# Annual Report 2021-2022

# on Implementation of

# Solid Waste Management Rules, 2016

## CENTRAL POLLUTION CONTROL BOARD
## DELHI

# Contents

**List of Tables**



**List of Figures**

# 1.0 BACKGROUND

The Solid Waste Management Rules were notified in the year 2016 for practicing safe and scientific management/ handling of municipal solid waste. The Solid Waste Management (SWM) Rules, 2016 were notified in supersession of the Municipal Solid Waste (Management and Handling) Rules, 2000. The SWM Rules, 2016 lay down various provisions and standards for the overall management of the solid wastes and also stipulate the duties, roles, and responsibility of all relevant agencies for ensuring compliance with these provisions. One of the provisions of the Solid Waste Management Rules, 2016 is the submission of the Annual Report by State Pollution Control Boards (SPCBs)/ Pollution Control Committees (PCCs) to the Central Pollution Control Board. The responsibility of the Central Pollution Control Board is to compile the information submitted by SPCBs/ PCCs and submit the same along with suggestion and recommendation to the Central Government (Ministry of Environment, Forests and Climate Change). This report is the compilation of the Annual Reports from SPCBs/ PCCs for the financial year 2021-2022.

For the Financial Year 2021-2022, reports have been received from all 36 SPCBs/ PCCs in compliance of Solid Waste Management Rules, 2016. Compilation of the received reports are discussed in the subsequent sections.

# 2.0 STATUS OF SOLID WASTE MANAGEMENT

## 2.1 Overall Solid Waste Management Status

As per Rule 15 (b) of the Solid Waste Management Rules, 2016 the responsibilities of collection of segregated solid waste lies with the local authorities. As per the reports submitted by SPCBs/ PCCs the total quantity of solid waste generated in the country is 1,70,339 TPD and the total waste collected is 1,56,449 TPD. This translates to overall efficiency 92% with regards to waste collection in the country.

The Solid Waste Management Rules, 2016 defines waste **processing** as any scientific process by which segregated solid waste is handled for the purpose of reuse, recycling or transformation into new products. These include activities such as segregation, sorting, washing, baling, compaction, etc. Further, the term **treatment** is defined as the method, technique or process designed to modify physical, chemical or biological characteristics or composition of any waste so as to reduce its volume and potential to cause harm. These include activities such as incineration, composting, vermicomposting, biogas plant, anaerobic digestion etc. The treatment and processing techniques adopted for the management of solid waste by the states and the union

territories have been compiled in this report. These include systems such as windrow composting, vermicomposting, pit composting, biomethanation, organic waste convertors, RDF/ pelletization plants, material recovery facilities (MRFs), waste to energy (WtE) plants, incinerators, etc. As per the data received from SPCBs/ PCCs a total of 91,511 TPD of waste is processed or treated, which equates to 54% of the total waste generation.

As per the Solid Waste Management Rules, 2016 **sanitary landfilling** means the final and safe disposal of residual solid waste and inert wastes on land in a facility designed with protective measures against pollution of ground water, surface water and fugitive air dust, wind-blown litter, bad odour, fire hazard, animal menace, bird menace, pests or rodents, greenhouse gas emissions, persistent organic pollutants slope instability and erosion. As per the data received from SPCBs/ PCCs a total of 41,455 TPD of waste disposed through sanitary landfill, which equates to 24% of the total waste generation.

The disposal of waste through open dumpsite, is not a recognised system for disposal of waste as per the Solid Waste Management Rules, 2016. Therefore, such disposal is not reflected either under processed/ treated, or under disposal through sanitary landfill.

Based on the information on treatment/ processing and disposal of wastes, the gap in solid waste management is found to be 37,373 TPD, which is 22% of the total waste generated. State wise status of solid waste management is given in **Table 1.**

*Table 1: Overall Solid Waste Management Status*

| Sl. No. | State | Waste generated (TPD) | Waste Collected (TPD) | Waste Processed/ Treated (TPD)* | Waste Landfilled (TPD)** | Gap (TPD) |
|---|---|---|---|---|---|---|
| 1 | Andhra Pradesh | 6,890 | 6,890 | 1,558 | Not provided | 5332 |
| 2 | Andaman and Nicobar | 79 | 78 | 74 | 2 | 3 |
| 3 | Arunachal Pradesh | 228 | 199 | 9 | Not provided | 219 |
| 4 | Assam | 1,589 | 1,333 | 575 | 744 | 270 |
| 5 | Bihar | 4,975 | Not provided | Not provided | Not provided | 4975 |
| 6 | Chandigarh | 540 | 540 | 83 | 486 | -29*** |
| 7 | Chhattisgarh | 1,820 | 1,820 | 1,790 | 30 | 0 |
| 8 | DNH&DD | 267 | 267 | 246 | 21 | 0 |
| 9 | Delhi | 11,108 | 11,108 | 5,280 | 5,828 | 0 |

| Sl. No. | State | Waste generated (TPD) | Waste Collected (TPD) | Waste Processed/ Treated (TPD)* | Waste Landfilled (TPD)** | Gap (TPD) |
|---|---|---|---|---|---|---|
| **10** | **Goa** | 211 | 207 | 197 | 10 | 4 |
| **11** | **Gujarat** | 10,095 | 10,095 | 8,682 | 1,003 | 410 |
| **12** | **Haryana** | 8,766 | 6,691 | 4,297 | 2,218 | 2251 |
| **13** | **Himachal Pradesh** | 383 | 349 | 269 | 80 | 34 |
| **14** | **Jammu & Kashmir** | 1,550 | 1,540 | 606 | 390 | 554 |
| **15** | **Jharkhand** | 2,404 | 1,969 | 843 | 930 | 631 |
| **16** | **Karnataka** | 13,034 | 11,655 | 5,440 | 4,198 | 3396 |
| **17** | **Kerala** | 3,472 | 1,283 and 1,048 decentralized processing | 2,691 | - | 781 |
| **18** | **Ladakh** | 52 | 42 | 20 | 15 | 17 |
| **19** | **Lakshadweep** | 18 | 18 | 18 | 0 | 0 |
| **20** | **Madhya Pradesh** | 7,115 | 6,132 | 6,059 | 76 | 980 |
| **21** | **Maharashtra** | 23,531 | 23,044 | 19,980 | 2,067 | 1484 |
| **22** | **Manipur** | 282 | 199 | 133 | 66 | 83 |
| **23** | **Meghalaya** | 165 | 137 | 27 | 119 | 19 |
| **24** | **Mizoram** | 374 | 313 | 234 | 8 | 132 |
| **25** | **Nagaland** | 664 | 306 | 116 | 299 | 249 |
| **26** | **Odisha** | 2,103 | 2,020 | 1,356 | 738 | 9 |
| **27** | **Puducherry** | 383 | 383 | 58 | 325 | 0 |
| **28** | **Punjab** | 4,222 | 4,207 | 1,471 | 2,736 | 15 |
| **29** | **Rajasthan** | 7,973 | 7,859 | 1,926 | 5,525 | 522 |
| **30** | **Sikkim** | 66 | 66 | 18 | 48 | 0 |
| **31** | **Tamil Nadu** | 14,586 | 14,471 | 7,206 | 6,776 | 604 |
| **32** | **Telangana** | 11,057 | 11,057 | 8,611 | 1,011 | 1435 |
| **33** | **Tripura** | 333 | 322 | 220 | 15 | 98 |
| **34** | **Uttar Pradesh** | 14,710 | 14,710 | 7,321 | 4,389 | 3000 |
| **35** | **Uttarakhand** | 1,585 | 1,452 | 1,050 | 115 | 420 |
| **36** | **West Bengal** | 13,709 | 13,687 | 3,047 | 1,187 | 9475 |
| **TOTAL** | | **1,70,339** | **1,56,449** | **91,511** | **41,455** | **37,373** |

* *Includes information only on processing and treatment of waste. Disposal through sanitary landfill is not included in the column*

***Includes information on disposal of waste through sanitary landfill only; does not include disposal of waste in dumpsites.*

****The preceding year unprocessed waste (+29 TPD) is being included in the present year treatment and landfilling of waste.*

A graphical representation of the solid waste generation in the states and UTs is given in **Figure 1** below:

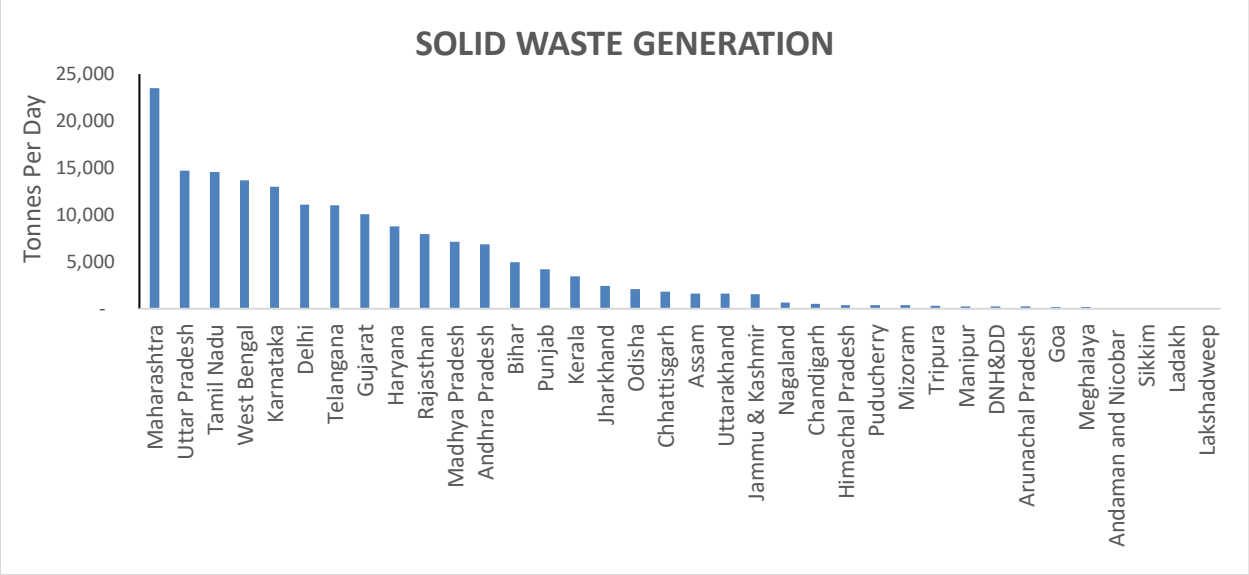


*Figure 1: Solid Waste Generation in India*

## 2.2 Per Capita Generation of Solid Waste

Per capita waste generation is the average waste generated by a person in one day. As per the data submitted by the SPCBs/ PCCs the average per capita waste generation in the country is 123.45 gms/ day. The per capita solid waste generation in the country is represented graphically in **Figure 2** below.

Based on the data submitted by the SPCBs/ PCCs the highest per capita waste generators are Delhi (526.5 gms/capita/day), Chandigarh (441.5 gms/capita/day), Mizoram (304.3 gms/capita/day) and Nagaland (299.1 gms/capita/day). Lowest per capita waste generation is recorded in the states of Meghalaya (21.0 gms/capita/day) Bihar (39.6 gms/capita/day), Assam (44.8 gms/capita/day) and Odisha (45.6 gms/capita/day).

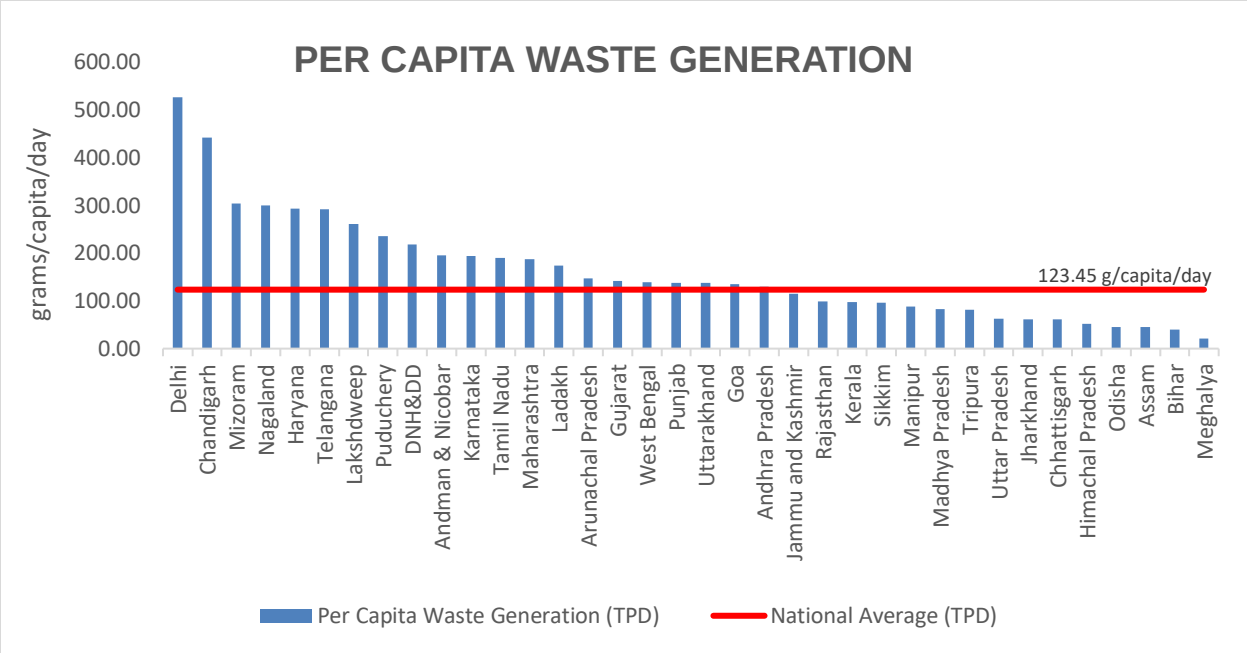


*Figure 2: Per Capita Waste Generation Across States/ Union Territories*

The trend in per capita waste generation over the last five years is illustrated in **Figure 3**. Analysis of the information on per capita waste generation shows an increasing trend with an increment from 98.79 grams/capita/day to 123.45 grams/capita/day in the last five years.

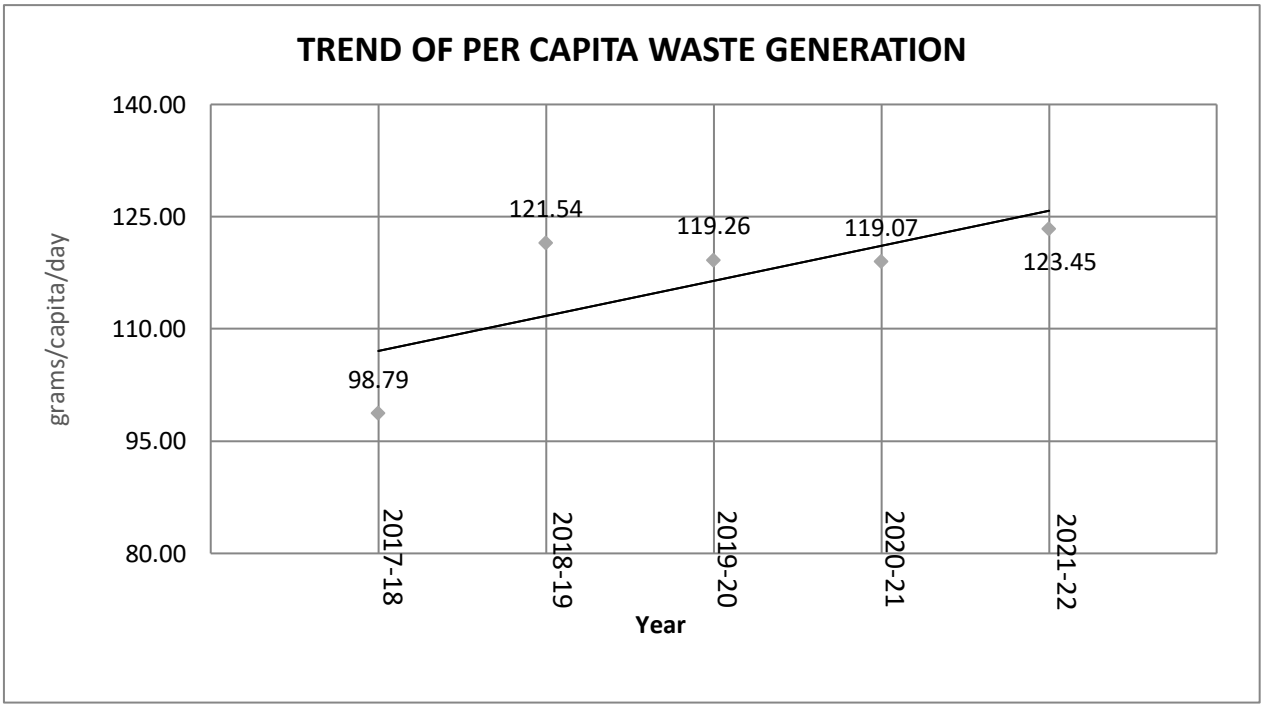


*Figure 3: Trend of Per Capita Solid Waste Generation*

### 2.3 Processing/ Treatment of Solid Waste

The total waste processed/ treated across the country is 91,511 TPD. When compared to the total waste generated, which is 1,70,339 TPD, it is found that an average of 54 % of the waste is treated/ processed across the country. Data on treatment or processing of waste submitted by the states and union territories is provided in Table 1 above.

A graphical representation of the processing/ treatment of wastes across the states/ union territories is given in **Figure 4** below. From the figure it is seen the 16 states/ UTs have treatment/ processing above the national average of 54%. Highest processing/ treatment of solid wastes is done by Lakshadweep (100%), Chhattisgarh (98%) and Andaman and Nicobar Islands (94%). The states/ UTs with very limited processing include Arunachal Pradesh (4%), Puducherry (15%) and Chandigarh (15%).

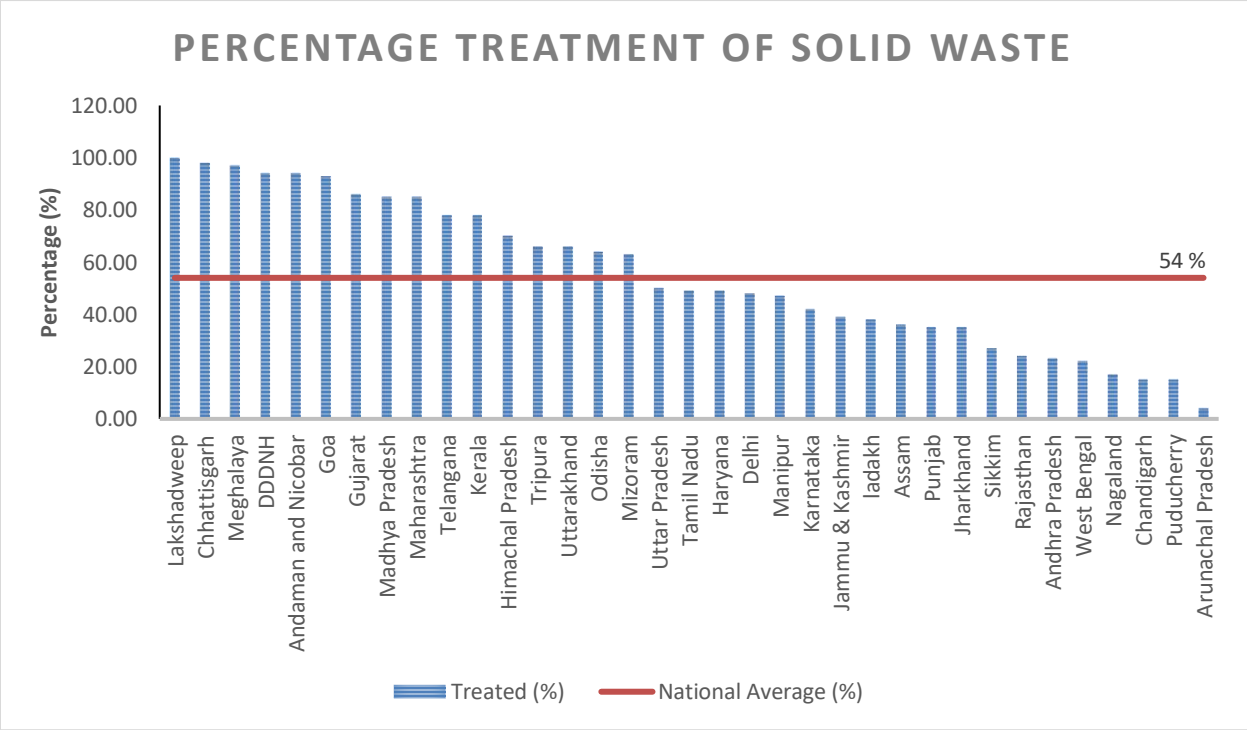


*Figure 4: Treatment of Solid Waste across states and union territories*

**Note: Bihar is not included due to non-submission of data*

The trend of the processing/ treatment of solid waste during last five years i.e., 2017-2018 to 2021-2022 is illustrated in **Figure 5** below. From the figure it can be seen that there has been a steady increase in percentage of waste being processed or treated over time; the percentage of waste being treated/ processed has increased from 36.46% in 2017-2018 to 54% in 2021-2022.

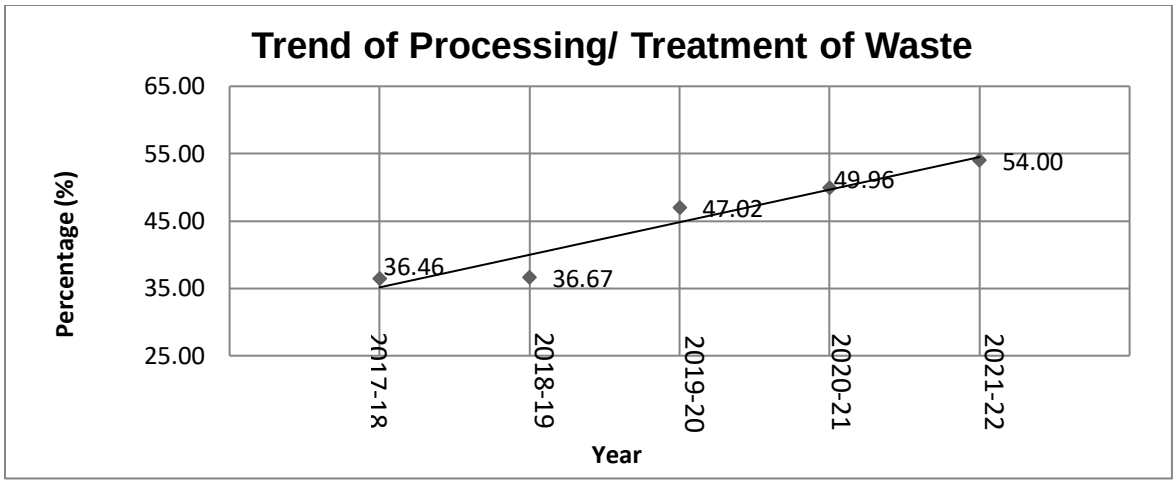


*Figure 5: Trend of Solid Waste Treatment over time*

## 2.4 Landfilling of Solid Waste

Landfilling of waste refers to the final and safe disposal of residual solid waste and inert wastes on land in a secured landfill, which is an engineered facility aimed for safe and final disposal of waste rejects and inerts. The total waste landfilled in the country is 41,455 TPD. This equates to 24% of the total waste generated. Data of disposal by sanitary landfill by the states and union territories is provided in Table 1 above. A graphical representation of landfilling of waste across the states/ union territories is given in **Figure 6** below. From the data submitted by SPCBs/ PCCs, it is seen that Chandigarh (90%), Puducherry (85%) and Sikkim (73%) have the highest percentage of waste being landfilled; Lakshadweep (Nil), Delhi (Nil), Madhya Pradesh (1%) and Chhattisgarh (1.6%) have the lowest percentage of waste being landfilled.

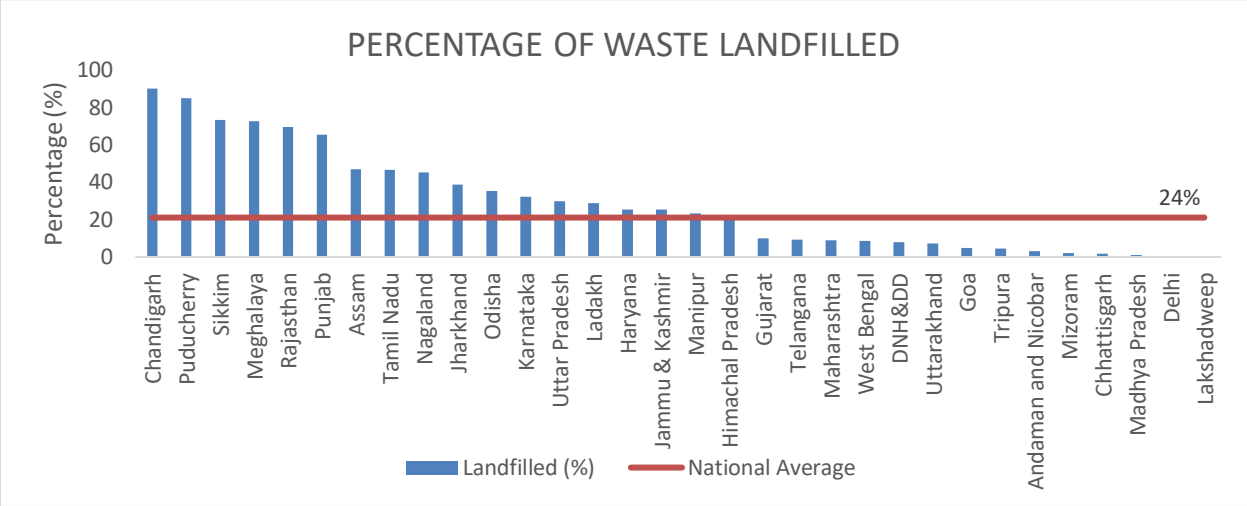


*Figure 6: Landfilling of wastes across the states and union territories*

**Note: Andhra Pradesh, Arunachal Pradesh, Bihar and Kerala are not included due to non-submission of data*

The graphical representation of the trend in the percentage solid waste landfilled for the last five years is illustrated in **Figure 7.** Decreasing trend in solid waste landfilled has been observed during the financial year of 2017-2018 to 2020-2021 with the respective percentages being 54.16% and 21%.

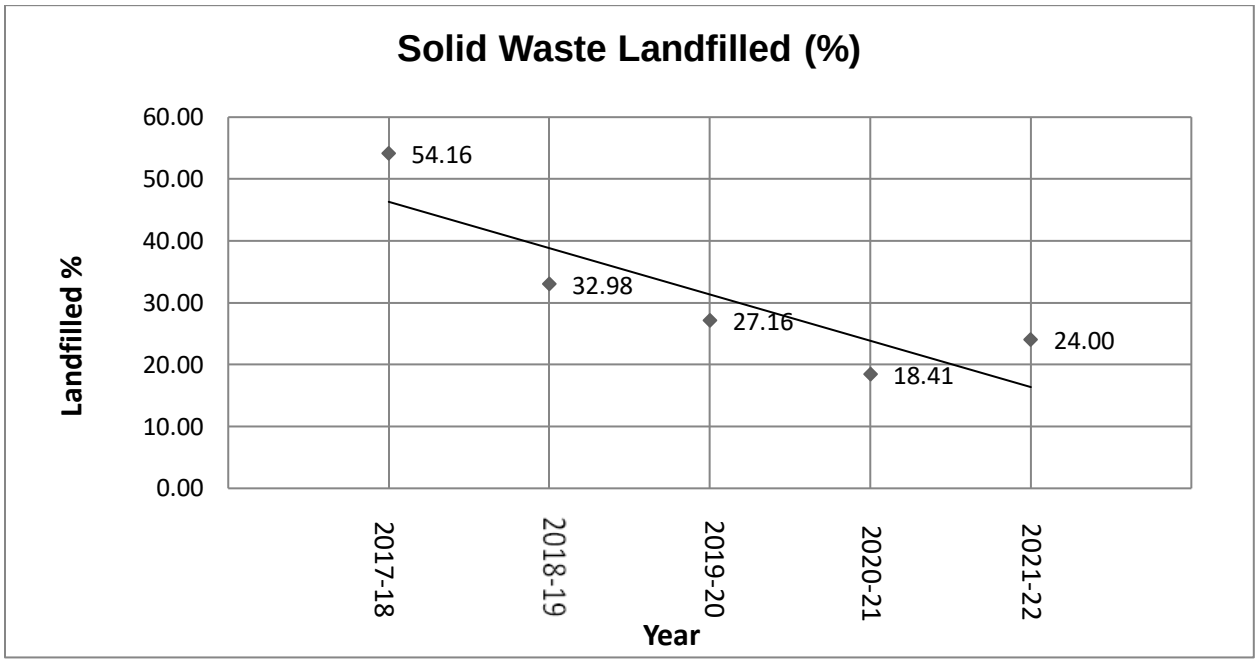


*Figure 7: Trend of Landfilling of Solid Waste*

### 2.5 Gaps in Solid Waste Management

From the total waste generation of 1, 70,339 TPD, a quantity of 91,511 TPD is processed/ treated and 41,455 TPD is disposed through sanitary landfill. As such, the treatment/ processing or disposal of 37,373 TPD of waste remain unaccounted. This unaccounted portion of the waste is the gap in the management of solid waste in the country which equates to 22% of the total generated waste.

The gaps in solid waste management in the states and union territories are given in Table 1 above. A graphical representation of this is provided in **Figure 8** below. It can be seen that the gap in waste management is highest in Arunachal Pradesh (96%), Andhra Pradesh (77%) and in West Bengal (69%). It has also been reported that no gaps exist in the seven states/ union territories viz. Chandigarh, Chhattisgarh, DNH&DD, Lakshadweep, Puducherry, Punjab and Sikkim.

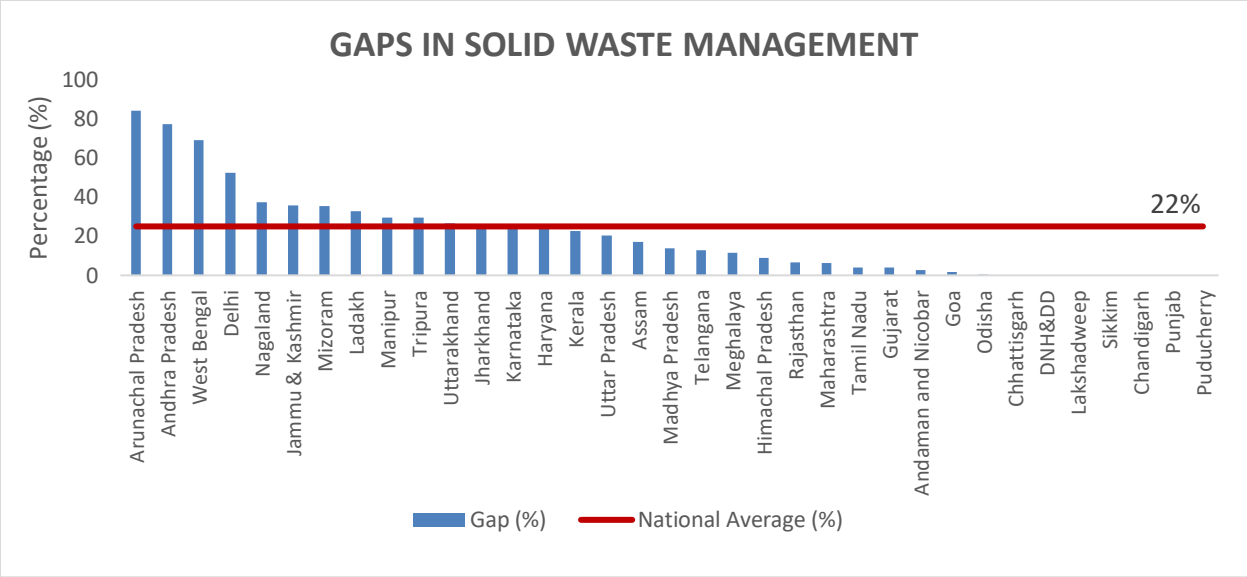


*Figure 8: Gaps in Solid Waste Management across the states and union territories*

**Note: Bihar is not included due to non-submission of data*

The trend in the gap over the last five years is illustrated in **Figure 9**. It is being observed that percentage gap in Solid Waste Management has decreased from 30% in 2018-2019 to 22% in 2021-22.

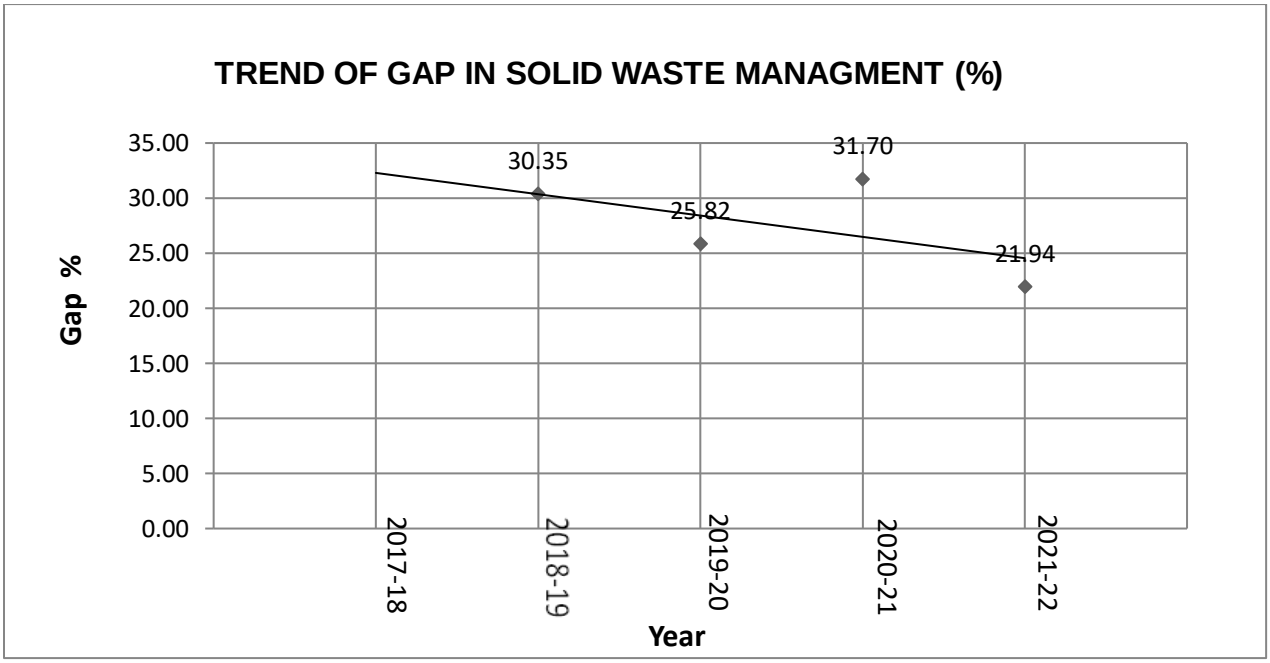


*Figure 9: Trend of Gaps in Solid Waste Management*

## 2.6 Towns/Cities & Urban Local Bodies in States / UT

The details of Towns/ Cities & Urban Local Bodies in States / UTs are given in **Table 2**. As per the information provided by SPCBs/PCCs, there are 4590 ULBs, 3659 Towns & cities and 879 Class I & II Towns & Cities in the country. Some of the states/UTs, as indicated in Table 2, have not provided complete information on the matter.

*Table 2: Details of Towns/ Cities and urban Local Bodies*

| Sl. No. | State | No. of Towns/Cities | No. of ULBs | No. of Class I & II Towns/Cities |
|---|---|---|---|---|
| 1 | **Andhra Pradesh** | 70 | 123 | 45 |
| 2 | **Andaman and Nicobar Islands** | 1 | 1 | 1 |
| 3 | **Arunachal Pradesh** | 33 | 33 | 0 |
| 4 | **Assam** | 101 | 96 | 14 |
| 5 | **Bihar** | Not provided | 141 | 1 |
| 6 | **Chandigarh** | 1 | 1 | 1 |
| 7 | **Chhattisgarh** | 169 | 169 | Not provided |
| 8 | **Dadra Nagar Haveli and Daman Diu** | 3 | 3 | 0 |
| 9 | **Delhi** | 1 | 5 | 1 |
| 10 | **Goa** | 14 | 14 | 1 |
| 11 | **Gujarat** | 164 | 164 | 6 |
| 12 | **Haryana** | 89 | 89 | 29 |
| 13 | **Himachal Pradesh** | 61 | 68 | 1 |
| 14 | **Jammu & Kashmir** | 241 | 80 | 5 |
| 15 | **Jharkhand** | 228 | 42 | 23 |
| 16 | **Karnataka** | Not provided | 315 | 66 |
| 17 | **Kerala** | 93 | 93 | 39 |
| 18 | **Ladakh** | 2 | 2 | 2 |
| 19 | **Lakshadweep** | 10 | 0 | 0 |
| 20 | **Madhya Pradesh** | 411 | 411 | 63 |
| 21 | **Maharashtra** | 403 | 403 | 88 |
| 22 | **Manipur** | 27 | 27 | 1 |
| 23 | **Meghalaya** | 22 | 7 | 3 |
| 24 | **Mizoram** | 28 | 1 | 2 |
| 25 | **Nagaland** | 39 | 39 | 2 |
| 26 | **Odisha** | 114 | 114 | 24 |
| 27 | **Puducherry** | 2 | 5 | 4 |
| 28 | **Punjab** | 163 | 163 | 71 |
| 29 | **Rajasthan** | 207 | 207 | 70 |
| 30 | **Sikkim** | 7 | 7 | 0 |
| 31 | **Tamil Nadu** | 490 | 649 | Not provided |

| | | | | |
|---|---|---|---|---|
| 32 | **Telangana** | 142 | 142 | 97 |
| 33 | **Tripura** | 20 | 14 | 1 |
| 34 | **Uttar Pradesh** | 75 | 734 | 121 |
| 35 | **Uttarakhand** | 100 | 100 | 8 |
| 36 | **West Bengal** | 128 | 128 | 89 |
| | **Total** | **3,659** | **4590** | **879** |

## 2.7 Authorization Granted to Waste Processing /Disposal Facilities

As per Rule 15(y) of SWM Rules, local bodies are required to obtain authorization from the concerned SPCB/ PCC for setting up waste processing, treatment or disposal facility, if the volume of waste is exceeding five metric tons per day. A total number of 489 such applications have been received and 357 authorizations granted in the financial year 2021-2022 as per the information provided by the SPCBs/PCCs. The details of the same are given in **Table 3**.

*Table 3: Details of Authorizations Granted*

| Sl. No. | State | No. of applications received | No. of authorization granted |
|---|---|---|---|
| **1** | **Andhra Pradesh** | 1 | 1 |
| **2** | **Andaman and Nicobar** | 0 | 0 |
| **3** | **Arunachal Pradesh** | 0 | 0 |
| **4** | **Assam** | 1 | 0 |
| **5** | **Bihar** | 0 | 0 |
| **6** | **Chandigarh** | 1 | 1 |
| **7** | **Chhattisgarh** | 2 | 2 |
| **8** | **Dadra Nagar Haveli and Daman Diu** | 0 | 0 |
| **9** | **Delhi** | 1 | 1 |
| **10** | **Goa** | 0 | 0 |
| **11** | **Gujarat** | 18 | 6 |
| **12** | **Haryana** | 0 | 0 |
| **13** | **Himachal Pradesh** | 0 | 0 |
| **14** | **Jammu & Kashmir** | 1 | 0 |
| **15** | **Jharkhand** | 0 | 0 |
| **16** | **Karnataka** | 10 | 1 |
| **17** | **Kerala** | 59 | 51 |
| **18** | **Ladakh** | 0 | 0 |
| **19** | **Lakshadweep** | 0 | 0 |
| **20** | **Madhya Pradesh** | 1 | 0 |
| **21** | **Maharashtra** | 109 | 32 |
| **22** | **Manipur** | 0 | 0 |
| **23** | **Meghalaya** | 6 | 6 |

| Sl. No. | State | No. of applications received | No. of authorization granted |
|---|---|---|---|
| **24** | **Mizoram** | 0 | 0 |
| **25** | **Nagaland** | 1 | 1 |
| **26** | **Odisha** | 0 | 0 |
| **27** | **Puducherry** | 18 | 18 |
| **28** | **Punjab** | 0 | 0 |
| **29** | **Rajasthan** | 1 | 0 |
| **30** | **Sikkim** | 1 | 0 |
| **31** | **Tamil Nadu** | 219 | 219 |
| **32** | **Telangana** | 0 | 0 |
| **33** | **Tripura** | 1 | 1 |
| **34** | **Uttar Pradesh** | 18 | 17 |
| **35** | **Uttarakhand** | 20 | 0 |
| **36** | **West Bengal** | 0 | 0 |
| | **Total** | **489** | **357** |

## 2.8 Collection, Segregation & Transportation of Solid Waste

Details of Collection, Segregation & Transportation of Solid Waste are given in **Table 4.** Four states - Arunachal Pradesh, Himachal Pradesh, Nagaland and Odisha have provided ULB wise information. Remaining States/UTs have provided consolidated information. As per the information provided 14 States /UTs (Andaman and Nicobar Islands, Andhra Pradesh, Chandigarh, Chhattisgarh, Goa, Delhi, Jammu and Kashmir, Jharkhand, Karnataka, Maharashtra, Sikkim, Telangana, Uttar Pradesh, Uttarakhand) practice 100% collection of Solid Waste. However, only Five States/UTs (Andaman and Nicobar Island, Chhattisgarh, Lakshadweep, Odisha and Tripura) practice 100% segregation of waste at source.

## 2.9 Solid Waste Processing Facilities

State wise details of solid waste processing facilities are given in **Table 5**. As per the information provided windrow composting is the most preferred system for treatment of organic waste. Although smaller in capacity, vermicomposting has also been utilized as a system for treatment of organic wastes. In the case of Goa, treatment of all organic wastes is done through biogas plants. Pit composting and Organic Waste Convertor (OWC) have been used by a number of local bodies in Himachal Pradesh. RDF/ pelletization is the most commonly reported system for the management of inorganic wastes across the country.

## 2.10 Waste to Energy Plants

Details of waste to energy plants is given in **Table 6**. As per the details provided by SPCBs/PCCs, currently there are thirteen waste-to-energy plants operational in India (Andhra Pradesh – 2, Delhi-2, Goa-1, Haryana-1, Madhya Pradesh-1, Maharashtra -1, Telangana – 1, Uttar Pradesh-3, West Bengal-1). The total power generation of these units, excluding the unit in Uttar Pradesh is 127.072 MW.

## 2.11 Landfill for Waste Disposal

State-wise details of sanitary landfill are given in **Table 7**. As per the details provided a total of 1,244 sites have been identified for utilization as sanitary landfills. Further, 669 sanitary landfills have been constructed and 135 sanitary landfills are under construction. There are 645 sanitary landfills in operation and 10 sanitary landfills have been exhausted. The maximum numbers of sanitary landfill sites have been identified in Maharashtra (382), Karnataka (221) and Telangana (141). Maximum numbers of sanitary landfill sites in operation are in Maharashtra (352), Karnataka (165) and Uttar Pradesh (57). City wise details have not been provided by 12 States/UTs – Bihar, Chandigarh, Chhattisgarh, Gujarat, Haryana, Karnataka, Maharashtra, Odisha, Punjab, Tamil Nadu, Uttar Pradesh, and West Bengal.

## 2.12 Waste Disposal in dumpsites

In absence of adequate scientifically designed sanitary landfills for waste disposal, waste is disposed in dumpsites. As per information provided by SPCBs/ PCCs, there are 2,452 dumpsites in the country, of which 366 have been reclaimed and 27 sites have been converted to sanitary landfill. Details of same are given in **Table 8**. Maximum number of dumpsites are in Maharashtra (240) followed by Tamil Nadu (210) and Rajasthan (208). Maximum numbers of dumpsites have been reclaimed in Maharashtra (134), Madhya Pradesh (114) followed by Tamil Nadu (69) and Uttar Pradesh (27). Maximum number of dumpsites that have been converted to sanitary landfill are in Punjab (18), Andhra Pradesh (03) and one each in Chandigarh, Rajasthan, Puducherry, Sikkim, Telangana and Meghalaya.

## 2.13 Monitoring at Waste Processing & Disposal Sites

15 States & UTs (Andhra Pradesh, Assam, Chandigarh, Goa, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Manipur, Meghalaya, Puducherry, Tamil Nadu, Telangana, Tripura and Uttarakhand) have carried out monitoring at Waste Processing & Disposal Sites in their jurisdiction. Details are given in **Table 9**.

*Table 4: State wise details of Collection, Segregation and Transportation of Solid Waste*

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| **1** | **Andhra Pradesh** | 123 | 100 | 98.17 | Yes |
| **2** | **Andaman and Nicobar Islands** | 1 (70 Gram Panchayats) | 100% in Urban Areas<br>80% in Rural Areas | 100% in Urban Areas<br>90% in Rural Areas | Yes |
| **3** | **Arunachal Pradesh** | Aalo | 33 nos. of wards, 1243 nos. of households and 65 nos. of non-residential premises are covered under Door to Door (D2D) collection of waste.<br><br>100% D2D collection is done through motorized vehicle. | Segregation of solid waste is practiced in the Town. | Secondary waste storage facilities installed in the Town as below:<br>37 nos. of 1.1 bins.<br>50 nos. of 2 to 5 cubic meter bins. |
| | | Anini | D2D collection of waste not practiced in the Town. | Segregation of solid waste is not practiced in the Town. | There are no Secondary waste storage facilities in the Town. |
| | | Basar | 11 nos. of wards, 1064 nos. of households and 80 nos. of non-residential premises are covered under D2D collection of waste.<br>100% D2D collection is done through motorized vehicle. | 80% of premises segregated the waste at source. | There are no Secondary waste storage facilities in the Town. |
| | | Bomdila | 5 nos. of wards, 2560 nos. of households and 75 nos. of non-residential premises covered under D2D collection of waste.<br>100% D2D collection is | 30% premises | Secondary waste storage facilities installed in the Town as below:<br>4 nos. of open waste storage sites of 1.60 cubic meter capacity.<br>24 nos. of covered metal/plastic |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | | done through motorized vehicle. | | containers of 2.16 cubic meter capacity. |
| | | Boleng | D2D collection of waste not practised in the Town. | Segregation of solid waste is done in the Town. | There are no Secondary waste storage facilities in the Town. |
| | | Changlang | 13 nos. of wards and 1498 nos. of households are covered D2D collection of waste.<br>D2D collection done as:<br>80% through motorized vehicle.<br>20% through other device. | Segregation of waste at source not practiced in Town. | Secondary waste storage facilities installed in the Town as below:<br>12 nos. of masonry bins.<br>4 nos. of covered metal/plastic containers upto 2 to 5 cubic meter bins. |
| | | Deomali | 15 nos. of wards, 1700 nos. of households and 100 nos. of non-residentials premises are covered under D2D collection of waste.<br>100% D2D collection is done through motorized vehicle. | Premises practise segregation of waste at source. | Secondary waste storage facilities installed in the Town as below:<br>4 nos. of cement concrete cylinder bins of cumulative capacity of 13.50 cubic meter<br>10 nos. of covered plastic containers of cumulative capacity of 0.80 cubic meter. |
| | | Dirang | 5 nos. of wards, 984 nos. of households and 274 nos. of non-residential premises covered under D2D collection of waste.<br>70% D2D collection done through motorized vehicle. | Segregation of solid waste is not practiced in the Town. | Secondary waste storage facilities like 15 nos. (covered metal/plastic containers) upto 1.1 cubic meter bins of cumulative capacity of 16.50 cubic meter installed in the Town. |
| | | Daporijo | D2D collection of waste not practiced in the Town. | Segregation of solid waste is not practiced in the Town. | Secondary waste storage facilities installed in the Town as below:<br>4 nos. of open waste storage sites.<br>1 no. of masonry bin. |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Dumporijo | D2D collection of waste not practiced in The Town. | Solid waste is not stored at source in a segregated form. | There are no Secondary waste storage facilities in the Town. |
| | | Doimukh | 13 nos. of wards, 780 nos. of households and 220 nos. of non-residentials premises covered under D2D collection of waste. 80% D2D collection done through motorized vehicle. | Solid waste is not stored at source in a segregated form. | There are no Secondary waste storage facilities in the Town. It is a bin-less city. |
| | | Hawai | 9 nos. of wards, 550 nos. of households and 60 nos. of non-residentials premises covered under D2D collection. 100% D2D collection through motorized vehicle. | Segregation of the waste at source is not practiced in the Town. | Secondary waste storage |
| | | Itanagar Municipal Corporation | 20 nos. of wards and 30646 nos. of households are covered under D2D collection of waste. 100% D2D collection through motorized vehicle. | Solid waste is not stored at source in a segregated form. | There are no secondary waste storage facilities in the Town. |
| | | Jairampur | 13 nos. of wards, 2866 nos. of households and 100 nos. of non-residentials premises are covered under D2D collection of waste. 100% D2D collection done through motorized vehicle. | Segregation of the waste at source is not practised in the Town. | There are no secondary waste storage facilities in the Town. |
| | | Khonsa | 15 nos. of wards, 1700 nos. of households and 90 nos. of non-residential premises are covered under D2D | Premises segregated the waste at source. | Secondary waste storage facilities installed in the Town as below: 10 nos. of cement concrete |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | | collection of waste. 50% D2D collection is done through motorized vehicle. 50% D2D collection through containerized tricycle/handcart. | | cylinder bins of cumulative capacity of 33.75 cubic meter. 20 nos. of covered plastic containers of cumulative capacity of 3 cubic meter. |
| | | Kimin | 7 nos. of wards, 1200 nos. of households and 256 nos. of non-residential premises covered under D2D. 100% D2D collection through motorized vehicle. | Solid waste is not stored at source in a segregated form. | There are no secondary waste storage facilities in the Town. |
| | | Koloriang | D2D collection of waste not practised in the Town. | Solid waste is not stored at source in a segregated form. | There are no secondary waste storage facilities in the Town. |
| | | Longding | D2D collection of waste is not practised in the Town. | Solid waste is not stored at source in a segregated form. | Secondary waste storage facilities installed in the Town as below: 20 nos. of upto 1.1 cubic meter bins of cumulative capacity of 0.45 cubic meter. |
| | | Mariyang | 9 nos. of wards, 399 nos. of households and 85 nos. of non-residential premises are covered under D2D collection of waste. 100% D2D collection through motorized vehicle. | 100% of premises store solid waste at source in a segregated form. | There are no secondary waste storage facilities in the Town. It's a bin-less city. |
| | | Miao | 10 nos. of wards, 1473 nos. of households and 40 nos. of non-residential premises are covered under D2D collection of waste. 100% D2D waste collection through motorized vehicle. | Solid waste is not stored at source in a segregated form. | Secondary waste storage facilities installed in the Town as below: 55 nos. of covered metal/plastic containers of 5.5 cubic meter capacity. |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Namsai | 30 nos. of wards, 3899 nos. of households and 639 nos. of non-residentials premises are covered under D2D collection of waste.<br>100% D2D collection of waste through motorized vehicle. | 90% of premises segregate the waste at source. | There are no secondary waste storage facilities in the Town. |
| | | Palin | 8 nos. of wards are covered under D2D collection of waste.<br>D2D collection done through motorized vehicle. | Solid waste is not stored at source in a segregated form. | There are no secondary waste storage facilities in the Town. It is a bin-less city. |
| | | Pangin | D2D collection of waste not practised in the Town. | Solid waste is not stored at source in a segregated form. | There are no secondary waste storage facilities in the Town. |
| | | Pasighat Municipal Council | D2D collection of waste is not practised in the Town. | Segregation of the waste at source is not practised in the Town. | There are no secondary waste storage facilities in the Town. |
| | | Raga | 7 nos. of wards, 362 nos. of households and 85 nos. of non-residential premises are covered under D2D collection of waste.<br>90% D2D collection done through motorized vehicle. | Solid waste is not stored at source in a segregated form. | There are no secondary waste storage facilities in the Town. |
| | | Roing | D2D collection of waste is not practised in the Town. | Solid waste is not stored at source in a segregated form. | There are no secondary waste storage facilities in the Town. It is a bin-less Town. |
| | | Sagalee | 12 nos. of wards and 700 nos. of households covered under D2D collection of waste. | Solid waste is not stored at source in a segregated form. | Secondary waste storage facilities installed in the Town as below:<br>20 nos. of open waste storage |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | | D2D collection done as:<br>40% through motorized vehicle.<br>50% through containerized tricycle/handcart.<br>10% through other devices. | | sites of cumulative capacity of 1.5 cubic meter.<br>20 nos. of up to 1.1 cubic meter bins of cumulative capacity of 1.10 cubic meter.<br>15 nos. of upto 2 to 5 cubic meter bins of cumulative capacity of 2.50 cubic meter.<br>10 nos. of above 5 cubic meter containers of cumulative capacity of 5.50 cubic meter.<br>45 nos. of covered metal/plastic containers of cumulative capacity of 1.10 cubic meter. |
| | | Seppa | 42 nos. of wards and 1885 nos. of households covered under D2D collection.<br>D2D collection is done 100% through motorized vehicle. | Segregation of the waste at source is not practised in the Town. | Secondary waste storage facilities installed in the Town as below:<br>4 nos. of open waste storage sites of capacity 1 cubic meter.<br>50 nos. of covered metal/plastic containers upto 1 cubic meter capacity. |
| | | Tawang | 28 wards, 2000 nos. of households and 931 nos. of non-residential premises covered under D2D collection.<br>100% D2D collection through motorized vehicle. | 100% premises segregate the waste at source. | There are no secondary waste storage facilities sin the Town.<br>It is a bin-less town. |
| | | Tezu | D2D collection of waste not practiced in the Town. | Segregation of the waste at source is not done. | There are no secondary waste storage facilities sin the Town. |
| | | Yupia | D2D collection of waste not practiced in the Town. | Segregation of the waste at source is not done. | There are no secondary waste storage facilities in the Town. |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Yingkiong | 16 nos. of wards, 1595 nos. of households and 450 non-residential premises covered under D2D collection of waste.<br>100% D2D collection is done through motorized vehicle. | 60% solid waste is stored at source in a segregated form. | Secondary waste storage facilities installed din the town as below:<br>2 nos. of masonry bins of cumulative capacity of 5 cubic meter.<br>200 nos. of covered metal/plastic containers of cumulative capacity of 0.5 cubic meter. |
| | | Ziro | 20 wards and 3004 nos. Of households covered under D2D collection.<br>80% D2D waste collection is through motorized vehicle. | Solid waste is not stored at source in a segregated form. | There are no secondary waste storage facilities sin the Town.<br>It is a bin-less town. |
| **4** | **Assam** | 96 | 3,03,435 nos. of households | Not practiced | 587.96 cubic meter |
| **5** | **Bihar** | 141 | Door to door collection in all the wards | Segregation being practiced in all the wards | Partial compliance |
| **6** | **Chandigarh** | 1 | 100% | 100% | Yes |
| **7** | **Chhattisgarh** | 169 | All Municipal Authorities have door to door collection facilities | All Municipal Authorities have segregation facilities | Transportation is done mainly by Tricycle, Mini tipper in 167 ULBs and by Dumpers in Raipur, Bilaspur. |
| **8** | **Dadra Nagar Haveli and Daman Diu** | Not Provided | 100 % | 100 % | Dadra Nagar Haveli: 14 tractor, 6 dumpers, 1 compactor lifter, 3 hydraulic lifts, 6 pick up tempos, 20 compactor bins, 45 hydraulic bins<br><br>SMC: 18 tipping trucks, 2 JCBs, 1 loader |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | | | | Daman Municipal Council: 7 Tractors, 4 tipping trucks, 3 compactors<br><br>Daman District Panchayat: 27 tractor, 15 tipping trucks, 3 compactors<br><br>Diu Municipal Council: 7 Cart tractors, 8 non-tipping trucks<br><br>Diu District Panchayat: 3 tractors, 4 non-tipping trucks |
| **9** | **Delhi** | 5 | Local Bodies are implementing waste segregation at source, door to door collection, intermediate storage and transport facility with GPS for the transportation of the collected solid wase to the operational Solid Waste Processing/Treatment facilities or at the 3 existing Landfill/Dumpsites at Bhalaswa, Ghazipur & Okhla in Delhi.<br><br>New Delhi Municipal Council (NDMC) & Delhi Cantonment Board (DCB) are implementing the provisions of the SWM Rules, 2016 in their area in a better way. However, | NDMC has reported that 100% premises in the area are segregating the waste at source.<br>Delhi Cantonment Board (DCB) has reported that 90% Premises in Civil Area & 60% premises in Army Area are segregating the waste at source.<br>SDMC has reported that 50% premises in their area are segregating waste at source<br><br>EDMC has reported that 30% premises in their area are | |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | | other Local Bodies (North DMC, SDMC, EDMC) are also making efforts and taking measures to implement the provisions of the SWM Rules, 2016 in their area.<br><br>About 100% collection of Solid Waste including Door to Door Collection and Transportation of Solid Waste in covered vehicles have been reported by the Local Bodies in their Annual Report. | segregating the waste at source.<br>North DMC has reported that 80% premises in their 3 selected model wards are segregating the waste at source and also started in 32 Model wards, however, information not provided for other wards in the area. | |
| **10** | **Goa** | 14 | 14 ULBs<br>(Panaji, Pernem, Ponda, Bicholim, Sankhali, Quepem, Canacona, Cuncolim, Curchorim-Cacora, Sanguem, Mapusa, Magao, Mormugao & Valpoii) | 13 ULBs<br>(Panaji, Pernem, Ponda, Bicholim, Sankhali, Quepem, Canacona, Cuncolim, Curhorim-Cacora, Sanguem, Mapusa, Mormugao & Valpoi) | 14 ULBs<br>(Panaji, Pernem, Ponda, Bicholim, Sankhali, Quepem, Canacona, Cuncolim, Curchorim-Cacora, Sanguem, Mapusa, Magao, Mormugao & Valpoii) |
| **11** | **Gujarat** | 164 | 100% | 85% | Not Provided |
| **12** | **Haryana** | | 97.62 | 70 | 84 |
| **13** | **Himachal Pradesh** | MC Shimla | Door-to-Door collection occurs in all 34 wards and No. of household covered 50,000 nos. | •100% storage of waste at source in dustbins in households and commercial establishments.<br>• Solid waste is stored in a segregated form.<br>• 80 % of premises | Mechanical lifting of solid waste is 95%.<br><br>Transportation through tipping truck, dumper placer, refuse compactors etc. |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | | | segregating the waste at source. | |
| | | MC Rohroo | 100 % house to house collection<br>Segregation of waste at source | • Solid waste is stored at source in segregated form. | Transportations of waste through tractor, tipping truck/pick up.<br>Daily transport of waste |
| | | MC Rampur Bushahr | 9 Nos of wards are covered in D2D. 2560 household covered and 1320 non-residential premises quantity of solid waste generated 3.75 tones.<br><br>D2D collection of solid waste is being done in the city. | • Percentage of households practice storage of waste at source in domestic bins is 100.<br>• 90 of non-residential premises practice storage of waste at source in commercial/ institutional bins.<br>• 10 % of households dispose or throw solid waste on the streets and 10 % dispose or throw solid waste on the streets and 10 % of non-residential premises dispose or throw solid waste on the streets. | Waste transported through tippers |
| | | MC Theog | Door to door collection of solid waste in 7 wards.<br>No. of households covered: 2484 | 100% of households practice storage of waste at source in domestic bins | Waste transported through tippers |
| | | NP Narkhanda | 100 % Door to Door collection of waste in 7 wards (0.0282 TPD) | | Waste (0.0282 TPD) transported through hydraulic pickup |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | NP Nirmand | 100 % Door to Door collection of waste in 7 wards (0.022 TPD) | 100% manual lifting of solid waste | Nil |
| | | NP Sunni | 100 % Door to Door collection of waste in 7 wards (0.9 TPD) | 100% of premises segregating waste at source | Waste transported through tippers. Daily transport of waste |
| | | NP Chopal | 100 % Door to Door collection of waste in 7 wards (0.65 TPD) | 50% of premises segregating waste at source | Waste transported through tippers. Daily transport of waste |
| | | NP Anni | 90% residential and Non-residential premises covered in door-to-door collection | 90% of households practice storage of waste at source in domestic bins | Pickup truck are used for transportation |
| | | NP Kotkhai | 100 % Door to Door collection of waste in 7 wards (0.3 TPD) | 100% of households practice storage of waste at source in domestic bins | Pickup truck are used for transportation |
| | | NP Jubbal | Door to door collection of solid waste in 7 wards<br><br>100% households covered<br><br>262 No. of non-residential premises including hotels, restaurants educational institutions etc. | • 100% of non-residential premises practice storage of waste at source commercial/ institutional bins<br><br>• 60 % of premises segregating the waste at source | Waste Transportation through hand cart |
| | | MC Solan | 100 % Door to Door collection of waste in 7 wards (16 TPD).<br>No, of household in city - 11322 | 60% of households practice storage of waste at source in domestic bins.<br>40% of non-residential premises practice storage of waste at source | Waste Transportation through tipping truck and pickup trucks |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | | | 60% of premises segregating waste at source | |
| | | MC Nalagarh | Door to door collection of solid waste in 9 wards.<br><br>No. of households covered 2535.<br>Waste generated - 7.5 TPD and<br>Waste Collected - 6 TPD | 35% of households practice storage of waste at source in domestic bins.<br>20% of non-residential premises practice storage of waste at source | Waste Transportation through tractor, Jeeto type vehicles |
| | | MC Parwanoo | Door to Door collection of solid waste in 9 wards. No. of households covered: 3500<br>Waste generated: 6 TPD<br>Waste collected: 6 TPD | 30% of premises segregating the waste at source.<br>0-5% of household dispose or throw solid waste on the streets. | Waste transported through tractors, dumper placer and 4 pickers. |
| | | MC Baddi | 100% Door to door collection in 9 wards.<br>No. of households covered: 8352<br>Waste generated: 25-30 TPD<br>Waste collected: 25-28 TPD | 30% households practice storage of waste at source in domestic bins.<br>15% of non-residential premise practice storage of waste at source in commercial/institutional bin.<br>5% of households dispose or throw solid waste on streets. 5% of non-residential premises dispose of throw solid waste on the streets.<br>30% of premises | Waste transported through Tractors, Samll jeep type vehicles, dumper placers etc. |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | | | segregating the waste at source. | |
| | | NP Arki | Door to door collection of solid waste in 7 wards.<br>No. of households covered: 909<br>Waste generated: 1 TPD<br>Waste collected: 1 TPD` | Bin-less city.<br>12 waste storage depots in the city.<br>Collation of waste from the depots is on daily basis. | Waste transported through tipping truck, one trip per day. |
| | | MC Nahan | Door to door collection of solid waste in 13 wards.<br>No. of households covered: 4000 approx<br>Waste generated: 7.5 to 8.5 TPD<br>Waste collected: 8.5 TPD | 100% of households practice storage of waste source in domestic bins.<br>0.2% households dispose of or throw solid waste on the streets.<br>100% of waste segregation at source. | Waste transported through tractors, e-rath, Mahindra Pickup, temp etc. |
| | | MC Paonta | Door to door collection is being done in city and 13 wards.<br>Waste generated& collected: 8.65 TPD | 80% of premises segregating the waste at source. | Waste transported through tempo, tractor, dumper placer, etc. |
| | | NP Rajgarh | Door to Door collection in 7 wards. | 95% premises segregating the waste at source. | Waste transported through tipping truck. |
| | | MC Bilaspur | Door to door collection of solid waste in 11 wards. | 90% of households practice storage of waste in domestic bins.<br>Solid waste lifted from door-to-door collection is not transported to treatment plant in segregated form. | Waste transported through tipping truck. |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Shri Naina Devi Ji | Door to door collection in 7 wards. | 100% premises segregate the waste at source. | Waste transported through tipping truck. |
| | | Ghumarwain | Door to door collection in 7 wards. | Frequency of street sweeping and % of population covered daily: 70% | Waste transported through tractor, tipper and wheelers. |
| | | NP Talai | Door to Door collection in 7 wards. | Segregation of waste in 7 wards. 100% premises segregating the waste at source. | Waste transported through private tractor and tipping trucks |
| | | MC Mandi | Waste generated: 24 TPD Waste collected: 24 TPD | 60% Segregation of solid waste at source | Waste transported through tipper, tractor, JCB/Loader etc. |
| | | MC Sunder Nagar | Waste generated: 12 TPD Waste collected: 9 TPD | Segregation at source is not done. | Waste transported through tractor, four-wheeler, jeep etc. |
| | | MC Nerchowk | Door to door collection of solid waste in 9 wards. No. of households covered: 2300 | 65% of premises segregating waste at source. | Waste transported through tractors. |
| | | NP Sarkhagat | Door to door collection of solid waste in 7 wards. | 85% of premises segregation waste at source. | Waste transported through 1 tipper. |
| | | MC Jogindernagar | 45% Door to door collection | 85% premises segregating waste at source | Waste transported through tipper and Refused collector |
| | | NP Rewalsar | Door to door collection in 7 wards, 500 households and 436 non-residential premises covered. | Segregation of waste at source has been started in all wards and awareness is being conducted. | Waste transported through tractors. |
| | | NP Karsog | Door to door collection of solid waste is not being done in the city/town. | bin-less city. | Wet waste transported through ULB and dry waste through ACC Barmana. |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | MC Kullu | Estimated quantity of solid waste generated in the local body area per day: 7-8 TPD<br>Door to door collection of solid waste in 11 wards. | Waste collected in segregated form at source.<br>100% of premise segregating waste at source. | Waste transported 2-3 trip/day through non-tipping and 8 small tempo. Frequency of transportation of waste daily. |
| | | MC Manali | Door to door collection in 2 wards.<br>Estimated quantity of solid waste generated in local body: 35 tons | Total waste stored at waste storage depots and treatment plant directly in segregated form.<br>MC Manali is divided into 7 wards. Dry and wet waste is sent to WTE plant, Rangri at Manali for disposal.<br>Wet was is treated through composting pits and dry waste is converted into RDF and sent to cement plants for final disposal. | Waste transported through Vehicles<br>Quantity of waste transported: 35 MT in tourist season and 12 MT during off Tourist season. |
| | | NP Bhunter | Door to door collection in all 7 wards. | Waste is collected from households in segregated form. | Waste is transported to Energy Project Rangri, Manali through tractor, tipper truck and auto. |
| | | NP Banjar | D2D collection in all 7 wards. | 80% premises segregating waste at source.<br>Waste collected from door to door and transported to treatment plant directly in a segregated form. | Waste is transported through tipping truck. |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | MC Una | D2D collection in all wards. | 90% premises segregating waste at source. | Municipal Corporation vehicles attached with contractor sanitation work.<br>Frequency of transportation of waste is about 80% on daily basis. |
| **14** | **Jammu & Kashmir** | 80 | Jammu Division<br>• 100% House-to-house collection is being done by 38 local bodies. Partial House-to-house collection is being done in remaining local bodies. 100% D2D collection is done by Jammu Municipal Corporation.<br>• 24 nos. of Solid Waste Dumping sites.<br>Kashmir Division<br>• 80% house to house collection is being done by SMC in Srinagar city. | Jammu Division<br>Segregation has been implemented 265 wards out of 528 wards.<br>Kashmir Division<br>Segregation and storage of waste at source has been initiated by Srinagar Municipal Corporation. However, no point source segregation of waste is being carried out by Municipal Council/committees. | 90% covered transportation in all local bodies. |
| **15** | **Jharkhand** | 42 | Practiced in 42 ULBs | Practiced in 38 ULBs | Practiced in 42 ULBs |
| **16** | **Karnataka** | | All ULBs are providing Door to Door collection<br><br>2% gap exists in ULBs other than BBMP, information submitted by DMA.<br><br>10.6% gap exists in BBMP, communication from BBMP | 37% gap exists in ULBs other than BBMP, information submitted by DMA.<br><br>52% gap exists in BBMP, communication from BBMP | 8.7% gap exists in BBMP, communication from BBMP |
| **17** | **Kerala** | Not Provided | Not Provided | Not Provided | Not Provided |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| **18** | **Ladakh** | 2 | Leh District<br>100% door to door collection of segregated waste. At present 13 wards, 2600 households and 600 non-residential premises including commercial establishments, hotels, restaurants, education institutions/offices have been covered so far.<br>Kargil District<br>80% door to door collection of segregated waste. At present, 13 wards, 1551 households and 900 non-residential premises are covered. | Leh: 100% source segregation<br>Kargil: 60% source segregation | 15% covered transportation as per information of Municipal Corporations, Leh and Kargil. |
| **19** | **Lakshadweep** | | The kitchen wastes are processing in their own localities. The sweeping waste is collecting and transporting to Central Garbage Depository for preparation of window compost | | E-Cart closed vehicle for waste transportation - 12 numbers<br>TATA closed vehicle -5 numbers |
| **20** | **Madhya Pradesh** | 406 ULBs and 5 Cantonment Boards. | 406 cities/towns | 406 cities/towns | 406 cities/towns |
| **21** | **Maharashtra** | 396 ULBs and 7 Cantonment Boards | 403 ULBs | 391 ULBs | 396 ULBs |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| **22** | **Manipur** | | Door-to-Door collection is practiced by all ULBs covering 302 wards out of 306 wards in the state (99 percent). The ULBs reported 41 to 100 percent coverage of households for door-to-door collection. In 22 ULBs, the coverage of motorised vehicles for collection of waste is 100 percent. | All ULBs reported storage of waste at source prior to disposal. 22 ULBs reported source segregation. 100 percent source segregation at households are reported by 5 ULBs | The wastes are transported in open motorised vehicles. The transporters take care to cover the wastes with plastic sheets during transportation to avoid scattering. |
| **23** | **Meghalaya** | | • Municipal Solid Waste at an average daily quantity of 67.5 MT is collected.<br>• Collection of garbage is being done on daily basis from different localities/wards.<br>• House to house collection is being practiced in 27 (Twenty) wards. | • Segregation and storage of waste at source is being carried out in domestic waste whereby 87.5 % of the household has practice segregation of waste at Sources in domestic bins, and 80 % of the Non residential premises has practice the same. | • 3(Three) Non Tipping Truck, 32(thirty two) Tipping Truck, 1 (One) Dumper-placer, 1 (One) Refuse Collector, 2 (Two) JCB loader are used for transportation of the collected Municipal Solid Waste to the disposal site.<br>• The vehicles USED for transportation of waste are covered.<br>• Manual handling of wastes is adopted for loading and unloading and JCB Robot is used to load garbage on exceptionally high garbage accumulation days. |
| **24** | **Mizoram** | Aizawl | ULB - 100%<br>Urban Towns - 79.9 % | ULB - 100%<br>Urban Towns - 80 % | ULB - 100%<br>Urban Towns - 79.9 % |
| **25** | **Nagaland** | Kohima | 70% | Yes | Yes |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Dimapur | 80% | No | NA |
| | | Mokokchung | Yes | No | NA |
| | | Phek | Yes | Nil | NA |
| | | Wokha | Yes | No | NA |
| | | Mon | Yes | Yes | NA |
| | | Zunheboto | Yes | No | NA |
| | | Tuensang | Yes | No | NA |
| | | Kiphire | Yes | No | NA |
| | | Peren | Yes | Yes | NA |
| | | Longleng | Yes | 20% | NA |
| | | Noklak | No | No | NA |
| | | Medziphema | No however point to point collection is done in all 9 wards | 0% | NA |
| | | Chumukedima | Yes | 70% | NA |
| | | East Dimapur | NA | NA | NA |
| | | Tuli | Yes | No | NA |
| | | Changtongya | Yes | No | NA |
| | | longkhim | No | Yes | NA |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Mangkolemba | Yes | Nil | NA |
| | | Bhandari | No | No | NA |
| | | Tening | No | No | NA |
| | | Jalukie | Yes | No | NA |
| | | Pfutsero | Yes | Yes | NA |
| | | Tseminyu | Yes | No | NA |
| | | Naginimora | No | No | NA |
| | | Tizit | Not implemented | Nil | NA |
| | | Shamator | No | No | NA |
| | | Pungro | No | Nil | NA |
| | | Tobu | No | No | NA |
| | | Aboi | Yes only in Commercial area | No | NA |
| | | Meluri | Yes | No | NA |
| | | Chozuba | Yes | NA | NA |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Chiephobozou | Yes | No | NA |
| | | Niuland | No | No | NA |
| | | Tamlu | Yes | No | NA |
| | | Seyochung | No | No | NA |
| | | Atoizu | No | No | NA |
| | | Satakha | No | No | NA |
| | | Aghunato | No | Yes | NA |
| **26** | **Odisha** | Bhubaneshwar Municipal Corporation | Yes | Yes | Transportation through Animal cart, tractor, tipping truck, dumper, compactor, BOV etc. |
| | | Cuttack Municipal Corporation | Yes | Yes | Transportation through Animal cart, tractor, tipping truck, dumper, compactor, BOV, mountain excavator etc. |
| | | Berhampur Municipal Corporation | Yes | Yes | Transportation through tractor, tipping truck, dumper, mini JCB, Loader etc. |
| | | Rourkela Municipal Corporation | Yes | Yes | Transportation through tractor, tipping truck, compactor, LCV, BOV, JCB etc. |
| | | Puri Municipality | Yes | Yes | Transportation through tractor, compactor etc. |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Sambalpur Municipal Corporation | Yes | Yes | Transportation through Animal Cart, tractor, non-tipping truck, tipping truck, dumper, compactors, TATA AEC, JCB etc. |
| | | Balasore Municipality | Yes | Yes | Transportation through tractor, BOV, wheel barrow etc. |
| | | Baripada Municipality | Yes | Yes | Transportation through tractor, dumper, JCB, LCV, BOV etc. |
| | | Bhadrak Municipality | Yes | Yes | Transportation through tractor, tipping truck, auto tippers, BOV, Tata ACE, Mini JCB etc. |
| | | Balangir Municipality | Yes | Yes | Transportation through tractor, JCB etc. |
| | | Brajraj Nagar Municipality | Yes | Yes | Transportation through tractor, BOV, JCB etc. |
| | | Jeypore Municipality | Yes | Yes | Transportation through tractor, tipper, dumper, JCB etc. |
| | | Jharsuguda Municipality | Yes | Yes | Transportation through tractor, JCB, tipping truck, dumper etc. |
| | | Paradeep Municipality | Yes | Yes | NA |
| | | Bargarh Municipality | Yes | Yes | Transportation through tractor, tipping truck, dumper, compactor, BOV, JCB etc. |
| | | Dhenkanal Municipality | Yes | Yes | Transportation through tractor, JCB etc. |
| | | Bhawani Patna Municipality | Yes | Yes | Transpiration through tractor, tippers and JCB. |
| | | Sunabeda Municipality | Yes | Yes | NA |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Rayagoda Municipality | Yes | Yes | Transportation through tractor, dumper, refuse collectors, JCB |
| | | Jatani Municipality | Yes | No | Transportation through tractor, LCV, BOV, JCB |
| | | Barbil Municipality, Dist. Keonjhar | Yes | Yes | Transportation through tractor, JCB, LCV, BOV etc. |
| | | Keonjhargarh Municipality, Dist: Keonjhar | Yes | Yes | Transportation through tractor. |
| | | Rajgangpur Municipaltiy, Dist. Sundargarh | Yes | Yes | Transportation through Tractor, BOV, LCV, JCB with loader. |
| | | Anandapur Municipality, Dist. Keonjhar | Yes | No | Transportation through tractors, BOVs, LeVs, Others |
| | | Parlakhe mundi Municipality Dist, Gjapati | Yes | Yes | Transportation through tractor, LCV, Bov etc. |
| | | Choudwar Municipality, Dist Cuttack | Yes | Yes | Transportation through tricylce, BOV, LCV etc. |
| | | Angul Municipality, Dist Angul | Yes | Yes | Transportation through TATA ACE, BOV etc. |
| | | Koraput Municipality, Dist. Koraput | Yes | Yes | Tractor, JCB etc. |
| | | Khurda Municipality, Dst Keonjhar | Yes | Yes | Tractor, LCV, BOV |
| | | Belpahar Municipality, Dist Jharsuguda | Yes | Yes | BOV |
| | | Joda Municipality, Dist. Keonjhar | Yes | Yes | Tata Ace, BOV, Dumper |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Sundargarh Municipality, Dist. Sundargarh | Yes | Yes | Tractor, JCB, Others |
| | | Vyasanagar Municipality, Jajpur Raod, Dist. Jajpur | Yes | Yes | Tractor, Tata ACE, BOV |
| | | Talcher Municipality, Dist. Angul | Yes | Yes | Tractor, LCV, BOV |
| | | Phulbani Municipality, Dist. Kendrapara | Yes | Yes | Tractor, Dumper placer |
| | | Pattamundal Municipality, Dist. Kendrapara | Yes | Yes | Tractor, Whell Barrow, Tricycle |
| | | Jajpur Municipality, Dist Jajpur | Yes | Yes | Tractor, Others |
| | | Jagatsinghpur Municipality, Dist. Jagatsinghpur | Yes | Yes | NA |
| | | Titilagarh Municipality, Dist. Bhadrak | Yes | Yes | Tractor, Whell Barrow, Tricycle |
| | | Basudevpur Municipality, Dist. Bhadrak | Yes | Yes | Tractor, Whell Barrow, Tricycle |
| | | Biramitrapur Municipality Dist. Sundargarh | Yes | Yes | Tractor, BOV, TATA ACE, JCB, Loader |
| | | Nowarangpur Municipality Dist: Nawarangpur | Yes | Yes | Tractor-4, Nan tipping truck-2, Dumpper-6, BOV-10 |
| | | Soro Municipality Dist. Balasore | Yes | Yes | |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Umerkote Municipality Dist: Nawarangpur | Yes | Yes | Tractor-2, Non Tippling truck-2, BOV-3 |
| | | Malkanagiri Municipality Dist: Malkanagiri | Yes | Yes | Tractor-3, Non Tippling truck-4, BOV-14, JCB-1, Dumper-2 |
| | | Chhtrapur NAC Dist: Ganjam | Yes | Yes | Tractor-1, TATA Ace -3, BOV-2 |
| | | Rairabpur Municipality Distt. Mayurbhanj | Yes | Yes | Tractor-1, Others-12 |
| | | Karanjia NAC Dist: Mayurbhanj | Yes | Yes | Tractor-3, BOV-6, Tipper-1 |
| | | Jaleswar Municipality Dist: Balasore | Yes | Yes | Tractor-2, BOV-12 |
| | | Hinjilicut NAC | Yes | Yes | Tractor, TATA ACE, BOV |
| | | Gunupur NAC Dist: Rayagada | Yes | Yes | Tractor, Pushcart, Wheel Barrow, BOV |
| | | Aska NAC Dist: Ganjam | Yes | Yes | Tractor, Hydraulic, Truck, BOV, Pushcart |
| | | Bhuban NAC, Dist: Dhenkanai | Yes | Yes | Tractor |
| | | Kantabanjhi NAC Dist: Boanhgir | Yes | Yes | |
| | | Deogarhb Municipality Dist: Deogarh | Yes | Yes | Tractor, Tipping Truck-1, BOV, LCV |
| | | Bhanjanagar NAC, Dist: Ganjam | Yes | Yes | Tractor, TATA ACE, BOV |
| | | Polasara NAC Dist: Ganjam | Yes | Yes | Tipping Truck, BOV |
| | | Barpall NAC Dist: Baragarh | Yes | Yes | Tractor, Tipper, BOV, |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Patnagarh NAC Dist: Bolangir | Yes | Yes | Tractor, Tipper |
| | | Boudhgarh NAC, Dist: Boudh | Yes | Yes | Tractor, TATA ACE, BOV, jcb |
| | | Konark NAC Dist: Puri | Yes | Yes | Tractors, Others |
| | | Subarnapur Municipality Dist: Subarnapur | Yes | Yes | Tractor |
| | | Nimapara NAC Nimapara Dist: Puri | Yes | Yes | Tractor |
| | | Kesinga NAC Dist: Nuapada | Yes | Yes | Tractor |
| | | Khariar Road NAC Dis: Nuapada | Yes | Yes | Tractor, Non Tippling Truck, |
| | | Banpur NAC Dist: Khurda | Yes | Yes | Tractor |
| | | Kabisurya Nagar NAC Dist: Ganjam | Yes | Yes | Tractor, Non Tippling Truck, BOV |
| | | Banki NAC Dist Cuttack | Yes | Yes | Tractor, Tricycle, Pushcart, TATA ACE, TATA ACE, |
| | | Alhagarh NAC Dist: Cuttack | Yes | Yes | Tractor, |
| | | Balugaon NAC Dist: Khurda | Yes | Yes | Tractor |
| | | Junagarh NAC Dist: Kalhandi | Yes | Yes | Animal Cart, Non Tippling Truck, Tractor |
| | | Nayagarh NAC Dist: Nayagarh | Yes | Yes | Tractor, Tippling Truck, Others |
| | | Padampur NAC, Dist Baragarh | Yes | Yes | BOV |
| | | Kamakshya Nagar NAC, Dist: Dhenkanal | Yes | Yes | Tractor, Others |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Kotpad NAC Dist: Balasore | Yes | Yes | Tractors, Non tipping Truck, truck, BOV, JCB |
| | | Nilagiri NAC Dist: Balasore | Yes | Yes | Tractor, BOV, LV |
| | | Suruda NAC Dist: Dist: Ganjam | Yes | Yes | Tractor, TATA ACE, BOV |
| | | Binika NAC Dist: Sonapur | Yes | Yes | Tractor, BOV, Tricycle |
| | | Pipli NAC Dist: Puri | Yes | Yes | Tractor, Pushcart, LCV, BOV |
| | | Purusottampur NAC Dist: Ganjam | Yes | Yes | Tractor, BOV |
| | | Redhakhai NAC Dist: Sambalpur | Yes | Yes | |
| | | Kuchida NAC Dist: Sambalpur | Yes | Yes | Tractor, Non Tipping Truck, BOV |
| | | Kharia NAC, Dist: Nuapada | Yes | Yes | Tractor, BOV, LCV |
| | | Buguda NAC Dist: Dist: Ganjam | Yes | Yes | Tractor, BOV, TATA ACE |
| | | Kodala NAC Dist: Ganjam | Yes | Yes | Tractor, JCB, TATA AEC, BOV |
| | | Udala NAC Dist: Mayurbahnj | Yes | Yes | Tractor, Tricycle, BOV |
| | | Ballmela NAC Dist: Malkangiri | Yes | Yes | Tractor, Dumper, Placers |
| | | Athamallick NAC Dist: Angul | Yes | Yes | Tractor, Tricycle, TATA ACE |
| | | Ganjam NAC Dist: Ganjam | Yes | Yes | Tractor, Tipping Track |
| | | Khalikote NAC Dist: Ganjam | Yes | Yes | Tractor, BOV, LCV |
| | | Chikiti NAC Dist Ganjam | Yes | Yes | TRACTOR, BOV |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Rambha NAC Dist Ganjam | Yes | Yes | Tractor, Others |
| | | G. Udayagirl NAC Dist Ganjam | Yes | Yes | Tractor, TATA ACE |
| | | Belagunitha NAC Dist Ganjam | Yes | Yes | Tractor, BOV, CESS |
| | | Kasinagar NAC Dist: Gajapali | Yes | Yes | Tractor, BOV |
| | | Khandapada NAC Dist: Nayagarh | Yes | Yes | Tractor, BOV, Wheel Barrow |
| | | Tarava NAC Dist: Sonepur | Yes | Yes | Animal Cart, Others |
| | | Gudari NAC Dist: Rayagada | Yes | Yes | Tractor |
| | | Gopalpur NAC Dist: Ganjam | Yes | Yes | Tractor, Others |
| | | Nuapada NAC Dist: Nuapada | Yes | Yes | Tractor, TATA ACE, Loader |
| | | Atabira NAC Dist Baragarh | Yes | Yes | BOVs |
| | | Hindol NAC Dist: Dhenkanal | Yes | Yes | Tractor, Wheel Barrow, |
| | | Tusura NAC Dist: Balangir | Yes | Yes | Tractor, |
| | | Dhamgarh NAC , Dist: Nayagarh | Yes | Yes | Tractor, LCV, BOV |
| | | Daspala NAC Dist: Nayagarh | Yes | Yes | Tractor, Cesspool |
| | | Ranpur NAC Dist: Nayagarh | Yes | Yes | Tractor |
| | | Dhamnagar , NAC Dist: Keonjhar | Yes | Yes | Tractor, Compactors, BOV |
| | | Champua Nac Dist: Keonjhar | Yes | Yes | Tractor, others |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| | | Baliguda NAC Dist: kandhamai | Yes | Yes | Tractors, Pushcart, Truck, Tricycle |
| | | Odogaon NAC Dist: Nayagarh | Yes | Yes | Tractor, Tata ACE, BOV |
| | | Bijepur NAC Dist: Baragarh | Yes | Yes | TATA ACE, Tractor, Dumper, BOV |
| | | Chandbali NAC Dist: Bhadrak | Yes | Yes | Tractor, BOV, Tricycle. |
| **27** | **Puducherry** | | 100% door to door collection<br>Material Recovery Facility (MRF) – 4 TPD has been set up at Dubrayapet, Pondicherry Municipality under CSR funds. It is been replicated in other Municipalities. | In Pondicherry Municipality as pilot project, through Reity 19 wards so far, covered under QR code. So far, 18498 Property units are covered and geo-tagged<br>under QR code. It ensures 100% segregation at source, collection, processing and<br>to reach final disposal site. The same QR code system is being replicated in Yanam Municipality. | Yes. Transported in a compactor and covered Truck |
| **28** | **Punjab** | | 100 | 74.23 | 97.55 |
| **29** | **Rajasthan** | | 207 ULBs | 104 ULBs | Covered transportation in 114 ULBs; Partially covered transportation in 82 ULBs. |
| **30** | **Sikkim** | | Door to Door collection is being done | Segregation of Wet and dry waste is in practice | Yes |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| **31** | **Tamil Nadu** | 649 | 100% House to House Collection is achieved in 131 cities/towns covering 4595790 no. of households.<br><br>80% to < 100% House to House Collection is achieved on 23 cities/towns covering 2518657 no. of households.<br><br>Less than 80% House to House Collection is achieved in 14 cities/towns covering 538340 no. of households | 100 % of Segregation at source is achieved in 21 Cities/towns covering 702665 no. of households.<br><br>80 % to <100 % of Segregation at source is achieved in 100 Cities/towns covering 2283127 no. of households.<br><br>50% to < 80 % of Segregation at source is achieved in 12 Cities/towns covering 548630 no. of households<br><br>Less than 50% of Segregation at source is achieved in 28 Cities/towns covering 1166030 no. of households | Covered Transportation is practiced in 151 no. of cities carrying a total of 10999 TPD of solid waste.<br><br>Covered transportation practiced for 80 to <100% of solid waste generated in 8 no. of cities with quantity of waste transported is 1270 TPD. |
| **32** | **Telangana** | | 100 % households covered under door to door collection | 63% households in the state are practicing source segregation | In 142 ULBs the waste is transported in trucks covered to avoid scattering |
| **33** | **Tripura** | All | Door to Door collection is being done in all 20 ULBs with 334 wards | Segregation at source is being done in all 20 ULBs | Done in all 20 ULBs |
| **34** | **Uttar Pradesh** | 100 % | 100 % | Partially complied | Partially complied |

| Sl. No | State/UT | ULBs | House to House Collection (% covered) | Segregation (% covered) | Covered Transportation |
|---|---|---|---|---|---|
| **35** | **Uttarakhand** | | 100 | 90.36 | Partial Compliance |
| **36** | **West Bengal** | 128 | 125 | 88 | 88 |

*Table 5: State wise details of Solid Waste Processing Facilities*

| S. No. | State/UT | Name of City/Town | Type of Waste Processing Facility | Number | Capacity (TPD) | Status (Operational/Setup/ Planned) |
|---|---|---|---|---|---|---|
| **1** | **Andhra Pradesh** | 34 ULBs | Waste to Compost Plants | 28 | | Set up |
| | | 81 ULBs | Windrow composting | 81 | | Set up |
| | | 8 ULBs | Biogas | 4 | | Set up |
| | | 20 ULBs | Composting | 20 | | Operational |
| | | 17 ULBs | Vermicomposting | 17 | | Operational |
| | | Gudivada | Biogas | | | Operational |
| | | Ongole | Biogas | | | Operational |
| | | Vishakhapatnam | WTE plant | 1 | 900 | Setup |
| | | Guntur | WTE plant | 1 | 900 | Setup |
| **2** | **Andaman and Nicobar Islands** | Brookshabad | Composting | 1 | 0.7 | Operational |
| | | Anarkali | Composting | 1 | 0.082 | Operational |
| | | Junglighat | Composting | 1 | 0.082 | Operational |
| | | Mohanpura | Composting | 1 | 0.25 | Operational |
| | | Gandhi Park | Vermi Composting | 1 | 0.7 | Operational |
| | | Old Pahargaon | Biogas | 1 | 0.5 | Operational |
| | | Port Blair | Biogas | 32 | | Operational |
| **3** | **Arunachal Pradesh** | Basar | Vermi Composting | 1 | 0.5 | Operational |
| | | Bomdila | Vermi Composting | 1 | 2 | Operational |
| | | Pasighat Municipal Council | Composting | 1 | 5 | Operational |
| | | Tawang | Composting | 1 | 0.72 | Operational |
| | | Yingkiong | Composting | 1 | 0.66 | Operational |

| S. No. | State/UT | Name of City/Town | Type of Waste Processing Facility | Number | Capacity (TPD) | Status (Operational/Setup/ Planned) |
|---|---|---|---|---|---|---|
| **4** | **Assam** | Guwahati Municipal Corporation | Biogas | 1 | 7.5 | Operational |
| | | Tezpur Municipal Board | Composting | 1 | 13.3 | Setup |
| | | Dibrugarh MB | Composting | 1 | 45 | Setup |
| | | Tinsukia MB | Composting | 1 | 5 | Setup |
| | | Silchar MB | Vermi Composting | 1 | 5 | Setup |
| **5** | **Bihar** | Solid waste Processing facilities (Composting) are functional in 79 ULBs at 141 Plants/ locations | Composting | 141 | - | Operational |
| | | Bihiya Nagar Panchayat | Biogas | | - | Operational |
| | | Motihari & Muzaffarpur Nagar Nigam | RDF/ Pelletization | | - | Operational |
| **6** | **Chandigarh** | Chandigarh | Composting | 1 | 300 TPD | Operational |
| | | Chandigarh | Biogas | 1 | 5 TPD | Operational |
| | | Chandigarh | RDF | 1 | 500 TPD | Operational |
| **7** | **Chhattisgarh** | | Composting | 535 | | Operational |
| | | | RDF/ pelletization | 2 | | Operational |
| **8** | **Dadra Nagar Haveli and Daman Diu** | Dadra Nagar Haveli, Silvassa Municipal Council | Composting | 1 | 28.5 | Operational |
| | | Dadra Nagar Haveli, Silvassa Municipal Council | RDF/ pelletization | 1 | 33.5 | Operational |

| S. No. | State/UT | Name of City/Town | Type of Waste Processing Facility | Number | Capacity (TPD) | Status (Operational/Setup/ Planned) |
|---|---|---|---|---|---|---|
| | | Daman | Composting | 1 | 34 | Operational |
| | | District Panchayat Daman | Vermi composting | 16 | | |
| | | District Panchayat Diu | Composting | 1 | 8.5 | |
| | | District Panchayat Diu | Vermi Composting | 1 | 1.6 | |
| **9** | **Delhi** | Delhi Cantonment Board | Composting | 1 | 20 | Operational |
| | | Delhi Cantonment Board | Food Waste Composters | 2 | 0.175 | Operational |
| | | Delhi Cantonment Board | Composting | 2 | 50 | Planned |
| | | EDMC | Composting | 10 | 10 | Operational |
| | | EDMC | Biogas | 2 | 10 | Operational |
| | | EDMC | WTE plant | 1 | 1300 | Operational |
| | | NDMC | Composting pits | 52 | 11.2 | Set up |
| | | NDMC | OWC | 28 | 13.15 | Set up |
| | | NDMC | Biogas | 6 | 8.25 | Operational |
| | | North DMC | Composting | 6 | 705 | Operational |
| | | North DMC | Biogas | 4 | 20 | Operational |
| | | North DMC | WTE plant | 1 | 1300 | Operational |
| | | North DMC | Bio-CNG | | 290 | Planned |
| | | North DMC | WTE plant | 1 | 3000 | Planned |
| | | South DMC | Composting | 5 | 204 | Operational |
| | | South DMC | Vermi Composting | 1 | 1 | Operational |
| | | South DMC | Biogas | 4 | 20 | Operational |
| | | South DMC | WTE plant | 1 | 1950 | Operational |
| | | South DMC | Bio-CNG | | 215 | Planned |

| S. No. | State/UT | Name of City/Town | Type of Waste Processing Facility | Number | Capacity (TPD) | Status (Operational/Setup/ Planned) |
|---|---|---|---|---|---|---|
| | | South DMC | WTE plant | 1 | 2000 | Planned |
| | | EDMC | Composting | 4 | 4 | Planned |
| | | EDMC | Biogas | 1 | 185 | Planned |
| | | West Delhi | Biogas | 1 | 100 | Planned |
| **10** | **Goa** | Mapusa | Biogas | | 5 | Operational |
| | | CCP Panaji | Biogas | | 12 | Operational |
| | | Valpoi | Biogas | | 0.5 | Operational |
| | | Mormugao | Biogas | | 5 | Operational |
| | | Margao | Biogas | | 5 | Operational |
| | | Curchorem-Cacora | Biogas | | 0.5 | Operational |
| | | Sanguem | Biogas | | 0.5 | Operational |
| | | Ponda | Biogas | | | Under installation/planned |
| | | Canacona | Biogas | | | Under installation/planned |
| | | Cuncolim | Biogas | | | Under installation/planned |
| **11** | **Gujarat** | 164 ULBs covered | Composting | 597 | 6157 | Operational |
| | | | Biogas | 35 | 163.3 | Operational |
| | | | RDF/ Pelletization | 5 | 1055 | Operational |
| **12** | **Haryana** | | Composting | 3 | | Operational |
| | | | Composting pits | 2800 | | Operational |
| | | | Vermi Composting | 10 | | Operational |
| | | | Biogas | 3 | | Operational |
| | | | RDF/ Pelletization | 3 | | |
| **13** | **Himachal Pradesh** | Bilaspur | OWC | 1 | 2 | Under Process |
| | | Naina Devi | Pit Composting | 30 | | Operational |

| S. No. | State/UT | Name of City/Town | Type of Waste Processing Facility | Number | Capacity (TPD) | Status (Operational/Setup/ Planned) |
|---|---|---|---|---|---|---|
| | | Naina Devi | OWC | 1 | 0.5 | Under Process |
| | | Talai | Pit Composting | 75 | | Operational |
| | | Chamba | Pit Composting | 20 | | Operational |
| | | Chamba | OWC | 1 | 3 | Operational |
| | | Chowari | Pit Composting | 7 | | Operational |
| | | Chowari | OWC | 1 | 0.5 | Under Process |
| | | Dalhousie | Pit Composting | 8 | | Operational |
| | | Dalhousie | OWC | 1 | 1 | Under Process |
| | | Bhota | Pit Composting | 3 | | Operational |
| | | Bhota | OWC | 1 | 0.5 | Under Process |
| | | Hamirpur | Pit Composting | 74 | | Operational |
| | | Hamirpur | OWC | 1 | 1 | Operational |
| | | Nadaun | Pit Composting | 8 | | Operational |
| | | Nadaun | OWC | 1 | 1 | Under Process |
| | | Tira Sujanpur | Pit Composting | 20 | | Operational |
| | | Tira Sujanpur | OWC | 1 | 2 | Under Process |
| | | Jawalamukhi | Pit Composting | 30 | | Under Process |
| | | Jawalamukhi | OWC | 1 | 2 | Under Process |
| | | Baijnath | Pit Composting | 8 | | Operational |
| | | Baijnath | Biogas | 1 | | Operational |
| | | Dharamshala | Pit Composting | 22 | | Under Process |
| | | Kangra | Pit Composting | 28 | | Operational |
| | | Nurpur | Pit Composting | 4 | | Operational |
| | | Palampur | OWC | 3 | | Operational |
| | | Banjar | Pit Composting | 20 | | Operational |
| | | Kullu | OWC | 1 | | Operational |

| S. No. | State/UT | Name of City/Town | Type of Waste Processing Facility | Number | Capacity (TPD) | Status (Operational/Setup/ Planned) |
|---|---|---|---|---|---|---|
| | | Manali | Pit Composting | 11 | | Operational |
| | | Manali | WTE plant | 1 | | Operational |
| | | Jogindernagar | OWC | 1 | 1 | Under Process |
| | | Nerchowk | OWC | 1 | 1 | Under Process |
| | | Sarkaghat | Pits Composting | 3 | | Operational |
| | | Sundernagar | Pit Composting | 13 | | Operational |
| | | Sundernagar | OWC | 1 | 1 | Operational |
| | | Sundernagar | OWC | 1 | 5 | Under Progress |
| | | Chaupal | Pit Composting | 2 | | Operational |
| | | Jubbal | Pit Composting | 8 | | Operational |
| | | Jubbal | MRF | 1 | | Under construction |
| | | Kotkhai | Pit Composting | 7 | | Operational |
| | | Narkanda | Pit Composting | 6 | | Operational |
| | | Narkanda | MRF | 1 | | Under construction |
| | | Rampur | Pit Composting | 25 | | Operational |
| | | Sunni | Pit Composting | 20 | | Operational |
| | | Sunni | OWC | 1 | 0.5 | Operational |
| | | Shimla | Biogas Plant | 1 | 1 | Operational |
| | | Theog | Pit Composting | 4 | | Operational |
| | | Nahan | Pit Composting | 60 | | Operational |
| | | Paonta Sahib | Pit Composting | 20 | | Operational |
| | | Arki | Pit Composting | 14 | | Operational |
| | | Arki | OWC | 1 | 0.5 | Operational |
| | | Parwanoo | Windrow Composting | 1 | | |
| | | Nalagarh | Windrow Composting | 1 | | |

| S. No. | State/UT | Name of City/Town | Type of Waste Processing Facility | Number | Capacity (TPD) | Status (Operational/Setup/ Planned) |
|---|---|---|---|---|---|---|
| | | Baddi | Windrow Composting | 1 | | |
| | | Daulatpur | Pit Composting | 11 | | MRF yet to be developed |
| | | Santokhgarh | Pit Composting | 107 | | Operational |
| | | Una | Pit Composting | 150 | | Operational |
| | | Amb | Pit Composting | | | Operational |
| **14** | **Jammu & Kashmir** | Jammu Cantonment Board, Jammu City | Composting | 1 | 30 | Setup & Operational |
| | | Srinagar Municipal Corporation | Composting | 1 | | Setup & Operational |
| | | MC Pahalgam (through Pahalgam Development Authority) | | 1 | | Setup & Operational |
| | | MC Tangmarg/Gulmarg | Composting | 1 | | Setup & Operational |
| | | MC Bhaderwah (since 2010) | Vermi Composting | 1 | | Setup & Operational |
| | | MC Doda (since 2010) | Vermi Composting | 1 | | Setup & Operational |
| | | MC Sunderbani (since 2010) | Vermi Composting | 1 | | Setup & Operational |
| | | Mule dung based plant bat base camp, SMVDSB, Katra (since 2012) | Biogas | 1 | | Setup & Operational |
| | | 6 cubic meters biogas plant at Cattle pond, Dogra hall | Biogas | 1 | 6 cubic meter | Setup & Operational |

| S. No. | State/UT | Name of City/Town | Type of Waste Processing Facility | Number | Capacity (TPD) | Status (Operational/Setup/ Planned) |
|---|---|---|---|---|---|---|
| | | Jammu Division | Composting | 13 | 1-2 TPD | Planned |
| | | Reasi & Katra, Jammu | Vermi composting | 2 | | Planned |
| | | Kotbhawal by Jammu Municipal Corporation | RDF/Pelletization | 1 | | Planned |
| **15** | **Jharkhand** | | Composting | 37 | | Operational |
| | | | Vermi composting | 6 | | Operational |
| | | Deoghar | RDF/ Pelletization | 1 | | Operational |
| **16** | **Karnataka** | | Composting | 225 | | Operational |
| | | | Biogas | 28 | | Operational |
| **17** | **Kerala** | | Composting | 2 (Large); 12 (Small); Community Level: 906 (aerobins, biobins); Household level: 432643 | | |
| | | | Vermi Composting | Community Level - 7 | | |
| | | | Biogas | Community Level - 287; Household level - 21,560 | | |
| **18** | **Ladakh** | Leh District | Integrated Solid Waste Management | 1 | 10 | Set up |
| | | Leh District | RDF/Pelletization | 1 | | Operational |
| | | Leh District | Composting | 1 | | Optional |

| S. No. | State/UT | Name of City/Town | Type of Waste Processing Facility | Number | Capacity (TPD) | Status (Operational/Setup/ Planned) |
|---|---|---|---|---|---|---|
| **19** | **Lakshadweep** | Kavaratti | Composting | 1 | | Set up |
| | | | Biogas | 1 | | Set up |
| | | | Biogas | 47 | | Operational |
| | | | Biogas | 11 | | Planned |
| **20** | **Madhya Pradesh** | | Composting | 388 towns | | |
| | | | Vermi Composting | 259 towns | | |
| | | | Biogas Methanization | 6 | | |
| | | | Windrow Composting with RDF | 61 | | |
| | | | Windrow Composting without RDF | 72 | | |
| | | | Anaerobic without RDF | 10 | | |
| | | | Gasification Pyrolysis | 1 | | |
| | | | Mass Incineration | 1 | | |
| | | | MRF | 414 | | |
| | | | Mixed waste processing facility | 12 | | |
| **21** | **Maharashtra** | 369 ULBs | Composting | 437 | | Operational |
| | | 95 ULBs | Vermi Composting | 134 | | Operational |
| | | 43 ULBs | Biogas | 53 | | Operational |
| | | 12 ULBs | RDF/pelletization | 19 | | Operational |
| **22** | **Manipur** | Imphal M Co. | Composting | 1 | 60 - 100 | Setup & Operational |
| | | Thoubal MC | Composting | 1 | 2 | Setup & Operational |
| | | Bishnupur MC | Composting | 30 | 2.5 | Setup & Operational |

| S. No. | State/UT | Name of City/Town | Type of Waste Processing Facility | Number | Capacity (TPD) | Status (Operational/Setup/ Planned) |
|---|---|---|---|---|---|---|
| | | Moirang MC | Composting | 17 | 1 | Setup & Operational |
| | | Kumbi MC | Composting | 2 | 1 | Setup & Operational |
| | | Kwakta MC | Composting | 1 | 1 | Setup & Operational |
| | | Lamlai MC | Composting | 1 | 1.5 | Setup & Operational |
| | | Andro MC | Composting | 2 | 0.1 | Setup & Operational |
| | | Ningthoukhong MC | Composting | 2 | 1 | Setup & Operational |
| | | Lilong (Imphal West) MC | Composting | 1 | 0.5 | Setup & Operational |
| | | Lilong (Thoubal) MC | Composting | 1 | 0.5 | Setup & Operational |
| | | Jiribam MC | Composting | 3 | 5 | Setup & Operational |
| | | Sekmai MC | Composting | 3 | 0.1 | Setup & Operational |
| | | Yairipok MC | Composting | 2 | 0.1 | Planned |
| | | Sekmai MC | Composting | 3 | 0.1 | Planned |
| **23** | **Meghalaya** | Shillong | Composting | 1 | 68 | Operational |
| **24** | **Mizoram** | Aizawl | Mechanical Composting | 1 | | Set up |
| | | Aizawl | Vermi Composting | 23 | | Set up |
| | | Aizawl | Bio gas | 4 | | Set up |
| | | Aizawl | Vermi Composting | 2 | | Operational |
| | | Aizawl | Mechanical Composting | 1 | | Operational |
| **25** | **Nagaland** | Nil | Nil | Nil | Nil | |
| **26** | **Odisha** | | | | | |
| | | | MCC | 239 | 1296 | Operational |
| | | | MRF | 219 | 2250 | Operational |
| | | | MCC | 39 | 190 | Under installation/planned |

| S. No. | State/UT | Name of City/Town | Type of Waste Processing Facility | Number | Capacity (TPD) | Status (Operational/Setup/ Planned) |
|---|---|---|---|---|---|---|
| | | | MRF | 16 | 160 | Under installation/planned |
| **27** | **Puducherry** | | Composting | 2 | | Operational |
| | | | Vermi Composting | 1 | | Operational |
| | | | Biogas | 2 | | Operational |
| | | | RDF/Pelletization | 2 | | Operational |
| | | | Composting | 1 | | Under installation/planned |
| | | | Vermi Composting | 1 | | Under installation/planned |
| **28** | **Punjab** | | Composting | 8251 | | Operational |
| | | Shamchaurassi | Vermi Composting | 1 | | Operational |
| | | Ludhiana | RDF/Pelletization | 1 | | Operational |
| | | Bhatinda | RDF/Pelletization | 1 | | Operational |
| | | Ludhiana | WTE plant | 1 | | Non Operational |
| | | Bhatinda | WTE plant | 1 | | Non Operational |
| **29** | **Rajasthan** | ULB, Pushcart | Composting | | 1 | |
| | | ULB, Beawar | Composting | | 0.25 | |
| | | Nagar Nigam, Kota (South) | Composting + Vermicomposting | | 2 | |
| | | ULB, Fatehpur Shekhawati | Composting | | 0.1 | |
| | | Nagar Parishad, Sikar | Composting | | 150 | |
| | | ULB, Laxamangarh | Composting | | 0.1 | |
| | | ULB, Hindaun City | Composting | | 2 | |
| | | ULB, Bhilwara | Composting | | 65 | |
| | | ULB, Bhilwara | RDF/Pelletization | | 55 | |

| S. No. | State/UT | Name of City/Town | Type of Waste Processing Facility | Number | Capacity (TPD) | Status (Operational/Setup/ Planned) |
|---|---|---|---|---|---|---|
| | | ULB, Keshorai Patan | Composting | | 2.5 | |
| | | ULB, Pali | Composting | | 38 | |
| | | ULB, Sumerpur | Composting | | 1 | |
| | | ULB, Takhatgarh | Composting | | 1 | |
| | | ULB, Bali | Composting | | 1 | |
| | | ULB, Pali | RDF/Pelletization | | 52 | |
| | | IL&FS, Swapura, Jaipur | Composting | | 250 | |
| | | Ultratech Ltd, Langriyawas, Jaipur | RDF/Pelletization | | 350 | |
| | | ULB, Jodhpur | Composting | | 200 | |
| | | ULB, Phalodi | Composting | | 1 | |
| | | ULB, Dungarpur | Composting | | 1 | |
| | | ULB, Banswara | Composting | | 8 | |
| | | ULB, Dungarpur | Biogas | | 5.5 | |
| | | Nagar Nigam, Bikaner | Composting | | 1.5 | |
| | | ULB, Jaisalmer | Composting | | 5 | |
| | | ULB, Chittorgarh | Composting | | 15 | |
| | | ULB, Nimbahera | Composting | | 8 | |
| | | ULB, Pratapgarh | Composting | | 7 | |
| | | ULB, Laxamangarh | RDF/Pelletization | | 14 | |
| | | ULB, Baran | Composting | | 0.5 | |
| | | ULB, Jhalarapatan | Composting | | 5.5 | |
| | | ULB, Alwar | Composting+RDF | | 150 | |
| | | ULB, Kherli | Composting | | 50 kg/batch | |
| | | ULB, Udaipur | Vermi Composting | | 60 | |
| | | ULB, Udaipur | Biogas | | 22 | |

| S. No. | State/UT | Name of City/Town | Type of Waste Processing Facility | Number | Capacity (TPD) | Status (Operational/Setup/ Planned) |
|---|---|---|---|---|---|---|
| | | Nagar Palika, Nokha | Composting | | 50 kg/batch | |
| | | Hanumangarh | Compost+RDF | | 60 | Under installation/planned |
| | | Chittorgarh | Composting | | 10 | Under installation/planned |
| | | Kapasan, Chittorgarh | Composting | | 1 | Under installation/planned |
| | | Badi Sadri, Chittorgarh | Composting | | 2 | Under installation/planned |
| | | Sikar | Composting + Vermi composting | | 5 | Under installation/planned |
| | | Sri Ganganagar | Composting + RDF | | 95 | Under installation/planned |
| **30** | **Sikkim** | Mangan | Composting | 1 | 0.08 | Operational |
| **31** | **Tamil Nadu** | | Composting | 995 MCCs 907 OCCs 527 Windrows | | Operational |
| | | | Vermi-composting | 27 | | Operational |
| | | | Biogas | 1 | | Operational |
| | | | Composting | 59 MCCs | | Under installation/planned |
| | | | Biogas | 3 | | Under installation/planned |
| **32** | **Telangana** | | Composting | 229 | 1120 | Operational |
| | | | Biogas | 7 | 21 | Operational |
| | | | Dry Resource Collection Centre | 209 | 745 | Operational |
| | | Medchal | RDF/Pelletization | 1 | 3600 | Operational |
| | | Vikarabad | Composting | 1 | | Planned |
| | | GWMC | Composting | 1 | | Planned |

| S. No. | State/UT | Name of City/Town | Type of Waste Processing Facility | Number | Capacity (TPD) | Status (Operational/Setup/ Planned) |
|---|---|---|---|---|---|---|
| | | Narsampet | Composting | 1 | | Planned |
| | | Parakala | Composting | 1 | | Planned |
| | | Waardhannapet | Composting | 1 | | Planned |
| **33** | **Tripura** | | Composting | | 256 | Set up |
| | | | Vermi Composting | | 0.4 | Operational |
| | | | Composting | | 156.1 | Operational |
| | | | Composting | 14 | | Planned |
| **34** | **Uttar Pradesh** | | Composting | 19 | 5865 | Operational |
| | | | Compost Pits | 160 | 1314 | Operational |
| | | | Waste to Energy | 2 | 268 | Operation |
| | | | Biogas | 226 | 1316 | Under construction |
| | | | Composting | 36 | 4305 | Under construction |
| | | | MRF | 437 | 2185 | Under construction |
| **35** | **Uttarakhand** | Dehradun | Composting | | 30 | Operational |
| | | | RDF/Pelletization | | 150 | Operational |
| | | Haridwar | Composting | | 50 | Operational |
| | | | RDF/Pelletization | | 200 | Operational |
| **36** | **West Bengal** | 67 ULBs | MRF | 132 | 478 | |
| | | 62 ULBs | Recycling | 134 | 426 | |
| | | 67 ULBs | Composting | 62 | 3024 | |
| | | 2 ULBs | Biomethanation | 2 | 17 | |
| | | 1 | Waste to Energy | 1 | 6.2 | |

*Table 6: Waste to Energy Plants in India*

| S. No. | States | Plant Location | Status of Operation | Power Generation (MW) | Remarks |
|---|---|---|---|---|---|
| 1 | **Andhra Pradesh** | Vishakhapatnam (27 ULBs) | Operational | 15 | 900 TPD (Quantity of MSW will be utilized as fuel)<br>Waste to Energy Plant Vishakhapatnam commenced its production in Feb 2022. |
| | | Guntur (45 ULBs) | Operational | 15 | 900 TPD (Quantity of MSW will be utilized as fuel)<br>Waste to Energy Plant at Guntur commenced its production in Oct 2021. |
| 2 | **Andaman and Nicobar Islands** | NA | NA | NA | NA |
| 3 | **Arunachal Pradesh** | NA | NA | NA | NA |
| 4 | **Assam** | NA | NA | NA | NA |
| 5 | **Bihar** | NA | NA | NA | NA |
| 6 | **Chandigarh** | One RDF Plant | Non Operational | NA | NA |
| 7 | **Chhattisgarh** | NA | NA | NA | NA |
| 8 | **Dadra Nagar Haveli and Daman Diu** | NA | NA | NA | NA |
| 9 | **Delhi** | Okhla | Operational | 23 | 1950 TPD |
| | | Ghazipur | Not operational | 12 | 1300 TPD |
| | | Bawana | Operational | 24 | 1300 TPD |
| 10 | **Goa** | Hindustan Waste Treatment Plant Pvt Ltd at Saligao, Bardez Goa | Operational | 1.372 | The area comes under Panchayat Jurisdiction. |
| 11 | **Gujarat** | Gujarat | NA | | 5050 TPD |
| 12 | **Haryana** | Sonepat | Operational | 7 | Is started on 15, August 2021 and operational. |

| S. No. | States | Plant Location | Status of Operation | Power Generation (MW) | Remarks |
|---|---|---|---|---|---|
| | | Gururgram (Bhandwari) | Planned | 23 | Work is started from Dec, 2021 and likely to be commissioned by December, 2023. |
| **13** | **Himachal Pradesh** | NA | NA | NA | NA |
| **14** | **Jammu & Kashmir** | NA | NA | NA | NA |
| **15** | **Jharkhand** | Ranchi | Planned | NA | |
| **16** | **Karnataka** | Nil | Nil | Nil | NA |
| **17** | **Kerala** | Thiruvananthapuram | Land not identified | NA | NA |
| | | Kollam | Work awarded 104000 cubic meter legacy waste removed. Biomining completed. | | 8.165 TPD of CBG |
| | | Munnar | Planned | NA | NA |
| | | Kochi | Retendering Completed | | |
| | | Thrissur | Planned | NA | NA |
| | | Palakkad | Planned | | 4018 kg/day of CBG is at DPR stage |
| | | Malappuram | Planned | NA | NA |
| | | Kozhikode | Work awarded - construction to be started. Clearance obtained. Power purchase agreement will be executed. | 6 | Construction to be started by August. Biomining is being done. |
| | | Kannur | Planned | NA | DPR stage |
| **18** | **Ladakh** | NA | NA | NA | NA |

| S. No. | States | Plant Location | Status of Operation | Power Generation (MW) | Remarks |
|---|---|---|---|---|---|
| **19** | **Lakshadweep** | NA | NA | NA | NA |
| **20** | **Madhya Pradesh** | Jabalpur | Operational | 11.5 | 600 TPD |
| | | Rewa | Under construction | 12 | 600 TPD |
| | | Gwalior | Terminated | 11 | 600 TPD |
| **21** | **Maharashtra** | Solapur Municipal Corporation | In operations | 4 | NA |
| **22** | **Manipur** | Imphal Municipal Corporation Lamdeng, Imphal | Under installation | | 10 TPD |
| **23** | **Meghalaya** | NA | NA | NA | NA |
| **24** | **Mizoram** | NA | NA | NA | NA |
| **25** | **Nagaland** | NA | NA | NA | NA |
| **26** | **Odisha** | NA | NA | NA | NA |
| **27** | **Puducherry** | Puducherry and Karaikal | Nil | Nil | Gas generated from Bio-gas plant. Power is utilised for lighting purpose. Operated by Puducherry Karaikal Municipality |
| **28** | **Punjab** | Bathinda | Non-operational | | Earlier, 8 WtE plants were proposed to be setup by the DLG in each of the 8 clusters. However, now DLG has adopted decentralized approach. |
| | | Ludhiana | Non-operational | | NA |
| **29** | **Rajasthan** | Nagar Nigam, Udaipur | Biomethanization plant is operational. | | Capacity of the plant is 2 TPD |

| S. No. | States | Plant Location | Status of Operation | Power Generation (MW) | Remarks |
|---|---|---|---|---|---|
| | | Mahindra Waste to Energy Solutions Ltd, Udaipur | Biomethanization plant is operational. | | Capacity of the plant is 20 |
| | | M/s. JITF Urban Infrastructure Ltd, Jodhpur | Planned | | Capacity of the plant is 400 TPD. PPA has been signed by the firm with RUVNL for purchasing the electricity and land lease agreement is also done and site clearance work is being done. |
| **30** | **Sikkim** | NA | NA | NA | NA |
| **31** | **Tamil Nadu** | NA | NA | NA | NA |
| **32** | **Telangana** | M/s. Hyderabad MSW Energy Solution Pvt. Ltd (by GHMC), Jawaharnagar(v), Shameerpat (M), Medchal-Malkajgiri District | Operational | 24 | TSPCB issued CFO vide letter dated 15.07.2020 with validity upto 31.03.2025.<br>The Board issued CFE for expansion for capacity of 48 MW |
| | | M/s RDF Power Projects Chennaravulapally, Bibi Nagar | Undergoing pre commissioning activities | 11 | Presently, the industry has not commissioned due to financial issues (IL&FS) |
| | | Ycharam, Ibarahimpatnam | | 12 | Permission for granting extension of time to agency (M/s. SVGPPL) for entering into PPA witj TSSPDCL is under examination of GHMC |
| | | M/s Shalivahana (MSW) Green Energy Ltd. Sy. No. 70 Rebladevpally Sultanabad (M), Karimnagar District | Non Operational | 12 | The Board has issued CFO vide letter dated 12.01.2017 which is valid up to 31.10.2019 |

| S. No. | States | Plant Location | Status of Operation | Power Generation (MW) | Remarks |
|---|---|---|---|---|---|
| | | M/s Hema Sri Power Projects Ltd, Plot No. 1, Hymanagar, Suryapet, Nalgonda District | Non Operational | 12.6 | The Board has issued CFO vide letter dated 23.02.2017 which is valid up to 28.02.2018 |
| | | M/s. Hyderabad MSW Energy Solution Pvt. Ltd (Unit-2) at Dundigal | Planned | 14.5 | The Board issued CFE for establishment of WTE plant at Dundugal |
| **33** | **Tripura** | NA | NA | NA | NA |
| **34** | **Uttar Pradesh** | Barabanki | Operational | | Total waste disposed is 268 TPD |
| | | Meerut | Operational | | |
| | | Muzaffarnagar | Operation | | |
| **35** | **Uttarakhand** | | Planned | 1 | 1 WtE plant proposed to cover 17 ULBs of capacity 1 MW. |
| **36** | **West Bengal** | One | Operational | 6.2 | |

*Table 7: Details of Sanitary Landfill Sites*

| S. No. | State | Landfill site identified | Sanitary Landfill Constructed | Sanitary Landfill under construction | Sanitary Landfill in operation | Sanitary Landfill exhausted | Sanitary Landfill capped | City/Town |
|---|---|---|---|---|---|---|---|---|
| **1** | **Andhra Pradesh** | 0 | 4 | 0 | 4 | 0 | 1 | • Operational Plant: GVMC, Tirupati, Ongole and Chirala Landfill capped: Kadapa Municipal corporation |
| **2** | **Andaman and Nicobar Islands** | 1 | 0 | 0 | 0 | 0 | 0 | • Port Blair |
| **3** | **Arunachal Pradesh** | 0 | 0 | 0 | 0 | 0 | 0 | • No landfills have been developed so far |
| **4** | **Assam** | 1 | 1 | 0 | 1 | 0 | 0 | • Dibrugarh MB |
| **5** | **Bihar** | 32 | 0 | 0 | 0 | 0 | 0 | • A total of 32 potential landfill sites out of 80 sites have been cleared by the Board with regard to siting criteria as per the SWM Rules, 2016. |
| **6** | **Chandigarh** | 1 | 1 | 1 | 1 | 0 | 1 | • A new landfill site of approx. 7 acres is being developed.<br>• A sanitary landfill has been developed over an area of 8.28 acres of 25 acres which is now used for dumping. The request for |

| S. No. | State | Landfill site identified | Sanitary Landfill Constructed | Sanitary Landfill under construction | Sanitary Landfill in operation | Sanitary Landfill exhausted | Sanitary Landfill capped | City/Town |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | proposal for bio-mining of this current landfill site having 8 lakh MT of waste has been issued and the work will be completed by December, 2025. |
| **7** | **Chhattisgarh** | 2 | 2 | 0 | 2 | 0 | 0 | |
| **8** | **Dadra Nagar Haveli and Daman Diu** | 2 | 1 | 0 | 1 | 0 | 0 | • Landfill operational in Daman |
| **9** | **Delhi** | 1 | 1 | 1 | 1 | 0 | 0 | • 01 existing operational engineer SLF at Bawana. Another engineered SLF is under construction at Tehkhand for which Environmental Clearance has already been given by MoEF&CC on 29.10.2020 and Consent to Establish has been issued by DPCC.<br>• 01 engineered SLF at Bawana already constructed & operational.<br>• 01 engineered SLF at Tehkhand is expected |

| S. No. | State | Landfill site identified | Sanitary Landfill Constructed | Sanitary Landfill under construction | Sanitary Landfill in operation | Sanitary Landfill exhausted | Sanitary Landfill capped | City/Town |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | to be commissioned by April, 2022.<br>• All 3 non-engineered and unscientific MSW dumpsites at Okhla, Ghazipur and Bhalswa have already been exhausted. |
| **10** | **Goa** | 2 | 7 | 0 | 2 | 0 | 0 | • Landfill sites identified at Ponda, Sanguem.<br>• Landfill constructed at Pernem, Bicholim, Sankhali, Quepem, Cuncolim, Valpoi, Margao)<br>• Landfill in operation at Pernem and Bicholim. |
| **11** | **Gujarat** | 28 | 11 | 27 | 8 | 1 | 1 | • 28 Regional landfill sites for 156 Nagarpalikas and 8 landfill sites for 8 MCs.<br>• Rajkot Cell-1 is under capping stage. |
| **12** | **Haryana** | 6 | 6 | 0 | 3 | 3 | 0 | Information not provided |
| **13** | **Himachal Pradesh** | 2 | 0 | 2 | 0 | 0 | 0 | • Shimla and Baddi |
| **14** | **Jammu & Kashmir** | 34 | 1 | 1 | 1 | 1 | 1 | • 25 No. of Sites identified as dumpsites, 24 sites being converted to Material Recover |

| S. No. | State | Landfill site identified | Sanitary Landfill Constructed | Sanitary Landfill under construction | Sanitary Landfill in operation | Sanitary Landfill exhausted | Sanitary Landfill capped | City/Town |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Facility by Urban Local in phased manner in Jammu division.<br>• 09 no. of sites have been identified for setting up integrated Solid Waste Management in cluster form (i.e. Anantnag, Achabal, Bijbehar Matta, Aishmuquam, Seer-Hamdan, Sumbal, Budgam & Shopian) in Kashmir Division.<br>• In Kashmir, 01 land fill has been established at Saidapora Achan, Srinagar where all kind of waste is disposed of in land fill site by the SMC. None of the Municipal Council / Committee have any sanitary landfill site.<br>• Land fill under construction by JMC.<br>• In Kashmir 01 land fill is in operational at Saidapora Achan, Srinagar where all kind of waste is disposed of |

| S. No. | State | Landfill site identified | Sanitary Landfill Constructed | Sanitary Landfill under construction | Sanitary Landfill in operation | Sanitary Landfill exhausted | Sanitary Landfill capped | City/Town |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | in land fill site by the SMC.<br>• Phase-I of Achan land fill site is exhausted.<br>• Capping of the Achan site Phase-I. |
| **15** | **Jharkhand** | 42 | 0 | 2 | 1 | 0 | 0 | • Operational landfill site in Deogarh |
| **16** | **Karnataka** | 221 | 165 | 0 | 165 | 0 | 0 | Information not provided |
| **17** | **Kerala** | 1 | 0 | 1 | 0 | 0 | 0 | • 1 landfill site identified at Ernakulum<br>• 1 landfill site under construction at Attingal Municipality |
| **18** | **Ladakh** | 1 | 0 | 1 | 0 | 0 | 0 | • 1 landfill site identified and is under construction in Leh district. |
| **19** | **Lakshadweep** | 0 | 0 | 0 | 0 | 0 | 0 | • No landfill present |
| **20** | **Madhya Pradesh** | 52 | 8 | 0 | 8 | 0 | 0 | • 08 landfills constructed at Bhopal, Gwalior, Indore, Jabalpur, Katni, Rea, Sagar, Ujjain.<br>• 08 landfill in operation at Jabalpur, Gwalior, Indore, Katni, Rewa, Ujjain, Bhopal, Sagar. |
| **21** | **Maharashtra** | 382 | 352 | 44 | 352 | 0 | 0 | |

| S. No. | State | Landfill site identified | Sanitary Landfill Constructed | Sanitary Landfill under construction | Sanitary Landfill in operation | Sanitary Landfill exhausted | Sanitary Landfill capped | City/Town |
|---|---|---|---|---|---|---|---|---|
| **22** | **Manipur** | 5 | 5 | 0 | 5 | 0 | 0 | • At present, there are 5 sanitary landfill sites in operation at: Imphal MC, Thoubal MC, Bishnupur MC, Kakching MC, Jiribam MC |
| **23** | **Meghalaya** | 0 | 0 | 0 | 0 | 0 | 0 | Information not provided |
| **24** | **Mizoram** | 1 | 1 | 2 | 1 | 0 | 0 | • Aizawl |
| **25** | **Nagaland** | 1 | 1 | 0 | 0 | 0 | 0 | • Kohima |
| **26** | **Odisha** | 38 | 0 | 0 | 0 | 0 | 0 | • Biomining in progress |
| **27** | **Puducherry** | 1 | 1 | 1 | 0 | 0 | 0 | • One site in Kurumbapet in Puducherry.<br>• One site in Karaikal<br>• One site is under process |
| **28** | **Punjab** | 127 | 18 | 5 | 18 | 0 | 0 | Information not provided |
| **29** | **Rajasthan** | 56 | 6 | 26 | 2 | 1 | 1 | • Landfill sites constructed at Pali, Bagru, Mathuradaspura, Sewapura, Udaipur.<br>• Landfill site under construction at Rajasmand, Sikar, Bhilwara, Sumerpur, Jhunjhunu, Balicha, Udaipur, Jaisalmer |

| S. No. | State | Landfill site identified | Sanitary Landfill Constructed | Sanitary Landfill under construction | Sanitary Landfill in operation | Sanitary Landfill exhausted | Sanitary Landfill capped | City/Town |
|---|---|---|---|---|---|---|---|---|
| **30** | **Sikkim** | 1 | 1 | 0 | 1 | 0 | 0 | • Operational landfill site in Martam Gangtok |
| **31** | **Tamil Nadu** | 0 | 4 | 0 | 0 | 4 | 4 | Information not provided |
| **32** | **Telangana** | 141 | 1 | 0 | 1 | 0 | 1 | • Existing Greater Hyderabad Municipal Corporation at Jawaharnagar Village |
| **33** | **Tripura** | 3 | 6 | 0 | 2 | 1 | 1 | • Operational landfill sites in Agartala Municipal Corporation & Kamalpur Municipal Council |
| **34** | **Uttar Pradesh** | 57 | 57 | 0 | 57 | 0 | 0 | Information not provided |
| **35** | **Uttarakhand** | 2 | 2 | 21 | 2 | 0 | 0 | • Operational landfill sites in Dehradun: 60TPD & Haridwar: 30 TPD |
| **36** | **West Bengal** | 0 | 6 | 0 | 6 | 0 | 0 | Information not provided |
| | **Total** | **1244** | **669** | **135** | **645** | **10** | **11** | |

*Table 8: State wise details of dumpsites*

| S. No. | State | Number of active dumpsites | Dumpsites reclaimed/ capped | Dumpsites Converted to sanitary landfill |
|---|---|---|---|---|
| **1** | Andaman and Nicobar Islands | 0 | 0 | 0 |
| **2** | Andhra Pradesh | 123 | 1 | 3 |
| **3** | Arunachal Pradesh | 24 | 0 | 0 |
| **4** | Assam | 64 | 0 | 0 |
| **5** | Bihar | 123 | 0 | 0 |
| **6** | Chandigarh | 1 | 1 | 1 |
| **7** | Chhattisgarh | 7 | 0 | 0 |
| **8** | Dadra Nagar Haveli and Daman Diu | 3 | 0 | 0 |
| **9** | Delhi | 3 | 0 | 0 |
| **10** | Goa | 8 | 1 | 0 |
| **11** | Gujarat | 164 | 0 | 0 |
| **12** | Haryana | 77 | 0 | 0 |
| **13** | Himachal Pradesh | 48 | 0 | 0 |
| **14** | Jammu & Kashmir | 57 | 1 | 0 |
| **15** | Jharkhand | 42 | 0 | 0 |
| **16** | Ladakh | 2 | 0 | 0 |
| **17** | Lakshadweep | 0 | 0 | 0 |
| **18** | Karnataka | 200 | 0 | 0 |
| **19** | Kerala | 35 | 6 | 0 |
| **20** | Madhya Pradesh | 159 | 114 | 0 |
| **21** | Maharashtra | 240 | 134 | 0 |
| **22** | Manipur | 13 | 0 | 0 |
| **23** | Meghalaya | 6 | 0 | 1 |
| **24** | Mizoram | 27 | 0 | 0 |
| **25** | Nagaland | 39 | 1 | 0 |
| **26** | Odisha | 65 | 0 | 0 |
| **27** | Puducherry | 3 | 0 | 1 |
| **28** | Punjab | 122 | 3 | 18 |
| **29** | Rajasthan | 208 | 1 | 1 |
| **30** | Sikkim | 2 | 0 | 1 |
| **31** | Tamil Nadu | 210 | 69 | 0 |
| **32** | Telangana | 151 | 1 | 1 |
| **33** | Tripura | 14 | 1 | 0 |

| S. No. | State | Number of active dumpsites | Dumpsites reclaimed/ capped | Dumpsites Converted to sanitary landfill |
|---|---|---|---|---|
| **34** | Uttarakhand | 30 | 0 | 0 |
| **35** | Uttar Pradesh | 75 | 27 | 0 |
| **36** | West Bengal | 107 | 5 | 0 |
| | **Total** | **2452** | **366** | **27** |

*Table 9: Details of Monitoring Conducted by SPCBs/ PCCs*

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| **1** | **Andaman and Nicobar Island** | | Not provided | Not provided | Not provided | Not provided |
| **2** | **Andhra Pradesh** | Ongole Municipal Corporation | Yes | Yes | No | No |
| | | Chirala Municipality | Yes | Yes | No | No |
| | | Greater Visakhapatnam MC | Yes | Yes | No | No |
| | | Tirupati MC | Yes | Yes | No | No |
| | | Gudur MC | Yes | Yes | No | No |
| | | Kadapa MC | Yes | Yes | No | No |
| **3** | **Arunachal Pradesh** | | No | No | No | No |
| **4** | **Assam** | Boragaon under Guwahati MC | Yes | Yes | No | No |
| **5** | **Bihar** | | Not provided | Not provided | Not provided | Not provided |
| **6** | **Chandigarh** | Chandigarh MC | Yes | Yes | Yes | Yes |
| **7** | **Chhattisgarh** | | No | No | No | No |
| **8** | **DNH&DD** | | No | No | No | No |
| **9** | **Delhi** | | No | No | No | No |
| **10** | **Goa** | Pernem MC | Yes | No | No | No |
| | | Bicholim MC | Yes | No | No | No |
| | | Sankhali MC | Yes | No | No | No |
| | | Quepem MC | Yes | No | No | No |
| | | Cuncolim MC | Yes | No | No | No |
| | | Canacona MC | Yes | No | No | No |
| | | Valpoi MC | Yes | No | No | No |
| | | Ponda MC | Yes | No | No | No |
| | | Margao MC | Yes | No | No | No |

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| | | Curchorem-Cacora MC | Yes | No | No | No |
| | | Mormugao MC | Yes | No | No | No |
| 11 | Gujarat | Ahmedabad MC | Yes | Yes | Yes | Yes |
| | | Vadodara MC | Yes | Yes | Yes | Yes |
| | | Surat Mc | Yes | Yes | Yes | Yes |
| | | Rajkot MC | Yes | Yes | Yes | Yes |
| 12 | Haryana | Karnal MC | No | Yes | No | No |
| 13 | Himachal Pradesh | | Not provided | Not provided | Not provided | Not provided |
| 14 | Jammu & Kashmir | Kashmir Division | Yes | No | No | No |
| 15 | Jharkhand | | No | No | No | No |
| 16 | Karnataka | CMC Nanjangud | No | Yes | No | Yes |
| | | CMC Hunsur | No | Yes | No | Yes |
| | | TMC Tnarasipura | No | Yes | No | Yes |
| | | TMC Periyapatna | No | Yes | No | Yes |
| | | TMC KR Nagar | No | Yes | No | Yes |
| | | TMC Bannur | No | Yes | No | Yes |
| | | TMC H D Kote | No | Yes | No | Yes |
| | | TP Sargur | No | Yes | No | Yes |
| | | CMC Chamarajnagara | No | Yes | No | Yes |
| | | CMC Kollegala | No | Yes | No | Yes |
| | | TMC Gundlupet | No | Yes | No | Yes |
| | | TP Hanur | No | Yes | No | No |
| | | CMC Hassan | No | Yes | No | No |
| | | TMC Holenarasipura | No | Yes | No | No |

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| | | TMC Sakleshpura | No | Yes | No | No |
| | | TMC Belur | No | Yes | No | No |
| | | TMC Arsikere | No | Yes | No | No |
| | | TMC Channarayapatna | No | Yes | No | No |
| | | TP Arkalsudu | No | Yes | No | No |
| | | TP Alur | No | Yes | No | No |
| | | CMC Mandya | No | Yes | No | No |
| | | TMC Maddur | No | Yes | No | No |
| | | TMC-Malavalli | No | Yes | No | No |
| | | TMC-Srirangapatna | No | Yes | No | No |
| | | TMC Pandavapura | No | Yes | No | No |
| | | TP-Nagamangala | No | Yes | No | No |
| | | Mysore City Corporation | No | Yes | Yes | Yes |
| | | CMC Hunsur | No | Yes | No | Yes |
| | | TMC K R Nasara | No | Yes | No | Yes |
| | | TMC H.D Kote | No | Yes | No | No |
| | | TP Sargur | No | Yes | No | No |
| | | CMC Nanjanagud | No | Yes | No | Yes |
| | | TMC TN Pura | No | Yes | No | No |
| | | TMC Bannur | No | Yes | No | Yes |
| | | CMC Madkeri | No | Yes | No | No |
| | | TP Kushalnagar | No | Yes | No | No |
| | | TP-Virajpet | No | Yes | No | No |
| | | Kanahalli (BBMP-MSW Site) | No | Yes | No | Yes |
| | | BBMP MSW site Mavallipura | Yes | Yes | No | No |
| | | BBMP MSW site Doddabidarakallu | Yes | Yes | No | Yes |
| | | BBMP MSW site Bellahalli village, Yelahanka | Yes | Yes | Yes | Yes |

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| | | BBMP MSW site Bagaluru village, Yelahanka | Yes | Yes | No | No |
| | | Proposed BBMP dumping of municipal inert solid waste at Sy No. 271, Bagaluru Village, Yelahanka | Yes | Yes | No | No |
| | | TP-Somwarpet | No | Yes | No | No |
| 17 | Kerala | Composting Plant, Kochi | No | Yes | Yes | No |
| | | Composting Plant, Brahmapuram | No | Yes | Yes | No |
| 18 | Ladakh | Leh District | No | No | No | Yes |
| | | Kargil District | Yes | Yes | Yes | No |
| 19 | Lakshadweep | | No | No | No | No |
| 20 | Madhya Pradesh | Facility at Vidisha, Bhopal District | Yes | Yes | No | No |
| | | Facility at Bhopal, Bhopal District | Yes | Yes | No | No |
| | | Facility at Budhni, Bhopal District | Yes | Yes | No | No |
| | | Facility at Kothari, Bhopal District | Yes | Yes | No | No |
| | | Facility at Ichhawar, Bhopal District | Yes | Yes | No | No |
| | | Facility at Shahganj, Bhopal District | Yes | Yes | No | No |
| | | Facility at Kurwai, Bhopal District | Yes | Yes | No | No |
| | | Facility at Ganjbasoda, Bhopal District | Yes | No | No | No |
| | | Facility at Jawar, Bhopal District | No | Yes | No | No |
| | | Facility at Nasrullganj, Bhopal District | Yes | Yes | No | No |
| | | Facility at Rahti, Bhopal District | Yes | Yes | No | No |
| | | Facility at Sehore, Bhopal District | No | Yes | No | No |
| | | Facility at Astha, Bhopal District | No | Yes | No | No |
| | | Facility at Amarwara, Chhindwara District | Yes | Yes | No | No |
| | | Facility at Badkuhi, Chhindwara District | Yes | Yes | No | No |
| | | Facility at Chand, Chhindwara District | Yes | Yes | No | No |
| | | Facility at Chandameta-Butaria, Chhindwara District | Yes | Yes | No | No |

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| | | Facility at Chaurai Khas, Chhindwara District | Yes | Yes | No | No |
| | | Facility at Chhindwara, Chhindwara District | Yes | Yes | No | No |
| | | Facility at Damua, Chhindwara District | Yes | Yes | No | No |
| | | Facility at Donger Parasia, Chhindwara District | Yes | Yes | No | No |
| | | Facility at Harrai, Chhindwara District | Yes | Yes | No | No |
| | | Facility at Junnardev Jamai, Chhindwara District | Yes | Yes | No | No |
| | | Facility at Lodhikheda, Chhindwara District | Yes | Yes | No | No |
| | | Facility at Mohgaon, Chhindwara District | Yes | Yes | No | No |
| | | Facility at Neuton Chikhli Kalan, Chhindwara District | Yes | Yes | No | No |
| | | Facility at Pandhurna, Chhindwara District | Yes | Yes | No | No |
| | | Facility at Piplanarayannwar, Chhindwar District | Yes | Yes | No | No |
| | | Facility at Sausar, Chhindwar District | Yes | Yes | No | No |
| | | Facility at Bichhua, Chhindwar District | Yes | Yes | No | No |
| | | Facility at Betul, Chhindwar District | Yes | Yes | No | No |
| | | Facility at Multai, Chhindwar District | Yes | Yes | No | No |
| | | Facility at Amla, Chhindwar District | Yes | Yes | No | No |
| | | Facility at Sarni, Chhindwar District | Yes | Yes | No | No |
| | | Facility at Atner, Chhindwar District | Yes | Yes | No | No |
| | | Facility at Betul-Bazar, Chhindwar District | Yes | Yes | No | No |
| | | Facility at Chicholi, Chhindwar District | Yes | Yes | No | No |
| | | Facility at Bhainsdehi, Chhindwar District | Yes | Yes | No | No |
| | | Facility at Kolaras, Guna District | Yes | Yes | No | No |
| | | Facility at Badarwas, Guna District | No | Yes | No | No |
| | | Facility at Shivpuri, Guna District | Yes | Yes | No | No |
| | | Facility at Aron, Guna District | No | Yes | No | No |
| | | Facility at Ashoknagar, Guna District | Yes | Yes | No | No |
| | | Facility at Chachaura-Binaganj, Guna District | Yes | Yes | No | No |

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| | | Facility at Chanderi, Guna District | Yes | Yes | No | No |
| | | Facility at Guna, Guna District | Yes | Yes | No | No |
| | | Facility at lsagarh, Guna District | Yes | Yes | No | No |
| | | Facility at Kumbhraj, Guna District | No | Yes | No | No |
| | | Facility at Mungaoli, Guna District | Yes | Yes | No | No |
| | | Facility at Raghogarh-Vijaypur, Guna District | Yes | Yes | No | No |
| | | Facility at Pichhore, Guna District | No | Yes | No | No |
| | | Facility at Karera, Guna District | Yes | Yes | No | No |
| | | Facility at Rajgarh, Guna District | Yes | Yes | No | No |
| | | Facility at Bioara, Guna District | Yes | Yes | No | No |
| | | Facility at Sarangpur, Guna District | Yes | Yes | No | No |
| | | Facility at Jirapur, Guna District | No | Yes | No | No |
| | | Facility at Machalpur, Guna District | No | Yes | No | No |
| | | Facility at Pachore, Guna District | No | Yes | No | No |
| | | Facility at Suthaliya, Guna District | Yes | No | No | No |
| | | Facility at Narshingarh, Guna District | Yes | Yes | No | No |
| | | Facility at Dabra, Gwalior District | Yes | Yes | No | No |
| | | Facility at Pichhore, Gwalior District | No | Yes | No | No |
| | | Facility at Bhitawar, Gwalior District | No | Yes | No | No |
| | | Facility at Bhind, Gwalior District | Yes | Yes | No | No |
| | | Facility at Gohad, Gwalior District | Yes | Yes | No | No |
| | | Facility at Alampur, Gwalior District | No | Yes | No | No |
| | | Facility at Phookalan, Gwalior District | Yes | Yes | No | No |
| | | Facility at Akoda, Gwalior District | No | Yes | No | No |
| | | Facility at Mehgaon, Gwalior District | No | Yes | No | No |
| | | Facility at Daboh, Gwalior District | No | Yes | No | No |
| | | Facility at Gormi, Gwalior District | No | Yes | No | No |

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| | | Facility at Morena, Gwalior District | Yes | Yes | No | No |
| | | Facility at Kailaras, Gwalior District | No | Yes | No | No |
| | | Facility at Sabalgarh, Gwalior District | Yes | Yes | No | No |
| | | Facility at Bamore, Gwalior District | Yes | Yes | No | No |
| | | Facility at Ambha, Gwalior District | Yes | Yes | No | No |
| | | Facility at Porsa, Gwalior District | Yes | Yes | No | No |
| | | Facility at Jhundpura, Gwalior District | No | Yes | No | No |
| | | Facility at Datiya, Gwalior District | Yes | Yes | No | No |
| | | Facility at Sewda, Gwalior District | No | Yes | No | No |
| | | Facility at lndargarh, Gwalior District | No | Yes | No | No |
| | | Facility at Bhander, Gwalior District | N o | Yes | No | No |
| | | Facility at Badoni, Gwalior District | Yes | Yes | No | No |
| | | Facility at Shivpure, Gwalior District | Yes | Yes | No | No |
| | | Facility at Baroda, Gwalior District | Yes | Yes | No | No |
| | | Facility at Vijaypur, Gwalior District | Yes | Yes | No | No |
| | | Facility at Indore, Indore District | Yes | Yes | No | No |
| | | Facility at Khandwa, Indore District | No | Yes | No | No |
| | | Facility at Bhurhanpur, Indore District | No | Yes | No | No |
| | | Facility at Khargon, Indore District | No | Yes | No | No |
| | | Facility at Badwani, Indore District | No | Yes | No | No |
| | | Facility at Sihora, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Jabalpur CB, Jabalpur District | No | Yes | No | No |
| | | Facility at Barela, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Jabalpur, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Bhedaghat, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Chichali, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Gadarwara, Jabalpur District | Yes | Yes | No | No |

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| | | Facility at Gotegaon, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Gotegaon, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Katangi Jabalpur, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Manjholi, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Narsinghpur, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Panagar, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Patan, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Saikheda, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Salichauka, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Shahpura Bhitoni, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Tendukheda, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Baihar, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Balaghat, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Bamhani Banjar, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Bichhiya, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Katangi, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Lanji, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Malajkhand, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Mandla, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Nainpur, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Niwas, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Waraseoni, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Barghat, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Lakhnadon, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Seoni, Jabalpur District | Yes | Yes | No | No |
| | | Facility at Barhi, Katni District | Yes | Yes | No | No |
| | | Facility at Katni (Murwara), Katni District | Yes | Yes | No | No |
| | | Facility at Kymore, Katni District | Yes | Yes | No | No |

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| | | Facility at Vijayraghavgarh, Katni District | Yes | Yes | No | No |
| | | Facility at Satna, Satna District | Yes | Yes | No | No |
| | | Facility at Chitrakut, Satna District | Yes | Yes | No | No |
| | | Facility at Maihar, Satna District | Yes | Yes | No | No |
| | | Facility at Kothar, Satna District | Yes | Yes | No | No |
| | | Facility at Birsinghpur, Satna District | Yes | Yes | No | No |
| | | Facility at Amarpatan, Satna District | Yes | Yes | No | No |
| | | Facility at Jaitwara, Satna District | Yes | Yes | No | No |
| | | Facility at Kothi, Satna District | Yes | Yes | No | No |
| | | Facility at Unchehra, Satna District | Yes | Yes | No | No |
| | | Facility at Rampur Baghelan, Satna District | Yes | Yes | No | No |
| | | Facility at Nagod, Satna District | Yes | Yes | No | No |
| | | Facility at Ujjain, Ujjain District | Yes | Yes | No | No |
| | | Facility at Ratlam, Ujjain District | Yes | Yes | No | No |
| | | Facility at Mandsaur, Ujjain District | Yes | Yes | No | No |
| | | Facility at Jiran, Ujjain District | No | Ye | No | No |
| | | Facility at Neemuch, Ujjain District | Yes | No | No | No |
| | | Facility at Agar, Ujjain District | Yes | No | No | No |
| | | Facility at Badnagar, Ujjain District | No | Yes | No | No |
| | | Facility at Nagri, Ujjain District | No | Yes | No | No |
| | | Facility at Chakghat, Rewa District | Yes | Yes | No | No |
| | | Facility at Barkunthpur, Rewa District | Yes | Yes | No | No |
| | | Facility at Churhat, Rewa District | Yes | No | No | No |
| | | Facility at Govindgarh, Rewa District | Yes | Yes | No | No |
| | | Facility at Gurh, Rewa District | Yes | Yes | No | No |
| | | Facility at Hanumana, Rewa District | Yes | Yes | No | No |
| | | Facility at Majhauli, Rewa District | Yes | Yes | No | No |

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| | | Facility at Mangawan, Rewa District | Yes | Yes | No | No |
| | | Facility at Mauganj, Rewa District | Yes | Yes | No | No |
| | | Facility at Naigarhi, Rewa District | Yes | Yes | No | No |
| | | Facility at Rampur Naikin, Rewa District | Yes | Yes | No | No |
| | | Facility at Rewa, Rewa District | Yes | Yes | No | No |
| | | Facility at Semaria, Rewa District | Yes | Yes | No | No |
| | | Facility at Sidhi, Rewa District | Yes | Yes | No | No |
| | | Facility at Sirmour, Rewa District | Yes | Yes | No | No |
| | | Facility at Teonthar, Rewa District | Yes | Yes | No | No |
| | | Facility at Chhatarpur, Sagar District | Yes | Yes | No | No |
| | | Panna Facility at, Sagar District | Yes | Yes | No | No |
| | | Facility at Damoh, Sagar District | Yes | Yes | No | No |
| | | Facility at Tikamgarh, Sagar District | Yes | Yes | No | No |
| | | Sagar Facility at, Sagar District | Yes | Yes | No | No |
| | | Facility at Umariya, Shahdol District | Yes | Yes | No | No |
| | | Facility at Shahdol, Shahdol District | Yes | Yes | No | No |
| | | Facility at Anuppur, Shahdol District | Yes | Yes | No | No |
| | | Facility at Dindori Shahdol District | Yes | Yes | No | No |
| | | Facility at Singrauli , Singrauli District | Yes | Yes | No | No |
| | | Facility at Dewas, Dewas District | Yes | Yes | No | No |
| | | Facility at Shajapur, Dewas District | Yes | Yes | No | No |
| **21** | **Maharashtra** | Greater Mumbai MC | Yes | Yes | Yes | Yes |
| | | Pimpri Chinchwad MC | Yes | Yes | Yes | Yes |
| | | Pune MC | Yes | No | Yes | No |
| | | Mahad MC | Yes | Yes | No | No |
| | | Nashik MC | No | Yes | No | No |
| **22** | **Manipur** | Municipal Solid Waste Management Plant, Imphal | Yes | Yes | Yes | Yes |

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| | | Thoubal Landfill site | Yes | Yes | Yes | Yes |
| | | Bishnupur Landfill site | Yes | Yes | Yes | Yes |
| | | Kakching Landfill site | Yes | Yes | Yes | Yes |
| | | Jiribam Landfill site | Yes | Yes | Yes | Yes |
| **23** | **Meghalaya** | Landfill Site of Shillong Municipal Board | Yes | Yes | Yes | No |
| **24** | **Mizoram** | | No | No | No | No |
| **25** | **Nagaland** | Kohima Municipal Council | Nil | Nil | Yes | Nil |
| **26** | **Odisha** | | Not provided | Not provided | Not provided | Not provided |
| **27** | **Puducherry** | Puducherry MC | Yes | Yes | No | No |
| **28** | **Punjab** | Kharar MC | No | Yes | No | No |
| | | Kurali MC | No | Yes | No | No |
| | | Banur MC | No | Yes | No | No |
| | | Zirakpur MC | No | Yes | No | No |
| | | Sunam MC | No | Yes | No | No |
| | | Barnala MC | No | Yes | No | No |
| | | Malerkotla MC | No | Yes | No | No |
| | | Sangur MC | No | Yes | No | No |
| | | Amritsar MC | No | Yes | No | No |
| | | Khamano Nagar Panchayat | No | Yes | No | No |
| | | Hoshiapur MC | No | Yes | No | No |
| | | Mansa MC | No | Yes | No | No |
| | | Patiala MC | No | Yes | No | No |
| | | Bhagwara MC | No | Yes | No | No |
| | | Balachur MC | No | Yes | No | No |
| | | Gidderbaha MC | No | Yes | No | No |
| | | Pathankot MC | No | Yes | No | No |

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| | | Faridkot MC | No | Yes | No | No |
| | | Moga MC | No | Yes | No | No |
| | | Handlaya Nagar Panchayat | No | Yes | No | No |
| | | Khanna MC | No | Yes | No | No |
| | | Macchiwara Nagar Panchayat | No | Yes | No | No |
| | | Samrala MC | No | Yes | No | No |
| | | Doraha MC | No | Yes | No | No |
| **29** | **Rajasthan** | Pali District | Yes | Yes | No | No |
| | | Udaipur District | Yes | Yes | No | No |
| **30** | **Sikkim** | | No | No | No | No |
| **31** | **Tamil Nadu** | Chennai MC | Yes | Yes | No | No |
| | | Erode MC | No | Yes | No | No |
| | | Hosur MC | No | Yes | No | No |
| | | Avadi MC | No | Yes | No | No |
| | | Nagercoil MC | Yes | Yes | No | No |
| | | Coimbatore MC | Yes | Yes | No | No |
| | | Trichy MC | Yes | Yes | No | No |
| | | Thanjavur MC | No | Yes | No | No |
| | | Madurai MC | Yes | Yes | No | No |
| | | Vellore MC | Yes | Yes | No | No |
| | | Dindigul MC | Yes | Yes | No | No |
| | | Salem MC | No | Yes | No | No |
| | | Tirunelveli MC | No | Yes | No | No |
| | | Thoothukudi MC | No | Yes | No | No |
| | | Kumbakonam MC | No | Yes | No | No |
| | | Karur MC | No | Yes | No | No |
| | | Mettur MC | No | Yes | No | No |

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| | | Dharampuri Mc | No | Yes | No | No |
| | | Ariyalur Mc | No | Yes | No | No |
| | | Perambalur MC | No | Yes | No | No |
| | | Thuraiyar MC | No | Yes | No | No |
| | | Mannaparai MC | No | Yes | No | No |
| | | Aranthangi MC | No | Yes | No | No |
| | | Pudukkotai MC | No | Yes | No | No |
| | | Koothanallur Mc | No | Yes | No | No |
| | | Thiruturaipoondi MC | No | Yes | No | No |
| | | Mannargudi MC | No | Yes | No | No |
| | | Thiruvarur MC | No | Yes | No | No |
| | | Vedaranyam MC | No | Yes | No | No |
| | | Sirkali MC | No | Yes | No | No |
| | | Mayiladuthurai MC | No | Yes | No | No |
| | | Nagapattinam MC | No | Yes | No | No |
| | | Ambur MC | No | Yes | No | No |
| | | Arkkonam MC | No | Yes | No | No |
| | | Arcot MC | No | Yes | No | No |
| | | Gudiyattam MC | No | Yes | No | No |
| | | Ranipet MC | No | Yes | No | No |
| | | Tirupathur MC | No | Yes | No | No |
| | | Vanniyambadi MC | No | Yes | No | No |
| | | Walajapet MC | No | Yes | No | No |
| | | Jolarpet MC | No | Yes | No | No |
| | | Tiruvannamalai MC | No | Yes | No | No |
| | | Arani MC | No | Yes | No | No |
| | | Thiruvathipuram MC | No | Yes | No | No |

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| | | Vandavasi MC | No | Yes | No | No |
| | | Mettupalayam MC | No | Yes | No | No |
| | | Gobichettipalayam MC | No | Yes | No | No |
| | | Bhavani MC | No | Yes | No | No |
| | | Tenkasi MC | No | Yes | No | No |
| | | Ambasamudram MC | No | Yes | No | No |
| | | Vickramasingapuram MC | No | Yes | No | No |
| | | Kuzhithurai MC | No | Yes | No | No |
| | | Colachel MC | No | Yes | No | No |
| | | Padmanabhapuram | No | Yes | No | No |
| | | Theni MC | No | Yes | No | No |
| | | Periyakulam MC | No | Yes | No | No |
| | | Kodaikanal MC | No | Yes | No | No |
| | | Palani Mc | No | Yes | No | No |
| | | Oddanchatram MC | No | Yes | No | No |
| | | Sivagangai Mc | No | Yes | No | No |
| | | Karaikudi MC | No | Yes | No | No |
| | | Ramanathapuram Mc | No | Yes | No | No |
| | | Paramakudi MC | No | Yes | No | No |
| | | Rameswaram MC | No | Yes | No | No |
| | | Keelakari MC | No | Yes | No | No |
| | | Thiruverkadu MC | No | Yes | No | No |
| | | Thiruthani MC | No | Yes | No | No |
| | | Poonamalle MC | No | Yes | No | No |
| | | Melvishsram MC | No | Yes | No | No |
| | | Tindivanam MC | No | Yes | No | No |
| | | Villuppuram MC | No | Yes | No | No |

| Sl. No. | State/UT | City/Town | Ambient Air Quality Monitoring (Yes/No) | Ground Water Monitoring (Yes/No) | Leachate Quality Monitoring (Yes/No) | Compost quality (Yes/No) |
|---|---|---|---|---|---|---|
| | | Kadayanallur MC | No | Yes | No | No |
| | | Sankarankoil MC | No | Yes | No | No |
| | | Puliyangudi MC | No | Yes | No | No |
| | | Segottai MC | No | Yes | No | No |
| | | Adirampattinam MC | No | Yes | No | No |
| | | Pattukkotai MC | No | Yes | No | No |
| **32** | **Telangana** | Jawaharnagar(v), Shameerpat (M), Medchal District | Yes | Yes | Yes | Yes |
| **33** | **Tripura** | DC Nagar waste processing facility | Yes | Yes | Yes | Yes |
| | | Kamalpur | Yes | Yes | Yes | Yes |
| **34** | **Uttar Pradesh** | | Not provided | Not provided | Not provided | Not provided |
| **35** | **Uttarakhand** | Nagar Nigam Dehradun | Yes | Yes | Yes | Yes |
| | | Nagar Nigam Haridwar | No | NO | | Yes |
| **36** | **West Bengal** | | No | No | No | No |

## 3.0 STATE WISE OBSERVATIONS/ FINDINGS:

Based on annual reports received from 36 SPCBs/PCCs for the year 2021-22, observations on implementation of SWM Rules, 2016 are given below:

### 3.1 Andhra Pradesh:

There are 123 ULBs in Andhra Pradesh State and among them 17 ULBs are Municipal Corporations and 106 ULBs are Grade-I, II & III municipalities. A total of 6,890 TPD of Municipal Solid Waste is being generated from commercial areas, institutions and residential areas of the ULBs. Municipal Corporations and major municipalities have adopted 100% door to door collection. They have achieved 98.17% of segregation at source.

For waste transportation, the fleet includes 480 refuse compactors, 225 Skid Steer loaders, 330 mini compactors, 10,649 waste collection trollies, and 1,566 road and mini collection trucks.

Two Waste to Energy Plants under PPP mode are under construction by M/s. Jindal Urban Waste Management Ltd. 100 % of the work has been completed and plant has been commissioned in Greater Visakhapatnam Municipal Corporation. This unit processes 900 TPD of wastes. The unit in Guntur Municipal Corporation has also been completed and is processing 900 TPD of waste.

There 28 Waste to Compost plants providing facilities to 34 ULBs. and 4 Bio-methanation Plants are already established covering 8 ULBs. Windrow Compost Units are established in 81 ULBs as an interim measure till the establishment of ISWM Projects/ Waste to Compost Plants for which tenders finalized/ awarded. Compost produced is being sold to farmers by Processing Plant. Compost is also being used in Parks, Greenery in Central Medians, Avenue Plantation etc.

In addition to the above individual vermi-compost plants are being proposed in residential localities at bulk waste generators. The compost is proposed for utilization in green belt development within the municipal limits. 1922 Bulk Waste Generators were identified in the State. Further, Wet Waste Processing Facilities are provided by 760 Bulk Waste Generators, processing 64.10 Tons per day. CNG gas produced is being sold to the Commercial establishments like hotels, restaurants etc.

Greater Visakhapatnam Municipal Corporation, Tirupati Municipal Corporation, Ongole Municipal Corporation and Chirala Municipality has developed Sanitary Landfill facility. The remaining ULBs are under process of developing landfill facilities and compost plants in their respective

municipalities. ULBs are under process of implementing Bio-Mining process for Bio-remediation of existing municipal dump yards.

### 3.2 Andaman & Nicobar Islands

There is only 01 local body (Port Blair) in the State responsible for management of solid waste. The total solid waste generation in the State is 78.5 TPD out of which 78.3 TPD collected, 74 TPD is treated and 2.45 TPD is landfilled.

**Urban Area:** Door to door collection is carried out in all the 24 wards of Port Blair Town. 100% (24 wards) of solid waste is stored at source in segregated form. 100% of households practice storage of waste at source in domestic bins. Transportation of waste is carried out through tarpaulin covered vehicles

**Rural Area:** 80% of households are covered in door-to-door collection of solid waste. 90% of solid waste is stored at source segregated form. 95% of households practice storage of waste at source in domestic bins. Transportation of waste is carried out through tarpaulin covered vehicles.

The PBMC has installed 16 Water ATMs to reduce the plastic waste generation in the urban area. 24 number of Solid Liquid Resource Management (SLRM) Centres, 02 number of electric compost plants and one 3-R centre has been set up to cover all 24 municipal wards. Waste is further segregated for bailing and processing for its transportation to mainland for recycling. There are 05 decentralized composting units and one Bio-methanation plant at Dr. B.R. Ambedkar Institute of Technology with a capacity of 0.5 TPD for wet waste management. Further, 10 schools and 01 colleges have also made captive composting units.

All existing dumpsites have been closed. PBMC has initiated legacy waste remediation of the sanitary landfill situated in Brookshabad with has 1 Lakh MT of legacy waste. As on 31$^{st}$ December 2022, total 1630 MT quantity of legacy waste has been remediated.

### 3.3 Arunachal Pradesh

There are 33 local bodies (31 towns and 2 municipalities) in the State responsible for management of solid waste. There are 2 Municipalities in the State namely Itanagar Municipal Council and Pasighat Municipal Council.

Door to door collection of waste is done in 23 local bodies through motorized vehicle. Secondary waste storage facilities are used in 13 local bodies. The solid wastes collected are transported to the disposal site on daily basis. The disposal of waste is done in dumpsites. Segregation of wastes is practised in 10 local bodies namely Basar, Bomdila, Mariyang, Namsai, Tawang, Yingkiong, Aalo, Boleng, Deomali, Khonsa.

No landfill is developed so far by the local bodies. Vermi-composting is done at Basar and Bomdila. Composting is done at Pasighat Municipal Council, Tawang and Yingkiong. The state has reported that the major issue faced by ULBs in complying with SWM Rules, 2016 are lack of manpower, lack of waste processing plant and absence of proper storage facility for recyclable materials

### 3.4 Assam

There are 96 ULBs responsible for implementation of SWM Rules, 2016 in the State. There are 8 Class-I and 6 Class II cities/towns in the State. Total waste generated in the State is 1589 TPD out of which 1333 TPD is collected, 575 TPD of the generated waste is treated and 744 TPD is landfilled. Door to door collection of waste is practiced in almost all ULBs.

### 3.5 Bihar

In Bihar, 141 ULBs (18 Corporations, 77 Municipal Council and 46 Nagar Panchayats) are responsible for MSW management. As per annual report submitted by ULBs total waste generation has been observed to the tune of 4975 TPD (Municipal Corporation: 3007 TPD, Municipal Council: 1654 TPD and Nagar Panchayat: 3L4 TPD). The three major cities (Munger, Muzaffarpur & Biharsharif) and three major towns (Supaul, Rajgir & Bodhgaya) have been identified as model cities & towns in Bihar. Door to door collection is practiced in all the wards.

A total of 32 potential landfill sites out of which 80 sites have been cleared by the Board with regard to siting criteria as per the Solid Waste Management Rules-2016. As per annual report submitted by ULBs, there are 123 dump sites which includes 21 in Municipal Corporation, 65 in Municipal Council and 37 in Nagar Panchayat.

### 3.6 Chandigarh

There is 1 ULB responsible for implementation of the SWM Rules, 2016, in the UT. The total solid waste generation is 540 TPD, all of which is collected. 83 TPD of the generated waste is treated and 486 TPD is landfilled.

The Municipal Corporation, Chandigarh (MCC) has facilitated 100% door to door collection, segregation and storage along with covered transportation system for waste in all 35 wards. 3 No. Of Material Recovery Facilities (MRFS) have been setup by MCC for the purpose of collection, segregation and transfer stations of dry waste, wet waste, domestic hazardous waste and sanitary waste. The dry waste is segregated for recyclable materials.

Both the wet waste and dry waste go to the current processing plant. MSW plant are converting garbage into RDF and Compost. The MCC has also installed bio-methanation plant having capacity of 05 MTPD.

Domestic Hazardous Waste collected at MRFS will be lifted, treated and disposed of by facility namely M/s Ramky Enviro Engineers Limited (REEL) located at village Nimbua, Punjab. The facility will collect the waste with proper tracking system after quantification and quality assessment by them.

A sanitary landfill has been developed over an area of 8.28 acres of 25 acres which is now used for dumping. The Request for proposal for bio-mining of is current landfill site having 8 lakh MT of waste has been issued and the work will be completed by December, 2025. The processing plant for solid waste management not working in the optimum capacity due to outdated technology

### 3.7 Chhattisgarh

There are a total 169 ULBs responsible for implementation of the SWM Rules, 2016, in the State. Total Solid Waste generation in the State is 1820 TPD. 100% of generated solid waste is collected, out of which 1790 TPD is treated while 30 TPD is landfilled. All Municipal Authorities have door to door collection facilities. Collection is done through Tricycles and Mini Tippers

Solid waste management in 167 ULBs of the State is based on the waste management model (Mission Clean City) which is currently running successfully in Ambikapur. These Municipal Authorities have collection and transportation facilities for solid waste management. The source segregated MSW is collected by SHG workers by tricycles and Mini tippers. The Municipal solid waste management facilities are effectively managed and planned to comply the provision of the Solid Waste Management Rule, 2016.

167 Municipal Authorities have Garbage Clinic (Solid Liquid Resource Management Centers) for secondary segregation of MSW and 169 Municipal Authorities are operating their own composting plant.

Integrated solid waste management plants are operational in the 2 ULBs namely Raipur & Bilaspur. To promote decentralized plants for the treatment of organic/wet fraction, necessary guidelines have been issued for bulk waste generators (BWG).

### 3.8 Dadra Nagar Haveli and Daman & Diu

A total of six ULBs are responsible for MSW management in the Union Territory. The total solid waste generation is 267 TPD. 100 % of the waste is collected out of which 246 TPD is treated. A total of 21 TPD of waste has been landfilled in FY 2021-22. 100 % of households practice storage of waste at source in domestic bins. 100% of non-residential premises practice storage of waste at source in commercial/institutional bins. Households do not dispose or throw solid waste on the streets.

### 3.9 Delhi

There are 5 ULBs responsible for management of solid waste in Delhi. The total Solid Waste generation in Delhi is 11,108 TPD of which 100% waste is collected, 5,280 TPD waste is treated and 5828 TPD waste is dumped.

Local Bodies are implementing waste segregation at source, door to door collection, intermediate storage and transport facility with GPS for the transportation of the collected solid waste to the operational Solid Waste Processing/Treatment Facilities at the 3 existing Landfill/Dumpsites at Bhalaswa, Ghazipur & Okhla in Delhi.

100% collection of solid waste including door to door collection and transportation of solid waste in covered vehicles have been reported by the Local Bodies in their Annual Reports. NDMC has reported that 100% premises in the area are segregating the waste at source.

Delhi Cantonment Board (DCB) has reported that segregation of waste at source is 90% in civil area & 60% in Army Area. SDMC has reported that 50% waste segregation at source is being practiced. Segregation of waste at source is 30% for EDMC.

There is one Integrated Solid Waste Management Facility at Bawana for processing of 2000 TPD of solid waste having. The facility includes Waste to Energy Plant, Compost Plant and Engineered Sanitary Landfill. One Engineered Sanitary Land Fill is proposed to be developed by South Delhi Municipal Corporation (SDMC) at Tehkhand. An Integrated Solid Waste Management Facility for 2000 TPD is proposed to be developed by East Delhi Municipal Corporation (EDMC) in joint venture with NTPC at Ghonda Gujran.

Delhi has 3 Waste to Energy Plants (WTE Plants) of capacity 4550 TPD at 3 different locations in Delhi namely Okhla, Ghazipur and Bawana. One new Waste to Energy Plant of capacity of 2000 TPD is under construction at Tehkhand

The Engineered Sanitary Landfill (SLF) at Tehkhand is being developed over an area of 32 346 Acres. The land has been secured and is in possession of South Delhi Municipal Corporation. The estimated cost of project is Rs. 78.9 Crores. Environmental Clearance has been granted by MoEF&CC, Govt. of India on 29.10.2018. The project is expected to be completed by April, 2023.

Integrated waste collection, segregation, transportation, processing & disposal at Ranikhera for 3 Zones of North DMC (City-SP, Karol Bagh & Narela Zone). The expected time for completion of setting up of the processing facility is August, 2025.

### 3.10 Goa

There are 14 ULBs responsible for implementation of the SWM, Rules, 2016, in Goa. Total solid waste generation in the State is 211 TPD, out of which 207 TPD is collected. Of this, 197 is treated and 10 TPD is landfilled. Good practices like house to house collection, segregation, storage and covered transportation are being practiced in all 14 cities/towns.

There are 07 solid waste processing facilities (Biogas) operational in the State. There is one Waste to Energy Plant in the State located at Saligao, Bardez, Goa which has a capacity of 1.372 MW.

### 3.11 Gujarat

A total of 164 ULBs are responsible for MSW management in the State. Total solid waste generation in Gujarat is 10,095 TPD, of which 100% is collected. Of this, 8682 TPD of waste is

treated and 1003 TPD of waste is landfilled /dumped. 100% door to door collection of mixed MSW has been reported.

There are 597 Composting plants with a cumulative capacity of 6157 TPD. Further, there are 35 Biogas plants with capacity 163.3 TPD and 5 RDF/ Pelletization units with capacity 1055 TPD. It is reported that 28 Regional/ Individual landfill sites have been identified and 27 Landfill are under planning stage. Further, 11 Landfills have been constructed and 08 landfills are in operation. 1 landfill site in Rajkot has started capping of cell 1. There are 164 dumpsites present in the State.

### 3.12 Haryana

There are 89 Urban Local Bodies in the State. The total waste generation has been reported to be 8766 TPD, out of which 6691 TPD is collected. A total of 4297 TPD of waste is treated and processed and the remaining 2218 TPD waste is disposed in landfills.

Door to door collection is being done in 1600 out of 1639 wards and existing waste collection vehicles are being modified into two covered compartments for collection of waste in segregated manner. Freshly, ordered vehicles will have two covered compartments for collection of wet and dry waste. A Separate basket/ bin is kept in waste collection vehicle/ tricycle for segregated collection of domestic hazardous waste.

Urban local bodies are collecting domestic, trade and institutional food/ biodegradable waste from the doorstep or from the community bin on a daily basis. Large containers kept in the fruit and vegetable markets and removed during night time or non-peak hours by the local bodies.

Local bodies are using covered containerized handcarts/ tricycles/ tractor trolly/ refuse compactor or other similar means for the primary collection of waste stored at various sources of waste generation. Existing waste collection vehicles are being modified into two covered compartments for collection of waste in segregated manner. Freshly, ordered vehicles will have two covered compartments for collection of wet and dry waste in a segregated manner. For secondary transportation of solid waste from the Primary Collection Centre (PCC) to the designated processing plant site or sanitary landfill site.

Rejects and residues collected from the above mentioned processes are disposed in dumping sites and further proposed to be processed for energy recovery. Presently in the State there are

3 composting plants in 3 MCs, 2800 Composting Pits including park pit in 91 MCs, 10 no.s Vermi Composting Facilities, 3 nos Bio Gas Plant and 3 plant waste to compost +RDF in 3 MCs.

Total 13 Integrated Solid Waste Management clusters have been formed in Haryana. Out of 13 clusters, 2 waste to energy clusters namely Sonepat-Panipat &Gurugram -Faridabad WTE are under implementation. Sonepat-Panipat (700 TPD) waste to energy plant was completed on 15, August, 2021 and has a power generation of 7 MW. The WtE at Gurugram-Faridabad is planned and is expected to have a power generation of 23 MW. There are two centralized waste to compost processing facilities operational in the State i.e., Rohtak (150 TPD) & Karnal (150 TPD). Under this approach these plants will be upgraded and expanded to cater the future waste generation requirements. Remaining 11 clusters are based on open technology and the selected agency to decide the technology.

### 3.13 Himachal Pradesh

There are 61 ULBs and 7 Cantonment Boards in the State of Himachal Pradesh. Solid waste generation in the State is 383 TPD, out of which 349 TPD is collected, 269 TPD is treated and 80 TPD is landfilled.

Two landfill sites have been identified in the State (Shimla and Baddi) and 48 existing dumpsites have been reported while 07 newly constituted ULBs are also not having sites for developing waste processing facility in the State. Pit composting is the most preferred method of disposal of wet waste in

### 3.14 Jammu & Kashmir

There is a total of 80 ULBs in Jammu and Kashmir. The total Solid Waste generation in all the Corporation/Local bodies of UT of J&K is 1550 TPD out of which 1540 TPD is collected and 606 TPD is treated. It was also reported that 390 TPD of waste is disposed through landfills.

With regards to collection of waste Jammu division collects 100% through house-to-house collection by 38 local bodies. Partial house-to-house collection is being done in remaining local bodies. The waste from slaughter houses, meat and fish markets, fruit and vegetable market, which are bio-degradable in nature, are not collected separately. In Kashmir division door to door collection of municipal solid waste is being undertaken in 80% of households in Srinagar city through Srinagar Municipal Corporation. 100% of non-residential areas including commercial

establishment, hotels, restaurants, educational institutions/ offices etc are also covered. Construction and demolition waste is separately collected and disposed.

In Jammu division, waste segregation at source has been implemented partially by all local bodies. Secondary waste segregation has been started by Katra town and Udhampur Municipal Council with segregation of 5 TPD and 10 TPD of waste respectively and channelization for further recycling. Segregation has been implemented 265 wards out of 528 wards.

In Kashmir division, segregation and storage of waste at source has been initiated by Srinagar Municipal Corporation and by Municipal Council/ Committees. However, no point source segregation of waste is being carried out yet.

In Jammu division, storage in open is practiced at identified locations by all local bodies with 189 open covered storage sites for storage at primary level and 490 bins in Jammu city under jurisdiction of JMC. Only primary storage facilities have been established by ULBs in the form of RCC Bins, plastic bins, dumpers/ containers and few secondary storage facilities / MRFs with closed sheds operational in only 04 No. of local bodies.

In Kashmir division, the waste from a few selected localities within the city is being stored in covered Municipal Storage containers, whereas in few areas of the city, the waste is dumped in open in a scattered manner. SMC has 614 Nos. of Compacter bins, dumper bins and 70 open waste storages sites available, Storage sites have not been identified by some of the Municipal Council / Committees.

In Jammu division, transportation of waste is carried out in heavy vehicles by ULBs. Mostly the vehicles transporting the MSW are closed now. However, transportation on daily basis is not carried out.

In Kashmir division, Srinagar Municipal Corporation (SMC) are equipped with waste transporting vehicles and mostly wastes are transported under covered conditions thereby reducing littering of the waste on the way. However, separate transportation system for each category of waste is needed. SMC has finalized to set up 12 nos. of Garbage Transfer Stations throughout the city for efficient waste collections, transportation and disposal of the Waste. These GTSs shall be equipped with State-of-art facilities such as separate bins for segregated waste, compaction unit, weigh bride, Organic waste convertors, compounding unit etc.

In Jammu division, there is no processing facility in the region except small scale vermin-composting being carried out at MC Bhaderwah, MC Doda, MC Sunderbani and composting by Jammu Municipal Corporation.

In Kashmir division, Facilities available with Srinagar Municipal Corporation (SMC) include, landfilling, mechanical segregator, compositing, bailing of RDF, Resource Recovery by rag pickers and leacheate treatment plant. Phalagam Development Authority and Gulmarg Development Authority has developed Solid Waste Management Facilities.

There is no authorized landfill site in operation till now except for open dumpsites. Periodic burying of the waste is however, carried out with the help of JCBs to minimise the visibility of waste. Disposal of waste is being carried out in unscientific manner on open lands or hill slopes.

In Kashmir Division all kind of waste is disposed of in landfill site by Srinagar Municipal Corporation whereas none of the municipal councils/ committees have sanitary engineered landfill site. The eco-fragile tourists place like Pahalgam and Gulmarg have come up with facilities with regard to the treatment and disposal of the solid waste generated from these areas. The segregated waste collected is processed in auto composters and magnetic disintegrator.

### 3.15 Jharkhand

There are 42 ULBs are responsible for MSW management in the State. Total solid waste generation in the State is 2404 TPD out of which 1969 TPD is collected, 843 TPD is treated and 930 TPD is landfilled.

Solid waste collection and processing has improved in Jharkhand in comparison to previous years. Door to door garbage collection and segregation of waste has been initiated in all ULBs. Wet waste processing through decentralized composting & dry waste is recycle through recyclers is being done. Audio related to source segregation and sanitation is played regularly on the waste collection vehicles.

Concessionaire pastes green sticker on the household which gives segregated waste & red sticker which gives mixed waste. Transportation of wastes in covered vehicle is being done. Bulk Garbage Generators (BGGs) have been identified in all ULBS. Creating green belt around the

SLF and processing Plant site provision is being incorporated in the DPRS and it is done by the concessionaires of SWM Projects.

Land for sanitary landfill site as well as processing facility has been identified in 42 ULBs & is available to 36 ULBs, Landfill site for 6 towns is under process of transfer/NOC/purchase. Out of 42 ULBs, DPRs for SWM Projects of 31 cities have been prepared and approved. All DPRs have been prepared or being prepared as per guidelines given in SWM Rules, 2016. All DPRs prepared are based on waste to compost technology, where as in tender technology is silent so that concessionaires can choose/ suggest better technology. Concessionaires have been appointed in 25 ULBs for SWM projects for 20 years.

Segregation at source and collection at door to door of waste has been initiated in all 42 ULBs. Regular IEC activities are being done for source segregation. Reverse Vending Machine has been installed at Ranchi, Dhanbad & Jamshedpur cities for recycling of plastic bottles as pilot project. In Chas & Jamshedpur plastic has been used for construction of road. M/s. ACC ltd., Chaibasa Cement works (registered with CPCB and JSPCB) having facility for co-processing plastic wastes.

Citizen app has been launched and is being used for monitoring of door-to-door collection. This app uses RFID technology to track door to door collection. Through this app one can online pay user charges for door-to-door waste collection services and even complaint regarding the services.

Jamshedpur floated a tender for dung collection through private parties. In which there is a provision for the collection of animal waste from Diary Farm of any scale. The owner of the Diary Farm is charged 100 rupees per animal against waste collection service from their farm. The collected dung is stored by the collecting agency and processed in vermi composting facility; this enriches the quality of the compost. The collected dung is also sold directly to the farmers from nearby village.

Most the ULBS are doing wet waste processing through de-centralized composting and dry waste processing through recyclers. Home composting in societies of some of the ULBS has been promoted. All Kabadiwalas in Adityapur Municipal Corporation are linked in recycling of solid waste after proper segregation of multiple wastes in different categories which helps in 3 R model.

### 3.16 Karnataka

315 ULBs are responsible for MSW management in the State. Total Solid Waste generation in Karnataka is 13,034 TPD out of which approximately 11,655 TPD is collected, 5,440 TPD of waste is treated and 4,198 TPD is landfilled.

All 315 Urban Local bodies have house to house collection system in place. 2% gap in door to door collection exists in ULBs other than BBMP as per information submitted by DMA while 10.6 % gap exists in BBMP. Segregation of solid waste is done by all 315 the local bodies. 37% gap in segregation of solid waste exists in ULBs other than BBMP as per information submitted by DMA while 52% gap exists in BBMP. Covered Transportation of solid waste is done by all 315 the local bodies. 8.7% gap exists in BBMP as per information submitted by BBMP.

225 no. of Material Recovery facilities have been set up in the state along with 225 composting plants with capacity 6917 TPD, 28 Biogas with capacity 49.55 TPD. It is reported that 221 Regional/Individual landfill sites are identified and 165 Landfill sites are constructed.

### 3.17 Kerala

In Kerala, there are 93 Municipal Authorities (6 corporations and 87 Municipalities) responsible for MSW management. Nearly 3,472 TPD of MSW generated in the State, out of which 1,283 TPD waste is collected. The total quantity of waste processed or treated is 2,691 TPD waste treated, which also include processing and treatment of 1,408 TPD of waste at source through decentralized system.

There are 2 large and 12 small centralized windrow composting plants with capacity 437 TPD and 7 vermi composting plants setup in the State. 287 community level and 21,560 household level Biogas plants are operational in the state.

1 landfill site has been identified in the State and total 35 existing dumpsites have been reported. Setting up of waste to energy plant at 09 locations have been identified and is at various stages of progress. For Regional sanitary landfill, land (25 Acre) has been identified at Ambalamedu, Ernakulam and action is being taken for takeover. Bio-mining has started at Njalianparmbu dumpsite and is completed at Kureepuzha Kollam. It is in tendering stage for Kottayam, Bhramapuam, Chelora.

## 3.18 Ladakh

The Total waste generation in the state is approximately 52 TPD, 42 TPD is collected, 20 TPD is processed and 15 TPD is landfilled.

**Leh District:**

100% door to door collection of segregated waste. At present 13 wards, 2600 households and 600 nos. of non-residential premises including commercial establishments, hotels, restaurants, educational institutions /offices have been covered so far. 100% segregation of waste at source is implemented. There is 100% household storage of waste at source in domestic bins and 15% of transportation is covered as per information provided by MCL.

**Kargil District:**

There is 80% door to door collection of segregated waste. At present 13 wards 1551households and 900 nos. of non-residential premises including commercial establishments, hotels, restaurants, educational institutions /offices have been covered so far. 60% segregation of waste at source is practiced. 60% household storage of waste at source in domestic bins. 15% covered transportation as per information provided by MCK. One composting plant and one RDF pelletization unit is operational in Leh district. One landfill site is identified in the Leh district

## 3.19 Lakshadweep

Total waste generation in the State is approximately 18 TPD, of which 100% of waste generated is collected and treated.

The kitchen wastes are processed in their own localities. The sweeping waste is collected and transported to Central Garbage Depository. The non-biodegradable recyclable materials are stored in the temporary storage yard in each island and to transport the recyclable material to the authorized recyclers at mainland (Kerala).

All the inhabited islands, Village (Dweep) Panchayat are coordinating waste management by placing 4686 community bins of 150 litre capacity near houses. Non-biodegradable waste that are collected from households which are sorted and packed in common depository site. The segregated non-biodegradable waste viz. scrapes, plastic bottles, rubber and chapels, hard plastic, ceramics etc. are transported to recyclers at mainland (Kerala).

As per the direction of Hon'ble NGT orders and Lakshadweep Solid Waste Management Bye-Law 2018, the department has implemented user fee collection in Kavaratti Island.

The UT of Lakshadweep Administration has banned 13 numbers of single use plastic items from its territory with effect from 26th January, 2019 as per Notification F.No.66/33/2019- E&F (P&L) Dated 25.01.2019.

Due to the special geographical nature of the Lakshadweep, Lakshadweep Administration has continued the transportation of recyclable waste including cement bags into recycling unit at mainland.

As a part of the management of Single Use Plastics in Union Territory of Lakshadweep, the UT of Lakshadweep Administration has placed sign boards at various important corners of the all islands for the awareness of the public.

A three-tier committee at state, district and island level is constituted to monitor the activities under the action plan on elimination of identified single use plastics in Lakshadweep.

### 3.20 Madhya Pradesh

Total 406 Urban Local Bodies and 05 Cantonment Boards are responsible for implementation of SWM Rules, 2016 in the State. Total waste generation in the State is approximately 7115 TPD, out of which 6132 TPD waste is collected, 6059 TPD is treated and 76 TPD is landfilled.100% door to door collection of the waste has been achieved in 372 ULBs and 06 ULBs are facilitating partial door to door collection of the waste. 4,217 waste pickers have been engaged for solid waste management which provides source of livelihood through this integration.

100% Segregation at source of waste has been achieved in 276 ULBs. However, for the remaining 102 ULBs segregation of waste from each house is yet to be achieved. The ULBs are segregating dry waste into different components such as plastic, wood, paper, glass, cardboards, etc. Plastic waste is utilized in road construction. Many ULBs supply Refuse Derived Fuel to cement factories as Alternate Fuel & Raw Material (AFR). Other ULBs are also selling segregated dry waste to junk dealers for recycling.

ULBs are transporting the segregated waste in covered vehicles from transfer stations to processing facilities. As per the mandate, all towns / cities with more than 1 lakh of population are required to have GPS fitted garbage collection and transportation vehicles. In Madhya Pradesh, there are 34 towns with more than 1 lakh population. There are 3,399 vehicles with ICT based monitoring system for collection and transportation of municipal waste. A total of 3540 vehicles have been deployed for collection and transportation of municipal waste and are being monitored through various ICT based monitoring mechanisms.

There is one operational Waste to Energy Plants in Jabalpur with a power generation of 11.5 MW. Another plant is under construction at Rewa and it is expected to have a power generation capacity of 12 MW. The WtE at Gwalior has been terminated.

### 3.21 Maharashtra

Maharashtra is one of the highest urbanized states with nearly 50% population residing in urban areas. A total of 403 ULBs are responsible for MSW management in the State of Maharashtra, comprising of 27 Municipal Corporation, 238 Municipal Councils, 131 Nagar Panchayats and 7 Cantonment Boards. Total Solid Waste generation in the State of Maharashtra for the year 2021-22 is 23,531 TPD, out of which 23,044 TPD is collected and 19,980 TPD of waste is treated. 2067 TPD is landfilled and 1,484 TPD of waste is disposed unscientifically. Percentage of solid waste treatment is increased from 72.66% to 93.69% as compared to last year. Due to covid pandemic marginal increase in treatment quantity is observed. Overall average waste segregation is 93% and overall solid waste transportation is 99%.

Vehicles deployed for collection and transportation of waste have two compartments for dry and wet waste. Dry waste collected form the city is further segregated into paper, plastic, glass, metal etc. through secondary segregation process at transfer stations or the designated material recovery facility (MRF) in the city or at solid waste treatment facility. The segregated waste is being recycled through local sellers in the city to recyclers in the region or to the waste processing plants in nearby metro cities through prescribed processes. For treatment of dry waste technical options such as preparation of Refused Derived Fuel (RDF), use of plastic in roads, preparation of oil or granules from plastic etc. are also used in some municipal corporations.

ULBs installed 437 composting plants as a waste processing facility. Also 133 vermin-composing facilities, 53 bio-methanization plants, 01 waste to Energy plant and 19 RDF plant have been installed in the State. A total of 382 landfill sites are identified. The Bio-medical waste and

industrial hazardous waste generated in the area of local bodies is not mixed with MSW and such waste is disposed of separately in accordance with provisions made under BMW Management Rules, 2016 and Hazardous and Other Wastes (Management and Trans Boundary Movement) Rules, 2016. For the disposal of hazardous waste, 4 no. of Common Treatments, Storage and Disposal facility have been developed in the State. For the disposal of the Bio-medical waste, 30 number of Common Bio-medical Waste Treatment Facilities have been provided.

The main constraint for the effective implementation of MSW Rules & setting up of waste processing facility for local bodies is non-availability of suitable land. Considering the constraint, the Urban Development Department, Govt. of Maharashtra has passed order regarding formation of District Level Committee in every District under the Chairmanship of District Collector. The main object of district level committee is to identify and select waste processing and landfill sites.

There is one Waste to Energy Plan in operation in Maharashtra. It can produce 4 MW of energy per day.

### 3.22 Manipur

In Manipur, there are 27 towns/cities under MAHUD Department, GOM and one Class-I city i.e. Imphal city. The remaining 26 towns are all below class II category. There is a total of 27 ULBs in the State. The municipal solid waste generation is estimated at 282 TPD and the actual waste collection is 199 TPD. Out of the actual waste collected 133 TPD is processed and the remaining 66 TPD is disposed at the existing landfill or dump sites.

Door-to-Door collection is practiced by 302 wards out of 306 wards in the state (98.7 percent). 22 ULBs reported source segregation, however, 100% source segregation at households are reported by 5 ULBs. Dry segregated waste is handed over to waste recyclers. Segregated wet waste is processed through composting. The wastes are transported in open motorised vehicles. 25 ULBs reported that the waste is transported daily or whenever required. The transporters take care to cover the wastes with plastic sheets during transportation to avoid scattering. A mechanised composting plant has been in operation at the MSW management plant at Lamdeng. Some of the ULBs adopt composting in composting pits. During the year of report, 133 TPD of waste was processed either through composting or recycling. The waste to energy plant using pyrolysis technology is under trial run. 5 sanitary landfills are in operation and there are 13 dumpsites. Some of the ULBs that are not having landfilling or dumping facilities use the

neighbouring landfill or dumpsites. During the year of report, 66 TPD of waste was either landfilled or dumped.

Backyard composting is practiced by interested households in many urban localities. Landfill and dumpsites are fenced and provided with lighting facility in all major ULBs. Daily covering of dumped waste cannot be carried out by many ULBs due to scarcity of resources. However at least, occasional covering is reported. Daily sweeping and transportation of waste is reported by the ULBs. There is a need to provide separate provisions for dairy activities, slaughter houses and construction and demolition waste. Imphal Municipal Corporation and Jiribam Municipal Council reported separate provisions for Construction and Demolition waste. Bio-mining of legacy waste needs serious consideration by all ULBs. Segregated dry waste is handed over to waste recyclers.

### 3.23 Meghalaya

In the State of Meghalaya, there are total 07 Local Bodies responsible for management of solid waste. A total of 165 TPD of solid waste is generated in the State as reported, out of which 137 TPD of MSW is collected, nearly 27 TPD is treated and 119 TPD is landfilled.

Good practices like house-to-house collection, segregation of waste and covered transportation is being practiced in Shillong Municipal Board only. There are 6 Nos. of existing dumpsites operated by Shillong Municipal Board, Baghmara Municipal Board, Jowai Municipal Board, Tura Municipal Board, Williamnagar Municipal Board and Resubelpara Municipal Board. Only 01 dumpsite has been converted into sanitary landfill.

In Meghalaya, Composting and recycling Unit has been set up by Shillong Municipal Board at Mawiong for treating the municipal solid wastes. The total quantity of waste processed through composting and recycling is 27 TPD. There is no incineration plant for Municipal Solid Waste in the State.

### 3.24 Mizoram

There is only 01 ULB and 28 urban towns in the State of Mizoram. The total solid waste generation in the State is 374 TPD out of which 313 TPD is collected, 234 TPD is treated and 8 TPD is landfilled.

Collection of solid waste in Aizawl through various sanitation points covering all 83 Local Councils. Green and blue coloured specially designed trucks are being used for transportation of waste. In the Urban towns Solid wastes are being collected on alternate days from various sanitation points by engaging/hiring vehicles.

Segregation of waste into four bins viz. biodegradable, non- biodegradable, plastic and electronic and hazardous waste in all 83 Local Councils of the Aizawl ULB. In the Urban towns segregation of waste is fully achieved in 3 urban towns viz. Kolasib, Lunglei and Serchhip while it is being initiated in the rest of urban towns. 3 bins system viz. biodegradable, non-biodegradable and plastic waste has been practised in Lunglei District.

Transportation of waste in Aizawl ULB is done covered vehicles. However, in the Urban Towns waste are transported by hired vehicles.

### 3.25 Nagaland

There are a total 39 ULBs responsible for implementation of the Solid Waste Management Rules, 2016, in the State. It is estimated that 664 TPD of solid waste is generated daily, out of which only 306 TPD is collected, 116 TPD is treated and 299 TPD is disposed through open dumpsite.

Collection of wastes is done by the Municipal Councils and Town Councils and transported to the dumping site. Door-to-door collection of solid wastes is being carried out in most of the municipal/town councils. In town councils where door to door is not being carried out, point to point source of collection is being carried out due to the inability for vehicles to ply in the hilly terrain. Segregation of some recyclable wastes are being carried out and outsourced from the source i.e. households, by the residents to the scrap dealers and by the rag pickers from community bins. Kohima Municipal Council have covered vehicles with separate dry & wet waste compactors. However, in the other Municipal/Town Councils covered vehicles are not available for transportation of wastes. Inadequate machinery and vehicles.

All the municipal solid wastes collected are being disposed by the Municipal/ Town Councils at their respective landfill & dumping site. Kohima Municipal Council a scientific landfill is been set up at Lerie, Kohima, which is attached with a plastic recycling unit.

Under Dimapur Municipal Council, treating the existing dumpsite through bioremediation process and also carrying out biomining process. Chumukedima Town Council collects and transports the

waste to the Material Recovery Facility (MRF) and the unsegregated waste are further being segregated and only rejected are being disposed. Mon Town Council has installed MRF unit at ADC Colony Tompang Ward and the recyclable waste mainly plastic wastes are kept for undergoing further processing in a registered plastic recycler.

### 3.26 Odisha

There are a total 114 ULBs responsible for implementation of the SWM Rules, 2016 in the State. The estimated waste generation in these ULBs is 2103 TPD, out of which 2020 TPD is collected, 1356 TPD is treated and 738 TPD is landfilled (Open Dumping). A total of 38 landfill sites have been identified in the State. There are 239 Micro Composting Centres (MCC) for management of wet waste. The total capacity of these MCC is 1122 TPD. There are 203 Material Recovery Facilities (MRF) with a combined capacity of 2090 TPD.

### 3.27 Puducherry

There are a total 05 Local Bodies responsible for implementation of the SWM Rules, 2016. The waste generated is 383 TPD of which 100% of waste is collected. 58 TPD of the generated waste is treated and 325 TPD is landfilled.

100% door to door collection is being done. Segregation of solid waste at collection point is being done in selected areas of urban limit in some constituents. Local bodies are taking steps for source segregation by introducing various IEC methodologies. The processing of the wet waste is done through two composting units, one vermicomposting unit and two biogas plants. Further, there are two RDF/ pelletization plants as well in the state.

Four Municipalities have taken initiatives for processing of solid waste i.e., Biomethanation/ Nisargruna Technology of BARC with the aid of PPCC by Pondicherry, Oulgaret and Karaikal Municipalities. Mahe municipality is processing their wet by Composting.

With regards to management of legacy waste M/s Zigma Global Environ Solutions Private Limited, Chennai has been selected as the agency for disposing the existing legacy waste under the Project titled “Disposal of Legacy Waste from the existing Kurumbapet dumping site, through Bio-remediation & Biomining means with complete reclamation of the dumpsite land in compliance with SWM Rules, 2016. The work has been entrusted with them and they have started the work.

### 3.28 Punjab

Total 163 ULBs are responsible for MSW management in the State. There are 27 Class-I, 44 Class-II, 22 Class-III cities/towns, 57 Nagar Panchayats & 13 Municipal Corporations in the State. Total Solid Waste generation in Punjab is around 4,222 TPD, out of which 4,207 TPD of waste is collected, 1,471 TPD is treated and 2,736 is landfilled.

House to house collection is practiced in 163 ULBs, segregation is practiced in 121 ULBs, storage facility is available in 113 ULBs and covered transportation is being practiced in 159 ULBs.

There are a total of 8251 composting pits operational in the state along with 1 Vermi-composting at Shamchaurassi and 2 RDF/pelletization facilities at Bathinda and Ludhiana.

The Department of Local Govt. (DLG) has adopted decentralized approach for Solid Waste Management in the State. Source segregation, door to door collection, transportation of segregated waste to processing site/ composting pits, processing of wet waste at composting pits/bio-methanization, transportation of dry waste to MRF facility for further segregation of recyclable waste and channelization and final disposal of inerts in sanitary land fill facility are key highlights of this decentralized approach.

### 3.29 Rajasthan

There are a total 207 ULBs in the State. The total solid waste generation in the State is 7973 TPD out of which 7859 TPD is being collected through Door to door collection system by Urban Local bodies. Currently 1926 TPD waste is being treated by ULBs while 5525 TPD is landfilled.

Door-to-Door collection is practiced in all the 207 ULBs. Segregation of waste is being practiced in 104 ULBs and storage of waste is being practiced in 152 ULBs. Covered transportation is being practiced in 114 while partial covered transportation is being practiced in 82 ULBs.

23 no. of composting plants, 04 no. of RDF / pelletization units, 02 no. of biogas are set up by ULBs which are operational in the State.

### 3.30 Sikkim

A total of 07 ULBs are responsible for management of solid waste in the State. Total solid waste generation in the State is 66 TPD of which 100% of waste is collected, 18 TPD is treated and 48 TPD is landfilled/dumped.

Door to door collection of segregated waste is being practised through garbage collection vehicle. Practice of Community bins/secondary waste storage facility has been stopped but Gangtok Municipal Corporation (GMC) has placed bins for tourist and local public in main market area. Waste cloth from furnishing shops have been converted into different items for sale e.g. handbags, pillow cover, etc. by GMC. Transportation of collected waste is done by assigned covered garbage vehicles.

### 3.31 Tamil Nadu

Total 649 ULBs, 21 Corporations, 138 Municipalities and 490 Town Panchayats in the State of Tamil Nadu. The total quantity of solid waste generation is 14,586 Tons/day. Out of the total waste 14,471 Tons/day of solid waste is being collected and 7,206 Tons/day of solid waste is treated and 6,776 Tons/day of municipal solid waste is landfilled. Local bodies which generate 5 TPD and above of municipal solid waste have applied for Authorisation. So far 219 applications received for authorization and Authorization issued for the said applications.

House to house collection of solid wastes is 100 % in 21 cities. Further, segregation of waste at source is also 100 % 21 cities covering 7,02,665 households. Covered transportation is practiced in 151 cities.

995 Micro Compost Centres (MCC) and 907 Onsite Composting Centres (OCCs) are operational at present for the treatment of wet waste. Further 527 windrows composting plants are also being operated. There is one operation biogas plant and further such units are in various state

### 3.32 Telangana

There are 142 Urban Local Bodies (ULBS) existing in Telangana State. The total waste generation is 11,057 TPD from these ULBS and 11,057 TPD is collected every day. A total of 8611 TPD is treated and 1011 TPD is going to landfill and remaining is disposed on the open landfill.

House to House collection of MSW has been started in all the local bodies in the State. As per the information furnished by the Commissioner & Director of Municipal Administration 100% of households are covered under door to door collection. 63% of households in the State are covered under source segregation. MSW is transported in covered vehicles and trucks. Greater Hyderabad Municipal Corporation (GHMC) has now introduced compactors for collection and transportation from the secondary transfer stations.

229 Compost plant have been established in 142 Municipalities. DRCC have been established in 142 Municipalities. There is one operation Waste to Energy Plant in Jawaharnagar, with a power generation of 24 MW. Apart from this there are six other waste to energy plant at various stages of operation.

The Greater Hyderabad Municipal Corporation (GHMC) has constructed the sanitary landfill facility and operating the same. There are a total of 151 dumpsites in the state of which one dumpsite has been reclaimed.

### 3.33 Tripura

There is a total of 20 ULBs responsible for implementation of the SWM Rules, 2016, in the State. It comprises of 1 Municipal Corporation, 14 Municipal Council and 5 Nagar Panchayats. Total solid waste generated in the State is 333 TPD, out of which 322 TPD is collected, 220 TPD is collected and 15 TPD is landfilled. Good practices have been initiated in 07 towns/cities,

Door to door collection is being practiced in 334 wards in 20 ULBs. Segregation, storage and covered transpiration is being practiced in all 20 ULBs.

05 (five) ULBs namely Agartala, Mohanpur, Bishalgarh, Ranirbazar and Jirania are using Debendra Chandra Nagar Processing site for treatment and disposal of solid waste. 1 (one) ULB namely Kamalpur have 6 TPD capacity processing site for treatment and disposal of solid waste. Remaining 14 ULBs have identified landfill sites for treatment and disposal of solid waste. 6 (six) ULBs namely Agartala, Mohanpur, Bishalgarh, Ranirbazar, Kamalpur and Jirania have constructed landfills. 2 landfill sites (Agartala MC & Kamalpur MC) are in operation. 01 no. of landfill has been exhausted and capped respectively. There a 14 number of existing dumpsite in the State.

### 3.34 Uttarakhand

There is a total of 100 ULBs in the state. Total solid waste generation in the State is 1585 TPD, out of which 1452 TPD is collected and 1050 is treated while 115 TPD of waste is landfilled. Good practices are implemented in the towns of Dehradun and Hardwar.

Door to door waste collection is initiated in all 1152 wards. Source segregation of waste is being carried out in 1041 wards. There are two compositing facilities operational in the State in Dehradun (30 TPD) and Haridwar (50 TPD). 2 landfill sites have been constructed and are in operation (Nagar Nigam Dehradun 60 TPD capacity and Nagar Nigam Haridwar with 35 TPD capacity). Total number of existing dumpsites in the States are 30.

### 3.35 Uttar Pradesh

There are 734 ULBs in Uttar Pradesh, which are responsible for management of solid waste in the State. All the 734 ULBs of the State have been certified as Open Defecation Free (ODF), 495 ULBs have been certified as ODF and 40 as ODF+.

Total Solid Waste Generation is 14,710 TPD, Of the total waste generated 7321 TPD of waste is treated and 4389 TPD is landfilled and 100 % of the waste is collected. Door to Door collection is done in all Wards 100%. All the 17 Nagar Nigam have Vehicle Tracking System (VTS) Installed and GPS in enabled vehicles are being used.

### 3.36 West Bengal

A total of 128 ULBs are responsible for MSW management in the State. There are 56 Nos. Class-I Towns and 33 Nos. of Class –II towns in the State. Total Solid Waste generation in the State is around 13,709 TPD, of which 13,687 TPD of waste is collected, 3047 TPD is treated and 1187 TPD is landfilled.

125 of the 128 ULBs have door to door collection system. Segregation of waste is implemented in 88 ULBs, and 88 ULBs are transporting waste in covered vehicles. There exist 62 compost plants with capacity 3024 TPD, covering 67 ULBs. A total of 107 dumpsite exists in the state, out of which bio-mining has commenced in 89 no. of dumpsites while 05 dumpsites have been cleared.

## 4.0 BEST PRACTICES IN SOLID WASTE MANAGEMENT

The best practices as reported by the SPCBs/PCCs in their Annual Report is summarized in table below:

*Table 10: Best Practices as reported by SPCBs/ PCCs*

| Sl. No | State | Best Practice |
|---|---|---|
| 1. | Andaman & Nicobar Island | • 100% of solid waste is collected in segregated form at Source.<br>• 02 bins of capacity 10-12 litres green and blue in colour for wet & dry waste distributed to all households for segregation at source.<br>• 01 bin of capacity 30-50 litres for dry/wet waste distributed to commercial/other establishments.<br>• Removed community bins and installed litter bins at public places to achieve city status as Bin-less under Garbage Free City Protocol under Swachh Bharat Mission (Urban) of Ministry of Housing & Urban Affairs.<br>• Streets are sweeped once in residential areas and twice in commercial areas.<br>• Spot fine imposed on littering. |
| 2. | Andhra Pradesh | • Compost produced is being sold to Farmers by Processing Plant Developers & in ULB operated Plants, Compost is being used in Parks, Greenery in Central Medians, Avenue Plantation etc.<br>• CNG gas produced is being sold to the Commercial establishments like Hotels, Restaurants etc., |
| 3. | Arunachal Pradesh | • Compost bins at household level for processing wet waste at individual level in Basar district.<br>• Itanagar Municipal Corporation has initiated C/o solid waste treatment plant in 2 (two) locations namely Karsingsa and Dapo Yarlo to be funded under 14th and 15th Finance Commission Grants. |
| 4. | Chandigarh | • Waste collected from vegetable, fruit, flower, meat, poultry and fish market treated in bio-methanation plant.<br>• All the bulk waste generators are practicing onsite composting of their wet waste. |
| 5. | Chhattisgarh | • Solid waste management in 167 ULBs of the State is based on the waste management model (Mission Clean City) currently running successfully in Ambikapur. These Municipal Authorities have collection and transportation facilities for solid waste management. The source segregated MSW is collected by SHG workers by tricycles and Mini tippers. |
| 6. | Delhi | • Local Bodies are implementing waste segregation at source, door to door collection, intermediate storage and transport facility with GPS for the transportation of the |

| Sl. No | State | Best Practice |
|---|---|---|
| | | collected solid waste to the operational Solid Waste Processing/Treatment Facilities or at the 3 existing Landfill/Dumpsites at Bhalaswa, Ghazipur& Okhla in Delhi. |
| 7. | Haryana | • As part of the decentralized processing approach presently around 2800 Compost pits including park pits have been constructed across all the ULBs Also 88 Material Recovery Facilities have been set up and the target is to reach 91 MRF, within a span of next 3 months with each ULB having at-least 1(One) MRF Apart from setting up Compost pits, Vermi Composting facility, Bio-methanation plant, windrow composting at existing dumpsite is being currently practiced. Also, in Karnal city alone approx. 2000 Household composting pits have been recorded.<br>• Government of Haryana has adopted cluster based integrated approach for Solid Waste Management. The Integrated Centralized Waste Processing Approach (Cluster Wise) is being adopted as a long-term approach within an overall objective to setup regional Waste to Energy & Waste to Compost + RDF processing facilities and Secured Sanitary landfills for scientific disposal of Solid Waste. Total 13 Cluster have been formed covering all the ULBs. Two (2) Clusters are Waste to Energy having average solid waste quantum more than 500 TPD and remaining Eleven (11) are Open technology cluster. |
| 8. | Himachal Pradesh | • Door to door collection is practiced in all local bodies<br>• The segregation at source ranges is 80 to 100 % across the state<br>• Covered vehicles is used for transportation of waste by most local bodies |
| 9. | J&K | Jammu Division:<br>• A Bailing Machine has been installed in Municipal Council Udhampur at Sui-chakar for scientific disposal of segregated plastic waste.<br>• In three Municipal councils / Committee of Doda, Bhaderwah and Sunderbani vermin-composting plants have been setup for composting of wet waste.<br>• Material Recovery Facility (MRF) at Katra Town with bio-composter (Demo machine installed through JKPCC) setup recently. |

| Sl. No | State | Best Practice |
|---|---|---|
| 10. | Jharkhand | • Audio related to source segregation and sanitation is played regularly on the waste collection vehicles.<br>• Concessionaire pastes green sticker on the household which gives segregated waste & red sticker which gives mixed waste.<br>• Transportation of wastes in Covered Vehicle is being done. Bulk Garbage generators (BGGs) have been identified in all ULBS.<br>• Creating green belt around the SLF and processing Plant site provision is being incorporated in the DPRS and it is done by the concessionaires of SWM Projects. |
| 11. | Kerala | • Windrow composting, Vermi composting, aerobin, biogas plants, kitchen bins, bio composter, Biobins, pipe compost, ring compost, compost pits, Material Collection facilities, Resource. Material collection and recovery facilities are provided. |
| 12. | Karnataka | • 100 % door to door collection of MSW has been achieved. |
| 13. | Ladakh | • 100% door to door collection of segregated waste is being done in Leh and 80% in Kargil. Wastes are also collected from non- residential premises including commercial establishments, hotels, restaurants, educational institutions /offices |
| 14. | Lakshadweep | • The UT of Lakshadweep Administration has provided blue and green bins to each household of Kavaratti island to get segregated bio degradable and non-biodegradable wastes from each household.<br>• In addition, it is also placed red coloured bins to collect napkins from Kavaratti and Agatti islands in the 1st stage |
| 15. | Madhya Pradesh | • Madhya Pradesh was ranked 3rd best Preforming State in >100 ULBs category in Swachh Survekshan202l.<br>• 20+ town are among the top 100 cleanest cities in the country in last three Swachh Survekshan.<br>• Indore has been declared the cleanest city of the country for last 05 years.<br>• 9 cities are certified “3 Star Garbage Free City".<br>• 17 cities are certified as ‘1 Star Garbage free City’ |

| Sl. No | State | Best Practice |
|---|---|---|
| 16. | Maharashtra | • Board has developed web portal for ULBs for monitoring of daily and monthly data for solid waste management.<br>• Board has initiated concept of providing financial and technical assistance to Municipal Councils and Nagar Panchayats for setting up solid waste management facilities.<br>• Board has prepared model tender document on SWM for ULBs<br>• Board has issued environmental compensation notices to 168 and 114 local bodies with respect to solid waste management and legacy waste management respectively. |
| 17. | Manipur | • Backyard composting is practiced by interested households in many urban localities. Landfill and dumpsites are fenced and provided with lighting facility in all major ULBs. |
| 18. | Mizoram | • Training was conducted for waste pickers collectors & workers throughout the year.<br>• Awareness through public notice, cleanliness drive, cleanliness campaign, mass media awareness, radio jingles, short play on local cable network and YouTube, workshop, social media, hoarding board, newspaper, social work, wall painting has been carried out. Competition is organized for various age groups, NGO's and village councils.<br>• Local Sanitation Committee and Local Swachh Bharat Ambassadors were appointed in every District capital.<br>• Home compositing was organised for MHIP Committee member in Mamit district. Vermi composting is promoted and practised by few families in Hnahthial. Pilot project in vermi composting adopted at Waste Resource Centre Herom, Khawzawl in convergence with KVK, Khawzawl. Promotions on wet waste home composting is conducted in Biate, Serchhip and Saitual |
| 19. | Nagaland | • In Kohima, KMC have decentralized waste management in all the 19 wards/colonies and have formed 19 wards sanitation committees for primary waste management and collection. It has declared community bins free in all the 19 wards.<br>• In Dimapur, The DMC is treating the existing dumpsite through bioremediation process to alleviate the impact of waste.<br>• In Mon, compress solid waste like bulk waste, plastic waste etc. are sent for recycling and composting of wet waste at home by using urea chemical.<br>• Plastic banks, Mobile storage bins for every households for proper and effective collection and disposal in Peren. |

| Sl. No | State | Best Practice |
|---|---|---|
| | | • Chumukedima Town Council collects and transports the waste to the Material Recovery Facility (MRF) and the unsegregated waste are further being segregated and only rejects are being disposed.<br>• Bhandari Town Council has initiated one club with a vision to make Bhandari a Zero Waste Management town by the year 2022. The club members will voluntarily conduct awareness and sensitization program at the ward level and also door to door to teach about the SWM and to keep the town clean at all times. This initiative will propel the enthusiasm of the local people who love the town and with this the people will develop the consciousness that the town belongs to them and it is their responsibility to keep their surroundings clean.<br>• Plastic bank, food bank, community engagement in solid waste management, regular public sensitization program on solid waste management in Pfutsero. |
| 20. | Odisha | • House to house collection is done in all local bodies<br>• Daily collection of waste is being done by all local bodies<br>• Collection bins have been provided<br>• Segregation of waste is being done by all local bodies |
| 21. | Pondicherry | • 100% door to door collection ¬ Material Recovery Facility (MRF) – 4 TPD has been set up at Dubrayapet, Pondicherry Municipality under CSR funds. It is been replicated in other Municipalities.<br>• In Pondicherry Municipality as pilot project, through Recity 19 wards so far, covered under QR code. So far, 18498 Property units are covered and geo-tagged under QR code. It ensures 100% segregation at source, collection, processing and to reach final disposal site.<br>• The same QR code system is being replicated in Yanam Municipality. |
| 22. | Punjab | • The Department of Local Govt. has adopted decentralized approach for Solid Waste Management in the State. Source segregation, door to door collection, transportation of segregated waste to processing site/ composting pits, processing of wet waste at composting pits/bio-methanization, transportation of dry waste to MRF facility for further segregation of recyclable waste and channelization and final disposal of inerts in sanitary land fill facility are key highlights of this decentralized approach. |
| 23. | Sikkim | • Collection of waste by ringing of bell in all the towns. |
| 24. | Tamil Nadu | • ULBs are adopting Micro Compost Centre (MCC) methodology for composting, in which the leachate generated is recycled. A total of 54 MCC has been established in 13 ULBs.<br>• Home composting, Biomethanation, Bio digesters, Onsite Compost Centre (OCC), Micro Compost Centre (MCC) |

| Sl. No | State | Best Practice |
|---|---|---|
| | | and co-processing in cement plants are some of the methods adopted by 14 ULBs for processing of solid waste. |
| 25. | Telangana | • Biomining and Processing of legacy waste for 123 ULBS grouped into 09 clusters.<br>• Work order has been given to 07 bidders on 25.02.2022 for commencement of work in ULBs. Work already commenced at GWMC, Karimnagar, Bhongir, Suryapet, Dundigal and Ameenpur ULBS and around 1,18,639 MTs of legacy waste has been processed.<br>• 123 ULBS commenced bio-mining. |
| 26. | Tripura | • House to house collection is being done by all 20 ULBs<br>• Segregation is done in all 20 ULBs<br>• Cover transportation is utilized by all local bodies |
| 27. | Uttarakhand | • Door to door collection is carried out in all 1152 wards<br>• Source segregation in 1041 wards |
| 28. | Uttar Pradesh | • For effective monitoring and use of IT application regarding bio-metric attendance and vehicle tracking system, the initiative has been taken in most of the corporations in the state. At present, all 17 Nagar Nigams, are enabled with Vehicle Tracking System (VTS) application in vehicles. |
| Note: - Information on good practices has not been submitted by Goa, Gujarat, Rajasthan, and West Bengal. However, the same has been extracted from the submitted Annual reports. | | |

## 5.0 OBSERVATIONS & RECOMMENDATIONS

### (a) Overall Solid Waste Management

i The total quantity of Solid waste generated in the country is 1,70,339 TPD out of which 1,56,449 TPD of waste is collected which translates to an overall collection efficiency of 92%. The quantum of waste processed and treated is 91,511 TPD (54%) and 41,455 TPD (24%) is landfilled. 37,373 TPD which is 22% of the total waste generated remains unaccounted.

ii 14 State/UTs have provision for 100% collection of waste, which are Andaman and Nicobar Islands, Andhra Pradesh, Chandigarh, Chhattisgarh, Goa, Delhi, Jammu and Kashmir, Jharkhand, Karnataka, Maharashtra, Sikkim, Telangana, Uttar Pradesh and Uttarakhand. Five states/ union territories practice 100% segregation at source, which are Andaman and Nicobar Island, Chhattisgarh, Lakshadweep, Odisha and Tripura.

iii The average treatment and processing of waste is 54% and a total of 16 states/ union territories have treatment/ processing capacity of more than the national average. These states and union territories are Andaman and Nicobar Islands, Chhattisgarh, Dadar Nagar Haveli and Daman Diu, Goa, Gujarat, Himachal Pradesh, Kerala, Lakshadweep, Madhya Pradesh, Maharashtra, Mizoram, Odisha, Telangana, Tripura and Uttarakhand.

iv Composting and vermicomposting are the most widely used system for management of organic wastes. Biomethanation and biogas plants are also used for the management of organic waste across the country.

v There are only 645 landfills in operation and the total number of existing dumpsites in the country is 2,452.

### (b) Issues & concerns

i. **Gaps in SWM**: The overall collection of waste is only 92% which implies that 8% of the total waste is not collected. Further, the gap in solid waste management is 22% of the total waste generated. The net quantum of the gap is 37,373 TPD. Gaps in solid waste management refers to those wastes which are neither processed/ treated nor disposed through secured landfill. Urgent attention at all levels such as the local authorities, district administration, the state departments, etc. is required to manage the gap in the waste management system.

ii. **State-to State variation in SWM**: The national average for the processing and treatment of waste is 54%. However, efficiency of solid waste management varies significantly across the states and union territories. There are 16 states and union territories with gap less than 10 % of their total generation. On the other hand, there are also 16 states and union territories with a gap of over 20% of their total generation. Further, in term of processing and treatment of waste, there are 8 states and union territories with a processing capacity of over 80% of their total waste generation. On the other hand, there are also 8 states and union territories with treatment capacities of less than 25% of their total waste generation.

iii. **State Performance**: The performance of some of the states/ union territories require immediate attention in terms of processing and treatment of waste. The state of Nagaland has no dedicated facilities for the treatment/ processing of wastes. In the state of Arunachal Pradesh, the percentage of waste processed or treated is less than 4% of the total waste generation. In Chandigarh, about 90% of their waste is disposed through sanitary landfill.

iv. **Technology Adoption for SWM**: The adoption of technology for the management of waste is an issue of concern. Out of the 8 north eastern states, biogas plants have been reported in Assam and Mizoram only, whereas there is no biogas plant in the remaining six north eastern states (Arunachal Pradesh, Manipur, Mizoram, Meghalaya, Nagaland, Sikkim and Tripura). Furthermore, the processing and treatment of waste is limited largely to composting and vermicomposting in these states. Technology such as RDF plants, Waste to Energy, etc, are yet to be adopted by these states.

v. **Disposal through Sanitary Landfills and Dumpsites**: The ratio of dumpsites to sanitary landfill is in excess of 3 indicating that the number of dumpsites is three times the number of sanitary landfills. It is seen that many states/UTs still do not have any landfill sites. It is also noted that only 366 out of 2452 dumpsites have been reclaimed and another 27 have been converted to sanitary landfills. The disposal of waste through open dumpsite is not a recognized system as per the Solid Waste Management Rules, 2016. Considering these issues, it is remarked that there is an urgent to address the issue of disposal of wastes through dumpsites.

vi **Quality of information reported by SPCBs/PCC:** Incomplete and in some instances inconsistent data on SWM is being reported by SPCBs/PCCs. Assessment of the

ground realities and subsequently, the development of strategies to address issues, is not possible without accurate data.

**(a) Recommendations**

i. **Collection of Solid Waste** As per the Rule 15(b) of the Solid Waste Management Rules, 2016 the responsibility of collection of solid wastes lies with the local bodies. Therefore, the local bodies have to expedite the development of infrastructure for ensuring 100% collection of waste.

ii. **Gaps in Solid Waste Management**: As per Rule 15(v) the responsibility for construction, operation and maintenance of solid waste processing facilities lies with the local authorities. The local bodies need to expedite the development of infrastructure for the processing/ treatment and the final disposal of solid wastes. Further, adoption of technologies such as incineration, waste to energy, biogas plats, etc should be expedited.

iii. **Disposal in dumpsite**: Disposal of waste through open dumpsite is not an approved system. Local bodies along with the state government should introduce systems which will ensure processing/treatment and disposal through approved system while also reclaiming the areas under the existing dumpsites.

iv. **Enforcement and Compliance Monitoring**: The overall responsibility of enforcing the Rules lies with the SPCBs/ PCCs as per Clause 16(1)(a) of the Solid Waste Management Rules, 2016. SPCBs/ PCCs should follow stringent mechanism to review the implementation of provisions of the Rules. Periodic review with District Administration/ State Urban Department should be conducted in accordance with provision of the said clause of the Solid Waste Management Rules, 2016.

These authorities need to intensify environmental monitoring around waste management facilities as mandated in Rule 16(4) of the Solid Waste Management Rules, 2016. This will ensure that the facilities are operated as per the stipulated norms.

v. **Data validation by SPCBs/ PCCs**: To gauge the actual scenario of the status of solid waste management, the data submitted by SPCBs/ PCCs have to be complete and accurate. As such, there is a need to validate the data submitted by the local authorities to ensure its authenticity & consistency prior to submitting to CPCB. This could be done through random inspection, cross - checking of data or any other mechanism found suitable for the purpose.