

**CHAPTER - IX**  
**CONCLUSION &**  
**RECOMMENDATIONS**



## Chapter-IX

### 9 Conclusion and Recommendations

#### 9.1 Conclusion

Performance Audit on Waste Management in Urban areas revealed that the State Government had not devised adequate strategies for creating required capital investment for SWM. The test checked ULBs did not collect user fee from 2017-20 resulting in short realisation of user fee of ₹160.71 crore. Due to non-achievement of Service Level Benchmarks, ULBs had lost central assistance of ₹333.58 crore. Besides, funds of ₹25 crore deposited by BSCL with BMC for Waste Management project was also diverted for regular expenditure of BMC.

Test-checked ULBs had not conducted any survey on waste generation during the period 2015-20 but had adopted per capita estimates that had low level of reliability. Non-taking of survey for arriving at the quantum and type of waste generated by various sections of society has seriously impacted proper planning and strategy selection and implementation of SWM. As ULBs did not prepare short-term or long-term action plans for waste management, the planning and selection of infrastructure projects in ULBs were, to a large extent, driven by perceived availability of funds rather than need-based analysis. In the absence of waste minimisation strategy of the State Government, the ULBs did not take up initiatives to promote waste minimisation activities during 2015-20.

**Segregation of waste at different levels was either absent or partial in all the test-checked ULBs. Non-notification of domestic hazardous waste and depositing the mixed waste in landfills could possibly lead to toxic waste residue seeping underground and contaminating the ground water apart from air and soil pollution. During joint survey by Audit and ULB officials, it was reported by the inhabitants residing near the landfills that their health condition has deteriorated.**

**Open vehicles were used for transportation of waste spilling them on roads and emanating foul smell. Absence of functional GPS and tracking systems resulted in unauthorised dumping of waste near the river banks.**

**Test-checked ULBs generated 7,905.72 TPD of solid waste during 2015-16 to 2019-20 of which 7,148.38 TPD (90 per cent) were collected. Out of the above collected solid waste, 324.03 TPD (4.53 per cent) were processed. Audit observed that a substantial portion of budget is spent only on garbage collection, transportation and disposal. However, the situation in the towns and cities remain far from satisfactory since recycling of solid waste had not received due attention during 2015-20. This was because of non-creation of required infrastructure for waste processing facilities during 2015-20.**

The ULBs were operating disposal facilities without valid authorisation from SPCB and the necessary environmental clearance. The required buffer zone around the landfill sites were not maintained. Activities that do not conform to the provisions of MSW/SWM Rules were taken up in the landfill sites. Many of the landfills test-checked lacked basic infrastructure such as waste inspection facilities, weighbridges, fire-fighting equipment, toilets *etc.* There was

evidence of unscientific dumping and burning of mixed waste in the landfills causing environment pollution.

Absence of proper segregation of waste led to mixing of solid waste with plastic waste, bio-medical waste, e-waste and slaughterhouse waste. Plastic waste, though found feasible for use in laying of roads and cement kilns, was not used indicating lack of initiation by ULBs. Besides, mismanagement of plastic waste even resulted in deaths of cattle due to its consumption.

Test-checked ULBs did not collect and channelise e-waste to authorised dismantlers/recyclers and e-waste was found mixed with solid waste. Health care institutions were functioning without authorisation and resorting to unauthorised disposal of bio- medical waste. While on one hand a slaughterhouse constructed was not put to use, on the other hand indecisiveness of municipal authorities in tendering operation and maintenance of slaughterhouses rendered the premises of slaughterhouses unhygienic and led to illegal slaughtering of animals.

SPVs established under Smart City Mission did not consider implementation of SWM being one of the core elements of the mission. As a result, the accountability of these SPVs in attaining the objective of a litter free smart city was lacking.

Though requisite committees were formed at the State level, the District and ULB level Committees were not formed in any of the test-checked districts leading to poor support for effective implementation of SWM plans. There was shortage of manpower in all cadres especially in posts of Environment Engineers (25 per cent); Health Inspectors (20 per cent) and sweepers (29 per cent) who are directly accountable in management of waste.

Audit is constrained to note the lackadaisical attitude of the implementing officers in responding to Audit with the assurance that views of Audit would be considered for the future.

The above lapses indicate lack of basic monitoring by ULBs and district /State level authorities to ensure compliance to statutory requirements and posed a serious threat to the environment besides leading to health hazards.

## **9.2 Recommendations**

- *The State Government may devise a suitable mechanism for collection of SWM user fee and market recyclable material out of waste to bridge resource gaps and strive for self-sustenance.*
- *The State Government should initiate appropriate strategies for SWM enabling ULBs for creation of infrastructure.*
- *The State Government may expedite promulgation of a State policy for waste minimisation and its management.*
- *State Government should ensure that all the ULBs prepare DPRs for comprehensive planning for waste management*
- *Surveys need to be taken up to estimate waste generation so that appropriate policy initiatives could be taken up.*
- *State Government should encourage community participation and strengthen IEC activities for involvement in waste management*
- *State Government should provide adequate storage bins to households enabling easy segregation for further processing.*


- *ULBs need to strictly ensure segregation of recyclable waste material at storage centres in order to facilitate recycling and reusing.*
- *Accountability needs to be fixed on the officers for irregular transportation of waste and causing avoidable extra expenditure.*
- *The State Government/ULBs should handhold Non-Government Organisations/Self-Help Groups/Startups/private enterprises to maximise processing of waste and innovate recyclable marketable material.*
- *ULBs should strictly enforce adherence to MSW Rules for management of landfills and waste disposals ensuring sustainable cities and communities.*
- *The State Government may enforce use of plastic waste in laying of roads, cement kilns, etc., as this would enable considerable reduction of plastic waste reaching the landfills.*
- *The State Pollution Control Board needs to ensure that all health care institutions, slaughterhouses, recyclers etc., obtain necessary authorisation for their functioning and enforce adherence to prescribed standards.*
- *The State Government may expedite establishment of adequate CBMWTFs for covering all HCEs for treatment of BMW.*
- *The State Government may speed up operationalisation of treatment plants in order to prevent solid waste/ liquid waste entering river/ water bodies causing water pollution and health hazards.*
- *State Government may hasten implementing SWM projects through SPVs established for the purpose of overall area development and litter free cities.*
- *The State Government should activate monitoring committees and strengthen control mechanisms envisaged in Waste Management and allied Rules, and accountability must be fixed on the officers responsible for not adhering to the specified monitoring mechanisms.*

**Bhubaneswar**  
**The 02 SEP 2022**

  
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**Countersigned**

**New Delhi**  
**The 06 SEP 2022**

  
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