

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
UNSTARRED QUESTION NO. 358
TO BE ANSWERED ON 06.02.2025

Waste Management

358. DR. LAXMIKANT BAJPAYEE:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) the laws/ rules/ policies and schemes formulated by Government for the management of various types of waste in the country;
- (b) the State and Union Territory-wise details of the percentage of untreated/undisposed and unrecycled waste in the last five years;
- (c) the future plans of the Government to make waste management more effective;
- (d) the technology being used for the said purpose and the new technology proposed to be used in future; and
- (e) the manner in which the public is being involved and educated in the waste management process and the programmes being run for the said purpose?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI KIRTI VARDHAN SINGH)

(a): The Ministry of Environment, Forest and Climate Change notified the following waste management rules under Environment (Protection) Act, 1986, for environmentally sound management of wastes:

- Solid Waste Management Rules, 2016
- Plastic Waste Management Rules, 2016
- Bio-medical Waste Management Rules, 2016
- Construction and Demolition Waste Management Rules, 2016
- Hazardous and other wastes (Management and Transboundary Movement) Rules, 2016
- E-waste Management Rules, 2022,
- Battery Waste Management Rules, 2022,
- Environment Protection (End-of-Life Vehicles) Rules, 2025.

(b): The State and Union Territory-wise details of solid waste generated, collected, and processed for the years 2017-18 to 2021-22, as per Annual Report of CPCB on implementation of Solid Waste Management Rules, is given at Annexure. The solid waste processing shows an increasing trend for the five year period.

(c) to (e): Guidelines / Standard Operating Procedures have been published for environmentally sound recycling of the recyclable hazardous wastes covered under Hazardous and Other Wastes

Rules, 2016. Separately, Guidelines have also been issued on environmentally sound management of solid waste, plastic waste, biomedical waste, E-waste and C&D waste. Various recycling and processing are in operation in the country for different waste streams. Research and development in waste recycling technologies is carried out as per requirement.

The Department of Science and Technology, Government of India, supports R&D projects for recycling of wastes. Further, Ministry of Electronics & Information Technology (MEITY) through Centre for Materials for Electronic Technology (C-MET), Hyderabad, has developed technology for recycling of printed circuit board (PCB) for recovery of precious metals. MEITY has also funded R&D projects to develop technological solutions for management of e-wastes in environmentally sound manner.

The implementation of market based extended producer responsibility regulation with mandatory recycling targets notified by the Ministry of Environment, Forest and Climate Change for plastic packaging, E-waste, battery waste, used oil and waste tyres, will lead to development new business models and technological solutions for waste management and recycling. The Swachh Bharat Mission has a separate component for awareness generation and engagement with citizens for source segregation of solid waste and solid waste management.

Annexure

**Data on Solid Waste Management State/UT -wise as per CPCB Annual Report
(values in TPD)**

2021-22

Sr. No.	States/UTs	Waste generated (TPD)	Waste Collected	Waste Processed
1	Andhra Pradesh	6,890	6,890	1,558
2	Andaman and Nicobar	79	78	74
3	Arunachal Pradesh	228	199	9
4	Assam	1,589	1,333	575
5	Bihar	4,975	Not provided	Not provided
6	Chandigarh	540	540	83
7	Chhattisgarh	1,820	1,820	1,790
8	DNH&DD	267	267	246
9	Delhi	11,108	11,108	5,280
10	Goa	211	207	197
11	Gujarat	10,095	10,095	8,682
12	Haryana	8,766	6,691	4,297
13	Himachal Pradesh	383	349	269
14	Jammu & Kashmir	1,550	1,540	606
15	Jharkhand	2,404	1,969	843
16	Karnataka	13,034	11,655	5,440
17	Kerala	3,472	1,283 and 1,048 decentralized processing	2,691
18	Ladakh	52	42	20
19	Lakshadweep	18	18	18
20	Madhya Pradesh	7,115	6,132	6,059
21	Maharashtra	23,531	23,044	19,980
22	Manipur	282	199	133
23	Meghalaya	165	137	27
24	Mizoram	374	313	234
25	Nagaland	664	306	116
26	Odisha	2,103	2,020	1,356
27	Puducherry	383	383	58
28	Punjab	4,222	4,207	1,471

Sr. No.	States/UTs	Waste generated (TPD)	Waste Collected	Waste Processed
29	Rajasthan	7,973	7,859	1,926
30	Sikkim	66	66	18
31	Tamil Nadu	14,586	14,471	7,206
32	Telangana	11,057	11,057	8,611
33	Tripura	333	322	220
34	Uttar Pradesh	14,710	14,710	7,321
35	Uttarakhand	1,585	1,452	1,050
36	West Bengal	13,709	13,687	3,047
TOTAL		1,70,339	1,56,449	91,511

2020-21

Sl. No	States/ UTs	Solid waste generated (TPD)	Collected (TPD)	Treated (TPD)
1	Andhra Pradesh	6898	6829	1133
2	Arunachal Pradesh	236.51	202.11	Nil
3	Assam	1199	1091	41.4
4	Bihar	4281.27	4013.55	Not provided
5	Chhattisgarh	1650	1650	1650
6	Goa	226.87	218.87	197.47
7	Gujarat	10373.79	10332	6946
8	Haryana	5352.12	5291.41	3123.9
9	Himachal Pradesh	346	332	221
10	Jammu & Kashmir	1463.23	1437.28	547.5
11	Jharkhand	2226.39	1851.65	758.26
12	Karnataka	11085	10198	6817
13	Kerala	3543	964.76	2550
14	Madhya Pradesh	8022.5	7235.5	6472
15	Maharashtra	22632.71	22584.4	15056.1
16	Manipur	282.3	190.3	108.6
17	Meghalaya	107.01	93.02	9.64
18	Mizoram	345.47	275.92	269.71
19	Nagaland	330.49	285.49	122
20	Odisha	2132.95	2097.14	1038.31
21	Punjab	4338.37	4278.86	1894.04

Sl. No	States/ UTs	Solid waste generated (TPD)	Collected (TPD)	Treated (TPD)
22	Rajasthan	6897.16	6720.476	1210.46
23	Sikkim	71.9	71.9	20.35
24	Tamil Nadu	13422	12844	9430.35
25	Telangana	9965	9965	7530
26	Tripura	333.9	317.69	214.06
27	Uttarakhand	1458.46	1378.99	779.85
28	Uttar Pradesh	14710	14292	5520
29	West Bengal	13709	13356	667.6
30	Andaman and Nicobar Islands	89	82	75
31	Chandigarh	513	513	69
32	DDDNH	267	267	237
33	Delhi	10990	10990	5193.57
34	Lakshadweep	35	17.13	17.13
35	Puducherry	504.5	482	36
	TOTAL	160038.9	152749.5	79956.3

2019-20

Sl. No.	States/UTs	Solid waste generated (TPD)	Collected (TPD)	Treated (TPD)
1	Andhra Pradesh	6766	6140	1059
2	Arunachal Pradesh	285.65	223.56	Nil
3	Assam	1271.305	922.4115	41.6625
4	Bihar	4334	Yes	Not Provided
5	Chhattisgarh	1650	1650	1385
6	Goa	188.88	180.38	148.91
7	Gujarat	-	10755	6924
8	Haryana	5231.9	4808.8	1620.6
9	Himachal Pradesh	393	354	230
10	Jammu & Kashmir	1518.91	1464.65	540.19
11	Jharkhand	2188.97	1847.38	731.76
12	Karnataka	12258.2	10011	4489
13	Kerala	3521	880	1837
14	Madhya Pradesh	7980	7193	6431
15	Maharashtra	22945.256	22779.31	16037.26
16	Manipur	265	192.4	103.57

Sl. No.	States/UTs	Solid waste generated (TPD)	Collected (TPD)	Treated (TPD)
17	Meghalaya	153.18	119.19	9.64
18	Mizoram	348.19	313	278.4
19	Nagaland	306.1	255.9	24
20	Odisha	2208.6	2123.3	202.4
21	Punjab	4477.542	4413.952	2112.457
22	Rajasthan	6659.38	6475.9	1190.93
23	Sikkim	74.7	74.6	12.56
24	Tamil Nadu	14228	13955	6620
25	Telangana	9285	9270	6070
26	Tripura	411.32	380.8	253.6
27	Uttarakhand	1610.942	1481.057	716.637
28	Uttar Pradesh	14468	13955	5395
29	West Bengal	13980	12062	916
30	Andaman and	121	115	50
31	Nicobar Islands Chandigarh	450	450	179.61
32	DDDNH	184	191	97
33	Delhi	10470.57	10466.57	5193.57
34	Lakshadweep	32.55	32.55	11.44
35	Puducherry	580	517	61
	TOTAL	150847.1	146053.8	70973.2

2018-19

S. No.	States	Solid waste generation (TPD)	Collected (TPD)	Treated (TPD)
1	Andaman Nicobar	120	117	65.1
2	Andhra Pradesh	6440	6140	548
3	Arunachal Pradesh	270.96	215	Nil
4	Assam	1293.663	1119.37	-
5	Bihar	2272	Yes	-
6	Chandigarh	470	458.52	150
7	Chhattisgarh	1650	1386	1271
8	Daman Diu	98	94.5	5
9	Delhi	10817	10614	5714

S. No.	States	Solid waste generation (TPD)	Collected (TPD)	Treated (TPD)
10	Goa	236.41	235.9	154.71
11	Gujarat	-	11,119	1,127
12	Haryana	4635.79	4430.25	815.93
13	Himachal Pradesh	389	340	150
14	Jammu & Kashmir	Jammu- 702.2	Jammu- 648.4	-
		Kashmir- 828.33	Kashmir- 804.46	
		TOTAL- 1530.53	TOTAL- 1452.86	
15	Jharkhand	2205	2043.4	836.69
16	Karnataka	11958	10011	4515
17	Kerala	3903.023	742.23	437.74
18	Nagaland	339.5	216.9	135.8
19	Lakshadweep	35	18	18
20	Madhya Pradesh	8000	7500	6100
21	Maharashtra	23844.551	23675.7	12623.33
22	Manipur	218.6	126.63	80
23	Mizoram	251.42	213.07	29.22
24	Meghalaya	170.63	170.63	8.72
25	Orissa	2564.43	2255.32	91.63
26	Punjab	4634.48	4574.93	917.56
27	Pondicherry	599.25	505	24
28	Rajasthan	6625.56	6475.39	780.18
29	Sikkim	75.1	67.1	13.05
30	Tamil Nadu	13968	12850	7196
31	Telangana	8497	8360	5747
32	Tripura	445.72	389.46	150.1
33	Uttarakhand	1527.458	1437.4	524
34	Uttar Pradesh	17377.3	17329.4	4615
35	West Bengal	14613.3	13064.63	916

S. No.	States	Solid waste generation (TPD)	Collected (TPD)	Treated (TPD)
	Total	152076.7	149748.6	55759.6

2017-18

Sr. No.	State/UT Name	Solid waste generation	Collected (TPD)	Treated (TPD)
1	Andaman Nicobar*	-	-	-
2	Andhra Pradesh*	-	-	-
3	Arunachal Pradesh	203.96	166.82	Nil
4	Assam*			
5	Bihar	2272	Yes	3- ULBs started decentralise
6	Chandigarh	500	463	142.87
7	Chhattisgarh	2000	1680	1411.2
8	Daman Diu*	-	-	-
9	Delhi*	-	-	-
10	Goa*	-	-	-
11	Gujarat	Nil	11,119	1,127
12	Haryana*			
13	Himachal Pradesh*	-	-	-
14	Jammu & Kashmir	Jammu-666.68 Kashmir-930.6	Jammu-617.83 Kashmir-833.3	Nil
15	Jharkhand*	-	-	-
16	Karnataka*	-	-	-
17	Kerala	3831.553		
18	Nagaland	348	252	139.2
19	Lakshadweep*	-	-	-
20	Madhya Pradesh	7212	6537	2272.5
21	Maharashtra*	-	-	-
22	Manipur*	-	-	-
23	Mizoram*	-	-	-
24	Meghalaya	210	175	36
25	Orissa	539.44(only nineteen ULBs)	471.58 (only	Nil

Sr. No.	State/UT Name	Solid waste generation	Collected (TPD)	Treated (TPD)
			nineteen ULBs)	
26	Punjab*	-	-	-
27	Pondicherry*	-	-	-
28	Rajasthan*	-	-	-
29	Sikkim	73.34	63	7.5
30	Tamil Nadu	15174.612	14209.127	5307.146
31	Telangana	7804	7023	4795
32	Tripura	433.2	372.5	148.4
33	Uttarakha nd	1099	1099	Nil
34	Uttar Pradesh*	-	-	-
35	West Bengal*	-	-	-
	Total	43298.385	45082.15	15386.81

*Information not received
