



CHAPTER-II
AUDIT FRAMEWORK



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2.1 Introduction: Why did we take up this Audit?

Solid waste generation in Meghalaya, as per latest data available (March 2022), was reported to be 158.93 TPD, *i.e.* 58,009 metric tonnes annually. Management of solid waste in the urban areas of the State of Meghalaya has gained attention of the policy makers and citizens in recent years in view of various reports emanating in the Government Departments and in media regarding scarcity of dumping areas for municipal waste, inadequate waste processing facilities and rising instances of contamination of rivers in the State which serve as critical source of drinking water.

Performance Audit (PA) of “Solid Waste Management in Urban Areas” was conducted with a view to assess the efficacy of government agencies involved in solid waste management over the entire life cycle of waste management, namely, whether the government had in place mechanisms to assess accurately and regularly the quantum of different kinds of waste such as municipal solid waste, C&D waste, bio-medical waste, e-waste and plastic waste being generated in the urban areas, whether collection and disposal of waste was being done scientifically, whether facilities had been created for recycling, re-use and safe disposal of municipal solid waste, *etc.* Given the involvement of different agencies in the solid waste management in the State, Audit further sought to examine the role and accountability of each of the agencies involved. Issues covered in this PA have been examined against the legal framework, financial framework and operational guidelines embedded in various Acts, regulations and bye laws promulgated by the Union and the State governments in this regard.

2.2 Audit Objectives

Performance Audit of Solid Waste Management in urban areas of Meghalaya was undertaken with the objective to assess whether:

1. A functional institutional mechanism was in place for solid waste management supported by adequate funding and there were effective policies/strategies for waste management in urban settlements in accordance with the Acts/Rules, *etc.*;
2. The procedures for segregation, collection, transportation, processing and disposal of solid waste were carried out economically and scientifically; and
3. There was an efficient monitoring and evaluation mechanism for regulating the provisions of the Acts/Rules.

2.3 Audit Criteria

Audit findings were benchmarked against the criteria sourced from the following:

- Solid Waste Management Rules, 2016 and respective Manuals (Ministry of Urban Development);

- Bio-Medical Waste (Management and Handling) Rules, 2016;
- Plastics Waste Management Rules, 2016;
- E-Waste (Management) Rules, 2016;
- Construction and Demolition Waste Management Rules, 2016;
- Meghalaya State Waste Management Policy and Strategy in Urban Areas;
- Meghalaya Solid Waste Management Bye Law, 2020;
- Meghalaya State Pollution Control Board (MSPCB) guidelines issued from time to time; National Green Tribunal (NGT) orders and other Court orders; and
- NITI Aayog's document on Waste Wise Cities – Best Practices in Municipal Solid Waste Management.

2.4 Scope of Audit , Audit Sample and Audit Methodology

The PA was conducted to cover activities of the agencies concerned during the five-year period from 2017-18 to 2021-22. Under the scope of solid waste, municipal solid waste (MSW), bio-medical waste (BMW), construction and demolition (C&D) waste, e-waste, and plastic waste were covered.

The subject of solid waste management has been devolved to the urban local bodies in Meghalaya. However, the administration of solid waste management in the State not only depends on the nodal department, *i.e.* the Urban affairs department but also several other agencies. The three Autonomous District Councils which cover the entire state also play a significant role through traditional bodies. Accordingly, the audit sample was designed to cover all the significant agencies involved in management of solid waste in Meghalaya.

Under the audit sample three municipal boards out of six *viz.* Shillong, Jowai and Tura were selected⁷. One Town Committee *viz.* Nongpoh and two census towns, *viz.* Mawlai and Umpling were also selected by applying simple random sampling using IDEA application software. In addition the Urban Affairs department, State Investment Project Management and Implementation Unit (SIPMIU)⁸, Meghalaya Urban Development Authority (MUDA), Meghalaya State Pollution Control Board (MSPCB) and three Autonomous District Councils⁹ (ADCs) were also covered under this PA. The office of the Deputy Commissioners of the districts where the selected Municipal Boards/ Town Committees were located were also covered. Audit collected information from the Shillong Cantonment Board through written queries, as examination of records of the Cantonment Board and site visit was beyond the audit mandate of this office.

⁷ Municipal Boards contained more than 25 *per cent* of the entire urban population in the region were selected.

⁸ The Government of Meghalaya, Finance (Economic Affairs) Department, *vide* Notification dated 05 January 2009 constituted the State Investment Project Management and Implementation Unit (SIPMIU) in Meghalaya for implementation of the North Eastern Region Capital Cities Development Investment Programme (NERCCDIP) funded through ADB (Loan arranged through an agreement between Asian Development Bank (ADB) and Government of India).

⁹ Khasi Hills Autonomous District Council (KHADC), Jaintia Hills Autonomous District Council (JHADC) & Garo Hills Autonomous District Council (GHADC).

Audit Planning was done through desk review based risk assessment and use of statistical sampling for selection of sample. Field Audit methodology comprised of examination of records of the entities, interview with the functionaries concerned and site visits along with the department officials.

Being a technical subject, Audit engaged with experts in this subject as well as with the departmental officials involved in the solid waste management to identify areas of focus and fine tune audit scope. Two workshops were held (September 2022 and January 2023) with subject experts¹⁰ to discuss specific issues surrounding Solid Waste Management (SWM) in North Eastern States, as these states have a different geographical and socio-economic profile, than many other States in the rest of the country.

The PA commenced with an entry conference (17 August 2022) where the audit objectives, criteria, scope and methodology were discussed. The Performance Audit Report was issued to the Government on 27 April 2023. Reply of the Government was not received till May 2023. Meanwhile, the findings of the PA were discussed with the Government representatives from the Urban Development Department and the Directorate, representatives of MSPCB, SIPMIU, MUDA, Municipal Boards of Shillong, Tura and Jowai, District Administration and representatives of Autonomous District Councils in an exit conference held on 17 May 2023. Replies received during exit conference have been suitably incorporated in the Report.

2.5 Acknowledgement

Audit acknowledges the cooperation and assistance extended by the State Government, all the selected ULBs/Town Committee, MSPCB, SIPMIU, MUDA, ADCs and Deputy Commissioners of the selected districts. Further, audit also acknowledges the guidance provided by the subject matter experts on issues pertaining to Solid Waste Management.

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