

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 2061
ANSWERED ON 10.03.2026

PHASE-I OF NBP IN THE COUNTRY

2061. SHRI UJJWAL DEORAO NIKAM
SHRI DEEPAK PRAKASH
SHRI SHAMBHU SHARAN PATEL
SHRI ASHOKRAO SHANKARRAO CHAVAN
SHRI ADITYA PRASAD
SHRI MADAN RATHORE
SHRI SUBHASH BARALA
SHRI AMAR PAL MAURYA

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

- (a) the progress achieved under Phase-I of the National Bioenergy Programme (NBP), which includes components related to Waste-to-Energy, Biomass Programme, and Biogas Programme;
- (b) the total capacity installed under the Biogas and Bio-Compressed Natural Gas (Bio-CNG), Briquettes and Pellets and Biomass Cogeneration Programme, State-wise;
- (c) the number of projects approved, completed and currently under implementation in each component of Phase I;
- (d) whether the Ministry has conducted any assessment of the impact of the program on rural income generation, waste utilization, and reduction in stubble burning or biomass wastage; and
- (e) if so, the details of the findings thereof?

ANSWER

THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER

(SHRI SHRIPAD YESSO NAIK)

(a) & (b) 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, Biomass 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 Manufacturing of Briquettes & Pellets and Promotion of Biomass (non-bagasse) based cogeneration in Industries)
- 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 under the Waste to Energy, Biomass & Biogas components of NBP Phase-I is given at **Annexure-I**.

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

(d) & (e) Yes, the Ministry has conducted a 3rd party evaluation of NBP Phase-I. The key findings are summarized at **Annexure-III**.

ANNEXURE-I

REFERRED TO IN REPLY TO THE RAJYA SABHA UNSTARRED QUESTION NO. 2061, Part (a) to (b), TO BE ANSWERED ON 10.03.2026 on 'Phase-I of NBP in the country'.

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

		Biomass Projects (Non-Bagasse Cogeneration)	Biomass based Briquette/Pellet manufacturing Projects	Waste to Energy Projects	Biogas Plants
SI No	State	Capacity (MW)	Capacity (TPH)	Capacity (MWe)	Nos.
1	Andhra Pradesh	35	7.7	19.99	88
2	Arunachal Pradesh	0	0	0	200
3	Assam	6	4	0	389
4	Bihar	19.2	4	0	255
5	Chhattisgarh	0	8	10.42	546
6	Goa	0	0	1.6	11
7	Gujarat	0	117.49	20.59	3668
8	Haryana	47.2	130.75	33.48	439
9	Himachal Pradesh	16.95	0	0	0
10	Jharkhand	5	2	1.04	11
11	Karnataka	0	17	13.09	1398
12	Kerala	0	0	0	637
13	Madhya Pradesh	8	322.05	24.13	6260
14	Maharashtra	0	79.6	26.86	14468
15	Manipur	0	0	0	25
16	Meghalaya	0	2	0	1
17	Mizoram	0	0	0	1
18	Nagaland	0	0	0	52
19	Odisha	0	22	5	216
20	Punjab	77.86	41	27.09	3220
21	Rajasthan	2.5	106.3	67.54	567
22	Sikkim	0	0	0	0
23	Tamil Nadu	12	10	3.92	124
24	Telangana	24.24	88.1	0.63	23
25	Tripura	0	0	0	161
26	Uttarakhand	36.22	1	7.63	1436
27	Uttar Pradesh	56.45	42.3	86.9	540
28	West Bengal	32.4	9	5.81	159

29	Andaman and Nicobar Islands	0	0	0	0
30	Chandigarh	0	0	0	
31	Dadra and Nagar Haveli and Daman & Diu	0	0	0	18
32	NCT of Delhi	0	0	26.17	0
33	Jammu & Kashmir	5	0	0	0
34	Ladakh	0	0	0	0
35	Lakshadweep	0	0	0	0
36	Puducherry	0	0	0	0
	Total	384.02	1014.29	381.87	34913

Annexure-II

REFERRED TO IN REPLY TO THE RAJYA SABHA UNSTARRED QUESTION NO. 2061, Part (c), TO BE ANSWERED ON 10.03.2026 on 'Phase-I of NBP in the country'.

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

Name of the Programme	Sanctioned	Completed	Under Implementation
Waste to Energy Programme	79	72	7
Biomass Programme	111	111	00
Biogas Programme	34913	34913	00

Annexure-III

REFERRED TO IN REPLY TO THE RAJYA SABHA UNSTARRED QUESTION NO. 2061, Part (d) to (e), TO BE ANSWERED ON 10.03.2026 on 'Phase-I of NBP in the country'.

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.