GOBAR-DHAN - WASTE TO WEALTH

FRAMEWORK FOR IMPLEMENTATION May 2021



SWACHH BHARAT MISSION (GRAMEEN)

DEPARTMENT OF DRINKING WATER AND SANITATION

MINISTRY OF JAL SHAKTI

Government of India

Galvanizing Organic Bio-Agro Resources-Dhan (GOBAR-Dhan)

Safe management of cattle waste and other organic waste

1. Introduction:

GOBAR-Dhan was launched by the Government of India in April 2018 as a part of the Biodegradable Waste Management component under Swachh Bharat Mission (Grameen) (SMB-G) to positively impact village cleanliness and generate wealth and energy from cattle and organic waste. The main focus of GOBAR-Dhan is to keep villages clean, increase the income of rural households, and generate energy and organic manure from cattle waste.

As rural India has already attained the Open Defecation Free (ODF) status, the importance of GOBAR-Dhan has increased as it supports the villages in achieving ODF-plus status, which is an important objective of Swachh Bharat Mission Phase 2.0.

Presently, various Ministries/Departments are implementing schemes for the management of cattle and agricultural waste through the setting up of Bio-gas plants. However, a unified approach would be beneficial to ensure convergence among various schemes and to get full benefits from them. Accordingly, GOBAR-Dhan has been designed to provide a common platform for schemes of different Ministries/Departments such as the Ministry of New and Renewable Energy (MNRE); Ministry of Petroleum and Natural Gas (MoPNG); Department of Animal Husbandry and Dairying; Department of Agriculture, Cooperation and Farmers Welfare; Department of Rural Development; and Department of Drinking Water and Sanitation (DDWS).

DDWS is the coordinating Department for implementing schemes for setting up biogas plants. DDWS also provides technical and financial assistance to States/UTs for the implementation of GOBAR-Dhan projects under SBM-G.

2. Objectives of GOBAR-Dhan:

- To support villages effectively manage their cattle waste, agricultural waste/residue and all other organic waste.
- To support communities to convert their organic waste (especially cattle waste) to wealth through generation of manure and energy out of waste.
- To promote environmental sanitation and curb vector-borne diseases through effective disposal of waste in rural areas.
- To create livelihood opportunities in rural areas and enhance the income of farmers and other rural people by supporting them to convert their waste to wealth.

• To promote rural entrepreneurship by involving entrepreneurs, SHGs and Youth Groups in the setting up and operation and management of biogas plants.

3. Benefits of GOBAR-Dhan:

- GOBAR-Dhan helps in managing a major portion of solid waste in villages i.e cattle dung and agricultural waste and promotes environmental sanitation
- Substantially reduces vector-borne diseases and promotes public health
- Promotes household income and saving as the use of biogas reduces the expenditure on LPG
- Helps in generating organic manure which enhances agriculture and farm productivity
- Promotes employment and income generation opportunities for SHGs/ farmers groups
- Helps in reducing carbon emission and promotes environmental sustainability
- Helps to save foreign exchange by reducing the need for the import of natural gas

4. Guiding Principles of GOBAR-Dhan implementation:

- GOBAR-Dhan would be implemented as a people's initiative to make use of animal dung in villages. The community would lead the planning, implementation and management of the GOBAR-Dhan scheme.
- It would address the compelling need for the safe management of cattle dung and other organic waste to be popularized amongst the rural population by the State, District and Block administration so that people realise the importance of the GOBAR-Dhan initiative.
- Intensive IEC at the local level should be undertaken to promote the benefits of GOBAR-Dhan and the need for community collective action on GOBAR-Dhan.
- Villages with a high population of cattle should be taken on priority.
- GOBAR-Dhan infrastructure should be such that it can be owned, operated and managed by the members of the community themselves.
- There should be optimum utilization of available financial resources to cover maximum households and to get the maximum benefit from it.

5. Various models of GOBAR-Dhan

GOBAR-Dhan can be implemented by GPs through SHGs / Farmers Producers Organisations / CBOs developed under DAY-NRLM/Milk Cooperatives / Milk Unions / Agencies selected or empaneled by States or Districts / Biogas Development and Training Centres (BDTCs), etc. GOBAR-Dhan projects envisaged under SMB-G can be classified under four broad models:

(i) Individual Household model: Under this model, GPs will identify potential households for setting up of GOBAR-Dhan units and arrange to provide technical and financial support for the construction of biogas plants. GPs will also encourage households through IEC activities to construct biogas plants from their resources or resources obtained from CSR.

Funding Source: The various sources of funding such as the New National Biogas and Organic Manure Programme (NNBOMP) of MNRE, 15th Finance Commission, MPLAD, MLALAD and other State schemes, etc., can be used for setting up of households units, as per the funding norms of NNBOMP.

(ii) Cluster model: Under this model, a cluster of households can be identified by the GPs for installation of household level bio-gas plants. The biogas generated will be used by the households while the slurry will be collected and processed at a centrally agreed place. The GPs will ensure that the identified households use the biogas generated and sell the slurry to the agency for further processing and conversion to bio-fertilisers/organic manure.

Funding Source: The various sources of funding such as New National Biogas and Organic Manure Programme (NNBOMP) of MNRE, SBM(G), 15th Finance Commission, MPLAD, MLALAD and other State schemes, etc., can be used for setting up of cluster units. Funding norms of NNBOMP will be followed. SBM-G will provide support to households that are a part of the cluster model.

(iii) Community model: Community level biogas plants can be constructed for a group of minimum of 5-10 households. The waste will be collected from households and transported to the biogas plants. While the biogas generated will be supplied to households/ restaurants/institutions, etc., the slurry can be used in agriculture/sold to farmers/converted to bio-fertilisers/organic manure.

Funding source: The various sources of funding such as NNBOMP, SBM-G), 15th Finance Commission, MPLAD, MLALAD and other State schemes, etc., can be used.

(iv) Commercial model: Under this model, large Bio-Gas/Compressed Bio-Gas (CBG) plants can be set up by Entrepreneurs/Cooperatives/Gaushalas/Dairies, etc., with an objective to generate a high volume of raw biogas on a commercial scale. The biogas is converted to CBG and can be sold to industries/Oil Marketing Companies (OMCs) or directly through fuel dispensing units.

State and Districts will promote the construction of commercial units as part of the GOBAR-Dhan scheme to promote the use of biogas for multiple needs. In this regard, they would:

- Create enabling policy provisions for entrepreneurs and businesses to set up commercial units
- Support entrepreneurs and businesses to avail loans/financial assistance being provided under the schemes of various Departments/institutions
- Create awareness of the business potential of commercial plants so that more such plants are set up.
- Promote uptake of slurry by Government Departments and other allied organisations.

Funding Source: Large CBG plants are to be set up through self-financing. However, financing/assistance can be availed from the existing schemes of the Government of India such as:

- Waste to Energy programme of MNRE:
- a) Central Financial Assistance for Biogas generation: Rs 1.0 crore per 12000cum/day;
- b) Central Financial Assistance for BioCNG generation (including setting up of Biogas plant): Rs 4.0 Crore per 4800 Kg/day
- Sustainable Alternative Towards Affordable Transportation (SATAT) of MoPNG: SBI and Bank of Baroda loans for CBG plants under SATAT
- Commercial loans under Agriculture Infrastructure Fund (loan interest subvention) of DACFW: All loans under this financing facility will have an interest subvention of 3 percent per annum up to a limit of loan amount of Rs. 2 crores. This subvention will be available for a maximum period of 7 years. In case of loans beyond Rs.2 crore, interest subvention will be limited up to the loan amount of Rs.2 crores.

Funding available under CSR, State schemes, loans etc., can also be availed.

6. Implementation mechanism:

6.1 District

- The district will be the nodal agency for planning, implementation, monitoring and approval of GOBAR-Dhan projects.
- The district will have the flexibility to decide implementation mechanisms.
- Districts can take up model projects at District/Block level or household, cluster and

- community models within a GP.
- In the case of household, cluster and community models at the GP level, the district will obtain the proposals from GPs.
- The district will examine the proposals of GPs with the support of a technical committee/experts, if needed, and approve the proposal ensuring its long-term sustainability and incorporate the same in the District AIP.
- The district will ensure that overall funding under SBM-G will not exceed the cap of Rs. 50 lakh for the entire programme period i.e. up to 2024-25.
- Funds in the case of cluster and community model will be paid to the Gram Panchayat or agency endorsed by the Gram Panchayat for the construction of a GOBAR-Dhan unit.
- The Gram Panchayat or the agency selected by Gram Panchayat, to receive funds from the District will receive funds in an account/ledger opened for the GOBAR-Dhan project. The funds received for the implementation of GOBAR-Dhan will always be identifiable and will be subject to audit.
- Additional requirements of funds for the cluster and community projects at the District/Block/GP level can be met from other funding sources such as the 15th Finance Commission, MPLAD, MLALAD, CSR, etc.
- Business models to be promoted, wherever feasible.

6.2 Gram Panchayat:

- The GP has to identify the potential beneficiary for the household/cluster and community level projects. It will work with cooperatives, milk unions, Farmer Producer Organizations (FPOs), SHGs, CBOs developed under DAY-NRLM, Private entrepreneurs, etc., for the identification of beneficiaries and also for implementation of GOBAR-Dhan projects.
- The GP will identify a suitable location for community projects through a Gram Sabha resolution
- The GP will prepare a project proposal with the help of a technical agency/experts (to be arranged by the District/State), if required and submit the same to the district for approval before incorporating it in the GPDP.
- The project proposal will include the cost of planning, implementation and operation and maintenance.
- The GP will identify all the funding sources at the time of planning for convergence.
 For a household level single project, funding from more than one GoI scheme will not be allowed.

- The GP or the agency identified for implementation of GOBAR-Dhan will maintain a separate account/ledger for GOBAR-Dhan.
- O&M will be the responsibility of the GP in the case of community projects and centralized management of slurry for cluster projects.
- The GP will explore the scope of the revenue generation model for the community project to make the project self-sustaining.

7. Funding under SBM-G:

- Financial assistance up to Rs. 50 lakhs per district will be provided under SBM -G, to be shared between the Centre and States as prescribed in SBM-G Phase-II Operational Guidelines. States have the flexibility to provide additional State share.
- The funds will be utilized for the cluster/institutional/community projects as approved by the Districts.
- Funds for a project can be released in more than one installment on approval of the plan and at different stages of implementation.
- For households/cluster projects, funding norms of NNBOMP will be followed. For such projects, the district will decide whether the funds should be released to the GP or the implementing agency identified by GP. In case the GP or the agency identified by the GP has to disburse funds to individual households, DBT will be ensured.
- For institutional/community projects, funding will be based on actual requirements and will be released through the GP or directly to the implementing agency identified by the GP, as the case may be.
- Funds can be dovetailed from other resources such as the 15th Finance Commission funds, MPLAD, MLALAD, CSR funds, State schemes, PPP model, Gap-funding Schemes of Gol, etc. to meet additional requirements for a GOBAR-Dhan project if any.
- Turn-Key job fee for construction, supervision, commissioning, and free O&M warranty for five years' trouble-free operations of a plant including quality control at all levels will be as per norms of NNBOMP for plants up to 25 cum and 10% of project cost or actuals, whichever is less, for plants with capacity above 25 cum.
- Other provisions for release/utilization of SBM-G funds as prescribed in the SBM-G Phase-II Guidelines will also be followed.

8. Indicative Funding Sources and Convergence Matrix for various models

	Source of Funding					
Model	SBM (G)	15 FC	MNRE	Agri Infra Fund	CSR	Loan
Individual/ Home based Model	N	Υ	Y NNBOMP	N	Υ	Υ
Community Model	Y	Y	Y NNBOMP (1-25 cum)	N	Υ	Υ
Cluster Model	Υ	Υ	Y NNBOMP (1-25 cum)	N	Y	Υ
Commercial Model - Large CBG Plant by Entrepreneur/ Cooperatives/ Gaushala	N	N	Y Waste to Energy	Y	Υ	Y (including loans for SATAT)

Y-Yes N-No NNBOMP – New National Biogas and Organic Manure Programme

Funding norms will be as per the guidelines of applicable schemes. The Guidelines of the schemes of different Ministries/Departments are at **Annexure-I**

In case of additional requirement of funds, the District/GP can also use other sources of funds such as MPLAD, MLALAD, other State schemes, etc.

Suggested Project Cycle under GOBAR-Dhan is at Annexure-II

Estimated costs of biogas plants based on capacity are given in Annexure-III.

9. Role of DDWS

DDWS is the nodal Department for the implementation of GOBAR-Dhan in rural areas. The Department will issue necessary guidelines, advisories from time to time and will provide technical and financial assistance to support the States/UTs for smooth implementation of the GOBAR-Dhan projects under SBM-G. DDWS will also monitor the progress made by the States in the implementation of GOBAR-Dhan projects.

DDWS as the Coordinating Department is working with several Ministries and Departments at the Central level and supporting them to develop effective strategies to converge and leverage each other's strength. It is also working with State Governments, public and private sector institutions to ensure that there are enough resources, funding and technical expertise available to implement GOBAR-Dhan across the country. Besides, it provides a unified web portal for all stakeholders Ministries/Departments to report and track the progress on GOBAR-Dhan implementation.

10. Role of various implementing agencies in States/ UTs

States and Districts are collectively responsible for the implementation of GOBAR-Dhan. Their key roles and responsibilities (indicative) are presented below:

State Government

- 1. Create enabling provisions for the implementation of GOBAR-Dhan Scheme
- 2. Lead implementation of GOBAR-Dhan in the State
- 3. Ensure that plans prepared/approved by the districts are incorporated in the GPDP and AIP of SBM-G
- 4. Provide technical support to the districts/GPs and identify professional agencies, wherever required, for smooth implementation of GOBAR-Dhan
- 5. Allocate funds to the District considering the approved plan for implementation
- 6. Contribute State share funds.
- 7. Undertake IEC campaigns for popularising GOBAR-Dhan
- 8. Build capacities of implementers of GOBAR-Dhan, create a suitable environment for entrepreneurs, gaushalas, etc., and provide them technical assistance for setting up commercial units
- 9. Monitor progress of implementation.

District	L. Lead implementation of GOBAR-Dhan in the District
	2. Develop a plan along with Blocks and Gram
	Panchayats/SHGs/Farmer Groups (FGs) to implement GOBAR-
	Dhan
	3. Support implementation of model projects at Block/District
	l. Identify GPs for implementation of GOBAR-Dhan
	5. Identify drafter implementation of GOBAR-
	Dhan model projects at Block/District level, with support of GPs,
	if needed
	5. Approval and disbursement of funds for implementation of
	GOBAR-Dhan, provide technical support to the GPs and identify
	professional agencies, wherever required, for smooth
	implementation of GOBAR-Dhan
	7. Capacity building of GPs/SHGs/FGs
	3. Create a suitable environment for entrepreneurs, gaushalas, etc.,
	and provide them technical assistance for setting up commercial
	units
	9. Monitoring and reporting of progress
Gram Panchayat	L. Identify SHGs/FGs/ cooperatives/ milk unions/ Farmer Producer
Gram Panchayat	Organisations (FPOs)/ CBOs developed under DAY-
Gram Panchayat	Organisations (FPOs)/ CBOs developed under DAY-NRLM/Private entrepreneurs etc. for implementation of GOBAR-
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11. Monitoring and Evaluation

- The district will have the responsibility of monitoring the implementation of the GOBAR-Dhan scheme. DWSC will also periodically monitor the progress and address any bottlenecks in the implementation of GOBAR-Dhan. Officials of the Department responsible for the implementation of GOBAR-Dhan at the district level will physically verify the functionality, timely O&M etc., of all the plants set up under the GOBAR-Dhan scheme quarterly.
- The detailed information of the plants (functional/under construction) will be captured through the SBM-G mobile App and will be uploaded on the unified portal of GOBAR-Dhan. Key parameters for monitoring can be locally developed. However, indicative parameters can be found on the GOBAR-Dhan web portal.
- The GOBAR-Dhan projects will be audited every year as per provisions laid down in the guidelines of SBM-G Phase II.
- The state will set up an independent evaluation mechanism to monitor the functioning
 of plants installed and the successful operation of the project vis-a-vis the objective of
 the scheme. This may be a semi-annual exercise, at least for the first two years of the
 project.
- The State will set up a Grievance Redressal mechanism for GOBAR-Dhan ensuring prompt redressal of the grievances received.
- A unified portal of GOBAR-Dhan has been developed and launched on 3rd February 2021 (http://sbm.gov.in/gbdw20). The portal will help in monitoring the progress/achievements of the Schemes of all stakeholder Ministries/Departments under the unified approach and will also capture the details of Bio-gas and CBG plants installed/supported since 2018 under GOBAR-Dhan initiative of DDWS, SATAT of Mo PNG, and the Waste to Energy Programme of MNRE.

New National Biogas and organic Manure Programme

Objective

To provide clean cooking fuel for kitchens, lighting and meeting other thermal and small power needs of farmers/dairy farmers /users including individual households and to improve organic manure system based on bio slurry from biogas plants in rural and semi urban areas by setting up of small size biogas plants of 1 to 25 Cubic Metre capacity.

To mitigate drudgery of women and time saving for them for other livelihood activities and reduce pressure on forests and accentuate social benefits;

To improve sanitation in rural and semi-urban areas including linking sanitary toilets with cattle dung biogas plants;

To provide biogas plant produced slurry (liquid / semisolid or dried) as an organic enriched bio- manure to help reduce use of chemical fertilizers such as urea, linking biogas slurry with enrichment units such as vermicomposting, Phosphate Rich Organic Manure (PROM) plants and other organic enrichment facilities as a source of value addition to bio gas plant slurry.

To meet 'lifeline energy' needs for clean cooking as envisaged in "Integrated Energy Policy" of NITI Aayog (erstwhile Planning Commission).

To help in combating and reduction in causes of climate change by preventing emissions of Green House Gases (GHGs) such as carbon dioxide and methane into the atmosphere.

Period

Financial Year 2017-18 to 2019-20, co-terminating with 14^{th} Finance Commission Period on 31.03.2020. The programme has been extended beyond 31.03.2020 and during the years 2020-21

Salient Features

Allocation of Annual Targets by the MNRE to all State Implementing Agencies under NNBOMP with the starting of Financial Year.

Provision of 50% advance release of funds for annual allocated targets to the designated SND, PIAs i.e. State Rural Development Departments/ State Nodal Agencies and KVIC, Mumbai for Biogas plants.

Special rates of CFA for NER States, SC and ST Categories for Biogas Plants.

Provision of an additional Subsidy for cattle dung-based biogas plants if linked with sanitary toilets, only for individual households (Rs. 1600/- Per Biogas Plant).

Addl. CFA for purchasing of 100% biogas engines and transportation of biogas from the site of the biogas plant to the site of biogas engine also incentivised.

Across the country 8 number of Biogas Development and Training Centres (BDTCs) are providing technical and trainings, Field Inspections and information & publicity assistance to the State Rural Development Departments/ State Nodal Agencies for biogas Development and awareness.

Various types of training courses such as Construction-cum-Maintenance, Refresher Training Courses, Users' Courses, Biogas Turn-Key Workers Course, Staff Training Courses and Skill Development Courses have been designed for imparting knowledge and skill development, create a cadre of biogas masons and technicians skilled in the construction, installation commissioning and maintenance of approved models of biogas plants under the scheme.

Different types of Biogas Plant Models available such as (i) Deenbandhu fixed dome model (ii) KVIC's Floating Dome Design; and (iii) Prefabricated Reinforced Cement Concrete (RCC) digester with KVIC floating drum

Provisions of 100% Physical Verification and Sample Village-wise biogas plant Monitoring mechanism.

For Motivation and appreciation by MNRE to SRDDs & State Office of KVIC for overall performance and achieving highest annual targets allocated under the Scheme.

The details of the complete scheme Administrative Sanction -cum- Guidelines, dated 30.05.2018 are available on MNRE web site.

How to avail the financial assistance

- Under NNBOMP, SND, SNA, State Rural Development Departments and KVIC will identify feasible biogas plant sites / beneficiaries and selection of the potential beneficiaries and their applications for biogas plants;
- The applicable CFA / Subsidy amount will be disbursed to the beneficiaries of biogas plants by crediting to their Bank Accounts after completion and commissioning of biogas plants.
- If biogas plant beneficiary has taken loan for setting up of biogas plant from Scheduled Banks or Cooperative Banks or under the KCC or from NABARD / IREDA, NABARD authorized Financial Institutions for Agriculture, the CFA/subsidy amount would be deposited / transferred directly to his Biogas Loan Account seeded with Aadhar Numbers of the beneficiaries by following DBT route.
- Payment of Turn-Key Job Fee at the rates prescribed for setting up of Biogas plants and rendering quality biogas services on turn-key basis by the corporate bodies/ registered Societies/ approved, trained & registered Private entrepreneurs categories as given under eligibility at 'A' above will be released by the MNRE, SNA, SND & KVIC, Mumbai after satisfactory completion and commissioning of the biogas plants and on receipt of claims in the proforma on receipt of the final claims all duly audited and certified by the

Head of the main programme implementing agencies

Pattern of Central Financial Assistance under the New National Biogas and Organic Manure Programme, (NNBOMP) for Biogas Plant size from 1 cu.m. to 25 cu.m. per day w.e.f. 30.05.2018 and up to 2020-21 (31.03.2021).

SN	Particulars of Cer Assistance (CFA) and	ntral Financial l States / UTs,			der NNB O ns per day)		
	Regions & Categories	,		_	1 0,	`	
A	Central Subsidy Rate	es Applicable (In	1 Cubic	2-6 Cubic	8-10	15	20 - 25
	Rs. per plant)		Metre	Metre	Cubic	Cubic	Cubic
					Metre	Metre	Metre
1	NER States, including	Sikkim and	17,000	22,000	24,000	25,000	35,000
	including SC and ST ONER.	Categories of					
2	Special Category Sta	tes (Jammu &	10,000	13,000	18,000	21,000	28,000
	Kashmir, Himach		, , , , ,			,	- ,
	Uttarakhand, and Anda	aman &Nicobar					
	Islands) and						
	Scheduled Castes / Sch	heduled Tribes of					
	all other States.						
3	All other States (Gene	eral Category)	7,500	12,000	16,000	20,000	25,000
В	Additional Subsidy fo	or cattle dung	1,600	1,600	1,600	Nil	Nil
	based biogas plants	if linked with					
	sanitary toilets, only	for individual					
	households (Rs. Per	Biogas Plant)					
	fixed amount.						
C	Turn-Key Job Fee	Rs. 2500/- per b	iogas pla	ant for fixe	d dome des	ign cons	struction
	for construction,	based plants suc	h as Dee	nbandhu a	nd floating	gasholde	er KVIC
	supervision,	type brick masor					
	commissioning, and	plant for 15 to 2					
	free O&M warranty	provided for elig	_		-		
	for five years	per above menti			ving part co	onstruction	on work
	trouble free	either for digest	er or dor	ne.			
	operations of plant						_
	including quality	Turn Key Joh				-	-
	control at all levels.	will be also elig					
		to 25 M ³ which		. • •			
	biogas plants and made up of standard quality material FRP /			FRP /			

1 2 3 E	100-3,000 nos. of Biogas Plants. 3,001-7,000 nos. of Biogas plants Above 7,000 nos. of Biogas plants	target achievement range of biogas plants (Amount in ₹) 1,00,000^	
1 2 3	100-3,000 nos. of Biogas Plants. 3,001-7,000 nos. of Biogas plants Above 7,000 nos. of Biogas plants	(Amount in ₹) 1,00,000^	
2	3,001-7,000 nos. of Biogas plants Above 7,000 nos. of Biogas plants		
3	Above 7,000 nos. of Biogas plants	10.50.000^^	
		10,50,000^^	
E	Support for Training courses including	24,50,000 *	
	Mitras	ng skill development Programme for Biogas	
1	Users Course	4,000	
2	Staff Course	10,000	
3	Construction-cum Maintenance / Refrest Course	ner 50,000	
4	Turn-key Workers & Management Cour Skill Development for TKWs / RETs / SHGs/ Officials of SND and KVIC	rse/ 75,000	
F	Biogas Development & Training Centres. Financial support for set	As per the pattern of CFA and staff strength / positions conveyed vide Ministry's	
	functions and roles of BDTCs would be provided towards staff, conducting training courses, skill development courses, pilot plant demonstration, TA/DA, consumables and contingencies as per allocated	sanction letter No. 19- 3/2011-BE (Pt.) dated 16 th November, 2011, dated 2 nd March, 2012 and continued vide sanction No 19-4/2017-BG/ R&D/Biogas dated 14 th July, 2017. The annual outlay allocated year-wise shall be based on the yearly Plan of work & targets	
G	Support for Communication & Publicity as per the physical achievement range of Biogas Plants (Amount in ₹)	as approved activities by the MNRE. The financial support would be provided on lump - sum basis which is linked with the physical achievements as per the range/slab of biogas plants achievements. The publicity and information charges would be limited to the actual expenditure claimed and supported by copies of vouchers which would be subject to the maximum limits as given below. ₹ 2,00,000/-	
2	1,001- 10,000 plants	₹ 4,00,000/-	
3		, ,	
3 H	More than 10,000 plants ₹ 6,00,000/- Incentive for saving fossil fuels (diesel, petrol, kerosene, electricity etc.) to farmers by using biogas in 100% Biogas engines. ₹ 6,00,000/- Incentive for saving for saving line is eligible for purchase of 100% biogas engines and transportation of biogas from the site of the biogas plant to the site of biogas engine. The fixed CFA of Rs. 3000/- per 100% Biogas based Generator set / Biogas engine water Pumping System (BPS) for water pumping and meeting other small farm power needs from biogas,		

subject to a maximum of Rs. 4000/- per plant for plants of 15 to 25 Cubic Metre would be provided.



Scheme Guidelines for CENTRAL SECTOR SCHEME of Financing facility under 'Agriculture Infrastructure Fund'

Scheme Guidelines

Department of Agriculture, Cooperation & Farmers' Welfare Ministry of Agriculture & Farmers' Welfare Government of India

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Scheme Guidelines for CENTRAL SECTOR SCHEME of financing facility under 'Agriculture Infrastructure Fund'

1. Introduction

The role of infrastructure is crucial for agriculture development and for taking the production dynamics to the next level. It is only through the development of infrastructure, especially at the post harvest stage that the produce can be optimally utilized with opportunity for value addition and fair deal for the farmers. Development of such infrastructure shall also address the vagaries of nature, the regional disparities, development of human resource and realization of full potential of our limited land resource.

In view of above, the Hon'ble Finance Minister announced on 15.05.2020 Rs 1 lakh crore Agri Infrastructure Fund for farm-gate infrastructure for farmers. Financing facility of Rs. 1,00,000 crore will be provided for funding Agriculture Infrastructure Projects at farm-gate & aggregation points (Primary Agricultural Cooperative Societies, Farmers Producer Organizations, Agriculture entrepreneurs, Start-ups, etc.). Impetus for development of farm-gate & aggregation point, affordable and financially viable Post Harvest Management infrastructure.

Accordingly, DAC&FW has formulated the Central Sector Scheme to mobilize a medium - long term debt financing facility for investment in viable projects relating to postharvest management Infrastructure and community farming assets through incentives and financial support.

2 Rationale of theScheme

Agriculture and allied activities are the primary income source for ~58% of total population of India. ~85% of the farmers are Small Holding Farmers (SHFs) with less than 2 hectares of land under cultivation and manage ~45% of agricultural land. Annual income of majority of the farmers is very low. Further, India has limited infrastructure connecting farmers to markets and hence, 15-20% of yield is wasted which is relatively higher vs. other countries where it ranges between 5-15%. Investment in agriculture in India has further been stagnant with less than 2% CAGR over last 5 years. Investment in FY17 was ~ Rs. 2.19 lac crore out of which private sector share was ~83% vs. a higher investment of ~ Rs. 2.50 lac crore in FY14 and a higher share of private sector at ~88%. Also, lack of investor confidence is leading to lower plowback ratio (~14% of Gross Value addition in FY18) vs. other sectors (~33% of Gross

3 Objectives ofScheme

Tomobilize a medium - long term debt finances facility for investment in viable projects for post-harvest management Infrastructure and community farming assets through incentives and financial support in order to improve agriculture infrastructure in the country. This financing facility will have numerous objective for all the stakeholders in the agriculture eco-system.

- Farmers (including FPOs, PACS, Marketing Cooperative Societies, Multipurpose cooperative societies)
 - Improved marketing infrastructure to allow farmers to sell directly to a larger base of consumers and hence, increase value realization for the farmers.
 This will improve the overall income of farmers.
 - With investments in logistics infrastructure, farmers will be able to sell in the market with reduced post-harvest losses and a smaller number of intermediaries. This further will make farmers independent and improve access to market.
 - With modern packaging and cold storage system access, farmers will be able to further decide when to sell in the market and improve realization.
 - Community farming assets for improved productivity and optimization of inputs will result in substantial savings to farmers.

b. Government

- Government will be able to direct priority sector lending in the currently unviable projects by supporting through interest subvention, incentive and credit guarantee. This will initiate the cycle of innovation and private sector investment in agriculture.
- Due to improvements in post-harvest infrastructure, government will further be able to reduce national food wastage percentage thereby enable agriculture sector to become competitive with current global levels.
- Central/State Government Agencies or local bodies will be able to structure viable PPP projects for attracting investment in agriculture infrastructure.

Agri entrepreneurs and startups

- With a dedicated source of funding, entrepreneurs will push for innovation in agriculture sector by leveraging new age technologies including IoT, AI, etc.
- It will also connect the players in ecosystem and hence, improve avenues for collaboration between entrepreneurs and farmers.

d. Banking ecosystem

- With Credit Guarantee, incentive and interest subvention lending institutions will be able to lend with a lower risk. This scheme will help to enlarge their customer base and diversification of portfolio.
- Refinance facility will enable larger role for cooperative banks and RRBs.

e. Consumers

 With reduced inefficiencies in post-harvest ecosystem, key benefit for consumers will be a larger share of produce reaching the market and hence, better quality and prices. Overall, the investment via the financing facility in agriculture infrastructure will benefit all the eco-system players.

4 Implementation Period of Scheme

The Scheme will be operational from 2020-21 to 2029-30. Disbursement in four years starting with sanction of Rs. 10,000 crore in the first year and Rs. 30,000 crore each in next three financial years. Moratorium for repayment under this financing facility may vary subject to minimum of 6 months and maximum of 2 years.

5 Government Budgetary Support

Budgetary support will be provided for interest subvention and credit guarantee fee as also administrative cost of PMU. The details are as below:-

SI. No.	Name of Component	Norms	
1	Interest Subvention Cost	All loans under this financing facility will have interest subvention of 3% per annum up to a limit of Rs. 2 crore. This subvention will be available for a maximum period of 7 years. In case of loans beyond Rs.2 crore, then interest subvention will be limited up to 2 crore. The extent and percentage of funding to private entrepreneurs out of the total financing	

		facility may be fixed by the National Monitoring Committee.
2	Credit Guarantee Cost	Credit guarantee coverage will be available for eligible borrowers from this financing facility under Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme for a loan up to Rs. 2 crore. The fee for this coverage will be paid by the Government. In case of FPOs the credit guarantee may be availed from the facility created under FPO promotion scheme of DACFW.
3	Administration Cost of PMU	Farmers Welfare Programme Implementation Society under DACFW will provide PMU support to the scheme at the central level and state PMUs of PM KISAN at state level. Services of knowledge partners will be engaged to identify clusters including export clusters and gaps in supply chains to target projects and prepare viable project reports to support the beneficiaries.

6 Eligible Projects

The scheme will facilitate setting up and modernization of key elements of the value chain including

(A) Post Harvest Management Projects like:

- (i) Supply chain services including e-marketing platforms
- (ii) Warehouses
- (iii) Silos
- (iv)Pack houses
- (v) Assaying units
- (vi)Sorting &grading units
- (vii) Cold chains
- (Viii) Logistics facilities
- (ix)Primary processing centers
- (x) Ripening Chambers

(B) Viable projects for building community farming assets including -

(i) Organic inputs production

- (ii) Bio stimulant production units
- (iii) Infrastructure for smart and precision agriculture.
- (iv)Projects identified for providing supply chain infrastructure for clusters of crops including export clusters.
- (v) Projects promoted by Central/State/Local Governments or their agencies under PPP for building community farming assets or post harvest management projects.

7 Size of the financing facility and eligible beneficiaries

Rs. 1 Lakh Crore to be provided by banks and financial institutions as loans to Primary Agricultural Credit Societies (PACS), Marketing Cooperative Societies, Farmer Producers Organizations(FPOs), Self Help Group (SHG), Farmers, Joint Liability Groups (JLG), Multipurpose Cooperative Societies, Agri-entrepreneurs, Startups and Central/State agency or Local Body sponsored Public Private Partnership Projects.

PACS who have adopted digitization for handling its operations will be given preference under this scheme.

8 Participating institutions

All scheduled commercial banks, scheduled cooperative banks, Regional Rural Banks (RRBs), Small Finance Banks, Non-Banking Financial Companies (NBFCs) and National Cooperative Development Corporation (NCDC) may participate to provide this financing facility, after signing of Memorandum of Understanding (MoU) with National Bank for Agriculture & Rural Development (NABARD)/DAC&FW.

9 Refinance

If required, need based refinance support will be made available by NABARD to all eligible lending entities including cooperative banks and RRBs as per its policy.

10 Cap on lending rate

Lending rate of participating lending entities will be decided after due consultation with lending entities and same will be circulated to all stake holders. Lending institutions will sign MOU with DAC&FW/ NABARD for implementation of the Scheme. MOUs to be signed by DAC&FW/NABARD with banks/financial institutions with a view that NABARD will negotiate cap on lending rates in a fair manner.

11 Project Management and handholding support

An online platform will be made available in collaboration with participating lending institutions to provide information and loan sanctioning facility. Agri Infra fund will be managed and monitored through an online MIS platform. It will enable all the qualified entities to apply for loan under the fund. The system will also provide benefits such as transparency of interest rates offered by multiple banks, scheme details including interest subvention and credit guarantee offered, minimum documentation, faster approval process as also integration with other scheme benefits. At the back end, the platform will also provide multiple views of dashboards across district; state and national level PMUs to monitor the total sanctioned amount and number of borrowers, total interest subvention benefit availed, loan statement summary, demographic and geographic mix of borrowers and type of projects.

Farmers Welfare Programme Implementation Society under DACFW will provide PMU support to the scheme at the central level and state PMUs of PM KISAN at state level. Services of knowledge partners will be engaged to identify clusters including export clusters and gaps in supply chains to target projects and prepare viable project reports to support the beneficiaries.

Project reports with indicative unit costs will be prepared by Central and State PMUs for guidance of beneficiaries and lending entities. Such project reports shall be available on online platform.

12 Convergence – Any grant or subsidy available under any present or future scheme of Central/State government can be availed for projects under this financing facility. In cases of capital subsidy such amount shall be considered as promoter's contribution. However, a minimum of 10% of the project cost shall be mandatory as promoter's contribution.

13 Revisit of the Scheme

The scheme will be re-visited by Department of Expenditure after disbursement of Rs. 20,000 crores is completed, for evaluation and midcourse correction if required. Concurrent/mid-term third party independent evaluation of the scheme in addition to end- line evaluation will be conducted as and when required.

14 Monitoring framework

The National, State and District Level Monitoring Committees to ensure real-time monitoring and effective feed-back about the implementation of the proposed scheme. The Committees will be set up as per Annexure-A.

All assets created under this financing facility shall be geo tagged. The District Monitoring Committee and respective lending entity shall ensure that updated information on such geo tagged assets is available on the online portal.

15 OUTPUT AND OUTCOME MONITORING FRAMEWORK (OOMF)

The Output and Outcome Monitoring Framework (OOMF) (Annexure-B)will be a part of monitoring system and the measurement of outcome indicators will be monitored periodically by DLMC, SLMC and NLMC.

16 Linkage with PFMS

Interest subvention and credit guarantee support will be released to Banks and lending institutions through PFMS.

Disbursal of funds by lending entities to beneficiaries under this scheme shall be in Aadhaar linked bank account.

17 Criteria for selection of Eligible Borrower

Lending institutions will decide criteria for selection of eligible borrower in consultation with NABARD and monitoring committees, PMUs and keeping in mind the viability of the projects and to avoid NPA.

18 VGF Requirement

In case VGF requirement is projected by central / state / local bodies, norms as prescribed by DEA for PPP projects will be adhered to.

19 Sector specific focus

24% of total grants – in – aid under the scheme should be utilized for SC/ST entrepreneurs (16% for SC and 8% for ST). Besides this, lending institutions will ensure adequate coverage of entrepreneurs belonging to women and other weaker segments of society. It has to be ensured that benefits of the scheme are inclusive and accrue to the intended beneficiaries.

20 State specific focus

Tentative State wise allocation of financing facility has been worked out on the basis of the ratio of total value of output of Agriculture and Allied sectors of States/UTs and placed at

Annexure- C

Monitoring framework

(i) National level Monitoring Committee (NLMC)

Composition :-

Following will be the Members and Chairman of the NLMC:-

- Secretary (DAC&FW) (Chairman)
- MD SFAC
- MD,NCDC
- Special Secretary/Additional Secretary and FA (DAC&FW)
- e. Additional Secretary DFS
- Additional Secretary (DAC&FW,Gol)
- g. Chairman, NABARD or his representative
- Principal Secretary-State Government (s)- Four States by rotation
- State Nodal Officers of four States (by rotation)
- j. Joint Secretary (DAC&FW) and CEO of Farmers Welfare Programme Implementation Society-Member Secretary

Functions:-

- National level Monitoring Committee (NLMC) will guide and steer the implementation of the project. It will approve the guidelines for implementation of the project.
- National level Implementation Committee (NLIC) will examine and recommend the guidelines for implementation of the project. It also will ensure and review the implementation of the scheme as per approved guidelines by the National level Monitoring Committee (NLMC)

(ii) State level Monitoring Committee

Composition:-

Following will be Members and Chairman of the SLMC :-

- a. Chief Secretary Chairman
- Agriculture Production Commissioner/Principal Secretary Agriculture
- Principal Secretary (Cooperation)
- d. Registrar of Cooperative Societies (RCS)

- e. Chief General Manager (CGM), NABARD
- Regional Director, NCDC
- g. Officers nominated by State (not more than three),
- h. SLBC Convenor.
- State Nodal Officer- Member Secretary.

Functions:-

- State level Monitoring Committee (SLMC) will implement the NIMC guidelines at the state level and provide feedback to NIMC.
- 2. It will also guide and steer the implementation of the scheme in the state.
- It will also examine and approve the selected list of beneficiaries/ projects for inclusion in the scheme in consultation with DLMC
- It will set the targets as per OOMF format and review the progress regularly
- (iii) District Level Monitoring Committee

Composition:-

Following will be Members and Chairman of the DLMC:-

- a. District Collector Chairman
- Chief Executive Officer of District Panchayat/CDO- Vice Chairman
- District Officer of Agriculture
- District Registrar Officers nominated Cooperative Societies
- e. Officers nominated by State (not more than three)
- f. Lead District Manager of DLBC
- g. District Manager NABARD- Member Secretary

Functions:-

- District level Monitoring Committee (DLMC) The DLMC will be the first line of implementation and monitoring system within the overall framework.
- It will identify the beneficiaries, to ensure viability of the project and prepare viable project reports to support the beneficiaries in collaboration with PMU.
- 3. It will also examine the proposal and recommend to SLMC for consideration.
- DLMC will set targets in consultation with SLMC as per OOMF format and monitor the progress closely with the support of PMU.
- 5. DLMC will maintain the Dashboard in collaboration with PMU.

6. It will be responsible for the smooth implementation of the scheme and resolve any issues at the district level. In the process of sorting out implementation issues the Committee would be supported by the district administration wherever required.

OOMF Framework

OUTPUTS:

Output statement	Output Indicators	Target	Achievement
Promoting creation and modernization			
of agriculture infrastructure	Disbursement of funds for eligible projects/investments (Rs. Crores)		
Increase in amount of interest			
subvention and credit guarantee	No. of projects receiving interest subvention		
support provided	Percent projects receiving interest subvention (of the total projects offered loan under the scheme)		
	Amount outgo on credit guarantee coverage (Rs. Crore)		
	Average percent credit guarantee coverage of the total credit extension under the scheme.		

OUTCOMES:

Outcome Statement	Outcome Indicators	Target	Achievement
Improvement in resource provision	Percentage of fund utilized for completed projects		
for agriculture infrastructure	Additional investments leveraged due to agriculture infrastructure fund interventions (Rs. Crore)		
Enhancement in agriculture infrastructure capacity	Total capacity addition in agriculture sector due to infrastructure activities funded (MT)		
	Reduction in post-harvest losses and food wastages (%)		

Annexure-C
Tentative Allocation of Financing Facility among States/UTs

SI. No.	State	Financing Facility INR Crore
1	Uttar Pradesh	12831
2	Rajasthan	9015
3	Maharashtra	8460
4	Madhya Pradesh	7440
5	Gujarat	7282
6	West Bengal	7260
7	Andhra Pradesh	6540
8	Tamil Nadu	5990
9	Punjab	4713
10	Karnataka	4525
11	Bihar	3980
12	Haryana	3900
13	Telangana	3075
14	Kerala	2520
15	Odisha	2500
16	Assam	2050
17	Chhattisgarh	1990
18	Jharkhand	1445
19	Himachal Pradesh	925
20	Jammu & Kashmir &Ladakh	900
21	Uttarakhand	785
22	Tripura	360
23	Arunachal Pradesh	290
24	Nagaland	230
25	Manipur	200

26	Mizoram	196
27	Meghalaya	190
28	Goa	110
29	Delhi	102
30	Sikkim	56
31	Puducherry	48
32	A & N Islands	40
33	Daman & Diu	22
34	Lakshadweep	11
35	Dadra & Nagar Haveli	10
36	Chandigarh	9
	Total	1,00,000

No. R-11016/2/2020-I&P Government of India Ministry of Agriculture & Farmers Welfare Department of Agriculture, Cooperation & Farmers Welfare

Krishi Bhawan, New Delhi Dated: 27th October,2020

To.

Chief Secretaries of all States/UTs

Subject:- Convergence of Agriculture Infrastructure Fund with Gobar Dhan under SBM (Gramin)- regarding.

Sir.

I am directed to refer to OM of even number dated 5.10.2020 on the subject cited above vide which convergence order of Agriculture Infrastructure Fund with Gobar Dhan under SBM (Gramin) was issued and to say that as per operational guidelines issued for phase-II of SBM (G), there is no concept of different model for implementation of Bio-Gas Plants and order of convergence has been issued based on old GOBAR-Dhan Scheme guidelines which are not valid as on date. Therefore, the order of this Department dated 05.10.2020 may be treated as withdrawn.

- 2 In view of above, Compressed Biogas (CBG) plants is included as eligible project of Agriculture Infrastructure Fund under building community farming assets subject to condition that CBG plants may be established by aligible beneficiaries of AIF like PACS, Marketing Cooperative Societies, FPOs, SHG, Multipurpose Cooperative Societies, Ari-entrepreneurs, Startups and projects promoted by Central /State/Local Governments or their agencies under PPP.
- 3 Bio-fertiliser plants will also be eligible projects for AIF under para 6(B)(i) in the category of organic inputs production as per scheme guidelines of AIF

Yours faithfully,

(K.R. Meena) Director (CPC) Tel.23386224

Distribution :-

Secretary, Department of Expenditure, North Block, New Delhi.

- Secretary, Department of Drinking Water and Sanitation, CGO, Complex, New Delhi.
- Secretary, Ministry of Micro, Small and Medium Enterprises, Udyog Bhawan, New Delhi.
- Secretary, Ministry of Food Processing Industries, Sri Fort Village, Agust Kranti Marg, New Delhi.
- Secretary, Ministry of Rural Development, Krishi Bhawan, New Delhi
- 8. PAMD, Niti Aayog, Yojana Bhawan, New Delhi
- 9, Principal Secretary Agriculture of all States/UTs
- 10. Principal Secretary Cooperation of all States / UTs
- 11.Registrar Cooperative Societies of all States / UT's
- 12.Reserve Bank of India
- 13.All Scheduled Commercial Banks
- 14.All State Cooperatives Banks
- 15.All District Cooperative Banks
- All Regional Rural Banks/Small Finance Banks/Non-Banking Financial Companies (NBFCs)
- 17.MD, National Cooperative Development Corporation (NCDC)
- 18.NIC, DAC&FW to upload on website of the Department.
- 19.PS to Hon'ble Agriculture Minister
- 20.PS to Hon'ble MOS, Agriculture & Farmers Weifare
- 21.PPS to Secretary, DAC&FW
- 22.PPS to SS&FA, DAC&FW
- 23.All Divisional Heads of DAC&FW
- 24. Guard File

Sustainable Alternative Towards Affordable Transportation (SATAT)

Sustainable Alternative Towards Affordable Transportation (SATAT) was launched on 1st October 2018 aiming to establish an ecosystem for production of Compressed Bio Gas (CBG) from various waster biomass sources in the country. CBG plants will also produce a co-product i.e., bio-manure and the same can be utilized in farming sector.

Under SATAT, Oil and Gas Marketing Companies IOCL, BPCL, HPCL, GAIL and IGL are inviting Expression of Interest (EoI) to procure CBG from potential CBG plant entrepreneurs at an assured price on long term agreement basis.

For details of complete EOI, interested parties may refer to CPPP, Government e-Marketplace (GeM); Central Public Procurement Portal of website Government of India (https://eprocure.gov.in/epublish); IndianOil (www.iocl.com) under tender section: link "Tenders & Contracts"); BPCL website (www.bharatpetroleum.com); HPCL website (www.hindustanpetroleum.com) under websites JVs contracts. GAIL and (www.gailonline.com, www.gailgas.com, www.aglonline.net,www.bglgas.com, www.c ugl.co.in, www.gglonline.net, www.mahanagargas.com,www.mngl.in, www.tngclonlin e.com, www.vgl.co.in, www.godavarigas.in,www.rsgl.rajasthan.gov.in, www.hngpl.in , www.goanaturalgas.com.) and IGL website www.iglonline.net.

Under this scheme few of the enablers like assured price for offtake of CBG with long term agreements by OGMCs; inclusion of bio manures produced from CBG plants as Fermented Organic Manure (FOM) under Fertilizer Control Order 1985; inclusion of CBG projects under Priority Sector Lending by RBI have been provided.

Waste to Energy program- MNRE					
• Objective	• To promote setting up of projects for recovery of energy in the form of Biogas / BioCNG / Power from Urban, Industrial and Agricultural Waste and Captive Power and Thermal use through Gasification in Industries				
	 To promote setting up of projects for recovery of energy from Municipal Solid Waste(MSW) for feeding power into the grid and for meeting captive power, thermal and vehicular fuel requirements. 				
	 To promote Biomass Gasifier for feeding power into the grid or meeting captive power and thermal needs of rice mills/other industries and villages 				
• Period	Extension of Scheme till 31st March 2021 or till the date the recommendations of 15th FC come into effect.				
Salient Features	• Central Financial Assistance in the form of backended subsidy is provided for installation of Waste to Energy projects for recovery of energy in the form of Biogas or BioCNG or Power from Urban, Industrial, Agricultural Waste / Residues and Municipal Solid Waste.				
	• Financial assistance available under the Programme on Energy from Urban, Industrial and Agricultural Wastes/ Residues for setting up				

Waste to Energy plant is as follows:

Rs

1.0

crore

per

• Biogas generation: 12000cum/day;

- BioCNG generation (including setting of Biogas plant): Rs 4.0 Crore per 4800Kg/day;
- Power generation based on Biogas (including setting of Biogas plant): Rs 3.0 Crore per MW.
- Power generation based MSW: Rs 5.0 Crore per MW.
- Biomass Gasifier:
- Rs. 2,500 per kWe with duel fuel engines for electrical application
- o Rs. 15,000 per kWe with 100% gas engines for electrical application
- o Rs. 2 lakh per 300 kWth for thermal applications.
- Incentives to SNAs @ Rs.1% of the eligible CFA (incentive maximum of Rs.5.00 lakh per project)
- All proposals to be forwarded through Lead bank/ FIs.
- CFA to be back-ended.
- CFA for Expansionary Projects will be considered only for the latest capacity addition.
- Prior Sanction will be required for grant of CFA. Claims of non-commissioned projects only are considered.
- Projects which have availed loan will only be considered for grant of CFA (exempted for Govt. entities).
- CFA will be released to the loan account maintained with the Lead FI.
- Project Advisory Committee (PAC) to evaluate all proposals.
- Performance inspection to be done by concerned SNAs.
- Periodic monitoring of the projects to be carried out by a team comprising representatives from Utilities, SNAs, experts appointed by MNRE and Ministry officials.

How to avail financial assistance

- The developers seeking Government support for their projects will submit proposals to Ministry through Bank/Financial Institutions.
- A Project Advisory Committee (PAC) for Waste to Energy projects constituted with the approval of Secretary, MNRE under the Chairmanship of Joint Secretary (In-charge), MNRE. PAC will evaluate and recommend the project proposals for financial support.
- The Ministry would issue sanction with the concurrence of IFD and approval of Secretary, MNRE. Based on this sanction/approval the developer can complete their projects as per guidelines of the scheme. The time period for completion of the project is 24 months/36months as applicable.
- The entire CFA will be released to the developer's loan account in the lending financial institution/banks for the purpose of offsetting the loan amount only after successful commissioning of the project.
- The condition of successful commissioning of the Waste to Energy project would, inter-alia, imply operation of the project for three months, including continuous operation for at least 72 hours at minimum of 80% of rated capacity/60% of rated capacity as applicable.

Suggested Project Cycle:

Following is the suggested project cycle for implementation of GOBAR-DHAN. The project cycle is advisory in nature and implementers can combine activities and phases to fast track implementation of GOBAR-DHAN.

Phases	Key activities	Tentative timeline
Inception Phase:	Ommunity to collectively undertake a situation analysis to identify: Quantity of cattle dung waste and agri waste in the village Hotspots- where cattle waste/agri waste is currently piled in the village Identify site(s) for construction of GOBAR-Dhan unit Agree on the use of gas and slurry in the village Pass a resolution to make their village clean and convert cattle dung to biogas and manure	15 days
Planning Phase	 GP to identify the beneficiaries with the support of SHGs/FPOs/ Milk Cooperatives/ Milk Unions/private entrepreneurs/CBOs developed under DAY-NRLM/ Agencies selected or empanelled by States/Districts/BDTCs etc. Preparation of project plan document with the support of 	30 days

	identified/empanelled	
	agencies/BDTCs etc.Identify masons/ barefoot	
	technicians/ Engineers who	
	would construct the biogas	
	plants	
	• Seek approval for	
	administrative and technical	
	proposals from competent	
	authorities. O&M plan should	d
	also be part of the project	
	proposal	
	Open a ledger in the existing	
	GP account for receipt and	
	management of funds for	
	implementation of the Gobardhan project.	
	Gobardiiaii project.	
Implementation	Initiate construction of bio-gas	60 days
Phase	plant based on approved	
	project proposal	
	• Ensure supervision of the	
	construction of the biogas	
	plant at each stage	
	Ensure timely completion and CORAR	
	commissioning of GOBAR-	
	Dhan unit Train an identified set of local	
	people for preventive and	
	corrective maintenance of	
	biogas plant	
Operation and	Initiate payment and revenue	Continuous
Maintenance	generation mechanism as	
Phase	provided in the project	
	proposal (payment for cow dung and slurry, collection of	
	user charges, etc.)	
	Undertake regular preventive	
	maintenance	
	 Dispose of/use slurry as 	
	agreed	

ANNEXURE-III

Estimated Cost of Biogas plants (Rate varies according to location, construction material cost, model like Deenbandhu, KVIC, Janta etc.)

Sl. No	Plant Type	Capacity	Approximate Cost (Rs.)	Details/ Remarks
1	Pre fabricated (Portable plant)	1 cum	12,000	Unit without water jacket and made of PVC/LLDP/HDPE tanks Circular digester and floating gas holder
2	Pre fabricated (Portable plant)	1 cum	12,500	Unit without water jacket and made of FRP, Circular digester and floating gas holder
3	Pre fabricated (Portable plant)	1 cum	13,000	Unit with water jacket and made of PVC/LLDP/HDPE tanks Circular digester and floating gas holder
4	Pre fabricated (Portable plant)	1 cum	13,500	Unit with water jacket and made of FRP, circular digester and floating gas holder
5	Flexi Biogas Unit	2 cum	25,000	Unit made of HDPE/LLDP and consists of a filter, stove and booster pump
6	Fixed Dome	50 Kg	2 lakh	This cost varies with location and different models
7	Fixed Dome	100 Kg	2.75 lakh	This cost varies with location and different models
8	Fixed Dome	200 Kg	4.25 lakh	This cost varies with location and different models
9	Fixed Dome	300 Kg	7 lakh	This cost varies with location and different models
10	Fixed Dome	500 Kg	10 lakh	This cost varies with location and different models
11	Fixed Dome	1000 kg	15 lakh	This cost varies with location and different models
12	Fixed Dome	2000 Kg	30 lakh	This cost varies with location and different models

(Source: Suchitwa Mission, LSGD, Govt. of Kerala)