



Research Paper

Administrative Framework and Policy of Solid Waste Management in Gurugram, Haryana: A Review-Based Study

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Abstract

Rapid urbanization and economic expansion have significantly increased municipal solid waste (MSW) generation in Gurugram, one of the fastest-growing urban centers in northern India. This review-based research paper examines the administrative structure, policy framework, institutional mechanisms, and implementation challenges of solid waste management (SWM) in the city. Drawing from national legislation, state-level interventions, municipal bylaws, audit findings, and secondary literature, the study evaluates governance arrangements and identifies systemic gaps in enforcement, coordination, and infrastructure. The paper concludes with policy recommendations for strengthening decentralized waste management, institutional accountability, and sustainable urban governance.

Keywords: Solid Waste Management, Urban Governance, Municipal Administration, Environmental Policy, Haryana, Gurugram

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I. Introduction

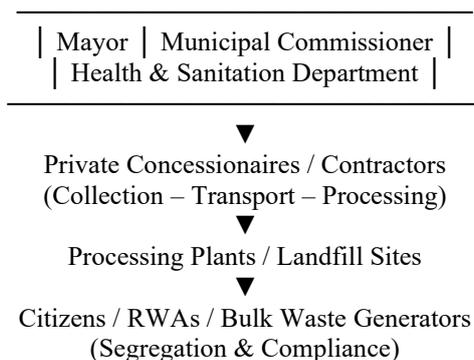
Urban India faces mounting challenges in solid waste management due to population growth, consumerism, and industrial expansion. Gurugram, located in the state of Haryana, generates a substantial quantity of municipal solid waste daily, necessitating efficient institutional and regulatory systems.

The governance of SWM in India operates under the national framework of the Solid Waste Management Rules, 2016, notified under the Environment (Protection) Act, 1986. These rules mandate source segregation, scientific disposal, waste processing, and delineation of responsibilities among stakeholders including urban local bodies (ULBs), bulk waste generators, and state pollution control boards.

This paper reviews the administrative and policy architecture governing SWM in Gurugram, with focus on institutional roles, enforcement mechanisms, emergency interventions, and operational constraints.

II. Institutional and Administrative Framework





2.1 Municipal-Level Governance

The primary authority responsible for solid waste management in Gurugram is the Municipal Corporation Gurugram (MCG). Established under the Haryana Municipal Corporation Act, the MCG functions through an elected Mayor and an appointed Municipal Commissioner (IAS officer).

The Health and Sanitation Department of MCG is entrusted with:

- Door-to-door waste collection
- Street sweeping and sanitation
- Waste transportation
- Processing and disposal
- Enforcement of sanitation bylaws

Operational services are often outsourced to private concessionaires through tender-based contracts. The administrative framework integrates monitoring mechanisms such as GPS-enabled waste collection vehicles, zonal supervision, and ward-level sanitation officers.

2.2 State-Level Oversight and Coordination

At the state level, policy direction is provided by the Department of Urban Local Bodies, Government of Haryana. Environmental regulation and compliance monitoring are conducted by the Haryana State Pollution Control Board (HSPCB). In response to escalating waste management challenges, the Haryana government invoked provisions under the Disaster Management Act, 2005 to declare a municipal solid waste exigency in Gurugram. This led to the formation of a coordinated intervention mechanism known as SWEEP (Solid Waste Environment Exigency Programme), involving district administration, MCG, metropolitan authorities, and environmental regulators. This intervention reflects the elevation of waste management from a routine municipal service to a matter of environmental urgency requiring multi-agency coordination.

2.3 Role of Metropolitan and Planning Authorities

The Gurugram Metropolitan Development Authority (GMDA) plays a complementary role in infrastructure planning, land allocation for waste facilities, and integration of sanitation infrastructure into urban development planning. Thus, the administrative framework reflects a multi-tiered governance model involving:

- Central legislation
- State-level regulatory oversight
- Municipal implementation
- Inter-agency coordination

III. Policy and Regulatory Framework

3.1 National Policy Context

The Solid Waste Management Rules, 2016 marked a paradigm shift by introducing:

- Mandatory source segregation (wet, dry, and domestic hazardous waste)
- Responsibilities for bulk waste generators
- Integration of informal waste workers
- Decentralized waste processing
- Scientific landfill standards

Subsequent policy revisions have emphasized stricter compliance, environmental compensation mechanisms, and polluter-pays principles.

3.2 Municipal Bylaws and Local Regulations

To operationalize national rules, MCG has drafted and implemented city-specific Solid Waste Management Bylaws. These include:

- Mandatory waste segregation at source
- User charges for waste collection
- Penalties for littering and illegal dumping
- Provisions for decentralized composting
- Regulation of construction and demolition waste

Recent proposals have introduced multi-bin segregation systems to strengthen waste categorization and improve recovery rates.

3.3 Enforcement Mechanisms

Enforcement in Gurugram includes:

- Spot fines for non-segregation and littering
- Penalties for bulk waste generators
- Monitoring of waste transportation
- Environmental compensation for violations

However, implementation remains inconsistent due to staffing shortages, monitoring gaps, and limited citizen compliance.

IV. Implementation Challenges

Despite comprehensive regulatory frameworks, Gurugram faces persistent operational and administrative constraints notwithstanding the existence of a comprehensive statutory and regulatory framework governing solid waste management, Gurugram continues to experience significant operational, institutional, and administrative constraints. The divergence between policy design and on-ground implementation reflects structural capacity limitations, coordination deficiencies, and socio-behavioural complexities. The following subsections critically examine the principal implementation challenges confronting the municipal solid waste management system in the city.

4.1 Legacy Waste and Landfill Pressure

Accumulation of legacy waste at designated dumping sites has created environmental and public health concerns, including leachate contamination and air pollution. One of the most pressing environmental concerns in Gurugram pertains to the accumulation of legacy waste at designated dumping and landfill sites. Years of inadequate segregation, limited processing capacity, and dependence on landfilling have resulted in the formation of substantial waste mounds. The environmental implications of legacy waste are multidimensional. Decomposing mixed waste generates leachate, which poses a serious risk of groundwater contamination, particularly in areas lacking adequate landfill lining and leachate treatment systems. Additionally, the emission of methane and other greenhouse gases contributes to air pollution and increases the risk of spontaneous fires, further aggravating environmental degradation and public health risks.

The continued reliance on landfill-based disposal indicates insufficient progress toward decentralized waste processing, composting, biomethanation, and material recovery. Although biomining and remediation efforts have been proposed periodically, implementation has often been delayed due to contractual, financial, and technical constraints. Consequently, landfill pressure remains a structural weakness within the city's waste governance architecture.

4.2 Institutional Coordination Gaps

Fragmented responsibilities between MCG, GMDA, district administration, and environmental authorities sometimes result in delayed decision-making and accountability ambiguities.

Solid waste management in Gurugram operates within a multi-tiered governance structure involving the Municipal Corporation Gurugram (MCG), the Gurugram Metropolitan Development Authority (GMDA), district administration authorities, and regulatory oversight bodies such as the Haryana State Pollution Control Board (HSPCB).

While this multi-actor framework is intended to enhance specialization and oversight, it has, in practice, generated jurisdictional overlaps and coordination challenges. Fragmented responsibilities often result in:

- Delays in inter-departmental approvals
- Ambiguities in accountability allocation
- Inefficiencies in infrastructure planning
- Limited data sharing across institutions

The absence of a fully institutionalized coordination mechanism with clearly defined performance metrics exacerbates administrative fragmentation. Moreover, vertical coordination between state-level authorities and municipal administration sometimes lacks procedural clarity, particularly in crisis situations involving landfill overflows or environmental litigation. These coordination gaps undermine policy coherence and weaken implementation effectiveness.

4.3 Audit Observations

Findings from the Comptroller and Auditor General of India (CAG) have highlighted:

- Delays in project execution
- Non-compliance with SWM Rules
- Inefficiencies in waste processing contracts
- Inadequate infrastructure development

These findings indicate systemic governance and capacity deficits.

Independent performance assessments have further highlighted systemic shortcomings in the implementation of solid waste management policies. Reports issued by the Comptroller and Auditor General of India (CAG) have identified several operational and governance deficiencies, including:

- Delays in the execution of waste processing and disposal projects
- Partial or inconsistent compliance with the Solid Waste Management Rules, 2016
- Inefficiencies in contract management and concessionaire oversight
- Inadequate development of scientific processing and landfill infrastructure

These findings suggest deeper structural issues related to procurement processes, monitoring systems, financial planning, and administrative capacity. In particular, contract-based service delivery models require robust performance evaluation mechanisms, which appear insufficiently institutionalized. The recurrence of audit observations across reporting periods indicates that corrective mechanisms have not been fully effective in addressing systemic weaknesses.

4.4 Public Participation and Behavioural Barriers

Source segregation compliance remains inconsistent. Behavioral change communication, community awareness campaigns, and citizen engagement mechanisms require strengthening.

Effective solid waste management is contingent not only upon administrative efficiency but also upon sustained citizen compliance and behavioural transformation. In Gurugram, compliance with source segregation norms remains uneven across residential colonies, commercial establishments, and bulk waste generators.

Behavioural barriers stem from several interrelated factors, including limited environmental awareness, convenience-driven disposal habits, and inadequate enforcement of segregation mandates. Although awareness campaigns and community outreach initiatives have been undertaken periodically, their impact has been constrained by inconsistent follow-up, insufficient monitoring, and limited integration with enforcement measures.

Furthermore, participatory governance mechanisms—such as ward committees, resident welfare associations (RWAs), and stakeholder consultation platforms—have not been uniformly leveraged to strengthen accountability and civic engagement. Without sustained behavioural change communication (BCC) strategies and incentive-based compliance systems, regulatory mandates alone are unlikely to achieve full effectiveness.

V. Discussion

The administrative model of SWM in Gurugram demonstrates a structured yet evolving governance framework. Key characteristics include:

- Legal backing through national rules
- Stronger enforcement through state exigency measures
- Increased technological integration
- Move toward decentralized processing

However, structural improvements are necessary in:

- Contract management oversight
- Inter-agency coordination
- Data transparency and reporting
- Capacity building at ward level
- Sustainable financial planning

The declaration of a waste exigency represents a governance innovation, though long-term sustainability depends on institutional reforms rather than emergency measures.

VI. Policy Recommendations

1. Strengthening decentralized waste processing infrastructure.
2. Institutionalizing real-time data monitoring dashboards.
3. Enhancing citizen participation through incentive-based segregation models.
4. Regular third-party audits of concessionaire performance.
5. Expanding integration of informal waste pickers into formal systems.
6. Improving landfill remediation and bio-mining strategies.

VII. Conclusion

The solid waste management framework in Gurugram reflects a legally robust but operationally strained urban governance system. While policy architecture aligns with national environmental mandates, administrative execution faces capacity, coordination, and compliance challenges. Sustainable transformation requires institutional strengthening, financial investment, civic engagement, and continuous regulatory enforcement.

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