CHAPTER 2

Planning and Financial Sustainability in Waste Management



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The State Government had issued Government Resolutions and orders for segregation of waste at source, banning sale and use of single-use plastic and levy of fines for littering. However, Government did not prepare State policy and strategy for solid waste management as envisaged in the Solid Waste Management Rules (SWM Rules)

Detailed Project Reports for a period of five years (short-term) were prepared by all the 42 test-checked Urban Local Bodies (ULBs). Long-term plans in Detailed Project Reports were framed in 71 per cent (30 out of 42 ULBs) of the test-checked ULBs. Audit noticed incorrect estimation of waste generation and processing capacity planned in the Detailed Project Reports. There were delays in framing the bye-laws incorporating the provisions of the SWM Rules by ULBs. 12 out of the 45 test-checked ULBs did not levy user charges for solid waste management services while 94 per cent (33 ULBs) of the test-checked ULBs did not achieve the target of 90 per cent efficiency in collection of solid waste charges.

The first objective of the Performance Audit was to assess whether the strategy and planning of waste management was commensurate with the generated waste and conforming to the prevailing legal framework. The audit findings related to preparation of policy detailing the strategies to be adopted for Solid Waste Management in the State, deficiencies in the Plans/Detailed Project Reports (DPRs) and incorrect estimation of waste in DPRs are discussed in subsequent **Paragraphs 2.1** to **2.4**.

2.1 Non-preparation of State policy and solid waste management strategy

The SWM Rules were notified (April 2016) by the Ministry of Environment, Forest and Climate Change, Government of India (GoI) in supersession of Municipal Solid Waste (Management and Handling) Rules, 2000 notified by GoI. Rule 11(a) of SWM Rules, stipulated the preparation of policy and solid waste management strategy for the State by the Secretary, UDD in consultation with the stakeholders including the representatives of waste pickers, self-help groups and similar groups working in the field of waste management, within a period of one year from the notification of SWM Rules. Rule 11(b) stipulated that the State policy and strategy should emphasise on waste reduction, reuse, recycling, recovery, and optimum utilisation of various components of solid waste to ensure minimisation of waste going to the landfill and reduce the impact of solid waste on human health and environment.

Audit observed that the State Government did not prepare a policy detailing the strategies to be adopted for Solid Waste Management in the State.

However, some Government Resolutions and orders were issued from time to time as illustrated below:

- UDD issued (April 2017) a Government Resolution (GR) for segregation of waste at the source.
- UDD also banned (March 2018) the sale and use of single-use plastic.
- UDD issued orders (September 2018) for levy of spot fines for littering of waste, grant of incentive for the sale of compost, *etc*.

The UDD stated (July 2021) that the State policy and strategy on solid waste management have been prepared. In support, UDD furnished the notifications issued for waste segregation at source, levy of spot fines for littering of waste, grant of incentive for the sale of compost, ban on sale and use of single-use plastic. The reply is not acceptable as the issue of separate notifications/GRs is not a substitute for a comprehensive State policy and strategy on Solid Waste Management.

Recommendation 1: The Government may prepare a comprehensive policy and strategy for solid waste management focusing on minimising the generation of waste.

The Government while accepting the recommendation stated (February 2024) that the draft comprehensive policy and solid waste management strategy is prepared and is under review.

2.2 Deficiencies in waste management plans

A municipal waste management plan is a ratified document that defines the goals and objectives of municipal waste management, to be achieved over specific planning horizons and which gives details of specific actions that need to be implemented to meet these objectives.

Paragraphs 1.4.5 and 1.4.6 of Manual of Municipal Solid Waste Management, 2016 (Manual 2016), issued by the Ministry of Urban Development, GoI emphasised the need for ULBs to prepare short-term plans for a period of five years and long-term plans for a period of 20 to 25 years. Each short-term plan was required to be reviewed every two to three years, to ensure higher success of implementing all plan activities. The five year short term plan should be further detailed into task specific actions plans for service provision (*e.g.*, road sweeping and transportation) or detailed project reports (DPRs) for major infrastructure related services such as transfer stations, processing or treatment facilities, and scientific waste disposal facilities.

Plans were to be developed by considering several factors such as future population and waste generation projections, applicable laws and policies, institutional and financial structuring, inclusive and equitable community participation, technical considerations in collection and transportation, availability of land and best-suited technologies for handling waste generated in the ULB, based on SWM hierarchy.

In October 2014, the Ministry of Urban Development, GoI launched the flagship scheme of Swachh Bharat Mission-Urban (SBM) and SWM was one of its six components. As per paragraph 7.1 and 7.2 of SBM guidelines, ULBs were required to prepare a DPR for SWM of their city in consultation with the

State Government. The Manual 2016 was to be referred for DPR formulation and implementation. The guidelines also stipulated that the State Government may handhold ULBs in quickly preparing DPR for SWM by shortlisting/identifying private or government agencies.

Accordingly, ULBs prepared DPRs that contained an action plan for each service after conducting a gap analysis and included detailed plans for specific projects after assessing future needs.

Scrutiny of records revealed that DPRs for a period of five years (short-term), covering issues such as collection, transportation and processing/disposal of waste, were prepared by all the 42 test-checked ULBs³. Long-term plans in DPRs, by considering the future population and waste generation projections, analysing the best-suited waste handling techniques and availability of land, were framed in 71 *per cent* test-checked ULBs (30⁴ out of 42 ULBs) (**Appendix 2.1**).

Further, Paragraph 1.4.4.1.3 of Manual 2016 required ULBs to constitute a stakeholders committee for consultation at the planning stage and later to discuss and approve the plans. Participation by the stakeholders in the decision-making was an important step for the successful implementation of solid waste management plan. Audit observed that while 28 ULBs involved the stakeholders in the planning stage, 14 ULBs (33 per cent) had not involved the stakeholders at the planning stage. Further, there was no mention of consultation with the stakeholders at the plan approval stage in the final DPR in any of the test-checked ULBs (Appendix 2.1).

During the Exit Conference, the Principal Secretary accepted the facts and stated (August 2022) that deficiencies pointed by Audit would be incorporated in the proposal being submitted for Swachh Bharat Mission 2.0.

2.3 Deficiencies in Detailed Project Reports

Municipal Solid Waste Management refers to a systematic process that comprises of waste segregation at source, storage, transportation, processing, treatment and final disposal of waste. The Manual 2016 provides for the assessment of information on the current status of waste management in the ULB in relation to the requirements of existing regulation, policies, guidelines, and identified service level benchmarks (SLBs) which will result in an identification of key shortfalls in achieving the desired level of services and shall form the basis for preparing a plan to improve the MSWM system.

Scrutiny of DPRs in 42 out of 45 test-checked ULBs⁵, revealed that all the aspects of solid waste management process were not taken into consideration while preparing DPRs as detailed below:

 Para 1.4.3.3 of the manual provides that as an essential requirement each ULB should assess the composition of waste generated to plan for and

³ Brihanmumbai Municipal Corporation (BMC), Nashik Municipal Corporation and Navi Mumbai Municipal Corporation prepared DPR prior to 2016-17, hence not considered.

⁴ Ashti NP (Beed), Ashthi (Wardha), Kalamb NP, Lakhandur, Lonavala, Malegaon, Malkapur, Malshiras, Murbad, Niphad, Vadgaon-Maval and Washi ULBs did not include long-term plans in their DPRs.

⁵ Brihanmumbai Municipal Corporation, Nashik Municipal Corporation and Navi Mumbai Municipal Corporation had prepared DPR prior to 2016-17, hence not considered.

design MSWM systems effectively. The composition of MSW generated in the ULB determine collection, processing, and disposal options that could be adopted. DPRs of 11 out of the 42 test-checked ULBs did not contain characterisation of waste into compostable, recyclables and inert which was vital for deciding the future infrastructure required for processing, recycling or deciding landfill requirement (**Appendix 2.2**).

- DPRs of 13 ULBs did not indicate the current and future need of land for processing and recycling of waste (Appendix 2.2).
- DPRs of 13 ULBs did not mention about the quantity of legacy waste and dumpsite remediation (Appendix 2.2).
- As per E-waste Management Rules, it is the responsibility of the ULBs to ensure that e-waste, if found mixed with municipal solid waste, is properly segregated, collected and channelized to authorised dismantler or recycler. Only five out of 42 test-checked ULBs planned for segregation, collection and transportation of e-waste in their DPRs (Appendix 2.2).
- Construction and Demolition Waste Management Rules, 2016 provides that it the responsibility of the ULBs to collect, transport, process and dispose of C&D waste. Only three out of 42 test-checked ULBs assessed the quantity of C&D waste and planned about its transportation and processing in the DPRs (Appendix 2.2).
- Schedule II (A) (d) of SWM Rules, 2016 provides that rejects from all processes shall be sent to the sanitary landfills. However, scrutiny revealed that DPRs of 10 ULBs did not contain plan for construction of sanitary landfill for final disposal of waste (**Appendix 2.2**).

During the Exit Conference, the Principal Secretary accepted the facts and stated (August 2022) that deficiencies pointed by Audit would be incorporated in the proposal being submitted for Swachh Bharat Mission 2.0.

2.4 Incorrect estimation of waste generation in Detailed Project Reports

Estimating future waste generation quantities and composition is critical, while preparing DPR, as such quantities and composition determine collection, processing and disposal options that could be adopted.

Paragraph 1.4.3.3.1 of Manual 2016 stipulated that for the purpose of long-term planning, the average amount of waste disposed of by a specific class of generators be estimated by averaging data from several samples. These samples were required to be collected continuously for a period of seven days at multiple representative locations within the jurisdiction of the ULB, in each of the three main seasons *viz.*, summer, winter and rainy season. The data so collected was to be aggregated over the seven-day period, weighed, averaged and extrapolated for the entire ULB for assessing the per capita generation.

Scrutiny of the waste generation assessed by the ULBs in their DPRs revealed the following:

- None of the test-checked ULB collected samples for seven days for all the three seasons.
- While 14 ULBs did not collect any sample, 10 ULBs did not mention the details of the number of days or seasons for which sample was collected.
- In four ULBs, samples were collected continuously for four days in one season only.
- In 14 ULBs, samples were collected for two to four days in one season only.

The DPRs contain year-wise estimation of waste generation along with population projections for the plan period. Based on the information available in the DPRs, Audit computed the per capita per day (PCPD) waste generation for the base year of DPR and compared it with the per capita per day actual waste generation figures of the year preceding the year of DPR, based on the information provided by Director Swatch Maharashtra Mission. The comparison revealed that in 29 out of the 42 DPRs, the PCPD generation assessed was less than the actual PCPD generation of the previous year, as depicted in **Chart 2.1.** This indicates incorrect estimation of waste in the DPRs as the prescribed procedure of assessment was not followed.

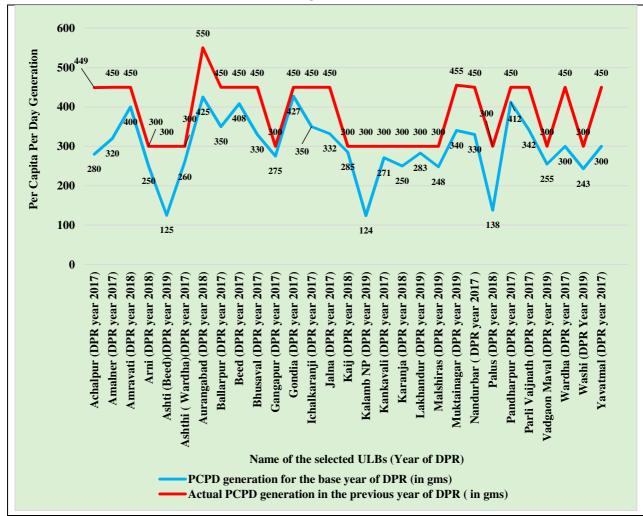


Chart 2.1: Less waste generation assessed in DPRs

Source: Detailed Project Reports of selected ULBs and information furnished by Director, Swachh Maharashtra Mission

The variation in the per capita per day generation in these 29 ULBs is shown in **Table 2.1**.

Table 2.1: Variation in the Per Capita per Day (PCPD) generation in 29 ULBs

| Sr. No. | Name of the ULB | Base Year of Detailed Project Report | PCPD generation for the base year of DPR (in grams) | Actual PCPD generation in , the previous year of DPR (in grams) | Percentage variation | Projected PCPD generation in DPR for the year 2021-22 (in grams) | Actual PCPD generation in the year 2021-22 (in grams) | Percentage variation |
|---------|--------------------------------|---|---|---|----------------------|--|---|----------------------|
| | Na | Base | PCPD base year | | | Projecte in D 202 | | |
| 1 | 2 | 3 | 4 | 5 | 6=(4-5)/4*100 | 7 | 8 | 9=(7-8)/7*100 |
| 1 | Achalpur | 2017 | 280 | 449 | -61 | 280 | 450 | -61 |
| 2 | Amalner | 2017 | 320 | 450 | -41 | 337 | 450 | -33 |
| 3 | Amravati | 2018 | 400 | 450 | -12 | 400 | 450 | -12 |
| 4 | Arni | 2018 | 250 | 300 | -20 | 250 | 300 | -20 |
| 5 | Ashti (Beed) | 2019 | 125 | 300 | -140 | NA | 300 | - |
| 6 | Ashthi (Wardha) | 2017 | 260 | 300 | -15 | NA | 300 | - |
| 7 | Chhatrapati Sambhajinagar * | 2018 | 425 | 550 | -29 | 442 | 549 | -24 |
| 8 | Ballarpur | 2017 | 350 | 450 | -29 | NA | 450 | - |
| 9 | Beed | 2017 | 408 | 450 | -10 | 430 | 450 | -5 |
| 10 | Bhusaval | 2017 | 330 | 450 | -36 | 349 | 450 | -29 |
| 11 | Gangapur | 2017 | 275 | 300 | -9 | 290 | 300 | -3 |
| 12 | Gondia | 2017 | 427 | 450 | -5 | NA | 450 | - |
| 13 | Ichalkaranji | 2017 | 350 | 450 | -29 | 378 | 450 | -19 |
| 14 | Jalna | 2017 | 332 | 450 | -35 | 350 | 450 | -28 |
| 15 | Kaij | 2018 | 285 | 300 | -5 | NA | 300 | - |
| 16 | Kalamb Nagar Parishad (NP) | 2019 | 124 | 300 | -142 | NA | 300 | - |
| 17 | Kankavali | 2017 | 271 | 300 | -11 | 294 | 300 | -2 |
| 18 | Karanja | 2018 | 250 | 300 | -20 | 250 | 300 | -20 |
| 19 | Lakhandur | 2019 | 283 | 300 | -6 | NA | 300 | - |
| 20 | Malshiras | 2019 | 248 | 300 | -21 | NA | 300 | - |
| 21 | Muktainagar | 2019 | 340 | 455 | -34 | NA | 454 | - |
| 22 | Nandurbar | 2017 | 330 | 450 | -36 | NA | 450 | - |
| 23 | Palus | 2018 | 138 | 300 | -117 | 158 | 300 | -90 |
| 24 | Pandharpur | 2017 | 412 | 450 | -9 | NA | 450 | - |
| 25 | Parli Vaijnath | 2017 | 342 | 450 | -32 | NA | 450 | - |
| 26 | Washi | 2019 | 243 | 300 | -23 | NA | 300 | |
| 27 | Vadgaon Maval | 2019 | 255 | 300 | -18 | NA | 300 | - |
| 28 | Wardha | 2017 | 300 | 450 | -50 | NA | 450 | - |
| 29 | Yavatmal | 2017 | 300 | 450 | -50 | NA NA | 450 | - 11 M 1 |

Source: Detailed Project Reports of selected ULBs and information furnished by Director, Swachh Maharashtra Mission.

NA: PCPD generation projection was not available for the year 2021-22 in the DPR

Out of the 29 ULBs shown in **Table 2.1**, in 13 ULBs⁶ where the PCPD generation projections were available in the DPRs, the actual PCPD generation in 2021-22 was also compared with the waste figures estimated in the DPRs and it was found that the actual figures continued to be more than the PCPD generation assessed for the year 2021-22 in the DPRs.

^{*} Chhatrapati Sambhajinagar: previously known as Aurangabad.

In the remaining 16 ULBs the PCPD generation for the year 2021-22 was not available in the DPR and, therefore, could not be compared.

As the waste generation assessed in the DPRs was incorrect, Audit noticed that the processing capacity planned in the DPRs was inadequate in 23⁷ out of these 29 ULBs as shown in **Table 2.2**.

Table 2.2: Shortfall in planned processing capacity due to incorrect assessment of waste

| Name of ULB | Plan period | Processing capacity planned in DPR based on the assessment of waste generation for the last year of the plan period of DPR (Metric Ton (MT)/day) | Processing capacity required considering actual waste generation in the year preceding the year of preparation of DPR (MT/day) | Shortfall in planned processing capacity (MT/day) (col 4-3) (percentage) |
|-----------------|-------------|--|--|--|
| 1 | 2017.2027 | 3 | 4 | 5 |
| Achalpur | 2017-2027 | 35.64 | 56.63 | 20.99(37) |
| Amalner | 2017-2027 | 27.90 | 48.40 | 20.50(42) |
| Arni | 2018-2028 | 8.22 | 9.56 | 1.34(14) |
| Ashti (Beed) | 2019-2024 | 2.2 | 4.27 | 2.07 (48) |
| Ashthi (Wardha) | 2017-2022 | 3.22 | 3.94 | 0.72(18) |
| Ballarpur | 2017-2027 | 30.54 | 45.10 | 14.56(32) |
| Beed | 2017-2027 | 70.15 | 73.97 | 3.82 (5) |
| Bhusaval | 2017-2027 | 70.00 | 94.50 | 24.50 (26) |
| Gangapur | 2017-2027 | 9.00 | 9.33 | 0.33(4) |
| Gondia | 2017-2037 | 47.93 | 66.96 | 19.03 (28) |
| Ichalkaranji | 2017-2022 | 120.57 | 144.88 | 24.31(17) |
| Jalna | 2017-2027 | 120.56 | 143.98 | 23.42 (16) |
| Kalamb NP | 2019-2024 | 4.50 | 6.14 | 1.64(28) |
| Karanja | 2018-2030 | 21.24 | 26.69 | 5.45(20) |
| Lakhandur | 2019-2024 | 3.00 | 3.45 | 0.45(13) |
| Malshiras | 2019-2024 | 6.00 | 7.73 | 1.73(22) |
| Nandurbar | 2017-2027 | 32.75 | 55.98 | 23.23(41) |
| Palus | 2018-2023 | 4.04 | 8.99 | 4.95 (55) |
| Parli-Vaijnath | 2017-2027 | 35.19 | 45.87 | 10.68 (23) |
| Vadgaon-Maval | 2019-2024 | 4.20 | 11.44 | 7.24(63) |
| Wardha | 2017-2037 | 24.81 | 53.67 | 28.86(54) |
| Washi | 2019-2024 | 4.30 | 6.02 | 1.72(29) |
| Yavatmal | 2017-2027 | 94.94 | 125.51 | 30.57(24) |

As seen from **Table 2.2**, the processing capacity assessed for the last year of the plan period even fell short of the processing capacity required as per the actual waste generated in the year preceding the year of preparation of DPR. The shortfall ranged between four *per cent* in Gangapur Municipal Council (MC) (0.33 MT per day) and 63 *per cent* in Vadgaon Maval MC (7.24 MT per day). Unless these ULBs take corrective action to augment the planned capacity considering the correct waste generation, their ability to process waste during the plan period would be inadequate.

Similarly, the capacity of sanitary landfills to dispose of inerts⁸ was designed and planned considering the incorrectly assessed waste generation. Audit

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Out of the remaining six ULBs in four ULBs (Amravati, Chhatrapati Sambhajinagar, Kankavali and Pandharpur) there was no shortfall in the processing capacity planned while in two ULBs (Kaij and Muktainagar) data of the processing planned was not available in the DPR.

⁸ Waste which are non-biodegradable, non-recyclable and non- combustible.

noticed that out of 29 ULBs, in eight ULBs, sanitary landfills was not planned while in two ULBs (Kaij and Pandharpur) there was no shortfall in the capacity of sanitary landfills. In the remaining 19 ULBs, Audit noticed that the sanitary landfills would be insufficient for the period planned in DPR due to incorrect assessment of waste generation, as shown in **Table 2.3**.

Table 2.3: Shortfall in the planned design period of sanitary landfill

| Name of ULB | Quantity of inert planned to be disposed of in sanitary landfill during the plan period of Detailed Project Report (in MT) | Design period of sanitary landfill (in years) | Quantity of inert which would be generated for disposal in sanitary landfill considering PCPD of the year preceding the year of preparation of Detailed Project Report ⁹ (in MT) | Period for which the sanitary landfill could be used considering inert in column 4 ¹⁰ (in years) | Difference (3 - 5) (in years) |
|------------------------------|--|---|---|---|-------------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| Achalpur | 80,292.07 | 30 | 128672.11 | 18.72 | 11.28 |
| Amalner | 7422.00 | 5 | 10605.00 | 3.50 | 1.50 |
| Amravati | 797183.80 | 30 | 896264.22 | 26.68 | 3.32 |
| Arni | 18,203.22 | 30 | 21830.71 | 25.02 | 4.98 |
| Chhatrapati Sambhajinagar | 391625.00 | 10 | 405823.00 | 9.65 | 0.35 |
| Ballarpur | 40285.00 | 20 | 49409.03 | 16.31 | 3.69 |
| Beed | 39858.00 | 10 | 40518.00 | 9.84 | 0.16 |
| Bhusaval | 15614.46 | 5 | 20705.00 | 3.77 | 1.23 |
| Gangapur | 2494.72 | 5 | 2555.57 | 4.88 | 0.12 |
| Gondia | 21370.75 | 5 | 24453.21 | 4.37 | 0.63 |
| Ichalkaranji | 24199.92 | 6 | 29370.42 | 4.94 | 1.06 |
| Jalna | 65673.13 | 10 | 78869.81 | 8.33 | 1.67 |
| Kankavli | 1200.51 | 5 | 1260.16 | 4.76 | 0.24 |
| Karanja | 54895.37 | 30 | 67246.97 | 24.50 | 5.50 |
| Nandurbar | 125915.00 | 25 | 130725.55 | 24.08 | 0.92 |
| Palus | 1440.48 | 6 | 2823.38 | 3.06 | 2.94 |
| Parli Vaijnath | 62099.64 | 25 | 62812.69 | 24.72 | 0.28 |
| Wardha | 43215.70 | 20 | 63058.86 | 13.71 | 6.29 |
| Yavatmal | 256696.56 | 30 | 316255.47 | 24.35 | 5.65 |

Source: Information compiled from DPRs and Director, Swachh Maharashtra Mission

As seen from **Table 2.3**, the capacity of sanitary landfills in these 19 ULBs would be exhausted between 0.12 years minimum (Gangapur) to 11.28 years maximum (Achalpur) even if we consider the actual PCPD waste generation of the year preceding the base year of DPR, *i.e.*, much before the planned period ranging from five years to 30 years. Thus, the incorrect assessment of waste resulted in a shortfall in planning the processing capacity and the design period of the sanitary landfills.

Recommendation 2: The Government may direct ULBs to prepare holistic detailed project report for solid waste management.

The Government while accepting the recommendation stated (February 2024) that necessary measures will be taken while preparing DPRs under Swachh

Quantity of inert has been calculated by considering the PCPD generation of waste proceeding the year of DPR at the rate of inert generation specified in the DPRs. Further, where per-year projected population was not available in the DPRs, population for the year preceding the year of DPR has been taken.

Column 2 x column $3 \div$ column 4.

Bharat Mission 2.0. It was further stated that sanitary landfill gap analysis and assessment have been done in Swachh Bharat Mission 2.0 and DPRs are being prepared accordingly.

2.5 Financial sustainability in waste management

The second objective of the Performance Audit was to assess whether the operation and maintenance of waste management facilities by ULBs were financially sustainable. Audit examined the information obtained from Director, Swachh Maharashtra Mission, selected ULBs and Director, Municipal Administration (DMA) related to the sources of funds from various sources, efficiency in collection of solid waste management charges and the audit findings are given in **Paragraphs 2.5.1** and **2.5.3**.

2.5.1 Utilisation of grant in waste management

The GoI and GoM disbursed funds to ULBs for the projects approved in DPRs for meeting capital expenditure in waste management under Swachh Bharat Mission. During 2016-17 to 2021-22, ULBs also received funds under Fourteenth and Fifteenth Finance Commission (FC) for meeting both capital and revenue expenditure for SWM. Moreover, ULBs have also utilised their own funds for meeting revenue/capital expenditure on waste management. The sources of funds and the corresponding expenditure from the State Budget, Finance Commission Grant and SBM in the 45 test-checked ULBs are shown in **Table 2.4**.

Table 2.4: Grant and Expenditure during 2016-17 to 2021-22 for SWM (₹ in crore)

| | Opening balance | | Receipt | | Total Receipt | | Expenditure | | Closing balance | |
|------------------------------------|-----------------|---------|----------------|----------|---------------|---------|-------------|---------|-----------------|---------|
| Source of funds | Revenue | Capital | Revenue | Capital | Revenue | Capital | Revenue | Capital | Revenue | Capital |
| SBM | 0.00 | 3.50 | 0.00 | 632.60 | 0.00 | 636.10 | 0.00 | 479.50 | 0.00 | 156.60 |
| Fourteenth FC | 12.90 | 47.37 | 375.85 | 545.00 | 388.75 | 592.37 | 363.89 | 489.83 | 24.86 | 102.54 |
| Fifteenth FC | 0 | 0 | 57.51 | 942.75 | 57.51 | 942.75 | 41.20 | 542.73 | 16.31 | 400.02 |
| Own Fund (Budget allocation) | 0.00** | 0.00 | 19445.26* | 2227.91* | 19445.26 | 2227.91 | 15742.64 | 1072.37 | _** | _** |
| Total | 12.90 | 50.87 | 19878.62 | 4348.26 | 19891.52 | 4399.13 | 16147.73 | 2584.43 | 41.17 | 659.16 |
| | 63.77 | | 63.77 24226.88 | | 24290.65 | | 18732.16 | | 700.33 | |

Source: Information obtained from Director, Swachh Maharashtra Mission, selected ULBs and DMA

As seen from **Table 2.4**, out of the total expenditure of ₹ 18,732.16 crore, ₹ 16,147.73 crore (86 *per cent*) was incurred towards revenue expenditure and ₹ 2,584.43 crore (14 *per cent*) towards capital expenditure during 2016-17 to 2021-22. Further, the percentage of expenditure vis-à-vis the total receipts for capital works under SBM, Fourteenth Finance Commission, Fifteenth Finance Commission and own funds budget allocation was 75 *per cent*, 83 *per cent*, 58 *per cent* and 46 *per cent* respectively.

^{*}Represents the budget provision made for SWM.

^{**}The balance is nil since the budget not utilised gets lapsed.

Year-wise detail of capital grants received, expenditure and unspent grants in respect of 45 test-checked ULBs under SBM during 2016-17 to 2021-22 is shown in **Table 2.5**.

Table 2.5: Capital grant and expenditure in 45 test-checked ULBs under SBM for 2016-17 to 2021-22

(₹ in crore)

| | Cen | tral Shar | e | St | tate Share |) | Total | | |
|---------|---------|-------------|------------------|---------|-------------|------------------|---------|-------------|------------------|
| Year | Receipt | Expenditure | Unspent Grant | Receipt | Expenditure | Unspent Grant | Receipt | Expenditure | Unspent Grant |
| 2016-17 | 36.00* | 9.11 | 26.89 | 29.79 | 11.86 | 17.93 | 65.79 | 20.97 | 44.82 |
| 2017-18 | 166.44 | 166.44 | 0.00 | 9.94 | 9.94 | 0.00 | 176.38 | 176.38 | 0.00 |
| 2018-19 | 32.28 | 28.52 | 3.76 | 21.68 | 17.77 | 3.91 | 53.96 | 46.29 | 7.67 |
| 2019-20 | 54.25 | 21.20 | 33.05 | 35.60 | 13.58 | 22.02 | 89.85 | 34.78 | 55.07 |
| 2020-21 | 174.65 | 167.43 | 7.22 | 24.24 | 21.77 | 2.47 | 198.89 | 189.20 | 9.69 |
| 2021-22 | 30.31 | 7.13 | 23.18 | 20.92 | 4.75 | 16.17 | 51.23 | 11.88 | 39.35 |
| Total | 493.93 | 399.83 | 94.10 | 142.17 | 79.67 | 62.50 | 636.10 | 479.50 | 156.60 |

Source: Information obtained from Director, Swachh Maharashtra Mission

As seen from **Table 2.5**, 25 per cent (₹ 156.60 crore) of the total grant received during 2016-17 to 2021-22 remained unspent at the end of March 2022, as the procurement of waste processing machineries was not complete, incomplete civil works related to projects of processing plants, incomplete integrated cluster project, non-installation of weighbridges and non-availability of land issues, etc.

2.5.2 Non-levy of user charges

Rule 15 (e) of SWM Rules, stipulates framing of bye-laws incorporating the provisions of SWM Rules, within one year from the date of notification of SWM Rules. As per Rule 15(f) of SWM Rules, ULBs are required to prescribe from time-to-time user fees as deemed appropriate and collect the fee from the waste generators directly or through authorised agencies.

Since ULBs did not frame the bye-laws within the stipulated period, UDD notified (December 2018) the bye-laws and made them applicable with effect from July 2019 to all ULBs. The rate of levy of user charges for collecting waste from households and other establishments in the bye-laws, was also notified in the bye-laws.

Audit noticed that it was only after the notification was issued by UDD that 21 out of 45 test-checked ULBs commenced levy of user charges. 12 test-checked ULBs were already levying user charges as per their Governing Body resolution before July 2019. So, as of March 2022, only 33 out of 45 test-checked ULBs were levying user charges (**Appendix 2.3**), while 12 ULBs did not levy user charges on solid waste management services.

Recommendation 3: The Government may direct ULBs to levy user charges on solid waste management services.

^{*}Including closing balances of previous year

The Government while accepting the recommendation stated (February 2024) that ULBs have been directed to ensure compliance on levying of user charges.

2.5.3 Collection of solid waste management charges

The efficiency in collection of solid waste management charges (user charges, sale of compost, sale of recyclable etc.) measured as current year revenue collected as a percentage of the total operating revenue, during 2021-22 in the test-checked ULBs is detailed in **Appendix 3.4** and shown in **Chart 2.2**.

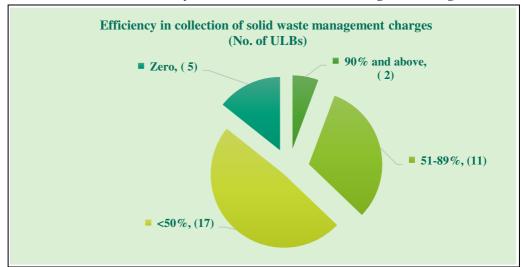


Chart 2.2: Efficiency in collection of solid waste management charges

Source: Information compiled from notifications issued by UDD, GoM in April 2023

As seen from Chart 2.2, 94 per cent of test-checked ULBs (33 out of 35¹¹ ULBs) did not achieve the target of 90 per cent collection efficiency fixed by GoI in the Service Level Benchmarks. Further in 17 ULBs¹², the collection efficiency was less than 50 per cent.

Recommendation 4: The Government may review the poor performance of ULBs in collecting the solid waste management charges and steps for its improvement.

Municipal Council: Nine; Nagar Panchayat: eight.

Data of 10 ULBs was not notified.

¹⁷