

Chapter-I
Introduction

Performance Audit on Solid Waste Management in Urban Local Bodies

Chapter - I : Introduction

1.1 Solid Waste Management in Urban Local Bodies

Wastes are materials that the generator has no further use in terms of his/her own purposes of production, transformation or consumption, and of which he/she wants to dispose of. Wastes are generally classified into municipal solid waste, bio-medical waste, construction and demolition waste, e-waste, plastic waste, slaughterhouse waste, industrial waste and hazardous waste by virtue of their nature. It is also classified as biodegradable, non-biodegradable, combustible, dry and inert based on their characteristics.

Solid waste includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non-residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste excluding industrial waste, bio-medical waste and e-waste, battery waste, radioactive waste generated in the area under the local authorities.

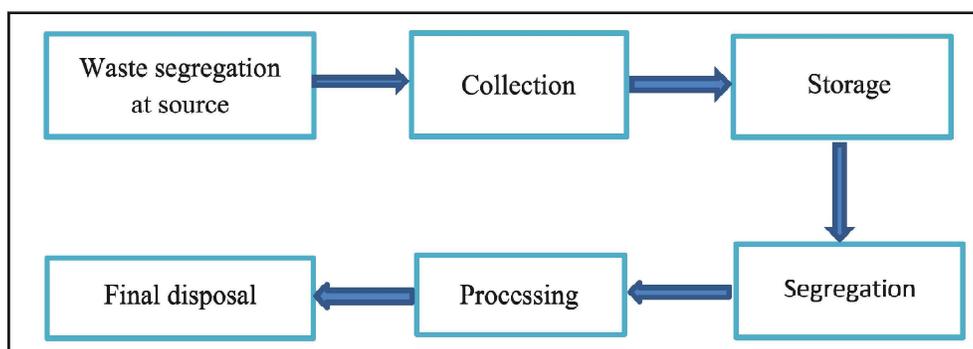
Municipal Solid Waste Management (MSWM) in urban areas has emerged as one of the biggest challenges. The situation is aggravated by rapid urbanisation. Although MSWM is an essential service and a mandatory function of municipal authorities across the country, it is still being managed inefficiently resulting in significant negative externalities in terms of public health and environmental outcomes.

1.2 Regulatory framework governing Management of Solid Waste

The Solid Waste Management (SWM) Rules 2016, provides a legal framework for disposal and management of solid waste and entrusts responsibilities at State level and Urban Local Bodies (ULBs) level. Article 243 w of the Constitution of India provides that the legislature of the State may by law endow the municipalities with such powers and authority as may be necessary to enable them to function as institutions of self-governance. The Twelfth schedule of the Constitution enumerates 18 specific functions to be devolved to Urban Local Bodies. The Government of Rajasthan (GoR) devolved the function “Solid Waste Management” to the Urban Local Bodies.

As per Solid Waste Management Rules, 2016 flow Chart of Municipal Solid Waste Management Chain is given in **Chart 1.1** below.

Chart – 1.1: Waste Management Chain



The process begins with waste collection from various sources, such as households, commercial establishments, institutions, and construction sites. The collected waste is transported to storage and then segregated into biodegradable, recyclable, non-recyclable, combustible, sanitary, inert and hazardous waste. Segregated waste undergoes treatment like composting, incineration, bio-methanation, and gasification techniques¹. Residual and inert waste is disposed of in landfills following sanitary practices to minimize environmental contamination and health risks.

Effective Solid Waste Management requires policies, infrastructure, public awareness, and stakeholder participation. It is a shared responsibility among authorities, Urban Local Bodies, waste management agencies, communities, and individuals.

1.2.1 Role of various authorities in Solid Waste Management

The role of various authorities at all levels in planning, execution and monitoring of Solid Waste Management is depicted in **Chart 1.2** below:

Chart 1.2: Role of various authorities in Municipal Solid Waste Management

State	Policy framing, Monitoring and Evaluation	Local Self Government Department	Approvals of Plans/DPRs and Monitoring
		State pollution Control Board	Review and Advisory
District	Monitoring and Evaluation	Regional Pollution Control Board offices	
Urban Local Bodies	Implementation	Municipal Corporations/Municipal Councils/ Municipal Boards	

¹ Composting decomposes organic waste into nutrient-rich compost. Incineration generates energy through controlled burning. Bio-methanation produces biogas using anaerobic digestion. Gasification converts waste into synthetic gas for energy.

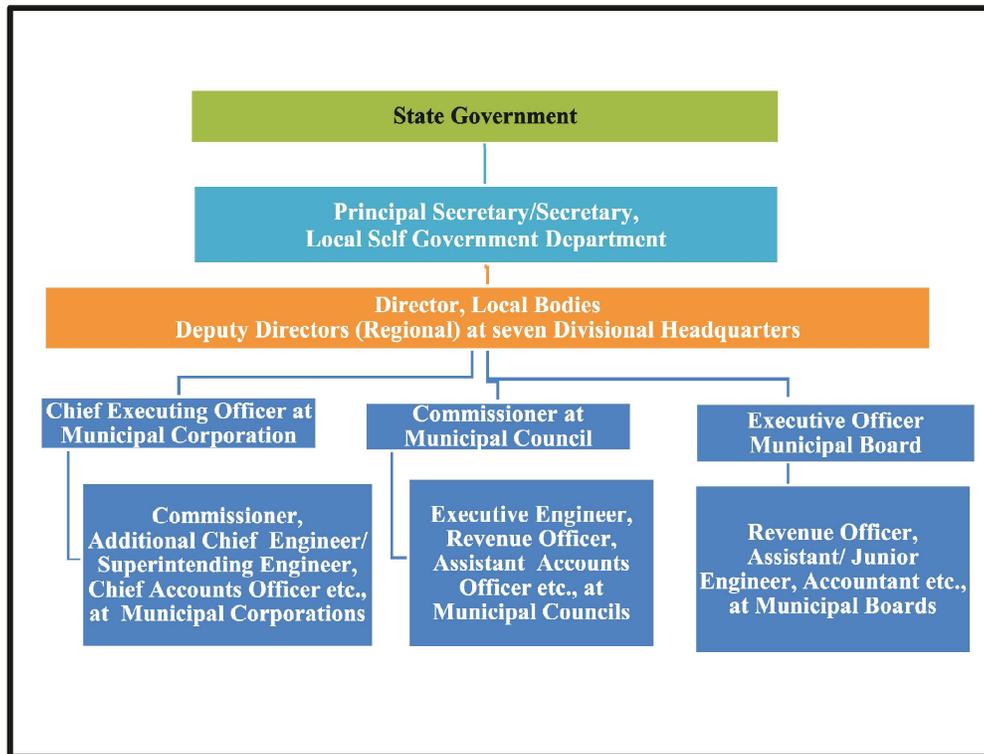
1.3 Financial Resources

During 2017-18 to 2022-23, the State Government received funds of ₹ 2,438.56 crore (Central Finance Commission grant: ₹ 2,266.41 crore and SBM 1.0 & 2.0 grant: ₹ 172.15 crore) which was entirely utilized and year wise break up is given in *Appendix-I*.

1.4 Organisational setup

The Local Self Government Department (LSGD), headed by the Principal Secretary/Secretary to the GoR, is the nodal department for the governance of all ULBs. The Directorate of Local Bodies (DLB) functions as an interface between the State Government and ULBs. The DLB has seven Deputy Directors (Regional) at Divisional Headquarters i.e., Ajmer, Bharatpur, Bikaner, Jaipur, Jodhpur, Kota and Udaipur, who reports to the DLB on day-to-day basis. The organizational structure with respect to the functioning of ULBs in the State is indicated in **Chart 1.3** below:

Chart 1.3: Organizational Structure



The State Pollution Control Board oversees the implementation of the various Rules under the Environment (Protection) Act, 1986, in the State and is responsible for monitoring and controlling Waste Management.

1.5 Audit Objectives

This Performance Audit was conducted to assess whether:

- adequate plans and strategies are in place to manage the urban solid waste by the Urban Local Bodies;
- the end-to-end process of Solid Waste Management, including collection, segregation, storage, transportation and disposal was conducted effectively and efficiently;
- necessary resources, facilities and equipment were available for Solid Waste Management and these resources were operated and maintained efficiently; and
- system of internal controls, monitoring and evaluation were adequate and effective.

1.6 Audit Scope and methodology

The Performance Audit on ‘Solid Waste Management in Urban Local Bodies’ in Rajasthan covering the period from 2017-18 to 2022-23 was conducted between August 2022 to December 2023.

18 Urban Local Bodies² (8.45 *per cent*) comprising four Municipal Corporations³, seven Municipal Councils⁴ and seven Municipal Board⁵ were selected by giving equal importance to all the seven divisions in the State. One Urban Local Body (Dungarpur) was selected at the request of the Secretary, Local Self Government Department (LSGD) during the Entry Conference. The other units were selected through random sampling using IDEA software. The Audit reviewed the records of the Local Self Government Department, Directorate of Local Bodies, State Pollution Control Board and selected Urban Local Bodies.

Entry Conference with the Principal Secretary, LSGD was held in August 2022. Exit Conferences with the Principal Secretary/Secretary, LSGD were held in June 2023 and March 2025 to discuss the findings of Performance Audit. Replies of the State Government have been appropriately incorporated in the report.

1.7 Audit Criteria

The audit findings were benchmarked against the following criteria:

- The Rajasthan Municipalities Act, 2009.

² Out of total 213 ULBs.

³ Municipal Corporation Bikaner, Jaipur, Jodhpur and Udaipur.

⁴ Balotara, Baran, Bhiwadi, Dungarpur, Hindaun City, Kishangarh and Sujargarh.

⁵ Bari, Bhawani Mandi, Choti Sadri, Deoli, Pokhran, Rajgarh and Sambhar Lake.

- Municipal Solid Waste Management Manual, 2016 and The Solid Waste Management Rules, 2016.
- Construction and Demolition Waste Management Rules, 2016.
- Performance parameters set out in Service Level Benchmarking guidelines.
- Instructions, guidelines, policies issued by Central and State Pollution Control Boards, Government of India/ State Government on solid waste management.

1.8 Acknowledgement

Audit acknowledges the co-operation of the Local Self Government Department, Director Local Bodies, Rajasthan Pollution Control Board and appreciates the assistance provided by the field functionaries of these departments for smooth conduct of the audit.