# NO. 5-5/ 2014-BE (NBMMP) GOVERNMENT OF INDIA MINISTRY OF NEW AND RENEWABLE ENERGY (BIOGAS TECHNOLOGY DEVELOPMENT GROUP)

BLOCK NO. 14, CGO COMPLEX, LODI ROAD, NEW DELHI-110003

DATED: 30.06. 2014

To,

- 1. Chief Secretaries of All the States/UTs
- 2. State Nodal Departments All States/ UTs.
- 3. State Nodal Agencies States and Union Territories concerned.
- 4. Khadi and Village Industries Commission, Mumbai.
- 5. All Biogas Development and Training Centres.
- 6. Indian Renewable Energy Development Agency (IREDA), New Delhi.
- 7. National Bank for Agriculture and Rural Development (NABARD).
- 8. Financial Institutions/Head Offices of all Public Sector Banks (PSBs).

Subject:- Implementation of National Biogas and Manure Management Programme (NBMMP) during 12<sup>th</sup> Five Year Plan – Administrative Approval – reg.

Sir/Madam,

I am directed to convey the sanction of the Government of India, for implementation of Central Sector Scheme, the National Biogas and Manure Management Programme (NBMMP) during the 12<sup>th</sup> Five Year Plan in all the States and Union Territories. The programme forms part of 20-Point Programme. These new guidelines of the programme shall be applicable w.e.f. 08.05.2014, whereas provisions of the Scheme approved during 2013-14 and conveyed vide this Ministry's Sanction No. 5-1/2013-BE dated 22<sup>nd</sup> May, 2013 will apply upto 07.05.2014. The details of the NBMM Programme are as follows:-

### 1. OBJECTIVES

The objectives of the scheme are as follows:

- i. To provide clean gaseous fuel mainly for cooking purposes and organic manure to rural and semi urban households through family type biogas plants,
- ii. To mitigate drudgery of rural women, reduce pressure on forests and accentuate social benefits:
- iii. To improve sanitation in villages by linking sanitary toilets with biogas plants;
- iv. To provide bio digested slurry (liquid / semi-solid and dried) as an upgraded source of enrichment for manure to reduce and / or supplement use of chemical fertilizers; by linking biogas digested slurry with enrichment units such as wormy-composting plants and other organic enrichment facilities of slurry.
- v. To meet 'lifeline energy' needs for cooking as envisaged in "Integrated Energy Policy" report of the Planning Commission.
- vi. To help in combating and reduction in causes of climate change by preventing emissions of carbon dioxide and methane into the atmosphere.

# 2. PROGRAMME FOR 12<sup>TH</sup> PLAN PERIOD

# 2.1 Physical targets

The programme will be implemented with a physical target of 6.50 lakh biogas plants. Annual physical targets for installation of biogas plants would be fixed in accordance with the demand and performance of various States Nodal Departments and Implementing Agencies and other eligible organizations like KVIC, BDTCs etc. State / UT-wise and agency-wise physical targets for installation of biogas plants for the year 2014-15 are given in Annexure-I. Physical targets for organization of various types of training courses/programmes are given at Annexure-II.

# 2.2 Rates of Central Financial Assistance (CFA)

Rates of Central Financial Assistance (CFA) for different approved component of National Biogas and Manure Management Programme (NBMMP) is as given below in the **Table-I:**-

Central Financial Assistance under the National Biogas and Manure Management Programme, w.e.f. 08.05.2014 for the remaining period of 12th Five Year Plan:

Table-I

Sl. No.	Particulars of Central Financial Assistance	Family Type Bio	gas Plants under	
	(CFA) & States / Regions and Categories	NBMMP (1 to 6 cubic metre		
		capacity per day	)	
A. · ·	Central Subsidy Rates Applicable (In Rs.)	1 Cubic Metre	2-6 Cubic	
			Metre	
1.	NER States, Sikkim (except plain areas of	15,000	17,000	
	Assam) and including SC and ST Categories			
	of NE Region States.			
2.	Plain areas of Assam.	10,000	11,000	
3.	Jammu & Kashmir, Himachal Pradesh,	7,000	11,000	
	Uttrakhand, Niligiri of Tamil Nadu, Sadar	••		
	Kurseong & Kalimpong Sub-Divisions of			
	Darjeeling, Sunderbans (W.B.) and Andaman			
	& Nicobar Islands.			
4.	Scheduled castes / Scheduled Tribes of other	7,000	11,000	
	than NE Region States including Sikkim &	-	25	
	other Hilly States / regions as given in Sl.no.3		•	
	above.	•	•	
5.	All Others	5,500	9,000	
В.	Turn-Key Job Fee including warranty for	Rs.1500/- per pla	nt for fixed dome	
-	five years and quality control (in Rs. per	Deenbandhu typ		
-	plant).	gasholder KVIC t	ype brick masonry	
		models. Turn K	ey Job Fee also	
		provided for bi	ogas plants with	
	•	prefabricated mate	erial involving part	
			either for digester	
٠-			e is provided for	

	plants, requires prior approval of the
	bunching of such non-functional
	biogas plant. The proposal prepared by SNDs/SNAs and KVIC by
· · · · · · · · · · · · · · · ·	applicable as per the size of the
	not exceed the total subsidy amount
concerned SND/SNA/UT.	a non-functional biogas plant should
	beneficiary. Repair cost estimates for
	cost of repair by the respective
	rate subject to sharing of 50% of the
Support for Repair of Non-functional	50% of the applicable central subsidy
	6,00,000
	4,00,000
Rs.).	2,00,000
ner the target range of Biogas Plants (In	
Current for Communication & Dublisity of	anocated year-wise.
	March, 2012 and annual outlay allocated year-wise.
	110,011001,
	5,2011
	Ministry's sanction letter No. 19-3/2011-BE- (Pt.) dated 16 <sup>th</sup>
	strength / positions conveyed vide
Biogas Development & Training Centres.	As per the pattern of CFA and staff
Entrepreneurs.	2 077 1 20
SNA / Banks / FIs & Companies /	
TKWs / RETs / SHGs/ Officials of SND /	•
	75,000
	75,000
	- 45,000
	10,000
Control of the contro	3,000
	2.,50,000
	24,50,000 *
	10,50,000^
target range of biogas plants (in Rs.)	1,00,000^
	1,200/-
	approved.
	fabric materials, as and when
	or plants made of HDPE / PVC /
	type plants with rubberized material
	manufactured plants such as Bag
	3,001-7,000 Above 7,001 Training support per course (in Rs.) Users Course Staff Course Construction-cum Maintenance / Refresher Course Turn-key Workers & Management Course for TKWs / RETs / SHGs/ Officials of SND / SNA / Banks / FIs & Companies / Entrepreneurs.  Biogas Development & Training Centres.  Support for Communication & Publicity as per the target range of Biogas Plants (In Rs.).  Up to 1,000 1,001-10,000 More than 10,000

# Household size Family Type Biogas Plants under NBMMP

^ Extra Rs. 400 per plant in excess of 100 biogas plants.

^^ Extra Rs.350 per plant in excess of 3000 biogas plants.

\* Extra Rs. 300 per plant in excess of 7,000 biogas plants subject to maximum of Rs. 60.00 lakh (Rupees Sixty Lakhs).

# 3. RELEASE OF FUNDS

The Central Financial Assistance (CFA) will be released for eligible components of the programme as given in Table-1 to the concerned State Nodal Departments (SNDs) / State Nodal Agencies (SNAs) and Khadi & Village Industries Commission (KVIC), Mumbai and BDTCs, and other approved implementing agencies @ Rs.18,000/- per plant for NER States and Rs.11,000/- per plant for all other States, as worked out at an estimated unit cost for advance release of funds per plant for the allocated target on lump-sum basis. The CFA released as advance can be used for expenditure on payment of subsidy, turn-key job fee, administrative charges, publicity, training, etc. The CFA will be released in two installments on the following pattern:-

i. First installment of advance, amounting to 50% of the total CFA estimated as per the rates given above, corresponding to the allocated annual targets and after adjusting the unspent balance of previous years, if any, will be released to all State Nodal Departments/ Agencies and Khadi & Village Industries Commission(KVIC), BDTCs and other approved Organizations, after issue of the sanction order for physical targets and upon receipt of Utilization Certificate (UC) for the relevant period in respect of the funds released during previous year.

The balance 50% of the CFA will be released as second instalment 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 physical progress (40% of the annual targets) achieved during the year of programme implementation.

State Nodal Departments / Agencies and Klradi. & Village Industries Commission (KVIC), BDTCs, and other approved organizations, etc. shall forward their final yearwise claims for settlement of accounts to the Ministry in the prescribed format as given at Annexure-III along with consolidated Utilization Certificate (in GFR-19A) and A.G. audit-certificate in case of State Nodal Departments and Audited Statement of Expenditure duly audited by Chartered Accountant in respect of State Nodal Agencies, after the close of the financial year, by 30th September.

Subsidy paid / claimed will be recoverable if any irregularity is detected at any point of time.

# 4. IMPLEMENTATION

4.1 - The programme will be implemented by State Nodal Departments / State Nodal Agencies and Khadi & Village Industries Commission (KVIC), Biogas Development and Training Centres (BDTC), other State Government Agencies / Organizations / Departments, etc. However, within the State, the programme implementing State Nodal Departments / State Nodal Agencies and KVIC, BDTC, etc. could also take help by identifying other skilled organizations that would function within their overall control. However, in one State there may not be more than two agencies excluding KVIC. The implementing agencies within a State would work with proper coordination and share all the information with each other. The

SNDs / SNAs and KVIC may further take help of Panchayati Raj Institutions / Gram Panchayats, Urban Local Bodies and Block / Taluka Development Officers / District Agriculture Offices, Kissan Vikas Kendras etc. in identification and selection of the potential beneficiaries. They may also involve them in post installation supervision of the plants. Financial participation of Scheduled Banks through their Regional Rural Development Banks / Grameen and Prathama Banks, IREDA, NABARD, and other financial institutions would be ensured by the SNDs / SNAs and KVIC as well as BDTCs.

# 4.2 Coordination Committees at the State and District Levels

With a view to ensure proper monitoring, coordination and review of programme implementation, all State Nodal Departments / Agencies concerned and KVIC etc. should include the subject in the meeting at State / District level. 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.

# 4.3 Demarcation of area of operation for KVIC and other Agencies

SNDs / SNAs should demarcate the district/block 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) / Subsidy, it is mandatory on the part of KVIC and other programme implementing organizations to keep the concerned State Nodal Departments / State Nodal Agencies posted and informed in writing with the relevant information about the biogas plants set up by them from time to time. The implementing agencies of the State should share the lists of biogas plant beneficiaries with each other before finally making sure the entry in their respective master inventory registers and sending the final reports of a year to the MNRE.

All implementing Departments / Agencies & KVIC and others should share the 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 45 days before disbursing subsidy to the genuine beneficiaries. States Nodal Departments / Agencies and KVIC are requested to issue suitable instructions to District Nodal Officers in the above mentioned issue on yearly basis while assigning the district-wise targets.

# 4.4 Review of Biogas Development and Training Centres (BDTCs) by SNDs / SNAs

8 BDTCs have been continued for assisting SNDs / SNAs / KVIC. 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 concerned Secretary of the State Nodal Department / Chief Executive Officer of the State Nodal Agency. Co-coordinator / PI, BDTC, is to be also represented in this committee. The committee should meet in the beginning of the year for formulation of the annual action plans, review of performance, etc.

# 4.5 Payment of CFA after commissioning of plants

Central Financial Assistance (CFA) / subsidy is to be disbursed to the beneficiaries preferably through ECS or account payee Demand Draft / Cheque, after completion of construction and commissioning of biogas plants, commissioning of plant includes laying of biogas pipeline, installation of biogas burner, and generation of biogas from the plants and beginning of biogas use by the beneficiary. Wherever a biogas plant beneficiary has taken loan for setting up of biogas plant from Scheduled Banks or cooperative Banks or NABARD authorized FIs for Agriculture, the subsidy amount can be deposited / transferred directly into his Biogas Loan Account. This would help him in resourcing funds and lessen his interest burden.

# 4.6 Bank loan for Installation of Biogas plants

The Scheduled Banks, NABARD, Gramin and Regional Rural Banks of Scheduled Banks need to be involved in implementation of NBMMP by pursuing them to extend lending for biogas plants. SNDs / SNAs / KVIC may determine unit costs for different sizes of Biogas plants and areas for the purpose of facilitating lending by banks. A few important measures to be taken are given below:

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 Nodal Departments / State Nodal 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.

# 5. SPECIAL AND INNOVATIVE FEATURES

'Special and Innovative Features' of implementation of the programme are given below:

- i. In order to upscale the programme, State Nodal Departments / State Nodal Agencies and KVIC and BDTCs may involve recognized and registered Biogas Turn-Key Workers (BTKW) / Rural or Renewable Energy Technicians (RETs), Self Help Groups (SHGs) and other experienced and recognized organizations having knowledge in the biogas technology development and implementation.
- ii. Installation of biogas plants with stress on the entrepreneurship model, and involvement of fast expanding Self Help Groups- (SHGs) with the concept of microfinance for better inclusive and sustainable growth.
- iii. Introduction of competitive bidding for setting up of biogas-plants on pilot scheme -
- iv. Uploading of Village / Block / District-wise, beneficiary- wise, and \_year-wise complete list of installation of biogas plants along with the amount of subsidy paid, on the websites of the respective programme implementing organizations, has been

made mandatory. The prescribed format for this purpose is given at Annexure -XI. These lists will also be sent to respective village Panchayats.

# 6. MODELS OF BIOGAS PLANTS AND APPLIANCES

# 6.1 Approved Models of Family Type Biogas Plants

Appropriate models of family type biogas plants from the approved biogas plants should be selected on the basis of factors such as preference / choice of the beneficiaries and considering technical requirements, such as location, distance between kitchen and cattle shed availability of water and feed-stock like cattle dung, other biomass wastes and sanitary toilets. Approved models for such plants are available for 1 to 6 cubic metre capacities for fixed dome and floating dome type plants. In addition to Ferro-cement and Brick-masonry biogas plants, Prefabricated models of Deenbandhu biogas plants made of High Density Polyethelene (HDPE) and KVIC and Deenbandhu plants made of Fiber-glass Reinforced Plastic (FRP) and Reinforced Cement Concrete (RCC) material may be also included in the approved plants as and when approved. The MNRE approved models will be eligible for CFA under NBMMP.

The list of MNRE approved models of Biogas Plants (Family Size) capacity 1 M<sup>3</sup> to 6 M<sup>3</sup> per day is as given below:

S.No.	Biogas Plant Models*	Specifications/ Ministry's letter No and date of approval.
1.	Fixed Dome Biogas Plants:  (i) Deenbandhu fixed dome model with Brick masonry construction.  (ii) Deenbandhu ferro-cement model with in-situ technique.  (iii)Prefabricated RCC fixed dome model. —	Ministry's letter No.13-10/96-BG dated 10-1-2002 Code of Practices (Second Revision), IS 9478:1989 of the BIS, New Delhi. Ministry's letter No.13-11/99-BG dated 5-3-1999
2:	Floating Dome Design Biogas Plants:  (i) KVIC floating steel metal dome with brick masonry digester.  (ii) KVIC floating type plant with Ferro-Cement digester and FRP gas holder.  (iii) Pragati Model Biogas Plants.	IS 9478:1989 of the BIS, New Delni.
3.	Prefabricated model Biogas Plants:  (i) Prefabricated Reinforced Cement Concrete (RCC) digester with KVIC floating drum.	dated 29.02.2008
4.	Bag Type Biogas Plants (Flexi model)	Ministry's letter No.7-39/89-BG dated 14.7.95—

<sup>\*</sup>New innovative and cost effective models of plants may be added depending upon the technology development and their field worthiness.

# 6.2 Appliances

ISI marked (BIS code IS - 8749: 1988) burners having a minimum thermal efficiency of 55% and only double burner biogas stoves / chullhas should be provided under the programme. Where the biogas stoves are to be purchased by the beneficiaries themselves, the names of ISI Marked stoves and their Manufacturers, prominent locations of availability, market places of biogas stoves and their spare parts, should be given in the publicity material.

# 7. TURN-KEY JOB FEE (TKJF)

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

The Turn-key job fee is linked with five years' warranty for trouble-free functioning of biogas plants set up on Turn-Key Work basis. It is also payable to corporate bodies; registered societies identified by the State Governments Departments / Agencies and their approved and registered trained entrepreneurs. This is subject to the condition that the Turn-Key Worker would visit the plants at least twice in a year during the warranty period. Guidelines and procedure for engaging and payment of Turn-key Job Fee for setting up family type biogas plants to be followed by all the States Nodal Departments and State Nodal Agencies and KVIC & other approved agencies, are given at Annexure- IV, for ready reference. Turn-Key Job Fee should be paid to the Turn-Key Job workers / Rural Energy Technicians / SelFHelp Groups /- Entrepreneurs etc. preferably through ECS or account payee Demand Draft / Cheque only, it should be paid in four installments. The first installment of Rs. 700/- to be released after proper construction and successful commissioning of the plant and on getting beneficiary's consent and issue of completion certificate. Thereafter, four annual installments at the rate of Rs. 200/- each may be released during next four years, after completing the monitoring and physical inspection for providing satisfactory warranty services upto the end of 5th year. The written consent of beneficiaries indicating the satisfactory working of the plant at every stage will form the part of documentation for release of the Turn-Key Worker Charges. The consent form may be devised and incorporated in the Beneficiary's Service Card along with User's Complaint Card.

# 7.2 Turn-Key Job Fee for Prefabricated Biogas Plants

Turn-key job fee of Rs. 1500/- only is also payable for biogas plants involving part construction work either for digester or dome. Only MNRE approved models of prefabricated family type biogas plants are eligible for this assistance. No fee for completely prefabricated / manufactured biogas plants will be provided, such as bag type digester made of rubberized material, nylon fabric material based complete Flexi plants and models involving HDPE, FRP and RCC material based prefabricated / manufactured complete portable family type Biogas plants, as these units do not require any supervision for construction and installation at beneficiaries' homes and manufacturers themselves are supposed to provide a guarantee for five years.

# 8. -ADDITIONAL CFA FOR CATTLE DUNG BASED BIOGAS PLANTS LINKED\_ WITH SANITARY TOILETS

The additional CFA of Rs.1,200/- per plant as subsidy 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 / KVIC and BDTCs etc. should ensure that such plants are set

up only after ensuring 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 aspects, including its commissioning for biogas generation and use by the beneficiaries. The targets for the sanitary toilet linked plants are included in the overall targets as mentioned at Annexure- I applicable for the year 2014-15. SNDs and SNAs, KVIC, etc. are requested to make\_effective coordination with the Departments / Agencies concerned with the rural sanitation programme at the State and District level in identification of beneficiaries for linking of biogas plants with sanitary toilets, wherever feasible. The village-wise list of selected potential beneficiaries of biogas plants may be provided in advance to the State Departments/ Agencies working for the rural sanitation programme.

# 9. TRAINING COURSES

For State Nodal Departments and State Agency-wise and also for KVIC, the allocation of annual target for 2014-15 for Construction-cum-Maintenance / Refresher Training Courses, Users' Courses, Turn-Key Workers Course and Staff Training Course are given in Annexure- II. The Fact Sheets for different types of training courses are given in Annexure- V to VIII. The BDTCs may suggest upgradation in the training curriculum as and when required.

# 10. ADMINISTRATIVE CHARGES

The rate of Administrative Charges (AC) for SNDs / SNAs and KVIC, BDTCs etc. as main Implementing Agencies is linked with their physical target range and actual achievements. No Administrative Charges will be given for achievement of less than 100 biogas plants.

The manpower engaged by SNDs / SNAs, KVIC and BDTCs and by any other Implementing Agencies will not be deemed as employees of Ministry of New and Renewable Energy, Government of India. The Administrative Charges given to SNDs / SNAs and KVIC and BDTC etc. may be utilized for the activities related to development of the Biogas Programme.

# 11. BIOGAS DEVELOPMENT AND TRAINING CENTRES (BDTCS)

Biogas Development and Training Centres (BDTCs) are supported to help States for providing various Biogas training courses and monitoring & evaluation and preparation of technical booklets / guidelines / technical support for quality implementation of biogas programme and Biogas technology development. Each BDTC should engage manpower only in project mode on contract basis for all the approved posts / positions instead of appointment on regular basis or deputation basis and the manpower engaged so shall not be treated as employees of Ministry of New and Renewable Energy, 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. The BDTC-wise annual targets of various trainings and activities shall be earmarked yearly by the MNRE. Their performance will be reflected in their Annual Reports. Eight **Biogas Development and Training Centres (BDTCs)** have been continued for the remaining period of the 12th Five Year Plan (2014-15 to 2016-17). Their locations and States / UTs for work jurisdiction are given in **Annexure-XII**.

# 12. INFORMATION AND PUBLICITY

The State Nodal Departments / Agencies & KVIC and BDTCs as well as other implementing Agencies should prepare standard publicity materials such as Do's and Don'ts, leaflets, booklets, posters, etc. for wider dissemination in the State by availing the financial assistance under NBMMP. 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 Sewa Kendras; (c) Booklets and Folders on Biogas for biogas users and for distribution during gatherings at exhibitions, Kisan Melas / 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 Plant Users; (k) evaluation of publicity campaign, (1) publicity of one prominent Biogas Customers Centre in each Block, (m) information / publicity about ISI marked biogas stove's availability should be given in the publicity material etc. Each beneficiary of a Biogas Plant will be provided a Biogas User's Card for providing and adhering to the 5 year's free warranty services to beneficiaries of Biogas plant which will also contain 10 complaint cards for the use of beneficiary to be lodged by him as and when the plant goes non-functional during the warranty period. The complaints lodged by the beneficiaries are to be attended within the specified time period say within a week.

# 13. SUPPORT FOR REPAIR OF OLD NON-FUNCTIONAL PLANTS

Financial support is provided for repair and revival of old non-functional 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 nonfunctional plants to be repaired and details of repair costs, along with expected contribution from the beneficiaries, support from the State Government, if any, 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 biogas plants which become non-functional after five years of warranty period is restricted to 5 percent of the annual outlay in accordance with the target for the year allocated to the concerned SNDs / SNAs and KVIC. The proposal of repair needs to be submitted to the Ministry for prior approval. The repaired plants will need verification for their working condition by BDTCs / independent organizations and a copy of the report should be submitted to the Ministry along with the claims for the year.

# 14. SAFEGUARDS AND MAINTENANCE OF RECORDS FOR AUDIT PURPOSES

# 14.1 Database of Village-wise Beneficiaries

The State Nodal Departments / State Nodal Agencies and KVIC, as well as other approved programme implementing Agencies / Organizations under them are required to

maintain computerized database in a proper format (Annexure-XI). The detailed particulars of the beneficiaries at the Block or District and State Headquarters and Headquarters / State Offices of KVIC should be maintained in the form of a permanent registers which should be readily available for inspection of the Officers of MNRE / Independent Evaluators and also for post audit verification purpose. Each plant should 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 / subsidy disbursed with date(s) of disbursement, details of voucher, whether installed on Turn-Key basis, name & address of the Turn-Key Worker / RET or agency, date of completion, date of commissioning, name & address of the trained biogas masons who constructed the plant, etc. The contact / mobile nos. of both the beneficiary and the concerned TKW / RET or Entrepreneur should be also recorded.

# 14.2 Beneficiary-wise List on Websites

It is mandatory to put year-wise and District-wise beneficiaries' list of biogas plants set up, on the websites of the respective organizations. Settlement and release of further funds to SNDs / SNAs & KVIC and other implementing agencies will be released on fulfillment of this condition. This should be done in the prescribed format as given at Annexure-XI, after final and firm reporting of the annual Physical progress to the Ministry (MNRE), preferably by 30<sup>th</sup> June, following the close of the year.

# 14.3 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 / State Nodal Agency and Development Officer of the KVIC, State Agro-Industries Corporation, Non-Conventional Energy Development Agencies, etc. as authorized to do so 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 separately for post verification in support of TKJF claimed. All the State Nodal Departments / State Nodal Agencies and KVIC etc. implementing the programme would also maintain the records with respect to functionality status of biogas plants installed by them and monitor their registered Biogas Turn-Key Workers. Such data should be updated annually.

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

# 14.4 Identification Mark on the Biogas Plants

Each plant should be serialized with pre-determined identification-mark and code for District / Block along with name of plant setting SNDs / SNAs and KVIC and other Programme Implementing Agencies 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 reporting and claim. These may also be carved out on the body of digester while plastering on prefabricated models it is to be mentioned on various components of the plants. The unique identification mark and code of

each biogas plant should be recorded in the permanent registers as mentioned under para 14.1 above.

# 14.5 Photograph of the Beneficiary in CFA Claims and affidavit

A photograph of the beneficiary with the completed biogas plant would also be kept along with the CFA disbursement records. An affidavit should be taken from every new beneficiary declaring that no biogas plant was set up earlier in his / his wife's name or any other member of his family (including minor children), by any agency and nor he / she availed any subsidy / Government financial help in the name of the biogas plant. The beneficiary would also state that he will be operating the plant by feeding daily required feed material into the biogas plant.

### 15. SUBMISSION OF REPORTS

# 15.1 Monthly Progress Reports

A monthly progress report indicating the number of biogas plants set up during the month should be sent by post / fax no. 011-24368904 or e-mail: gl.meena@nic.in, by the 10<sup>th</sup> of the following month in the prescribed proforma (Annexure-IX).

# 15.2 Quarterly Progress Reports

The quarterly progress report should be sent to the MNRE by 15<sup>th</sup> of the month, following the end of each quarter in the prescribed format. (Annexure-X)

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

All State Nodal Departments / Nodal Agencies and KVIC and other implementing agencies should send a brief write-up on implementation of the programme by the end of the month of December of the implementing year for inclusion in the Annual Report of the Ministry. The write-up should highlight the implementation strategy, development of business model and on working and management of work being done through registered BTKWs / RETs / SHGs, 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. Special efforts are required to be made and success gained, in facilitating for providing Bank loans to the interested beneficiaries of biogas plants.

# 16. MONITORING OF PROGRAMME

# 16.1. 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.

Further in order to have regular cross checking, State Nodal Departments / Nodal Agencies and KVIC and BDTCs 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 Organizations 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-X).

Heads of the SNDs / SNAs & KVIC 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 Collectors / District Magistrates / Sub-Divisional Magistrates / Block Development Officers / Taluka Development Officers concerned.

# 16.2 Field Inspections by Biogas Development and Training Centres (BDTCs)

Biogas Development and Training Centres (BDTCs) supported under National Biogas and Manure Management Programme (NBMMP) are to conduct inspection of 1000 biogas plants in a year in certain Blocks of districts, selected on random basis in their States of jurisdiction (Annexure-XII). SNDs / SNAs & KVIC etc. are requested to extend help and co-operation to BDTCs in carrying out the inspections on a regular basis.

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. The Biogas Development and Training Centres (BDTCs) may select districts in consultation with implementing agency at the commencement of programme.

SNDs / SNAs & KVIC etc. should take immediate remedial action on the inspection reports of the Biogas Development and Training Centres (BDTCs) and confirm the action taken to the BDTCs concerned under intimation to MNRE on a quarterly basis. All the BDTCs should include few photographs of biogas plants inspected in their inspection reports, which should also be included in their annual reports.

# 16.3 Evaluation Study by Independent Organizations

SNDs / SNAs & KVIC at their level should also involve reputed independent organizations in the monitoring and evaluation of the programme. A copy of the report of such monitoring and evaluation studies conducted should also be sent to MNRE. Such evaluation studies can be supported from the provision of the administrative charges.

In addition to monitoring by SNDs / SNAs & KVIC, and other implementing Agencies, Ministry of New and Renewable Energy may also entrust Independent Evaluation studies of NBMMP. Ministry of New and Renewable Energy including its Regional Offices may also take up monitoring and evaluation studies of the programme periodically on sampling basis.

# 17. SETTLEMENT OF CLAIMS AND ACCOUNTS

Timely year-wise settlement of accounts is a must for smooth flow of further funds for the programme. The SNDs / SNAs & KVIC and other implementing Agencies should submit Claims (in the format given at Annexure-III), Utilization Certificate (in GFR-19 A) and A. G. Audit Certificate of expenditure in case of State Nodal Departments / KVIC and detailed Statement of Expenditure duly audited by the Chartered Accountants in case of the State Nodal Agencies / BDTCs or other organization as early as possible after the close of the financial year, latest by 30th September of the year, following the implementation year.

18. This sanction issues in exercise of the powers conferred on this Ministry and in consultation with the Integrated Finance Division of this Ministry vide their Dy. No. IFD/334/2014-15, dated 26.05.2014.

These guidelines shall be deemed applicable with effective from 08.05.2014. In case of any ambiguity, in interpretation of any of the provisions of these guidelines, the decision of the Ministry shall be final.

19. Receipt of this Administrative Approval / Guidelines may please be acknowledged.

Yours faithfully,

G.L. Meena Director (Biogas)

Dated: 30.06.2014

# 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 (All\_States / UTs).
- 5. Reserve Bank of India (RBI), Central Office, Mumbai.
- 6. National Bank for Agriculture and Rural Development (NABARD), Head Office, Mumbai.
- 7. Secretary, Ministry of Statistics and Programme Implementation, New Delhi.
- 8. PSO to Secretary; MNRE, New Delhi.
- 9. Sr PS to JS and Financial Adviser, MNRE, New Delhi.
- 10. Sr PS to JS(AS) / JS(TK), MNRE, New Delhi.
- 11. PS to Adviser (Dr. N.P. Singh), MNRE, New Delhi.
- 12. PS to Advisor (BE), Sh. A.K. Dhussa, MNRE.
- 13. Director (Biogas R&D and BDTCs), Dr. B.S. Negi, MNRE
- 14. Director (IFD), MNRE.
- 15. PAO, MNRE.
- 16. PA to Director (BG)
- 17. Individual files of States / UTs / Agencies for the year 2014-15.
- 18. Guard File

G.L. Meena Director (Biogas)

# ANNEXURE -I

Allocation of physical targets for installation of family type biogas plants under National Biogas and Manure Management Programme (NBMMP) during the year 2014-15

Sl. No.	State / UT / Agency	Physical Targets (General Category)	Physical Targets (SC Category)	Total targets for the year 2014-15
1	Andhra Pradesh, (NEDCAP), Hyderabad	15000	3000	18000
2	Arunachal Pradesh ,(APEDA), Itanagar	100	-	100
3.	Assam (FDA –cum CCF, Social Forestry Assam)	5500	<u>5</u> 00	6000
4.	Bihar	-	-	0
5	Chhattisgarh ,(CREDA), Raipur	3900	100	4000
6	Goa (Directorate of Agriculture)	100	•	100
7	Gujarat (GAIC Ltd.) Ahmadabad	3500	500	4000
8	Haryana, (Directorate of Agriculture) Panchkula, HR **	1600	100	1700
9	Himachal Pradesh (Dir. of Agri. Shimla) **	300 .	50	350
10	Jammu & Kashmir, JKEDA, Srinagar	100	0	100 -
11	Jharkhand (JHREDA Ranchi)	100	-	_100
12 ·	Karnataka, RD&PR Deptt. Bangalore **	10000	500	10500
13	Kerala, Directorate of Agril., Thiruvanthapuram **	2000	100	2100 -
14	ANERT, Thiruvanthapuram, Kerala	2400	100	2500
15	Madhya Pradesh, MPSAIDC, Ltd. Bhopal	9900	500	10400
16	Maharashtra (RD&WC Dept.) Mumbai **	12800	900	13700
17	Manipur (MANIREDA)	-	-	0
18	Meghalaya, Shillong (MNREDA)	500	- ":	500
19	Mizoram (Directorate of A H &-V) **	509		500
20	Nagaland, Directorate of NRE, Kohima **	-500		500
2.1	Odisha (OREDA), Bhubaneswar	6600	500 -	7100
22	Puducherry REAP	:	-	0
23 .	Punjab (PEDA, Chandigarh)	9000	250	9250
24.	Rajasthan (BDFC, CTAE Udaipur)	-1000	100	1100
25	Sikkim (SREDA), Gangtok	200		200
26	Tamil Nadu (Directorate of RD & PR) Chennai **	700	100	800 - : -
27	Tripura (TREDA) **	300	100	400
28	Uttar Pradesh, RDD Lucknow, UP **	1500	300 -	1800
29 .	UPNEDA, UP	400	100	50.0
30	Uttrakhand - UREDA, Dehradun	350	50 -	400.
31	Uttarkhand- RDD, Pauri **	450	50	500
32	West Bengal (WBREDA) Kolkata **	NR	-	- :
33.	KVIC Mumbai *	12000	800	12800
	Total .	1,01,300	8,700	1,10,000

\* Including 1500 plants for NER States

<sup>\*\*</sup> Audited Statement of accounts upto previous to previous year (2012-13) to be submitted to the Ministry for final settlement of accounts at an early date.

Allocation of physical targets for fraining courses for 2014-15 under National Biogas and Manure Management Programme (NBMMP) for SNDs / SNAs / KVIC-

S.No	State/UT/Agencies	CMC/Refres her training courses (10 days)	Users Courses (one day)	Turn-key workers courses (15 days)	Staff courses (4 days)
1.	Andhra Pradesh	6	200	2	1
2.	Arunachal Pradesh	-		<u>.</u>	-
3.	Assam	2	15		-
4.	Chhattisgarh	5	80		-
5.	Gujarat	2	50		-
6.	Goa	1	10	2	-
7.	Haryana	2	40	-	-
8.	Himachal Pradesh	1	20	-	-
9.	Jammu & Kashmir	1	05		1
10	Karnataka	. 6	150		-
11.	Kerala (Directorate of Ag.)	- 2	50 .		-
12.	Kerala (ANERT)	2.	50		-
13.	Madhya Pradesh, MPSAIDC	. 8	75		. 1
14.	Maharashtra	8	150	-	1
15.	Meghalaya	2	20	1	-
16.	Mizoram	2	20		-
17.	Nagaland	2	- 20	-	-
18.	Odisha (OREDA)	4 .	80		
19.	Punjab, PEDA	5	80	1 -	1
20.	Sikkim, SREDA	2 .	20	-	-
21.	Tamil Nadu (RD&PR)	2	50	1	-
22.	Tripura (TREDA)	2	.20		-
23.	Uttar Pradesh (UPNEDA)	2	10		<del>-</del>
24.	Uttrakhand (R.D.D)	2	- 20		-
25.	UREDA, Uttrakhand	2	20	1	-
26.	West Bengal		-	-	-
27.	KVIC, Mumbai	1.0	300	-	-

In addition to above, all BDTCs would be also allocated separate annual targets for imparting trainings for the above mentioned courses including for the year 2014-15.

# ANNEXURE-III

# PROFORMA FOR SUBMISSION OF CLAIMS WITH RESPECT TO MNRE FUNDS ONLY, FOR SETTLEMENT OF ACCOUNTS UNDER NATIONAL BIGOAS AND MANURE MANAGEMENT PROGRAMME

- 1. Year of the implementation:
- 2. Name and address of the State Nodal Department / Agency / KVIC:
- 3. Annual Physical target:
- 4. Physical Achievement:
- 5. Details of the Central Finance Assistance (CFA) claims:

SI. No.	Particulars	Size of the Plant (in cub. Metre)	No. of Plants actually installe d	Rate of CFA per plant (Rs.)	Total amount of CFA disbursed (Rs.)	Rema rks, if any
A.	Central Subsidy		1			
1.	N.E.R. States, including Sikkim (except Plain areas of Assam) and SC & ST Categories of NE Region States				-	٠.
2	Plain areas of Assam	• • • • • • • • • • • • • • • • • • • •				
3.	Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Nilgiris of	•,				19
<u></u>	Tamil Nadu, Sadar Kursoong and Kahmkpong Sub	v.:		_		
	Divisions of Darjeeling, Sunderbans (WB) and Andaman & Nicobar Islands (Including SC & ST Categories)	-				•
4.	Scheduled Castes and Scheduled Tribes of other than NE Region States and Hilly States /	-			3	
<u> </u>	Regions	•	·		-	-
6.	All others  Additional CFA for sanitary toilet linked Biogas Plants disbursed					
r to a more	(in Rs.)	And the second				
7 8.	Total subsidy in Rs. Total Subsidy disbursed (in Rs.)				-	

# 6. Details of claims of Turn-key Job Fee paid to TKWs / RETs etc.:

SI. No.	Particulars ·	No. of biogas plants set up on Turn-key basis	biogas	Amount disbursed (In Rupees)
(a)	Approved models of Deenbandhu Fixed dome / KVIC Floating dome type design Biogas plants involving brick masonry construction work for digester or gas holder or for both			
(b)	Approved Prefabricated biogas plants involving part brick masonary / RCC construction work either for digester or for dome. No TKJF for completely prefabricated / manufactured biogas plants such as Bag type plants with rubberized material or plants made of PVC / HDPE / fabric material flexi as and when approved			
•	Total Turn -Key Job Charges (Rs.)	-	•••	

# 7. Training Courses:

SI. No.	Type of Training Course	Target	Achie vemen t	Venue of Train ing cours e	Periodici ty (Dates from to)	Nos. of Trai nees trai ned	Nos. of plants constructed during training	Actual . Expendit ure incurred (Rs.)
(a)	Construction-cum- Maintenance / Refresher Course (CMC)			-				
(b) .	Turn – Key Workers and Management Training course for TKW / RET / SHG etc.						• -	
(c)	Users Training Course (UTC)		-					
(d)	Staff Training Course (STC)		•	-	-	-	•. •	•
	TOTAL.				<u>J.</u>		<u></u>	1

# 8. - Details of Administrative Charges (As per physical target and actual achievements):

(i)	Physical achievements (With reference to CFA claims)	: Nos. of Biogas
	Plants	

# Annexure-III (Contd.)

		(ii)	Total amount of Claims (As per the range given in the		ve Approval		
9	).	De	etails of Publicity Expenditure:				
		(i)	(With reference to CFA Clair Plants Amount of Claims	: Rs		Nos. of Bic	
(( A	Give Admir	det	ails of expenditure on specific rative Approval)	items(s)_listed	d for public	city at Para-12	of this
1	10.	De	etails of repair of old Non-funct	ional Biogas P	lants:		
		(i)	Proposal Amount for repair - Prior approval	submitted to M	INRE for		
		(ii (ii	) Amount approved for under		ork	: Rs : Rs	
	SI.N	0	Category of the beneficiary	Actual Nos. of plants repaired	-Rate (Rs.)	Beneficiary's share for repair (in Rs.)	Total Expendit ure (in Rs.)
	1.	-	NER States, Sikkim (except plain areas of Assam)			·	
	3.	÷:	Plain areas of Assam Jammu & Kashmir, Himachal Pradesh, Uttrakhand, Niligiri of Tamil Nadu, Sadar Kursoong & Kalimkpong Sub-				
-	-	-	Divisions of Darjeeling, Sunderbans (W.B.) and Andaman & Nicobar Islands		-		
٠	-4. 	-	Scheduled Caste/ Scheduled Tribe				
	5.	•	All Others Total				
· -	Certi 1.	K be co	he plants for which CFA / subsidictly growth and Competen commissioned during the percompletion certificate in respect control odal Department/ State Agency I hese plants have been physically and claims sent herewith relate on lectual physical progress for the ploaded on the Departments / Ag	munication etc iod from of these completed Headquarter. Verified, samply to the commity	have beento eted plants:  ple test che issioned bio, the det	claimed , have and are available at cks have been c	requisite the State conducted ported for

4. A photograph of the beneficiary taken with the completed and commissioned biogas plant has been kept along with the CFA disbursement records.

5. 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 and also hosted on the Website of the State Nodal Department/ State Nodal Agency and the KVIC and the above mentioned details of the beneficiaries have been shared with the other implementing agencies including KVIC who are working in the State and ensured that no case of any kind of duplicacy in reporting involved.

7. The concerned beneficiaries are satisfied with the construction, fabrication and functioning of the biogas plants and certificate to this effect have been obtained from them for record.

- 8. A written undertaking has been given to the beneficiary concerned for free cost service, inspection, guidance and to repair defects, if occurred during the period of five years from the date of commissioning of the plants. Beneficiary's service cardalso containing complaint cards has been also handed over to him for post installation services.
- 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 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 the BDTCs/Independent Agencies has been carried out and that such plants have been made functional.

Signature

 Name & Designation of the Head of the State Department / State Agency with Official Seal

Place: Date:

Guidelines and procedure for payment of Turn-Key Job Fee for setting up of Family Type Biogas Plants under National Biogas and Manure Management Programme (NBMMP).

Extract from letter No. 17-4/1982-Biogas dated 18<sup>th</sup> December, 1982 to all State Governments and implementing agencies, etc.

# (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 Department/ 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 plants imparted by the Biogas Development and Training Centres (BDTCs) and experience of plant construction supervision and commissioning as well as O & M.

(b) Possess requisite facilities like workshop for fabrication of steel gas holders and storage space for prefabricated biogas plants, gas holders, cement, bricks, biogas appliances, etc.

(c) Possess requisite financial resources and credibility

A list of such trained and registered persons should be maintained by the programme implementing SNDs/ SNAs and KVIC and others involved in the programme, at the State/ Agency Headquarters and KVIC Headquarters as well as in the field Offices at the Districts and Block levels. There should not be any common Turn Key Worker/ RET registered for the programme implementation by the implementing SNDs/ SNAs and KVIC and others involved in the programme.

To start with, State Governments and implementing agencies may consider registration of such persons who have already been trained in the construction and maintenance of biogas plants in the training programme organized under National Biogas and Manure Management Programme (NBMMP) after proper evaluation of their technical capabilities and resources to undertake Turn Key Jobs work for Biogas plants.

# (B) Mode of release of Funds by MNRE, Govt. of India

Payment of Turn-Key Fee at the rate mentioned in Paragraph 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 Government of India, after satisfactory completion /commissioning of the biogas plants and on receipt of claims in the proforma at Annexure-III. The funds will be released by the Government of India on receipt of the final claims all duly audited and certified by the Head of the programme implementing State Nodal Department / State Nodal Agency and KVIC Mumbai, etc.

# (C) Suggested Procedure for payment to approved and registered Private Entrepreneurs

(a) The State Governments Nodal Departments / State Implementing Agencies should disburse the payment of the Turn-Key Job Fee to their approved trained and registered Biogas Turn-Key Workers / Rural Energy Technicians / Self Help Groups / Entrepreneurs etc. in yearly installments. Turn Key Job Fee should be paid to these 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/- to be released after proper construction and successful commissioning of biogas plant. Thereafter, second, third, fourth and fifth installment @ Rs. 200/- each per year may be paid after completing the inspection and providing satisfactory warranty services, based on the Biogas Plant yearly functional reports signed by the beneficiary concerned and local Official and Gram Panchayat Member.

(b) It will be the sole responsibility of the State Government, Department / implementing agency and KVIC etc. to ensure all the Terms and Conditions of the Turn-key Job Fee

provisions.

(c) State Governments may also keep some caution money/ surety bond/ Bank Guaranty from their registered Turn Key Job Workers / RETs / SHGs to cover the five years warranty period of their providing post installation operation and maintenance services for the biogas plant installed by each of the Turn Key Worker/ RET. In order to have better checks and balances for this scheme, they may also enter into an Agreement with each of the Turn Key Job Worker / Rural Energy Technician / Self Help Group / Entrepreneur etc. engaged by them for setting up of biogas plants and which should be unambiguous to avoid unnecessary litigations subsequently.

# (D) Guarantee

The agencies / private entrepreneurs involved for undertaking Turn-key Jobs and receiving Turn -key Job Fee shall give a Guarantee of the satisfactory working and also free of cost services for inspection and guidance to repair the defects, if any, occurred during a period of one year from the date of commissioning of the biogas plant. In case of defaulters, the State Governments / implementing Agencies and KVIC may decide to blacklist the concerned agencies, entrepreneurs / Turn Key Worker / RET and may forfeit the caution money / en-cash the Bank Guaranty / Surety Bond etc. for setting the biogas plants repaired / re-commissioned.

# (E) Area of Operation

In case of Corporate bodies / Registered Societies / Self Help Groups / Entrepreneurs, the area of operation should be clearly demarcated by the State Government and the implementing Agencies so that there is no duplication in efforts and reporting. Similarly, for approved trained entrepreneurs allotment of specific areas should be considered by the State Nodal Departments/ State Agencies and KVIC. Wide publicity may be given for these provisions and list of approved trained Turn Key Workers / Rural Energy Technician / Entrepreneurs / SHGs registered by the State Governments and State implementing Agencies and KVIC Mumbai, under the Turn Key Job Provisions of the NBMMP Scheme, should also be put on their respective web sites and Notice Boards of field Offices at Districts and Block levels and Gram Panchayat Offices for wider information of the biogas beneficiaries.

# Model Syllabus for USERS' Training Courses on Biogas

# 1. Objective:

(i) To raise awareness about the benefits of biogas plants among users specially women beneficiaries, and

(ii) To impart awareness on operation and maintenance and day to day upkeep of biogas plants.

# 2. Venue/ Nos. of Participants:

Villages having about 1-5 biogas plants in operation will be selected as venue and 40-60 household of the selected village will be contacted and invited for attending User's Course. Efforts should be made for involving in all such courses.

- 3. Medium of Instruction: Local Language
- 4. Duration of Users' Training: One Day
- 5. Topics to be covered:

# a) Women Education Programme for awareness raising

- · Benefits of Biogas Plant.
- Operation and Maintenance of Biogas Plant.
- Financial and other assistance.
- Preparation of loan applications.
- Field visits and practical demonstrations on how to connect plant to biogas burner after generation of biogas in the plant.

# b) Users' Course on Operation of biogas plants

- · How to collect dung free from sand, stone, gravel etc.?
- How to prepare dung slurry and how and when the slurry should be fed into a biogas plant?
- How to light burner and biogas lamp?
- The method of cooking of chapattis on biogas (direct blowing of chapattis should be demonstrated).
- Type and size of utensils to be used.
- Method for increasing gas production during the winter months.
- How to use best use of biogas plant digested slurry and How to make it more in quantity and value?
- How to store the biogas plant digested slurry if wet slurry is being not used
- directly for manuring of crops?
- How to keep a biogas plant and plat site clean and tidy?
- How to use a biogas plant if it is connected with sanitary toilet also?
- When a biogas burner has been left open and the gas has leaked out in the kitchen, what precautions should be taken?

# Annexure-V (continued)

# c) Maintenance of Biogas Plants

- How to clean/ wash burner and lamp periodically?
- How to clean biogas holder?
- How to remove water condensation from the Gas Pipe Line?
- Checking of gate valve, Joints in pipeline, pressure tube, gas cook, etc.

# 6. Financial Provisions for Users's Training Course

# **Estimated Cost for Users' Training Course**

SI. No.	Item of expenditure	Estimated Proposed Cost (in Rs.)
1.	Tea/ snack	700
2.	. POL	700
3.	Honorarium @Rs. 300 per	600
4.	Contigency (Shamiana, audio and visual aids,	· · 1000
	chairs, banners, Miscellaneous items.	
-5.	Total	3,000

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# NATIONAL BIOGAS AND MANURE MANAGEMENT PROGRAMME (NBMMP)

# Staff Training Course (for Government / Bank Officers / Field Officers / Field Functionaries)

# 1. Purpose

To expose Supervisors / Govt. Functionaries / Bank Officials & Staff to various aspects of biogas technology and to familiarize them with the importance of Biogas as a fuel and present status of biogas programme, inter-alia details about how Biogas Plants are constructed and operated.

# 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 Development Officers, Agriculture Extension Officers, Assistant Engineers, Junior Engineers, Assistant Agricultural Engineers, Agricultural Inspectors / Assistant Directors and Development Officers of Khadi and Village Industries Commission and Khadi and Village Industries Board, Field Supervisors and Staff of Agro Industries Corporation Ltd., Dairy Development Board / Corporations, Entrepreneurs of Agro-services Centres, Field Supervisory Staff of recognized Voluntary Organizations / Self-Help Groups / Registered Societies. Women-functionaries of all above mentioned organizations should be also nominated.
- (ii) Instructors / Teachers from ITIs, selected Farmers Training Centres / Extension Centres / Gram Sevaks Training Centres etc. Such Training Centres should be selected as the venue for organization of subsequent Training Courses for local masons in the construction of biogas plants.

3. Medium of Instruction : Hindi/ English / Regional Language

4. Duration : Four Days

Numbers of Participants : 10

6. Syllabus / Curriculum

[	DAY	SUBJECT .
	1 <sup>st</sup>	Introduction to the Biogas Technology.
	-	Introduction to 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.
		Type of different approved models of Biogas plants based on
-		material and accessories, appliances etc.
		ii. Motivation / selection of biogas models and selection of biogas
		potential beneficiaries, Socio-Economic Aspects, Environmental

	Aspects of having biogas plants installed in houses  iii. Rates of Financial Assistance / disbursement of subsidy /  utilization of funds, maintenance of Accounts  iv. Institutional support for implementation of the NBMMP  Programme
3rd	<ul> <li>i. Construction methodologies for biogas models popular in the region.</li> <li>ii. Details of biogas stoves / burners / appliances and spares for O &amp;M of biogas plant</li> <li>iii. Identification of faults and their rectifications</li> <li>iv. Connecting a cattle dung based biogas plant with sanitary toilet and its operation</li> <li>v. Installation and Commissioning of prefabricated approved Biogas Plants</li> </ul>
4 <sup>th</sup>	Field / Site Visit to:  i. Operational Biogas Plants,  ii. Biogas plants under construction,  iii. Biogas plants under commissioning for biogas generation,  iv. Connection of biogas plant to biogas burner for use of Gas by the new user,  v: Handling and application of biogas plant effluent  vi. Operation and Maintenance of biogas plant  vii. Valedictory and concluding

# 7. Financial Provisions for Training Course for Government Functionaries / Field Officers

8

Sl. No.	Item of Expenditure	Estimated Cost (in Rs.)
1.	Transportation Charges	3,000
2	Technical books, literature, blue prints etc.	2,000
3.	Tea/lunch @Rs.80/- per head per day	3,000
4.	Contingency and honorarium to guest speakers @ Rs. 300/-	2,000
	TOTAL	10,000

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# -- NATIONAL BIOGAS AND MANURE MANAGEMENT PROGRAMME Fact Sheet on CONSTRUCTION-CUM-MAINTENANCE COURSE (CMC) / REFRESHER COURSE

## 1. Purpose

To create a cadre of masons and technicians skilled in the construction and maintenance of approved models of biogas plants i.e. Deenbandhu fixed dome model, KVIC floating metal gas holder with brick masonry digester models, digester made of ferro-cement, gas holder model of FRP and Pragati models. Also training for new and innovative models of plants as and when approved by MNMRE.

### 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 : 10 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 usage

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 needs to be constructed and installed during the training course by the trainees. Emphasis should be mainly on proper practical

# Annexure-VII (continued)

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	<ul> <li>selection of site</li> <li>marking of layout</li> <li>Digging of pit</li> </ul>
1	Laying of foundation
4	<ul> <li>Digester construction</li> <li>Construction of outlet chamber in Dee1nbandhu Model</li> <li>Fixation of guide frame in case of floating drum KVIC or Pragati model</li> </ul>
2	• Plastering -
. 5	<ul> <li>Curing of civil work</li> <li>Laying of gas distribution pipeline, fixing accessories etc.</li> </ul>
2 .	Slurry making filling of digester
1	Testing for gas leakages

## 7. Financial Provisions

Estimated cost per course is as under:-

SI. No.	Item of Expenditure	Estimated cost (in Rs.)
1.	Stipend up to a maximum of Rs. 400/- trainees/day or 10 - trainees for a maximum period of 10 days (pro-rata basis) to meet boarding and lodging expenditure	40,000
2.	To and fro transport charges to 10 trainees as per actual but no exceeding of Rs. 300/- per trainee on pro-rata basis.	3000
3.	Contingency for transportation/POL, Stationery, books, honorarium to guest speakers etc.	2000
	Total .	45,000

# 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 no les 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.

# Annexure-VII (continued)

8.4 Preference should be given for organizing course in ach 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 should

be issued containing there in their names & address.

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

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# NATIONAL BTOGAS AND MANURE MANAGEMENT PROGRAMME Fact Sheet on Turn-key Workers Training (TKW)

# Objective:

To create a cadre of Biogas Turn-Key Workers / Biogas 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 12<sup>th</sup> Standard pass or 10<sup>th</sup> pass with ITI certificate. If they have already some relevant experience certificate in biogas work, they should also be given chance. The trainee should take in living in his/her village

Numbers of participants .	Ten			
Medium of instruction	Hindi/ English/ Regional language [depending upon the facility available at the Biogas Development and Training Centre (BDTC)]			
Duration of training	15 Days			
Venue .	Biogas Development & Training Centre			

### Syllabus

The programme should 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:

- Marketing Management: Technique of motivation, project formulation, filling up and process of applications for arrangements of subsidy.
- Personal Management: Training of masons, placement of masons in different village to be covered, identification of plumber and his training liaison with beneficiary, masons and plumbers, supervision of the persons engaged in plants construction
- Material Management: Types of the material required for biogas plant construction, testing of quality of material, procurement of the materials.

# Annexure-VIII (continued)

Financial Management: Estimation of Unit cost of bigoas plants iv. arrangement of bank-loans and subsidy special motivation support from social organizations, principle of accounting.

Office Management: Record keeping of individual beneficiaries and other V. records on financial and physical programmes, methods of maintaining the

accounts, payment made to the beneficiary and masons etc.

Break-down Management: Feed-back, monitoring and evaluation of vi. plants repair and maintenance of sick plant.

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

# E. Financial Provision Turn-key Workers Training Course

Sl. No.	Item of Expenditure	Estimated cost (in Rs.)
1.	Stipend up to a maximum of Rs.300/-trainees/day or 10 trainees	45,000/-
2.	To and fro fare charges/ cost up to a maximum of Rs.700/- per trainee, subject to actual.	7,000/-
3.	Contingency, POL for field visit, honorarium to guest speakers @ Rs.300/- per lecture, project reports, books, stationery, blue prints, technical literature, manuals, etc.	23,0007-
Total		75,000/-

# F. Suggested Planning:

a. The programme high lights should be widely circulated.

b. Nomination may be asked from State Nodal Departments/Agencies, ·Voluntary Organizations in advance.

c. The faculty for training should include technical ad. management expects.

# NATIONAL BIOGAS AND MANURE MANAGEMENT PROGRAMME Monthly Progress Report of Family Type Biogas Plants for the year 2014-15

EE. 

Model and Type of biogas plants being installed / set up

(i) Total Nos. of plant & size (Cu. M.)	Type	(A). Family	1	Items of Physical Progress
	_	3×	2	Annual Targets General &SC Category separatel y
			w	Nos. of Biogas Commissioned Upto Duri Previo the us month of month repo
			4	Nos. of Biogas Plants Commissioned Upto During Previo the month of report
			Un	s SC sc
			6	S S F F
			7 (3+4)	Cumulative total upto the current month of report
			90	Nos. of Constr Gene ral Cate gory
-			9	Nos. of plants under Construction stage Gene SC SI ral Categor Cate gory or
	-	•	10	ige ST Ca teg or
- :			11(8+9+1	Nos. of plants under construction stage during the month of report
			12	cost of the plant as per Size (in Rs.)
			<u> </u>	Nos. of training targets allocated includin g those of BDTCs
		W15,95570	14	nt of Training Courses out of the total Annual Targets including those of BDTC

(A+B)	Total	far.	scheme so	under the	covered	Villages	Nos. of	e total	Cumulativ	(C).	above.	total of (A)	out of the	toilets,	sanitary	With	connected	plants	based	dung	of cattle	(B). Nos.
	200												. 1	11						_		
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X- General Category targets including ST Category Y- SC Category annual target

# ANNEXURE-X

	National Biogas and Ma	nure Management Programme
	Quarterly Report for the	Quarter of the Year
1.	Name of State/UT/Agency	
2.	Report for the quarter ending	

3	Physical	Annual	No. of pla	nts comp	leted			No. of Bio	gas plants	
	Progress -	target	Up to previou s quarter	During current quarter	Cumulative (up to current quarter)	SC		Commis sioned for Gas Generati on	Plants to be commissio ned	
3.1	Family type plants				•					
	Name of District:		• •		-					
3.2	Sanitary toilet linked cattle dung plants out of 3.1 above									
3.3	Total Number of plants- taken up for repair.	propose	ed for quarter g curre					mulative (up to No. plants under repair		
	under repair scheme	:		-		ous quart er	•		Topan	
<del>-</del>	Name of districts:	-	•		-					
4	Inspection Report of reported in progress report	installe	date of	No. of plants actual ly inspe cted	No. of completed & functional plant	1	plants	No. of hon- traceabl e plants	Remarks (action taken for repair) making plant functional	
4.1	Name of village/Bloc k/District	S Detrope a si		-	•		-	-		
i)								-	-	
ii)					1	<del> </del>		Complete	ivo unt	
5	Training course	Annua (No. of	l target f courses)	Upto p	orevious quarter		g current er (nos.)		ive upto quarter (nos.)	

5.1	Users' Training course						
5.2	Construction-cum-Maintenance/Refresher/Trainers/Turn-key-workers'training						
6	Publicity	Print Media [Brochure/Hand bills, Calendars advertisement (sample copies should be attached)]	Electronic Others Media (Exhibitions/Meals (Advertisement on AIR/Doordarsh an) (Please indicate the duration and frequency)				
7.	Action Taken Report	• .					
7.1	ROs/BDTCs concerned	Reference number of ROs/BDTCs Report	Action taken: i. ii.				
7.2	Concurrent Monitoring	Reference Number of Monitoring organizations' Report	i. ii.				
8.	State/District Level Co- ordination Committee	No. of meetings held with date	Important decisions: i. ii.				

ANNEXURE - XI

# National Biogas and Manure Management Programme

websites of the respective SND / SNA and KVIC and other organizations and for concerned Village Panchayat Village, District and Year - wise and beneficiary - wise detail of Beneficiaries of the family type biogas plants to be displayed on the

jund 0	ò ¼ 🛚 🗷
2.	1. N 2. N 3. B 4. D 5. R 6. T 7. D 8. P Name/ Husban d's name of benefici ary
çu	Name of State / UT  Name of the SND / SNA / KVIC of the State  Block / Taluka  District  Report on website for the year  Total nos. of Biogas Plants reported as complete in all respect  Date of putting the list on web-site  Particulars of the beneficiaries viz:  Full Cate Nos. Nos. Size and Date Amou of Model of Subsit of Catt of Com In Rs of the fami Catt of Com In Rs of the list of Model of Subsit of Model of Model of Subsit of Model of Model of Model of Subsit of Model of M
4.	UT D/SNA Site for liogas Pl the list le benefi Cate gory of the benefi iciary , Gene ral/ SC/ ST/ Othe
iv	the yea ants re on web ciaries Nos. of fami ly me mbe rs
6.	C of the ported o-site viz: Nos. of Catt les own ed
7.	State  as complet  as complet  Size and  Model  of  biogas plant and identific ation mark/ code number on the biogas plant
00	e in all I  Date of Com missi oning of bioga s plant
9.	Amount of subsidy pai (in Rs.)  MN STARE TE subs sub sub sub sub sub sub sub sub su
10.	Amount of subsidy paid (in Rs.)  MN STA RE TE subs subsi idy dy
-	Date and amount of subsidy disbursed and delivery mechanis m of payment linked with Aadhaar number
12.	Whether plants installed on Turn Key basis. If yes, name and address of Turn key Agency/ Worker/ RET
13.	e of leld rvising lal of NUD/ C who lied the pletion ogas t
14.	Wheth ex ISI marke d, biogas stove, provid ed. Yes/No
10.	Photog raph of the benefic iary with the biogas plant

# ANNEXURE - XII

# BIOGAS DEVELOPEMNT & TRAINING CENTER (BDTCs)

S.No	Locations	Name of Institution	States Covered
1.	Guwahati	Dr. Pinakeswar Mahanta,	All North-Eastern
1.	Gummu	Assistant Professor & Head, —	Region States
	- n	Department of Mechanical Engineering,	including Sikkim
		Indian Institute of Technology, Guwahati,	and West Bengal
=		North Guwahati, Guwahati- 781039	
		Ph: 0361-258-2651/2662 (O), Fax: 0361-2690762	
		Mob:- 09435734561	V 3 /
	=	E-mail: pinak@iitg.ernet.in	00 1
	<u>^</u>	2.Dr. V. Guha Roy,	
		Project Manager,	-
		Mob.no.9678738054	1 5
		E.mail Uguharayiitg.ernet.in	
3	D	-Dr. V. Kumar Gouda,	Goa and Karnataka
2.	Bangalore	Biogas Development and Training Center,	000
-		Department of Agricultural Engineering,	
		Department of Agricultural Engineering,	
		University of Agricultural Sciences, GKVK,	
		Bangalore- 560065	
	E 1	Ph: 080- 23330153/335, 080- 23640206 ®	
		M-9901069131	
		E-mail: vkgouda@rediffmail.com	
		2.Mr. B.K.Anand Rao	
		HOD.	CI I W' I
3.	Indore	Prof. S.P. Singh	Chhattisgarh,
		Director,	Madhya Pradesh and
		Biogas Development and Training Centre,	Maharashtra
		Centre of Energy Studies and Research (CESR),-	
		Devi Ahilya Vishwavidyalaya, Khandwa Road,	-
13-11		Indore- 452017.	
		Ph: 0731-2460309, Fax: 0731-2467378/2462366	· · · ·
		® 0731-2446803	
		Mob: 09424009418	
		Email: spsanjali@yahoo.co.in	
		2.Rajender Singh Pawar (STA)	
		rspawar18@gmail.com	-
4.	Ludhiana	Dr. Sarabjit Singh Sooch, (PI)	Punjab, Himachal
т.		Research Engg & Incharge BDTC	Pradesh, Uttrakhano
		Dept. of Civil Engg.	and Jammu &
		Punjab Agricultural University, Ludhiana141004,	Kashmir
	-	Punjab Agricultural Oniversity, Eddinanti 1100 s,	
		Ph: 9872084513 (M), 09501034513 (M), 0161-	
	-		
		2401655(F)	
		- sssooch@rediffmail.com	
		D NIK KI II	
	*	Dr. N.K. Khullar	
		Director,	

		Biogas Development and Training Centre,	
		Dept. of civil Engg. Punjab Agricultural University, Ludhiana. Punajb. Ph: 0161-2401960 Extn- 259, Mob: 9417932952	
5.	Udaipur	Dr. Deepak Sharma Head, Deptt. of Renewable Energy Engineering Coordinator, Biogas Development and Training Centre, College of Technology & Agricultural Engineering, Maharana Pratap University of Agriculture & Technology, Udaipur-313001 (Rajasthan) Ph: 0294-2471068 (O), 0294-2414021(R) Mob.: 9414160221 Email: deepshar@rediffmail.com	Gujarat, Rajasthan and Daman & Diu
6.	Coimbator	Web.: www.ctae.ac.in Prof. (Dr.) S. Kamaraj 094439-34139 Coordinator,	Tamil Nadu, Pondicherry, Kerala,
	e, Tamil Nadu	Biogas Development and Training Centre, Agricultural Engineering and Research Institute, Tamilnadu Agricultural University, Coimbatore-	Andaman & Nicobar and Lakshadweep
		641003. Ph: 0422- 6611526, 527, 545 Fax: 0422- 6611454	
		Email., bioenergy@tnau.ac.in, kamarajs@hotmail.com Mob.: 9442961793	
7.	Delhi	Prof. V.K. Vijay Programme Coordinator, Biogas Development and Training Centre,	Haryana, Uttar Pradesh and NCR Delhi
		(CRDT), IFT Hauz Khas, New Delhi-	
-		M- 9871366611 Ph: 011- 26596351, 26596311, Fax: 011- 26591121, 26596351 Email: vkvijay@rdat.iitd.ernet.in bdtciitd@gmail.com	A H D J J
8.	Odisha	Dr. Snehasish Mishra, Associate Professor (PI-BDTC), School of Biotechnology, Kalinga Institute of Industrial Technology (KiiT),	Andhra Pradesh, Odisha, Bihar and Jharkhand
		Bhubaneswar 751024. Odisha, Email: smishra@kiitbiotech.ac.in	-

