



A Comparative Study of the Administrative Frameworks: Haryana Pollution Control Board and Selected Municipal Corporations in Gurugram and Rohtak District

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Abstract

Municipal solid waste management is one of the major issues faced by urban local bodies in India particularly in fast emerging states like Haryana. The efficiency of the waste management system is largely influenced by the administrative setup at state level regulatory authority and local municipality. The present study is a comparison of organizations of Haryana Pollution Control Board (HPCB) and two selected Municipal Corporations (MC) like Gurugram and Rohtak in terms of its organisational structural efficient, functional efficiency as well as public perception. Utilizing a comparative and descriptive research design, the study applied mixed data multilevel methods including survey responses from 459 respondents along with in-depth interviews of municipal staff and key stakeholders. Results indicate that whereas service delivery in Gurugram is considered to be more timeous and responsive, it is perceived that Rohtak executes solid waste management more effectively. However, in both cities significant shortfalls in waste segregation infrastructure are evident and only a small number of households have been provided with separate bins. Also, public satisfaction and awareness of administrative structures are quite different in the two cities. Inadequate coordination of municipal corporations with the HPCB was also observed in the study, signifying that regulatory oversight and field implementation may not be well connected. To address these issues the empirical work suggests strengthening cooperation between agencies, involving local people in decision making, training staff and moving towards performance based systems. These developments are necessary if a more transparent, accountable and effective waste management régime is to emerge in Haryana.

Keywords: Municipal Governance, Solid Waste Management, Haryana Pollution Control Board, Urban Administration, Waste Segregation

1. Introduction

Municipal solid waste management (MSWM) is considered as well as serious urban issue in India, particularly in fast-urbanizing states such as Haryana. As the population grows, rapid urbanization expands and consumption habits change, efficient waste management is no longer a pressing environmental challenge; it is also an imperative administrative duty. The Solid Waste Management

Rules, 2016 and Swachh Bharat Mission are some of the legal framings that have given a robust policy direction but they are dependent to a large extent on the administrative capacity or lack thereof of local and state agencies.

The present study is aimed at knowing and comparing two types of urban local bodies in the Haryana, i.e. Gurugram and Rohtak Municipal Corporations and state level regulator as HPCB through administrative mechanism they have to deal with solid waste management. Gurugram as a mostly urbanized service-led town situated in the National Capital Region (NCR) is quite different from Rohtak which is a semi-agrarian mid-sized town with slow rate of urbanization. These contrasting urban forms create a good comparative basis for investigations of how administrative structures operate across different types of urban environment. The implementation of compliance to environment and waste management policies is also influenced administratively, by the operating acumen of HPCB. The study attempts to map these mechanisms, assess inter-agency coordination and operation of the Pollution Control Board and Municipal Corporations in Haryana.

Review of Literature

Urban waste management has become an increasing focus for the scholarly community in India over the last ten years due to rapid urban growth, constrained administrative capacities and environmental pressures. Others have examined the institutional and regulatory regimes that underpin waste management in Indian cities, thereby laying a good base for comparative and policy-directed studies.

Kapoor and Malik (2016) focused on municipal governance and waste policy in Haryana, and contended that the state's urban policy is more guided by compliance rather than reform. The Haryana Pollution Control Board (HPCB) too barely plays its part in municipal solid waste monitoring, say officials. Such observations are highly relevant to the current study that aims at analysing the administrative setup of HPCB vis a vis municipal bodies.

Desai and Patil (2017) assessed administrative efficiency of the MSWM systems among municipalities and observed that the performance of cities were identify defined organizational structure, specialized SWM cell, accountability system. Their review supports the importance of examining administrative systems in assessing solid waste performance measures.

Kumar and Singh (2018), in their work "Institutional Framework for urban waste management in India", provide an overall insight over the working mechanism of governmental levels coupled with emphasis to division to duties among State Pollution Control Boards (SPCBs) and Municipal bodies.

Their findings revealed overlapping jurisdictions, lack of coordination and weak local capacity, which is particularly acute in rapidly expanding urban areas like much of Haryana.

Singh and Dubey (2018) provided a macro overview of urban environmental planning, including the consideration that while ensuring integrated planning approach bridging MSWM with LUT, TPTP & Housing is important. They argue that fragmented planning at the municipal level results in inefficiently located waste disposal facilities and environmental degradation.

Sharma and Jain (2019) studied the SWM of Indian cities regarding tier-1 & 2 cities in their comparative analysis. Their research highlights that though metros have implemented advanced waste technologies, smaller cities continue to depend on unscientific disposal and old administrative systems.

Chatterjee (2020) concentrated on waste governance at ULBs and found the institutional capacity of municipal corporations to plan, fund and monitor SWM services as weak. She maintained that political meddling, limited human resource capacities and non-implementation of countrywide SWM rules were the reasons behind the poor urban sanitation service.

Chaudhary and Kumar (2020) examined the policy regulation issues in SWM reform in India, particularly on uncertain roles and responsibilities between state and local governments. Their research contended that state governments typically dictate the policy framework, but operational responsibilities then trickle down upon under-resourced local governments, which in turn results in implementation failure.

Joshi and Mehta (2020) investigated the potential of decentralized waste management, and found that the cities where urban local bodies have installed small-scale composting units either on a plot by plot basis or community-based waste projects worked more sustainably as well as cost effectively. Their research suggests that a mid-sized city like Rohtak could make use of small-scale, low-tech interventions in a context where large-scale infrastructure is unrealistic.

Chopra and Verma (2021) scrutinized the role of State Pollution Control Boards (SPCBs) for environmental regulation, indicating that it is mostly confined to monitoring and data collection rather than vigilant enforcement. This bureaucratic slowness is what prevents effective change in environmental health and urban waste management.

Sinha and Rao (2021) integrated the SWG with the SDGs and examined participation of urban local bodies to achieve goals under SDG 11 (Sustainable Cities and Communities). They also note that weak state capacity, limited data systems and low citizen engagement stymie SDG action in cities such as those in Haryana.

Narayan and Thomas (2021) adopted a citizen centric approach, exploring the citizens contributions in SWM and urban governance. They learned that public education, relations with the civic body and citizens' participation play pivotal roles in enhancing waste segregation and cleanliness.

Reddy and Kaur (2022) compared the delivery of sanitation services in tier-1 and tier-2 cities, citing financial resources and administrative instrumentalities as major factors. Gurugram's sounder finances make it possible for it to contract services and invest in waste-to-energy projects, while cities such as Rohtak continue with traditional methods because their budgets are stretched thin.

Ali and Banerjee (2023) studied compliance problems faced during the execution of SWM Rules, 2016 in Indian cities. They discovered that many ULBs have not been strict in implementing even the simplest of mandates like segregation at source and MRFs. Their conclusions mirror the predicaments of cities like Rohtak where ground-level implementation typically lags behind policy intent.

Collectively, these researches suggest that the administrative and institutional dimensions of waste management are strong correlates of success in urban India. Be it the potential of municipal corporations, SPCBs' regulate role, public participation or flexibility to create local level waste infrastructure everything is key. Further, a comparative study as juxtaposing Gurugram and Rohtak provides an important window to examine how variations in governance, urban form, economic base, and infrastructure planning shape the capacity of municipal solid waste systems.

Significance and Justification of the Study

This is an important area of focus at the policy and practice levels. With a rapid pace of urbanization especially in areas like the National Capital Region (NCR), Municipal Solid Waste Management (MSWM) presents an even greater challenge. The need for effective administrative institutions cannot be underscored enough, for it is they that determine how well policies such as the SWM Rules, 2016 and programmes like the Swachh Bharat Abhiyan get translated into action. The cities where the study will be conducted — Gurugram and Rohtak — have critical differences. Gurugram is an emerging high-income urban area of rapidly increasing per-capita waste generation. On the other hand, Rohtak is a more common tier-II city scenario with low growth pace, poor infrastructure and lack of resources. Contrasting the administrative responses in these two cities enables scalable response measures and local challenges to be distinguished. It further explains the function of Haryana Pollution Control Board as state authority and its liaison with Municipal Corporations. The HPCB's responsibility for the control of pollution standards, scientific disposal of waste and technical assistance is important in explaining the vertical division of tasks related to waste governance. It also measures the disparity

between what people know and how they actually behave. It measures the extent to which public satisfaction, engagement and cooperation in waste related services are influenced by administrative decisions. In terms of governance, the study offers fresh insights on the decentralized operations of urban institutions and deepens the emergent discussion on administrative restructuring, citizen inclusion and sustainable urbanization in India.

Statement of the Problem

A Comparative Study of the Administrative Frameworks: Haryana Pollution Control Board and Selected Municipal Corporations in Gurugram and Rohtak District.

Objective

1. To study the administrative framework of Haryana Pollution Control Board and selected Municipal Corporations of Haryana State.

Hypothesis

1. The administrative framework of the Haryana Pollution Control Board is more structured and functionally efficient than that of the selected Municipal Corporations in Haryana State

Research Design

The present research is comparative and descriptive in nature wherein the administrative machinery of Haryana Pollution Control Board (HPCB) and selected Municipal Corporations of Haryana, i.e., Gurugram and Rohtak, have been studied. This study undertakes a comparative analysis focusing on the administrative structures, operational efficiency, and policy implementation across multiple levels—between Gurugram and Rohtak, among the respective Municipal Corporations, and between these local bodies and the state-level Haryana Pollution Control Board (HPCB). The descriptive part of the design aims to identify institutional processes, performance indicators, stakeholder perceptions and inter-agency coordinating systems defining solid waste governance in these urban landscapes.

Research Approach

This study used a mixed methods design to ensure comprehensive data collection and analysis. At the quantitative level, 459 respondents in both residential dwellings and commercial premises were surveyed to collect information on experiences and satisfaction with waste management services. On the qualitative side too, more than 20 key informants were interviewed including municipal officials, engineers, sanitary inspectors and sanitation workers were interviewed to understand institutional constraints and administrative dynamics in waste governance in these cities.

Sampling Strategy

A stratified random sample design was used in this study to obtain level and sector specific representation from different wards and zones of the selected cities. It was carried out for the selection of the household and commercial respondents, and reflects income classes, geographic locations from which the waste may generate. For the qualitative arm, purposive sampling was used to identify key stakeholders either in administrative or operational positions related to solid waste management. This included officers of HPCB, senior officials associated with the Municipal Corporations and frontline sanitation workers whose insights helped in understanding institutional operational dynamics at ground level.

Data Collection Tools

Different tools were applied in this research for data collection. A structured questionnaire comprising 46-47 items was developed for the residential and commercial respondents. Items from the questionnaire were both Likert-scale and multiple-choice, and related to waste separation, frequency of collection, quality of service and knowledge regarding municipal policies. Another interview schedule was developed for officials and sanitation staff with attention on administrative process, problems faced, resource distribution and inter departmental coordination. Furthermore, a comprehensive checklist was used by the researchers to evaluate the waste bins, transfer stations, vehicle routing systems and landfill condition of physical infrastructures in both cities.

Data Sources

This research is based on primary and secondary data. The major data is collected through field survey, interview and observation in various wards of Gurugram and Rohtak. Secondary data includes official records of the municipal corporation, annual report of Haryana Pollution Control Board (HPCB), rankings of Swachh Bharat Abhiyan (Urban), policy documents and web portals of government. Such triangulation of data sources and use of methodology supported the credibility of findings and enhanced analytic trustworthiness.

Data Analysis

Descriptive statistics such as frequency distributions, percentages, and cross-tabulations were generated to identify patterns in public perception, service coverage, and satisfaction levels.

Table 1: Distribution of Study Participants across GMC and RMC

Sr. No.	Area of study	Frequency	Percent
1	Gurugram Municipal Corporation (GMC)	234	50.98
2	Rohtak Municipal Corporation (RMC)	225	49.02
	Total	459	100

Source: Field survey

The distribution of study subjects in the two urban local bodies (ULBs) – Gurugram Municipal Corporation and Rohtak Municipal Corporation is given in table 1. Of the total 459 respondents who participated in this study, the population comprised 234 (50.98%) were under Gurugram Municipal Corporation and others 225 participants (49.02%) belonged to Rohtak Municipal Corporation jurisdiction respectively. The breakdown is roughly equal, which means the two cities are evenly represented. This stratified sampling allows to fairly compare the command structures, provision of public services, and stakeholders' perception towards solid waste management in both municipal corporate. The information was gathered using field survey in several wards of Gurugram and Rohtak to take into account the geographic and demographic diversity of the respondents.

Table 2: The Municipal Corporation provides separate bins for waste classification

Sr. No.	The Municipal Corporation provides separate bins for waste classification	Rohtak		Gurugram	
		Frequency	Percent	Frequency	Percent
1	Yes	20	8.9	17	7.3
2	No	205	91.1	217	92.7
	Total	225	100	234	100

Source: Field survey

Table 2 indicates that the availability of separate bins for waste segregation by municipal corporations in both cities is abysmally low. In Rohtak, 8.9% respondents claimed that separate bins were given to them and 91.1% denied it. In Gurugram as well, only 7.3% accepted the existence of bins while the remaining 92.7% denied it. This indicates a significant shortcoming in promoted source-segregation, which is mandated by national guidelines and presents a case for better infrastructure-building and policy translation on part of urban local bodies.

Table 3: Municipal Corporation has effective solid waste management technique

Sr. No.	Municipal Corporation has effective solid waste management technique	Rohtak		Gurugram	
		Frequency	Percent	Frequency	Percent
1	Yes	200	88.9	99	42.3

2	No	10	4.4	7	3.0
3	Can't Tell	15	6.7	128	54.7
	Total	225	100	234	100

Source: Field survey

Table 3 reveals the public perceptions of the efficacy of solid waste management practices in Rohtak and Gurugram. At Rohtak, a large number – 88.9 per cent of respondents held that the Municipal Corporation employs effective approaches; only 4.4 per cent disagreed and 6.7 were not sure about it. Gurugram – On the other hand, in Gurugram there is more unclear and divided opinion as only 42.3% believe it to be working fine, 3% that it's not while a substantial number of population seem uncertain as shows by the 54.7% who went with "Can't Tell". This indicates that while the residents of Rohtak have perceptions about their system being operational, there is more ambiguity or lack of knowledge in Gurugram of how waste was being managed indicating gaps in transparency, information sharing or public engagement.

Table 4: Municipal Corporation works on time

Sr. No.	Municipal Corporation works on time	Rohtak		Gurugram	
		Frequency	Percent	Frequency	Percent
1	Always	65	28.9	158	67.5
2	Some times	100	44.4	72	30.8
3	Negative	60	26.7	4	1.7
	Total	225	100	234	100

Source: Field survey

Table 4 reveals respondents' opinion on the promptness of urban services. In Gurugram, 67.5 per cent people felt that the Municipal Corporation "always" works on time while some 30.8 per cent said it "sometimes" does while only 1.7 per cent had a negative opinion about its functioning. On the other hand, Rohtak presents a less rosy picture, with only 28.9% respondents thinking the Corporation is "hardly ever" time-bound, 44.4% feeling its works on time "sometimes" and as much as 26.7 expressing dissatisfaction on this count." These statistics reflect better and faster service delivery in Gurugram vis-a-vis Rohtak where punctuality is still a concern to some measure.

Table 5: Satisfaction of Solid Waste Management by Municipal Corporation

Sr. No.	Satisfaction of Solid Waste Management by Municipal Corporation	Rohtak		Gurugram	
		Frequency	Percent	Frequency	Percent
1	Yes	80	35.6	159	67.9

2	No	120	53.3	48	20.5
3	Can't Tell	25	11.1	27	11.5
	Total	225	100	234	100

Source: Field survey

Table 5 reveals differing levels of public satisfaction with solid waste management services in Rohtak and Gurugram. In **Gurugram**, **67.9%** of respondents reported being satisfied with the services provided by the Municipal Corporation, while **20.5%** expressed dissatisfaction and **11.5%** were uncertain. On the other hand, in **Rohtak**, only **35.6%** of respondents were satisfied, whereas a majority of **53.3%** were not, and **11.1%** could not express a clear opinion. This indicates a significantly higher satisfaction level in Gurugram, suggesting better performance or perception of municipal waste management compared to Rohtak.

Findings of the Study

The survey findings highlight dissimilarities between the residents of Gurugram and Rohtak in terms of perceptions towards municipal solid waste management. Gurugram is perceived to be more proactive and responsive with regards to service delivery, while Rohtak is considered better when it comes to effective management of waste as a whole. But both cities have omitted the deployment of separate wastebaskets for waste segregation and awareness among public is not much. Satisfaction is better in Gurugram, but many citizens of both cities don't understand administrative procedures indicating a communication deficit. The impact of Haryana Pollution Control Board on daily municipal solid waste management seems to be either invincible or negligible.

Implications

The findings suggest that effective waste management requires more than infrastructure—it depends on strong coordination, public engagement, and administrative clarity. The limited role of the HPCB and weak implementation of waste segregation indicate systemic gaps. Public perception is closely tied to visible service delivery and citizen involvement, which need improvement in both cities.

Recommendations

1. Municipalities should provide separate bins and promote waste segregation through awareness drives.
2. Stronger coordination is needed between the HPCB and Municipal Corporations.
3. Public feedback systems and timely communication should be improved.

4. Training and capacity building of municipal staff must be prioritized.
5. Adopt performance-based monitoring and explore public-private partnerships for waste processing

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