

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
STARRED QUESTION NO. 268
ANSWERED ON 11.03.2026

PROGRESS OF NATIONAL BIO ENERGY PROGRAMME

*268. SHRI SUKANTA KUMAR PANIGRAHI
SMT. MALVIKA DEVI

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) the progress achieved under various components of Phase-I of the National Bio-energy Programme along with the details of the total capacity commissioned under biogas, Bio-CNG, biomass pellets and waste-to-energy projects, State-wise including Odisha, Karnataka and Palghar district in Maharashtra;
- (b) the number of projects sanctioned, completed and presently under implementation under each component of Phase-I of the said programme, State-wise;
- (c) whether tribal and aspirational districts particularly Kandhamal in Odisha have benefited under the Programme and if so, the details thereof;
- (d) whether the Government has undertaken any assessment or evaluation of the Programme on rural income generation, scientific waste management and reduction in biomass/stubble burning and if so, the details and the key findings of such assessment including measurable outcomes and future policy interventions proposed on the basis thereof;
- (e) whether the Government proposes to expand bio-energy clusters and decentralised renewable energy infrastructure in eastern parts of the country and if so, the details of budget allocation and expenditure incurred during the last three years, year-wise;
- (f) whether the Government is promoting National Bio-Energy Programme in tribal dominated districts of the country including Palghar district in Maharashtra and if so, the details thereof; and
- (g) whether the Government proposes to promote additional bio-energy and waste-to-energy projects in urban centres such as Bengaluru to support clean energy and scientific waste management and if so, the details thereof?

ANSWER

**THE MINISTER OF NEW & RENEWABLE ENERGY AND CONSUMER
AFFAIRS, & FOOD AND PUBLIC DISTRIBUTION**

(SHRI PRALHAD JOSHI)

(a) to (g) A statement is laid on the Table of the House.

Statement referred to in reply to parts (a) to (g) of the Lok Sabha Starred Question No. 268 to be answered on 11.03.2026 regarding 'PROGRESS OF NATIONAL BIO ENERGY PROGRAMME

(a): Under the National Bioenergy Programme (NBP) Phase-I, Ministry of New and Renewable Energy supports installation of Bioenergy Projects in the country by providing Central Financial Assistance (CFA) for setting up of Waste-to-Energy projects, Biomass projects and Biogas projects under following scheme components:

- i. Waste to Energy Programme (Programme on Energy from Urban, Industrial and Agricultural Wastes /Residues)
- ii. Biomass Programme (Scheme to Support Promotion of Manufacturing of Briquettes & Pellets and Biomass (Non-Bagasse) based cogeneration in Industries in the Country)
- iii. Biogas Programme (Programme to support setting up of small (1 m³ to 25 m³ biogas per day) and medium size Biogas plants i.e., above 25 m³ to 2500 m³ biogas generation per day).

The total installed capacity (as on 28.02.2026) under the Waste to Energy, Biomass & Biogas components of NBP Phase-I is given at **Annexure-I**.

(b) The number of projects sanctioned, completed and currently under implementation is given at **Annexure-II**.

(c) Under the NBP Phase-I, CFA is being provided for setting up of bioenergy projects in the country including tribal and aspirational districts, which is as given below:

- i. 20 % higher CFA is given for setting up of Waste to Energy projects in Special Category States (NER, Sikkim, Himachal Pradesh and Uttarakhand), Jammu & Kashmir, Ladakh, Lakshadweep and Andaman & Nicobar Islands.
- ii. For the medium biogas plants, an additional 20% CFA is being provided for implementation in the North-East Region (NER) States, Islands, Registered Gaushalas and Scheduled Caste/Scheduled Tribe beneficiaries. Further, for small biogas plants in these regions, CFA ranges from Rs. 17,000 (1 m³) to Rs. 70,400 (20-25 m³), which are higher than the CFA given to other States.

As per the information provided by Odisha Renewable Development Agency(OREDA), no projects have been supported in Kandhamal District of Odisha under the NBP Phase-I.

(d): The Ministry has conducted a 3rd party evaluation of NBP Phase-I.

The key findings related to rural income generation and waste management and reduction in biomass/stubble burning are summarized at **Annexure-III**.

Future policy interventions under the NBP may focus on strengthening the bioenergy ecosystem, improving biomass supply chains, supporting waste-to-energy initiatives and enhancing institutional and technical capacities.

(e): The Government is promoting Bioenergy projects and decentralised renewable energy infrastructure in all parts of the country including eastern parts of the country (in the State of Odisha, Jharkhand, Bihar, Sikkim & West Bengal) by providing Central Financial Assistance (CFA). Though no separate budget allocation is done on a regional

basis, expenditure incurred, year-wise during the last three years in eastern parts of the country is given at **Annexure-IV**.

(f): Under the NBP Phase-I, CFA is being provided for setting up of bioenergy projects in the country including in tribal dominated districts of the country and Palghar district of Maharashtra.

As per the information provided by Rural Development Department, Government of Maharashtra, 270 nos. of small biogas plants have been set up in Palghar District, for ST category beneficiaries under the NBP Phase-I.

(g): The Ministry of New and Renewable Energy has been implementing the Phase-I of NBP which supports setting of bioenergy and waste to energy projects in the country, including urban centres such as Bengaluru.

As per the information provided by the Ministry of Housing and Urban Affairs (MoHUA), under Solid Waste Management component of Swachh Bharat Mission-Urban 2.0, Central Financial Assistance (CFA) is provided for setting up various type of waste processing facilities, which inter-alia includes Waste to Energy projects including Compressed Biogas (CBG) plants, Bio-methanation plants, Waste to Compost plants, Material Recovery Facilities (MRFs) and Refused Derived Fuel (RDF) processing facilities.

Annexure-I

REFERRED TO IN REPLY TO THE LOK SABHA STARRED QUESTION NO. 268, Part (a), TO BE ANSWERED ON 11.03.2026 on ‘Progress of National Bio Energy Programme’.

The details of bioenergy projects installed in the country under Phase-I of NBP is given as under:

(As on 28.02.2026)

Sl. No	State	Biomass Projects (Non-Bagasse Cogeneration)	Biomass based Briquette/Pellet manufacturing Projects	Waste to Energy Projects	Small Biogas Plants	Medium Biogas Plants
		Capacity (MW)	Capacity (TPH)	Capacity (MWe)	Nos.	KW
1	Andhra Pradesh	35	7.7	19.99	88	0
2	Arunachal Pradesh	0	0	0	200	0
3	Assam	6	4	0	389	0
4	Bihar	19.2	4	0	255	0
5	Chhattisgarh	0	8	10.42	546	0
6	Goa	0	0	1.6	11	0
7	Gujarat	0	117.49	20.59	3668	0
8	Haryana	47.2	130.75	33.48	439	43.75
9	Himachal Pradesh	16.95	0	0	0	0
10	Jharkhand	5	2	1.04	11	0
11	Karnataka	0	17	13.09	1398	25
12	Kerala	0	0	0	637	0
13	Madhya Pradesh	8	322.05	24.13	6260	0
14	Maharashtra	0	79.6	26.86	14468	1317.5
15	Manipur	0	0	0	25	0
16	Meghalaya	0	2	0	1	0
17	Mizoram	0	0	0	1	0
18	Nagaland	0	0	0	52	0
19	Odisha	0	22	5	216	37.5
20	Punjab	77.86	41	27.09	3220	45.75
21	Rajasthan	2.5	106.3	67.54	567	0
22	Sikkim	0	0	0	0	0
23	Tamil Nadu	12	10	3.92	124	2175
24	Telangana	24.24	88.1	0.63	23	300
25	Tripura	0	0	0	161	0
26	Uttarakhand	36.22	1	7.63	1436	10

Sl. No	State	Biomass Projects (Non-Bagasse Cogeneration)	Biomass based Briquette/Pellet manufacturing Projects	Waste to Energy Projects	Small Biogas Plants	Medium Biogas Plants
		Capacity (MW)	Capacity (TPH)	Capacity (MWe)	Nos.	KW
27	Uttar Pradesh	56.45	42.3	86.9	540	37.5
28	West Bengal	32.4	9	5.81	159	37.5
29	Andaman and Nicobar Islands	0	0	0	0	0
30	Chandigarh	0	0	0		0
31	Dadra and Nagar Haveli and Daman & Diu	0	0	0	18	0
32	NCT of Delhi	0	0	26.17	0	0
33	Jammu & Kashmir	5	0	0	0	0
34	Ladakh	0	0	0	0	0
35	Lakshadweep	0	0	0	0	0
36	Puducherry	0	0	0	0	0
	Total	384.02	1014.29	381.87	34913	4029

Annexure-II

REFERRED TO IN REPLY TO THE LOK SABHA STARRED QUESTION NO. 268, Part (b), TO BE ANSWERED ON 11.03.2026 on 'Progress of National Bio Energy Programme'.

The number of projects sanctioned, completed and under implementation under each component of Phase-I of NBP, State-wise is given as under:

A. Biomass Programme:

S. No.	State	No. of projects Sanctioned	No. of Projects Completed	No. of Projects under Implementation
1.	Andhra Pradesh	1	1	0
2.	Gujarat	16	16	0
3.	Haryana	7	7	0
4.	Karnataka	1	1	0
5.	Madhya Pradesh	45	45	0
6.	Maharashtra	13	13	0
7.	Punjab	6	6	0
8.	Rajasthan	9	9	0
9.	Tamil Nadu	3	3	0
10.	Telangana	4	4	0
11.	Uttarakhand	1	1	0
12.	Uttar Pradesh	5	5	0
	Total	111	111	0

B. Waste to Energy Programme:

S. No.	State	No. of projects Sanctioned	No. of Projects Completed	No. of Projects under Implementation
1.	Andhra Pradesh	4	4	0
2.	Delhi	2	1	1
3.	Goa	1	1	0
4.	Gujarat	4	4	0
5.	Haryana	11	10	1
6.	Jharkhand	1	1	0
7.	Karnataka	5	5	0
8.	Madhya Pradesh	2	2	0
9.	Maharashtra	9	7	2
10.	Punjab	7	6	1
11.	Rajasthan	2	2	0
12.	Tamil Nadu	5	4	1
13.	Telangana	5	4	1
14.	Uttar Pradesh	17	17	0
15.	Uttarakhand	2	2	0
16.	West Bengal	2	2	0
	Grand total	79	72	7

C. Biogas Programme:

SI No	Name of the State	Number of small biogas plants	Number of medium biogas plants
1.	Andhra Pradesh	88	0
2.	Arunachal Pradesh	200	0
3.	Assam	389	0
4.	Bihar	255	0
5.	Chhattisgarh	546	0
6.	Goa	11	0
7.	Gujarat	3668	0
8.	Haryana	439	1
9.	Jharkhand	11	0
10.	Karnataka	1398	1
11.	Kerala	637	0
12.	Madhya Pradesh	6260	0
13.	Maharashtra	14468	16
14.	Manipur	25	0
15.	Meghalaya	1	0
16.	Mizoram	1	0
17.	Nagaland	52	0
18.	Odisha	216	1
19.	Punjab	3220	3
20.	Rajasthan	567	0
21.	Tamil Nadu	124	11
22.	Telangana	23	2
23.	Tripura	161	0
24.	Uttar Pradesh	540	1
25.	Uttarakhand	1436	1
26.	West Bengal	159	1
27.	Dadra & Nagar Haveli	18	0
TOTAL		34913	38

Note: All Biogas plants are commissioned

REFERRED TO IN REPLY TO THE LOK SABHA STARRED QUESTION NO. 268, Part (d), TO BE ANSWERED ON 11.03.2026 on 'Progress of National Bio Energy Programme'.

The details of the findings of the 3rd party evaluation of the implementation of NBP Phase-I are summarized as under:

a) Rural Income Generation

The programme has contributed to rural income generation and employment across the bioenergy value chain. Household level biogas plants under the National Bioenergy Programme (NBP) Phase-I have generated an estimated 1.4–1.8 lakh person-days of employment during construction and installation. Household biogas plants also contribute to rural income through savings on conventional fuels and fertilizers, with average annual savings of about Rs.6,000–Rs.7,000 per household due to reduced expenditure on LPG, firewood and chemical fertilizers.

Further, on an average, Biomass-based briquetting and pellet units employ about 13 & 21 workers respectively, whereas non-bagasse-based biomass cogeneration and waste-to-energy plants employ around 67 and 45 workers respectively.

b) Waste Utilization or Reduction in Stubble Burning or Biomass Wastage

The programme has facilitated the sustainable utilization of agricultural residues through implementation of various sub-components of NBP Phase-I.

For a typical Waste-to-Energy plant utilizing agri-residue including paddy straw, around 10 tons per day (TPD) of agri-residue is consumed to generate 1 TPD of Compressed Biogas (CBG). Similarly, for a briquetting/pelletizing plant, around 1.25 TPD of agri-residue is utilized to generate 1 TPD of briquette/pellets.

Annexure-IV

REFERRED TO IN REPLY TO THE LOK SABHA STARRED QUESTION NO. 268, Part (e), TO BE ANSWERED ON 11.03.2026 on ‘Progress of National Bio Energy Programme’.

The details of expenditure incurred, year-wise during the last three years under decentralized renewable energy infrastructure in eastern parts of the country is given as under:

(Rs. in Crore)

Name of the Programme	Financial Year			Total*
	2022-23	2023-24	2024-25	
National Bioenergy Programme	0.07	0.32	0.27	0.66
PM-Surya Ghar: Muft Bijli Yojana	13.8	12.8	97.9	124.5
PM-KUSUM	20.04	5.8	48.73	74.57
Solar (Off-grid)	9.34	0	0	9.34
New Solar Power scheme (under PM JANMAN and DA JGUA)	0	0	6.43	6.43

*Including the State of Sikkim.

