AND MANURE MANAGEMENT PROGRAMME**  
**Fact sheet on**  
**CONSTRUCTION-CUM- MAINTENANCE TRAINING COURSE**

**1. PURPOSE**

To create a cadre of masons and technicians skilled in the construction and maintenance of approved models of biogas plants ie Deenbandhu fixed dome model, floating gas holder ,KVIC models, digester made of ferro- cement ,gas holder model of FRP and Pragati models.

**2. SELECTION OF TRAINEES**

Construction-cum-maintenance training course are intended for professional masons having experience of working independently on civil construction and fabricators/ technicians having the facilities of workshop ,welding lit, etc.....The trainees should have knowledge to understand construction and fabrication, methodology design specification, etc.

**3. NUMBERS OF PARTICIPANTS:** Ten trainees can be recruited for each course.

**4. MEDIUM OF INSTRUCTION:** Hindi or Regional language.

**5. DURATION OF TRAINING:** 16 days.

**6. SYLLABUS**

The training is practical in nature. However, a few classroom lectures should be arranged completely tied up with the construction of plants in the field. The suggested curriculum and schedule is given below:-

**6.1 THEORY**

- I) Importance & benefits of biogas programme.
- II) Pre-requisite for a biogas –plant –availability of dung, and water, felt need and end-usages.
- III) Description of different approved models.
- IV) Selection of beneficiaries and selection of site.
- V) Material requirements for biogas plants of different capacities/models.
- VI) Quality of construction materials.
- VII) Construction methodology
- VIII) Plumbing aids and fitting of pipeline, water removal device, gas appliances.
- IX) Testing for gas and water leakages.
- X) Commissioning and operational procedure.

**6.2 PRACTICAL**

A minimum of two biogas plant need to be constructed and installed during the training course by the trainees. Emphasis should be mainly on proper practical training and not on construction of a large number of biogas plants to achieve targets.

Work may be organized as follows:

Approximate value of days	Field work
1	- selection of site - Marking of layout - Digging of pit
1	- Laying of foundation
4	- Digester construction - construction of outlet chamber in Deenbandhu model - fixation of guide frame in case of floating drum KVIC or Pragati model
2	- Plastering
5	- curing of civil work - Laying of gas distribution pipeline, fixing accessories, etc.
2	- Slurry making filling of digester
1	- Testing for gas leakages

## 7. FINANCIAL PROVISIONS

Estimated cost per course is as under:-

Sl. No.	Item at existing cost	Estimated existing cost (Rs.)	Item at proposed cost	Estimated proposed cost (Rs.)
1.	Stipend up to a maximum of Rs.100/- trainees/day or 10 trainees for a maximum period of 16 days (pro-rata basis) to meet boarding and lodging expenditure.	16,000	Stipend up to a maximum of Rs.300/- trainees/day or 10 trainees for a maximum period of 10 days (pro-rata basis) to meet boarding and lodging expenditure.	30,000
2.	To and from transport charges to 10 trainees as per actuals but not exceeding of Rs.100/- per trainee on pro-rata basis.	1,000	To and fro transport charges to 10 trainees as per actuals but not exceeding of Rs.200/- per trainee on pro-rata basis.	2000
3.	Contingency for transportation/ POL, Stationery, books, honorarium to guest speakers, etc.	2,000	Contingency for transportation/ POL, Stationery, books, honorarium to guest speakers, etc.	4,000
	<b>Total</b>	<b>19,000</b>	<b>Total</b>	<b>35,000</b>

## 8. PLANNING

8.1 The State/agency should fix location, tentative date for organizing course in the beginning of the year as per the target allocated to them.

8.2 The faculty for training should include a master mason trained in one of the Regional Biogas Development & Training Centre and who have constructed plants not less than ten.

8.3 The Nodal Officer at Block level should ensure the quality of training ,for the purpose of monitoring the district nodal officer should ensure participation in the course. The State level officials should also visit at least 10% of the course organized.

8.4 Preference should be given for organizing course in each areas where less number of persons have been trained so far and also construction of biogas plants has yet to pick up.

8.5 At the closing of the course a test has to be conducted for ensuring the skill of trainees .Certificates may be issued to qualified trainees and a notification may be issued containing there in their names & address.

8.6 A user training course may be organized, the day following the closing of course.

## National Biogas and Manure Management Programme

### Fact Sheet on Turn-Key Workers Training

#### **Objective:**

To create a cadre of turn-key workers/private entrepreneurs in rural areas for setting up of biogas plants on turn-key basis and providing post –installation servicing of plants as a self-employed vocations.

#### **Participants:**

The programme is meant for unemployed rural youths having inclination to take up biogas as a self vocation. He/ She may be functionary in voluntary organization. A minimum educational qualification may be kept as Matriculation. The trainee should take in living in his /her village

**No. of Participants :** Ten

**Medium of Instruction:** Hindi / English/Regional language (depending upon the facility available at the centre).

**Duration of Training:** 15 days

**Venue:** Regional Biogas Development & Training Centre.

#### **Syllabus:**

The programme may cover the following:-

##### **A. Technical Aspects:**

- i) Importance and benefits of biogas programme.
- ii) Economic viability of biogas plants.
- iii) An over –view of Indian Biogas Programme, present level of achievement and estimated potential.
- iv) Technological advances in biogas technology.

##### **B. Management aspects:**

- i) Marketing Management : Technique of motivation, project formulation, filling up and process of applications for arrangements of subsidy.
- ii) Personal Management : Training of masons, placement of masons in different villages to be covered, identification of plumber and his training liaison with beneficiary, masons and plumbers, supervision of the persons engaged in plant construction.
- iii) Material management: Types of the material required for biogas plant construction, testing of quality of material, procurement of the materials.
- iv) Financial Management: Estimation of Unit cost of biogas plants arrangement of banks loans and subsidy special motivation ,support from social organizations ,principal of accounting.
- iv) Office Management: Record keeping of individual beneficiaries and other records on financial and physical programmes, methods of maintaining the accounts, payment made to the beneficiary and masons, etc...

- v) Break-down management : Feed-back ,monitoring and evaluation o f plants, repair and maintenance of sick plants.

**C. Project Reports:**

A project for turn-key operation for their respective areas may be prepared by the trainees during the duration of the training.

**D. Field Visit:**

Visits may be organized to banks, to villages having large number of plants and to an agency working on turn-key basis.

**Financial Provision:**

**Estimated cost per course is as under:-**

Sl. No.	Item at existing cost	Estimated existing cost (Rs.)	Item at proposed cost	Estimated proposed cost (Rs.)
1.	Stipend up to a maximum of Rs.100/- trainees/day or 10 trainees	21,000	Stipend up to a maximum of Rs.250/- trainees/day or 10 trainees	37,500
2.	To and fro cost up to a maximum of Rs.250/- per trainee, subject to actuals	2,500	To and fare cost up to a maximum of Rs.500/- per trainee, subject to actuals	5,000
3.	Contingencies, POL for field visit, honorarium to guest speakers @ Rs.150/- per lecture, project reports, books, stationery, blue prints, technical literature, manuals, etc.	15,000	Contingencies, POL for field visit, honorarium to guest speakers @ Rs.300/- per lecture, project reports, books, stationery, blue prints, technical literature, manuals, etc.	25,000
	<b>Total</b>	<b>38,500</b>	<b>Total</b>	<b>67,500</b>

**Suggested Planning:**

1. The programme high lights should be widely circulated.
2. Nomination may be asked from State nodal departments, Voluntary organizations, in advance.
3. The faculty for training should include technical ad management experts

**Annexure-X**

**Sanction of outlay to Biogas Development and Training Centers (BDTCs) -  
Under National Biogas and Manure Management Programme (NBMMP) during  
2009-10**

Name of BDTC	Item wise amount approved ( In Rs.)			
	Pay& allowances including TA/DA etc (as per actual)	Contingency	Training Courses	Total outlay
UAS, Bangalore	468000	50000	282000	800000
TNAU, Coimbatore	1168000	50000	282000	1500000
CESR, Indore	868000	50000	282000	1200000
IIT, Kharagpur	468000	50000	282000	800000
PRAD, Lucknow	106500	50000	243000	400000
PAU, Ludhiana	506500	50000	243000	800000
HPKVV, Palampur	556500	50000	193500	800000
MPUAT, Udaipur	1256500	50000	193500	1500000
GBPUAT, Pantnagar.	956000	50000	193500	1200000
IIT, Guwahati,	1000000	50000	242000	1292000
IIT, Delhi	1000000	300000 (Including overhead charges)	200000 (Training, testing field work etc as assigned by MNRE )	1500000

**National Biogas and Manure Management Programme  
Monthly report for year....**

The report must reach MNRE by 10<sup>th</sup> of the month following the month under report.

- 1. Name of State/UT/Agency:**
- 2. Report for the month of : \_\_\_\_\_.**

3 .	Physical process	Annual Target	No. of plant completed					No. of plants under construction	Release of CFA	Amount of loan	Cost of Plant	Training particulars	Reasons for shortfall in achieving biogas plant and training targets.
			Up to previous month	During current month	Cumulative (upto current month)	S C	S T						
a .	Family type plants: I) type of plant. ii)size of plant												
	Name of Districts:												
b	Sanitary toilet linked cattle dung plants out of( a)												
	Total												

**National Biogas and Manure Management Programme  
Quarterly Report for Year**

1. Name of State /UT/Agency:
2. Report for the quarter ending:.....

3 .	Physical process	Annual target	No. of plants completed					No. of plants under construction	
			Up to previous quarter	During current quarter	Cumulative (up to current quarter)	SC	ST		
3 . 1	Family type plants								
	Name of Districts: i)								
3 . 2	Sanitary toilet linked cattle dung plants out of 3.1								
	Total								
3 . 3	Number of plants taken up for repair under repair scheme	Number of plants proposed for repair	Up to previous quarter			During previous quarter	Cumulative (up to current quarter)	No. of plants under repair	
	Name of Districts: i)								
4 .	<b>Inspection Report</b>	No. of plants installed up to the date of inspection	No. of plants actually inspected	No. of completed & functional plants	No. of completed but non-functional plants	No. of completed plants	No. of dismantled plants	No. of non traceable plants	Remarks (action for repair)
4 . 1	Name of village/Block/District								
	i)								
	ii)								
5 .	<b>Training course</b>	Annual target (No. of course)	Up to previous quarter(No.)		During current quarter(no.)		Cumulative up to current quarter(No.)		
5 . 1	User's course								
5 . 2	Construction -cum-maintenance/Refresher/Trainers/Turn-key workers' training								
6	<b>Publicity</b>	<b>Print Media</b> [Brochure/Hand bills, Calendars advertisement(sample copies may be attached			<b>Electronic media</b> (Advertisement on AIR /Doordarshan) (Pls.		<b>Others</b> (Exhibitions/melas,		

			indicate frequency and duration)	etc.)
7	<b>Action taken Report</b>			
7	ROs /BDTC( concerned)	Reference number of ROs / BDTCs Report	Action taken: i) ii)	
7	Concurrent Monitoring	Reference Number of Monitoring organizations' Report	Action taken: i) ii)	
8	State/District Level Coordination Committee	No. of meeting held with date	Important decisions: i)	