



*Kozhikkode Medical College
September 2021*

CHAPTER VI
MONITORING

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Management Information System for effective monitoring of waste management activities was not made functional in the State. Though Suchitwa Mission accorded Technical sanction to the projects, no further follow up/monitoring/independent assessment of projects were seen initiated by the Mission. Monitoring of SWM by Kerala State Pollution Control Board was also not adequate and effective. Social Audit Committees were not constituted by test-checked ULBs for evaluating waste management activities. The ULBs were lax in dealing with violations of SWM Rules and levying penalties as an effective deterrent.

Effective and accurate monitoring systems of waste management are to be in place at various levels of Government and monitoring needs to be done at regular intervals throughout the life of the waste management initiative or process.

Audit analysed the efficacy in monitoring of SWM activities undertaken by Suchitwa Mission, State and District Pollution Control Boards and ULBs themselves. The observations are detailed below:

6.1 Monitoring by Suchitwa Mission

6.1.1 Ineffective Management Information System

As per State Policy on Solid Waste Management, Suchitwa Mission was to monitor the progress in implementation of solid waste management activities through appropriate Management Information System (MIS) and assist the Government for taking corrective measures wherever required.

As requested by Haritha Keralam Mission¹⁰⁹, an MIS named Smart Garbage Monitoring System (SGMS) was developed by Keltron in June 2019 for monitoring waste management activities/projects implemented by local bodies. The main objective of the MIS was to aid the local bodies in technology enabled solid waste management system and to develop a centralised state online platform for local bodies for waste management.

The system was evaluated by a Technical committee constituted by Haritha Keralam Mission. The Government approved the project in October 2020 and directed Suchitwa Mission to allocate funds for meeting the cost of development of the system (₹1.71 crore). Suchitwa Mission issued work order to KELTRON in July 2021 to implement SGMS, nine months after approval of the project. Since then, no progress has been achieved in the implementation of the MIS. As such, there is no system available at Suchitwa Mission for monitoring the implementation of projects by ULBs. Consequently, effectiveness in implementation of Central/State schemes could not be assessed and

¹⁰⁹A Development Mission constituted by GoK in September 2016 to enable sanitation and waste management, water conservation and agricultural expansion giving thrust to organic practices in an integrated manner

communicated to Government by Suchitwa Mission, so as to enable timely corrective measures.

Government stated in the exit conference (May 2022) that with the introduction of the Smart Garbage App, the Department would be better placed to monitor the collection of waste, effectiveness of complaint redressal mechanism, etc. It was also stated that the Smart Garbage App developed by KELTRON would be piloted shortly in some LSGIs.

6.1.2 Absence of follow-up/monitoring

A scrutiny of the projects to which Suchitwa Mission accorded technical sanction during 2016-2020 revealed that of the 220 projects, only 85 projects (38.64 *per cent*) have been completed so far. The reasons for non-completion were cited as non-availability of land, public protest, etc. Though 19 sanctioned projects have been dropped, Suchitwa Mission was unaware of the reasons which led to the dropping of 15 projects. Of the 135 incomplete projects, Suchitwa Mission could not furnish reasons in respect of 43 projects. Though Suchitwa Mission empanelled 74 service providers during 2014-2016 to extend on-site solution to the end users with respect to installation and operation and maintenance of the waste management units, a survey conducted by the Mission revealed that only 44 of the 71 service providers (61.97 *per cent*) recorded satisfactory performance and that 35.09 *per cent* of the household level composting systems were non-functional.

Further, the pipe compost technology introduced by Suchitwa Mission to facilitate source level processing of biodegradable waste in households, had to be abandoned due to issues such as inadequate diameter of pipes, generation of worms, foul smell, delay in compost generation, etc. Of 87,000 pipe compost units installed in Thiruvananthapuram Corporation during 2012-16, only 4,641 units were functioning at the time of audit.

The above aspects point towards the absence of proper follow up/monitoring/independent assessment of projects accorded with Technical Sanction by Suchitwa Mission. Government stated in reply (May 2022) that due to insufficient manpower, Suchitwa Mission could closely monitor only those projects for which it has extended financial support for implementation and that the responsibility of project formulation/implementation was fully vested in LSGIs. The justification is not acceptable as Suchitwa Mission was the nodal agency vested with the responsibility of providing technical support to the waste management initiatives in the State. During the exit conference (May 2022) Government accepted the need for institutional strengthening of Suchitwa Mission.

6.2 Monitoring by Pollution Control Board

The KSPCB is the principal agency for monitoring and controlling waste management and is vested with the responsibility to monitor compliance with relevant rules.

6.2.1 Inspections by PCB

According to the circular¹¹⁰ issued by KSPCB in October 2017, Red Category

¹¹⁰ KSPCB Circular PCB/HO/Circular-01/03/2017/C dated 10.10.2017

industries were to be inspected once in six months and Orange category industries, once in a year. As per data furnished by KSPCB, inspections conducted by the PCBs in selected four districts¹¹¹ ranged from 0.29 to 6.74 *per cent* in Red Category and 2.33 to 14.54 *per cent* in Orange Category institutions.

Audit observed that in the absence of adequate inspections, KSPCB could not effectively monitor compliance of proper waste management regulations by the HCFs in the State. The District PCBs opined that shortage of manpower was the cause of ineffective monitoring.

6.2.2 Deficiencies in Management Information System

The KSPCB had launched an Online Consent Management and Monitoring System (OCMMS), a portal which was developed (2014) by the National Informatics Centre, New Delhi, for consent administration and authorisation of industries in the State. Audit noticed the following deficiencies in the system:

- Inspection Management which included entering the details of inspections conducted and retrieval of data on inspections conducted was not available. As such KSPCB could not monitor the adequacy of inspections conducted by District PCBs. It was seen that the data on inspections conducted furnished by KSPCB and District PCBs did not reconcile with each other.
- Laboratory Management wherein the Board officials can view the analysis results and monitor the adequacy of samples checked was never implemented.
- There is no system to generate category wise reports of hospitals, restaurants, chicken stalls, etc. so as to obtain data on number of establishments not reviewing Consent to Operate. As such District PCBs could not monitor the compliance of the rules by various industries in test-checked districts.

6.3 Monitoring by Urban Local Bodies

6.3.1 Social Audit

Government of Kerala directed (July 2017) all local bodies to appoint three to five officers (including two officers trained by Haritha Keralam Mission) to form a Social Audit Committee for evaluating waste management activities undertaken by the local bodies. Social Audit Committee was responsible for assessing the performance of HKS, follow up action on complaints received from public and furnishing annual reports to the local body. It was seen that the test-checked ULBs did not even constitute Social Audit Committees as directed by Government. Hence, the performance of HKS was not assessed and response of the public not evaluated.

Government stated in the exit conference (May 2022) that the Kerala Institute of Local Administration (KILA) has been designated for undertaking Social Audit.

¹¹¹ Thiruvananthapuram, Alappuzha, Kozhikode, Malappuram

6.3.2 Inadequate levy of penalties for violations

According to SWM Rules, 2016 no waste generator shall throw, burn or bury the solid waste generated by him, on streets, open public spaces or drains and water bodies. The ULB shall frame bye-laws and prescribe criteria for levying spot fine for persons who fail to comply with the provisions of these Rules. Details of inspections conducted and penalties imposed by test-checked ULBs are given in **Appendix 11**. It was seen that average number of annual inspections conducted by test-checked ULBs ranged from one to 573 only and the average number of annual spot fines levied ranged minimally from zero to 232. The National Green Tribunal had directed (April 2019) that open burning of waste in lands and landfills should be completely prohibited and in case of default, violators shall be made liable to pay environmental compensation ranging from ₹ 5,000 to ₹ 25,000. Audit however noticed that penalty at the above rates was levied only by three¹¹² out of 21 test-checked ULBs.

- According to Section 334A (1) of the KM Act, commercial establishments, hospitals, slaughter houses, chicken stalls, hotels, catering establishments, apartments, auditorium etc. should establish necessary facilities for treatment and disposal of both solid and liquid waste at source. It was also made mandatory to include waste processing facilities at the time of construction itself and the Secretary of the ULB was to cancel the licence of buildings without such facilities. Violators to be penalised by levying fine not below ₹ 10,000 or imprisonment upto one year or both. As per data furnished to Audit, the Health wings of three¹¹³ test-checked ULBs alone imposed penalties on such premises to ensure adherence to the provisions of the Act.
- Surveillance cameras were purchased by Thiruvananthapuram Corporation (15 cameras for ₹ 21 lakh), Kayamkulam Municipality (five cameras for ₹ five lakh) and Alappuzha Municipality (11 cameras for ₹ five lakh) during 2018-19 for spotting and imposing penalty for littering in public places. Though the cameras at Thiruvananthapuram Corporation enabled to impose fine amounting to ₹41,930 (October 2021), the cameras turned defective in due course and the images captured were lacking in clarity to help identify a person/vehicle. In Kayamkulam and Alappuzha Municipalities, CCTV cameras were not working due to non-provision of electric connection/supply. Responsibility needs to be fixed on erring officials who failed in ensuring effective surveillance through timely repair and maintenance of the cameras installed.

The above instances reveal that the ULBs were lax in dealing with violations of SWM Rules and in levying penalties as an effective deterrent. The failure in framing bye laws and getting them approved by GoK might also have facilitated persistent non-adherence to prompt imposition of spot fines on violators.


Government replied (May 2022) that there were limitations to take stringent steps during 2020-21 owing to Covid situation. The reply is not acceptable as the inspections conducted during the period from 2016-17 to 2019-20 by ULBs were also less, ranging from zero to 19 *per cent* only.

¹¹² Maradu, Parappanangadi and Manjeri Municipalities

¹¹³ Aluva, Parappanangadi and Manjeri Municipalities


Recommendation 15: Government and the State Pollution Control Board, must jointly establish an effective mechanism for monitoring the performance of solid waste management system, complying with extant Rules. Government must also operationalise computerised Management Information System (MIS) and resort to stringent action to curb instances of violation of Waste Management Rules.

Thiruvananthapuram,
The **30 January 2023**


(ANIM CHERIAN)
Principal Accountant General
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Countersigned

New Delhi,
The **02 February 2023**


(GIRISH CHANDRA MURMU)
Comptroller and Auditor General of India