FROM COMPLIANCE TO INNOVATION

Portal for Managing Bulk Waste Generators by the Municipal Corporation of Gurugram

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All the concerned officials from the Municipal Corporation of Gurugram, including ex Additional Commissioner Dr Balpreet Singh, BWG in-charge Colonel Sanjay Pande, members of Citizens' Supervisory Committee, Mr Rahul Khera, and citizens of Gurugram.

Maps used in this document are not to scale.

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INTRODUCTION

Following the recommendations made by CSE's 2023 study *Solid Waste Management by Bulk Waste Generators in Gurugram*, the Municipal Corporation of Gurugram made some significant strides in enhancing the regulatory framework for bulk waste generators (BWGs), including deploying a dedicated monitoring and facilitating unit and launching a web portal where BWGs can register themselves and upload a compliance report every month.

As recommended in the aforementioned study, the city government also revamped the survey of BWGs to map all possible BWG entities in the city.

It has also rejuvenated the Citizens' Monitoring Committee for better collaboration and transparency.

INTRODUCTION

The Solid Waste Management (SWM) Rules 2016 defines bulk waste generators (BWGs) as buildings occupied by Central government departments or undertakings, state government departments or undertakings, local bodies, public sector undertakings or private companies, hospitals, nursing homes, schools, colleges, universities and other educational institutions, hostels, hotels, commercial establishments, markets, places of worship, stadia and sports complexes that have an average waste generation rate exceeding 100 kg per day and have a built-up area of 5,000 sq. m or more or either one.

In accordance with the 2017 Central Public Health and Environmental Engineering Organisation (CPHEEO) Guidelines, a BWG typically contributes around 30–40 per cent of the total waste generated by a city. Gurugram, often referred to as the millennium city, generates approximately 1,200 tonnes per day (TPD) of municipal solid waste, of which roughly 1,000 TPD is sent to the Bandhwari landfill due to limited waste-processing capabilities.

IN ACCORDANCE WITH THE 2017 CPHEEO GUIDELINES, A BWG TYPICALLY CONTRIBUTES 30–40 PER CENT OF THE TOTAL WASTE GENERATED BY A CITY

The city had a twenty-two-year tripartite agreement involving a concessionaire. However, the contract had limited effect in improving the waste management ecosystem by Municipal Corporation of Gurugram (MCG). It is important to understand that the concessionaire was engaged for services such as collection, transportation, treatment and disposal for all the wards and zones within the jurisdiction of the MCG, including serving the bulk waste generators, for managing their dry waste.

Table 1: Summary of the key recommendations emerged from the study and actions taken by MCG

Key recommendations	Steps taken by the city	Timeframe
Notifying the draft byelaws: The draft of MCG's byelaws has been in progress since 2018. Considering the significance of notifying the byelaws for solid waste management with adequate mandates for the bulk waste generators (BWGs), the study strongly recommended that the state government's UDD (Urban Development Department) notify the byelaw with mandatory provisions for BWG compliances.	MCG has notified the draft byelaw for public comments in March 2024, with specific provisions for BWG compliances. Later, the revised byelaws were submitted through proper channels to the Urban Development Department of Haryana state. However, due to the assembly elections, they are yet to be passed and gazetted, but their enactment is imminent.	January 2024
Revamping the survey of BWGs: CSE strongly recommended that the existing database of BWGs is erroneous, specifically considering MCG's decision to reduce the waste generation criteria to 50 kg as compared to the SWM rules mandate of 100 kg back in 2002–23. The study therefore pitched for a repeat survey.	The city has revamped the survey which was completed by MCG to arrive at a database of 1,681 BWGs.	August 2024
Dedicated monitoring cell: The study recommended that Gurugram needs to establish a proper monitoring cell for BWGs. The cell can do a comprehensive survey to identify and map the BWGs, and inspect the sites. The cell should also develop a periodic inspection plan and conduct field visits to ensure compliance. The monitoring should be a concurrent and regular affair and should be evaluated properly for further actions.	The Government of India's flagship programme Swachh Bharat Mission is led by Additional Commissioner of MCG. Under his leadership, the city has created a dedicated monitoring cell to deal with the bulk waste generators existing in the city	November 2024
Strengthening community involvement and rejuvenating the Citizens' Monitoring Committee (CMC): To make waste management more inclusive, even among the bulk waste generators, the CMC historically engaged with city officials to enforce legal mandates related to BWGs, provided training and guidance to other BWGs, and contributed to the development of a forward-thinking vision for Gurugram centred on BWGs and sustainable waste management.	Following the study done by CSE, the city restored the Citizens' Monitoring Committee in September 2023 and renamed it Citizens' Supervisory Committee (CSC) in March 2024. Some notable achievements of the CSC include revising the draft byelaws, facilitating re-empanelment of agencies and helping in establishing a dedicated dashboard for BWGs.	March 2024
Empanelment of private agencies to support BWGs: The city earlier had de-empaneled the existing pool of private agencies owing to poor performance of the agencies. The study strongly suggested to relook this decision.	MCG has re-empaneled 21 service providers for BWGs for the following categories: management of organic waste; management of both organic and inorganic waste, including domestic hazardous waste; and e-waste management, authorized by CPCB/Haryana State Pollution Control Board. However, the city has made it clear that the BWGs are free to choose service from any agency of their choice, and not mandatorily from the empaneled list.	March 2024
Capacity building of MCG officials: It should be concurrent and consistent.	Several capacity-building workshops were initiated with MCG officials to enhance the BWG ecosystem, covering aspects such as mapping, survey methodology and questionnaire development. While these efforts were a crucial step forward, there is potential to further expand and deepen these initiatives to achieve broader impact	Continuous process
Transparency of data and dedicated dashboard for BWGs: The recommendation was to have quantifiable data around the waste generated by BWGs in the city as quantum of waste being managed by them is of utmost importance for a city. A dedicated dashboard containing this data, online registration of the BWGs and a list of authorized service providers working with the BWGs would definitely help the city monitor and facilitate the BWGs in the near future.	As the city has embraced numerous recommendations put forth by CSE following their study, the latest development is the establishment of a management information system (MIS) portal specifically for BWGs	October 2023

Source: CSE

INTRODUCTION

In September 2023, a Centre for Science and Environment (CSE) study *Solid Waste Management by Bulk Waste Generators in Gurugram*, notably influenced the city's decision-making process (see *Table 1: Summary of the key recommendations emerged from the study and actions taken by MCG*).

Objectives

- Assess the current progress of BWG compliance, particularly following the interventions made by CSE during its previous assessment of waste management practices among BWGs.

- Evaluate the effectiveness of the BWG portal launched by MCG in strengthening the identification, mapping, and regulatory oversight of bulk waste generators in Gurugram.

- Examine the current status of BWG identification and their distribution across MCG's wards and zones.

- Identify gaps and challenges in the implementation of waste management regulations among BWGs.

- Provide strategic recommendations to:
  - » Enhance the functionality of the BWG portal;
  - » Optimize the portal's role in facilitating data-driven decision-making;
  - » Strengthen enforcement mechanisms; and
  - » Improve overall waste management efficiency of the BWG in Gurugram.

Methodology

The study is based on two primary data sources, i.e., (i) data gathered from the BWG portal itself, and (ii) consultation with officials from MCG with regard to validation of the portal data and enforcement. The analysis and recommendations are formulated through a detailed assessment of the data, supplemented by a series of consultations with other stakeholders such as service providers, the BWGs themselves and local civil society organizations operating in the city. This multi-stakeholder approach ensures a comprehensive understanding of the BWG ecosystem and informs strategic recommendations for its improvement.


MUNICIPAL CORPORATION
OF GURUGRAM

2

INSTITUTIONAL ARRANGEMENTS

MCG has a dedicated unit for management of BWGs, with one BWG in charge and four zonal officers, with three ground-level members in each zone.

Until February 24, 2025, the monitoring unit was able to register 1,917 BWGs in the dedicated web portal and continues with the task as a dynamic approach.

All the registered BWGs have to upload a monthly waste processing report in the portal for the purpose of monitoring and compliance.

INSTITUTIONAL ARRANGEMENTS

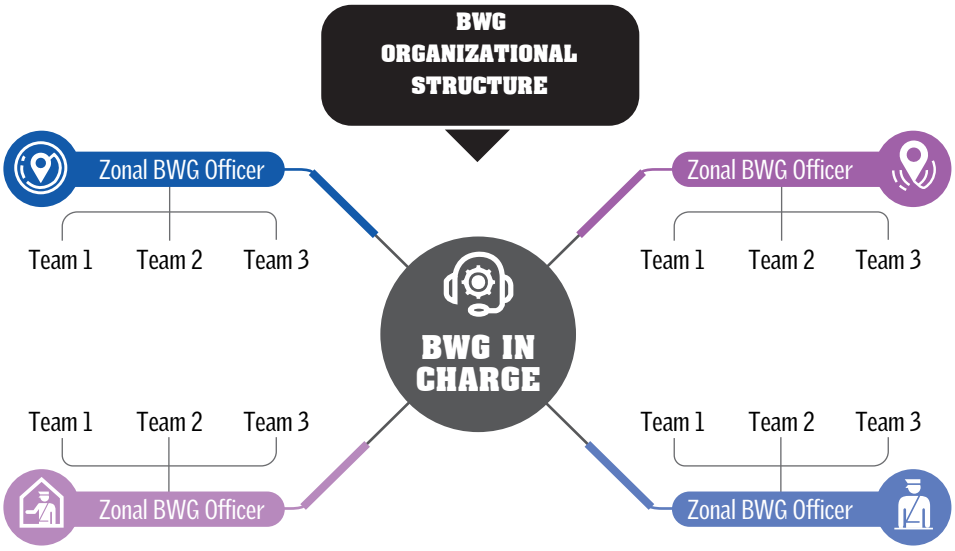
In 2018, MCG changed the definition of BWGs by reducing the quantity of daily waste generation from 100 kg to 50 kg, with the objective of reducing the waste management burdens on the part of urban local bodies (ULBs). The revised definition continued till 2023. However, owing to some administrative considerations, the definition of BWGs as laid down in the Solid Waste Management Rules 2016 has been reinstated. The current scope of identifying BWGs therefore has followed the revised criteria of more than 100 kg per source, apart from the built-area criteria of 5,000 sq. m.

Dedicated unit for management of BWGs

The city has a dedicated waste management cell headed by the Additional Commissioner under the administrative control of the government of Haryana to implement the flagship Swachh Bharat Mission (SBM) 2.0.

A subset of the waste management cell in MCG was created in October 2024. The cell is dedicated to deal with bulk waste generators within the jurisdiction of the city. The current cell for the BWGs had augmented strength in November 2024 after hiring new full-time officials to look after the issue of BWGs. The BWG cell is led by a BWG in-charge, and includes four zonal BWG officers responsible for overseeing the entire process in their respective zones, which include a field visit, audit, registration, compliance monitoring and reporting back (see *Figure: 1 MCG organizational structure for BWGs*). Each zonal officer manages three teams, with four ground-level officers per team, bringing the total workforce to 53, even though some

Figure: 1 MCG organizational structure for BWGs



Source: CSE

of the positions are yet to be filled. This speaks for the administrative commitment of MCG to improve waste management by the BWGs the city.

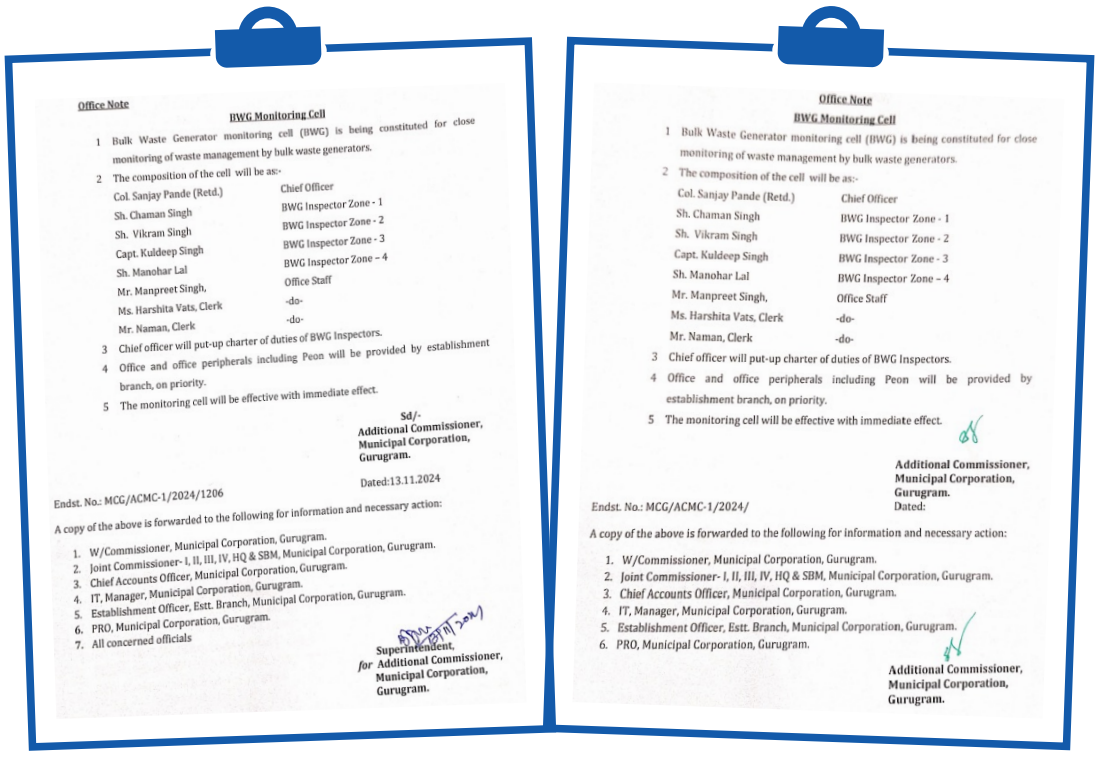
CURRENT SYSTEMS OF OVERSIGHT MONITORING MECHANISM

The cell has been empowered with administrative authority to visit any property to determine whether they were meeting the legal criteria to be identified as a BWG (see *Image 1: Circular on the formation of the BWG monitoring unit*). It typically follows the following protocol:

1. MCG had earlier identified 1,681 BWGs across the city through an extensive on-ground survey that ended in August 2024; and
2. MCG used their property tax database/building approval database to determine the BWGs who did not get identified during the previous round

INSTITUTIONAL ARRANGEMENTS

Image 1: Circular on the formation of the BWG monitoring unit



Office Note

BWG Monitoring Cell

1 Bulk Waste Generator monitoring cell (BWG) is being constituted for close monitoring of waste management by bulk waste generators.

2 The composition of the cell will be as:-

Col. Sanjay Pande (Retd.)	Chief Officer
Sh. Chaman Singh	BWG Inspector Zone - 1
Sh. Vikram Singh	BWG Inspector Zone - 2
Capt. Kuldeep Singh	BWG Inspector Zone - 3
Sh. Manohar Lal	BWG Inspector Zone – 4
Mr. Manpreet Singh,	Office Staff
Ms. Harshita Vats, Clerk	-do-
Mr. Naman, Clerk	-do-

3 Chief officer will put-up charter of duties of BWG Inspectors.

4 Office and office peripherals including Peon will be provided by establishment branch, on priority.

5 The monitoring cell will be effective with immediate effect.

Sd/-
Additional Commissioner,
Municipal Corporation,
Gurugram.

Endst. No.: MCG/ACMC-1/2024/1206 Dated:13.11.2024

A copy of the above is forwarded to the following for information and necessary action:

1. W/Commissioner, Municipal Corporation, Gurugram.
2. Joint Commissioner- I, II, III, IV, HQ & SBM, Municipal Corporation, Gurugram.
3. Chief Accounts Officer, Municipal Corporation, Gurugram.
4. IT, Manager, Municipal Corporation, Gurugram.
5. Establishment Officer, Estt. Branch, Municipal Corporation, Gurugram.
6. PRO, Municipal Corporation, Gurugram.
7. All concerned officials

Superintendent,
for **Additional Commissioner,**
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6. PRO, Municipal Corporation, Gurugram.

Additional Commissioner,
Municipal Corporation,
Gurugram.

Source: MCG

of survey and thereby identified an additional 306 sources who could also be BWGs.

Therefore the BWG cell in MCG has the task to (a) enforce the 1,681 BWGs to register themselves using the portal and (b) verify the additional 306 sources in accordance the defined criteria and get them registered as well. In the entire process, the zonal units make multiple visits to the identified and yet to be identified properties in the city. For registration, awareness=building and compliance-monitoring, the cell follows the process summarized below:

- **First visit:** Delivering the message after a round of initial inspection that the property has been identified as a BWG. Thereafter they share a copy of the advisory from MCG which details the roles and

responsibility of the BWGs in terms of compliance and monitoring. At the same time, the visiting team also advises the property to immediately register themselves in the portal of MCG.

- **Second visit:** In case the BWG has failed to register themselves, the zonal team comes back to provide an orientation to the concerned property with hands-on support for registration. The BWG does the registration during the second visit of the zonal unit and upon registering, they receive an auto-generated acknowledgement.

THERE ARE CONCERNS ABOUT THE PROCESS, FAIRNESS AND TRANSPARENCY OF IMPOSING THE PENALTY, WHICH WAS REVEALED DURING CONSULTATIONS WITH STAKEHOLDERS DURING THE COURSE OF THE STUDY

After registering, BWGs that believe that they have been identified by mistake and do not meet the waste criteria can apply for exemption from the list in the prescribed legal template. The field team is then mobilized for a round of audit to verify the claim made by the concerned BWG; on-field quantification is done to determine the quantity produced by the source. Following the due diligence process, the visiting team concludes whether the applicant should legitimately be removed from the list of BWGs. Subsequently, if the entity is removed from the list, it starts featuring in the list of exempted entity in the portal. However, if the claim made by the entity is found to be false during the audit, MCG can invoke a penalty of Rs 25,000 to the applicant for exemption. This penalty process known as 'challan', initiated in January 2025, is conducted only in the last week of each month. Till the end of February 2025, 25 entities were issued challan for false claims of exemptions. There are however concerns about the process, fairness and transparency of imposing the penalty, which was revealed during consultations with stakeholders during the course of the study.

INSTITUTIONAL ARRANGEMENTS

Empanelment

MCG has a unique system in place where a number of private agencies have been identified and empaneled as eligible agencies to offer waste management services to the BWGs who are unable to manage it themselves. The process of empanelment followed on the basis of a set of eligibility criteria and proper scrutiny of the applications made by the private agencies. MCG facilitates the process of empanelment to benefit the BWGs but does not participate in the transaction between the BWGs and their preferred empaneled agencies. Therefore, the BWGs are free to choose their preferred agencies on their own terms and conditions, including the cost.

MCG HAD EMPANELED 21 AGENCIES TO ENGAGE WITH THE BWGs AS SERVICE PROVIDERS

Initially MCG had empaneled 21 agencies to engage with the BWGs as service providers. However, owing to performance issues, seven agencies have been de-empaneled, thereby reducing the number of currently empaneled agencies to 14.

The three broad categories that followed the process of empanelment are:

- Category 1: Both organic and inorganic waste, including domestic hazardous waste (DHW)
- Category 2: Organic waste management
- Category 3: e-waste management (see *Table 2: Category-wise list of empaneled agencies*).

General eligibility criteria

1. **Legal registration:** The agency must be registered in India as a limited, private limited, sole proprietorship, partnership, LLP, OPC or public company. Trusts, societies, and Section 25

Table 2: Category-wise list of empaneled agencies

Category no.	Categories of empaneled agencies	Name of empaneled agencies
Category 1	Both organic and inorganic waste, including domestic hazardous waste (DHW)	• Saahas Zero Waste • Green Motive Facilities • Balancing Bits • Eswachh Integrated Solution Pvt. Ltd. • Om Works for Management • Uboontu Foundation • R.S. Traders • Global Green Waste Management • Global Green Waste Management • Earth Recycler Pvt. Ltd • Soni Pipe Factory
Category 2	Organic waste management	Eco Santulan
Category 3	e-waste management	• NAMO eWaste • Deshwal Waste Management

Source: MCG; table by CSE

organizations have also been considered. Waste management must be one of their core businesses.

2. **Regulatory compliance:** The agency must have a valid GSTN (Goods and Services Tax Identification Number) certificate, ESIC (Employees' State Insurance Corporation), and EPF (Employees' Provident Fund) registrations as applicable.
3. **No blacklisting:** The agency should not have been blacklisted, debarred or had contracts terminated by any government or private entity in the last five years. Any ongoing legal disputes must be disclosed ahead of the empanelment process.
4. **Experience:** At least three years of experience in municipal solid waste management for BWGs, or a team expert with a minimum of five years of relevant experience.
5. **Past work and investigations:** Agencies previously engaged with BWGs or ULBs in Haryana (or other states) under investigation for any legal dispute can still be considered, subject to the outcome of the process.

CATEGORIES—SPECIFIC CRITERIA

The specific criteria for the three categories are the following:

CATEGORY 1: Management of all waste streams (wet, dry, domestic hazardous waste)

The empaneled agency:

1. Must provide wet waste processing equipment and services (composting/biomethanation), excluding those using induced heat mechanisms such as organic waste converter (OWC) machines;
2. Should have experience in onsite processing and secondary waste treatment (segregation, crushing, shredding, slurry formation); and
3. Must manage dry and domestic hazardous waste collection, transportation and further processing.

CATEGORY 2: Wet waste management only

1. Same as Category 1 but focused solely on wet waste processing.
2. Agencies must have on-site composting experience for at least two out of five client references.

CATEGORY 3: e-waste management

1. Agencies must be CPCB/HSPCB authorized dismantlers/recyclers.
2. Must have a collection and storage system as per E-Waste Management Rules.

Operational and compliance requirements:

1. Agencies must sign an agreement with the BWGs outlining responsibilities.
2. Waste transportation should be in GPS-enabled, covered vehicles to prevent littering.

3. Must ensure compliance with SWM Rules 2016, National Green Tribunal (NGT), Central Pollution Control Board (CPCB), and State Pollution Control Board (SPCB) guidelines.
4. Sanitary and biomedical waste must be dropped off at designated secondary collection centers.
5. Compost quality must be tested annually at National Accreditation Board for Testing and Calibration Laboratories (NABL)-certified laboratories in Gurugram/NCR.
6. Agencies processing biogas/bio-CNG must adhere to all necessary regulatory compliances.
7. BWGs remain responsible for compliance, and penalties apply for waste mismanagement.

Termination and performance monitoring:

1. Empanelment is valid for a limited period and can be modified or terminated. Typically valid till further notified.
2. MCG reserves the right to de-empanel agencies with a one-month notice if found in violation of any terms of engagement.

These guidelines aim to ensure proper waste management while holding both BWGs and service providers accountable.

However, MCG has now explicitly stated that BWGs can choose any service provider, even if they are not empaneled. This definitely questions the entire process of the empanelment. Moreover, the city has hardly any monitoring mechanism to trace the processing facilitates of both the empaneled and non-empaneled agencies. This might lead to weakening the empanelment system, and make it less relevant

in the context of compliance monitoring. It may result in substantial increase in the quantity of unregulated waste processing. Quality and compliance issues may arise if non-empaneled agencies operate without oversight and there is a risk of ineffective waste management due to limited tracking of disposal practices. Without a proper monitoring mechanism, both empaneled and non-empaneled agencies may operate without any environmental audit, impacting the overall efficiency and sustainability of waste management by BWGs in Gurugram.

Role of Citizens' Advisory Committee (CSC)

As a result of CSE's previous study and subsequent recommendations, Gurugram revamped the citizen's monitoring committee comprising nine eminent citizens from the city headed by the commissioner as 'Chair' and retired secretary, Urban Development Department, Government of India as 'co-chair'. They renamed the committee Citizens' Supervisory Committee (CSC) in March 2024.

CSC, in Gurugram, plays a crucial role in overseeing, advising and monitoring solid waste management activities in the city. It provides critical feedback to ensure sustainable waste management in alignment with the Solid Waste Management Rules 2016. The committee is empowered to visit sites, including that of the Bulk Waste Generators, empaneled agencies and landfill, to verify progress. It convenes monthly review to share updates and apprises MCG on issues such as compliance with waste management norms promoting transparency and accountability in the system.

Gurugram citizens at a consultation workshop with MCG officials on bulk waste generators (BWGs)

Circular issued by MCG of renaming the Citizens' Monitoring Committee to Citizens' Supervisory Committee (CSC)

MCG
MUNICIPAL CORPORATION GURUGRAM
NURTURING GURUGRAM

Notification

Notification No.-SBM/23/02

Renaming of Citizens Monitoring Committee (CMC) constituted vide Memo No. MCG/JC-4/2018/5840 on 07.02.2018 as Citizens Supervisory Committee (CSC) for Solid Waste Management Activities in Gurugram.

Henceforth, the Citizens Monitoring Committee (CMC) constituted vide Memo No. cited above has been renamed as Citizens Supervisory Committee (CSC).

The Committee is mandated to advise, oversee, monitor and give citizens' feedback, on the Solid Waste Management in the city of Gurugram to achieve the objectives of sustainable management of the Solid Waste in terms of the Solid Waste Management Rules 2016, and the norms and procedures notified by the MCG from time to time.

The composition of the Committee shall be as follows:-

1. Chair –Commissioner MCG
2. Co-Chair, Shri Sudhir Krishna, IAS (Retd.), Former Secretary (Urban Development), GOI
3. Member Secretary – Joint Commissioner (SBM)
4. Executive Engineer-(SBM)-Member
5. Mrs. Lakshmi Raghupathy-Member
6. Mrs. Monika Khanna Gulati-Member
7. Mrs. Smita Ahuja-Member
8. Mrs. Sonia Garga-Member
9. Mrs. Kusum Sharma-Member
10. Other Nominated Members from Councilors, Civil Society, Experts, NGO

The Committee shall be entitled to visit all stakeholder sites including, but not limited to, the Bulk Waste Generators, empanelled agencies, associated agencies, Landfill sites and other sites and agencies handling SWM in the city.

The Committee will convene at least once a Month, additional meetings may be convened by Co-Chair, if necessary for updates on progress on work.

The meetings will be minuted and minutes posted on the SWM section of the MCG website.

The non-official Members of the Committee shall be paid a sum of Rs. 1,000 (one thousand only) towards Sitting Fee for the Meetings and Site Visits.

Commissioner,
Municipal Corporation,
Gurugram.

Office Address: - Community Centre, Sector-42, Gurugram

www.mcg.gov.in *jcsbm@mcg.gov.in* *0124-2392109*

Source: MCG

Recent interactions among the city administration, members of CSC, BWGs and the CSE research team indicate that there has been a decrease in the frequency of consultations and consideration of suggestions from the CSC. Meetings have become less frequent, and there appears to be a gap in consulting the CSC on decisions related to BWGs, which is a key aspect outlined in their defined roles and responsibilities. The last meeting between MCG and CSC was held in November 2024.

3

DEDICATED PORTAL FOR MANAGEMENT OF BWGs

In October 2023, MCG introduced a dedicated MIS portal exclusively for BWGs for registration and compliance monitoring.

The portal includes provisions for exemptions from the list of BWG after due diligence and presents a comprehensive list of registered BWGs available at the home page for public viewing.

As per the portal, 52 per cent of the registered BWGs are currently segregating at source in Gurugram.

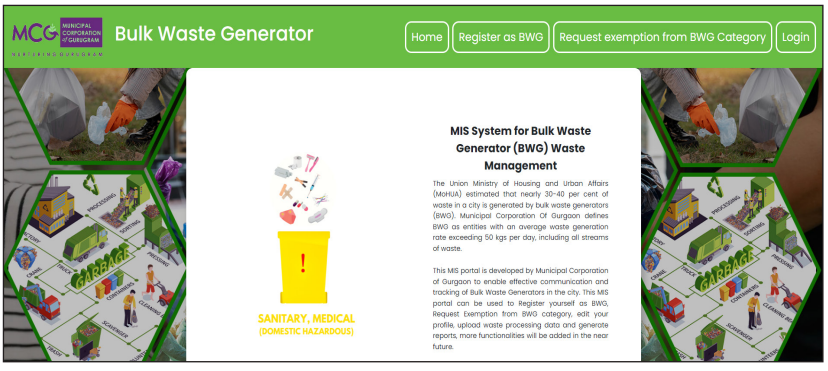
56 per cent of total registered commercial BWGs and 53 per cent of total registered residential BWGs are segregating waste at source.

DEDICATED PORTAL FOR MANAGEMENT OF BWGS

Portal development

In October 2023, MCG introduced a dedicated MIS portal exclusively for the BWGs for registration and compliance monitoring. This is probably the only system in the entire country that is self-expanatory and should be followed by others.

After the portal was introduced, BWGs are mandated to do a one-time registration and upload compliance data once every month. Through this platform, all BWGs identified within the city must register and provide necessary information to the city government to effectively monitor their activities. This initiative aims to create a robust database that not only facilitates efficient monitoring but also enables informed decision-making by the city administration. This includes formulating action plans and making decisions regarding penalties or incentives as part of law enforcement efforts. The portal also includes provisions for exemptions from the list of BWG after due diligence and presents a comprehensive list of registered BWGs available at the home page for public viewing (see *https://onemapdepts.gmda.gov.in/BWG for MCG BWG homepage*).



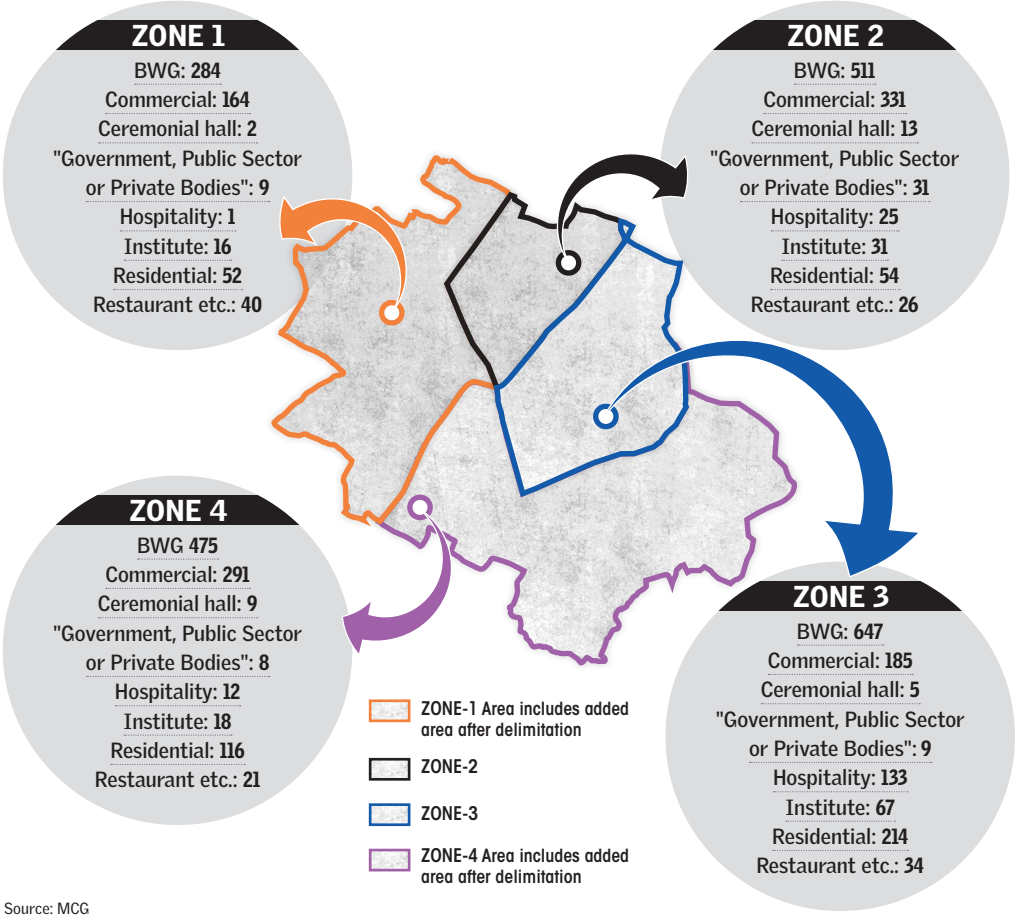
Home page of bulk waste generators portal

Portal components and current status

As of February 24, 2025 Gurugram has 1,917 registered BWGs, while the registration process is ongoing and dynamic. The city had aimed to register a total of 1,681 BWGs (see *Map 1: Distribution of 1,917 BWGs registered across the jurisdiction of MCG*).

Even after reaching this target, authorities have linked property tax data to identify BWGs with a built-up area exceeding 5,000 square metres. The data has already been extracted from property tax records and subsequently more BWGs were identified, notified

Map 1: Distribution of total 1,917 BWGs registered across the jurisdiction of MCG



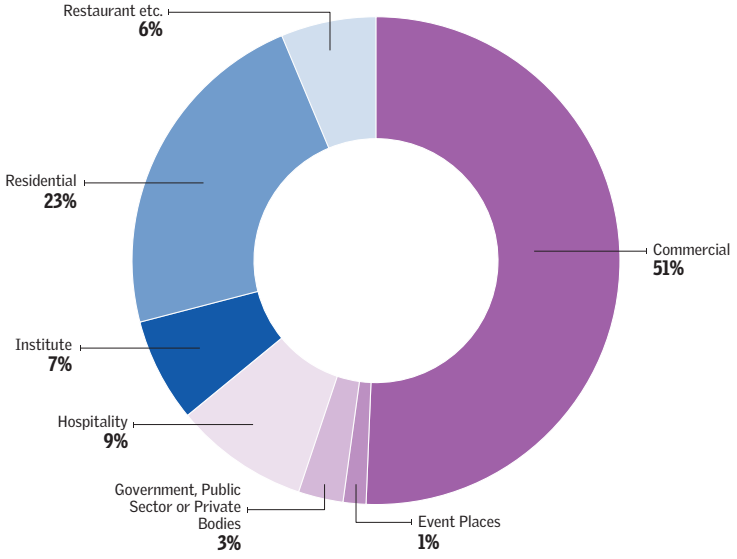
Source: MCG

and asked to register themselves. According to the Additional Commissioner, MCG, this approach will help comprehensively map all existing BWGs in the city.

CATEGORY-WISE DISTRIBUTION OF BWGS

The registration data received from MCG of the distribution of bulk waste generators (BWGs) across different categories shows that more than half (51 per cent) of the BWGs fall under the commercial category (see *Graph 1: Distribution of BWGs in MCG*). This highlights the significant presence of corporate offices, shopping malls and industrial establishments and is a reflection of Gurugram's status as an IT and commercial hub and its rapid expansion in the northern region of the country. The residential sector constitutes the second-largest group at 23 per cent, primarily comprising residential complexes and Resident Welfare Associations (RWAs), further

Graph 1: Distribution of BWGs in MCG



Source: BWG web portal by MCG: analysed by CSE

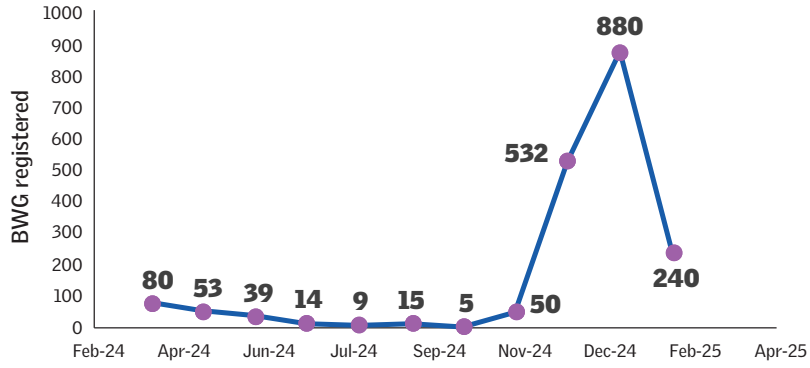
reflecting Gurugram's identity as a modern, rapidly urbanizing, and economically emerging city. Other notable categories include hospitality (9 per cent), institutes (7 per cent) and restaurants (6 per cent). It is important to note that the classification appears somewhat fragmented, as restaurants, hospitality establishments and commercial entities have been listed separately despite overlapping operational characteristics. A more integrated categorization could enhance planning and management efficiency.

MONTH-WISE BWG REGISTRATION

Although the portal was launched in October 2023, the process of registration began in January 2024 and gained momentum between October and November 2024 after the formation of a dedicated monitoring team under the leadership of the Additional Commissioner in MCG. The registration drive peaked in January 2025 with intensive efforts to onboard the BWGs following a scrutiny of the property tax database. By the end of January 2025, the city got registered all the 1681 BWGs they had identified in the survey done in August 2023. Subsequently, MCG began incorporating the sources identified through property tax data with a built-up area of 5,000 sq. m or more, as per regulations. The month of February 2025 witnessed a dip in the number of BWGs registered owing to the fact that it reached its saturation point (see *Graph 2: Month-wise registration of BWGs*). Moving forward, MCG plans to prioritize monitoring and compliance once 100 per cent registration is achieved, leveraging the efforts by the BWG cell officials on the ground.

DEDICATED PORTAL FOR MANAGEMENT OF BWGS

Graph 2: Month-wise registration of BWGs

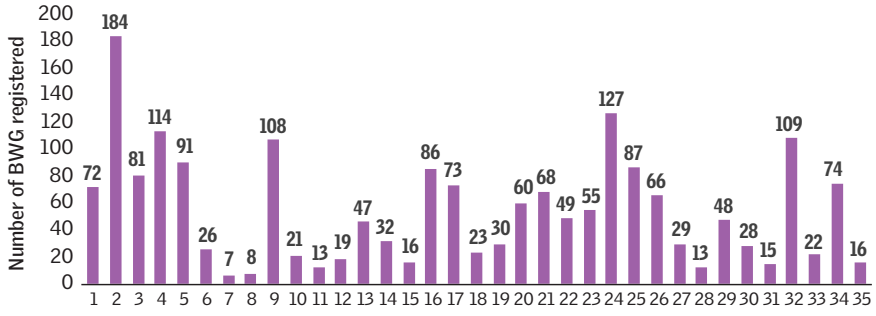


Source: BWG web portal by MCG; analysed by CSE

WARD-WISE REGISTRATION

The concentration of BWGs is very skewed towards five municipal wards that are ward number 2, 4, 9, 24 and 32 respectively (see *Graph 3: Ward-wise number of registered BWGs*). This portal, however, does not compare the number of identified BWGs as against registered BWGs to make it comparative and an effective tool for monitoring.

Graph 3: Ward-wise number of registered BWGs

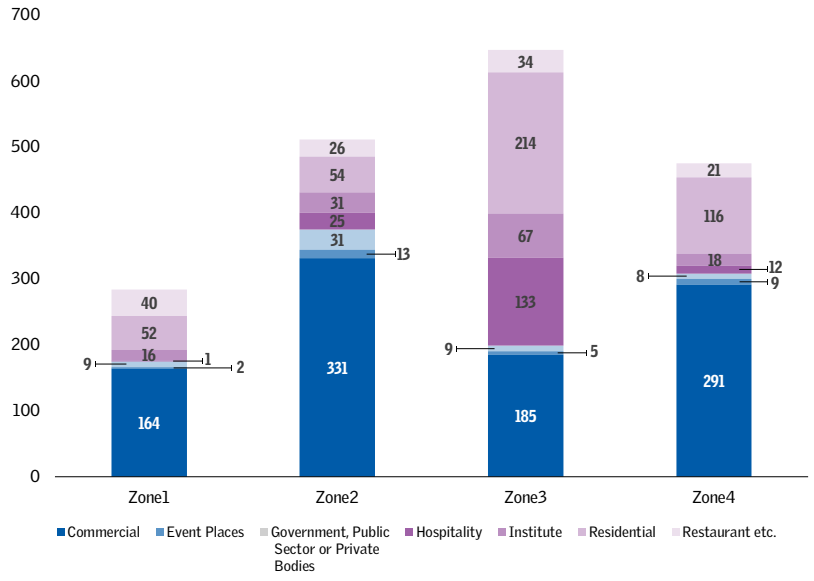


Source: BWG web portal by MCG; analysed by CSE

Distribution of category-wise BWGs registered in different zones

Zone 2 has the highest number of commercial BWG registrations, followed by Zone 4, suggesting a higher concentration of hotels, restaurants, and

Graph 4: Zone-wise distribution of categories of the registered BWGs



Source: BWG web portal by MCG, analyzed by CSE

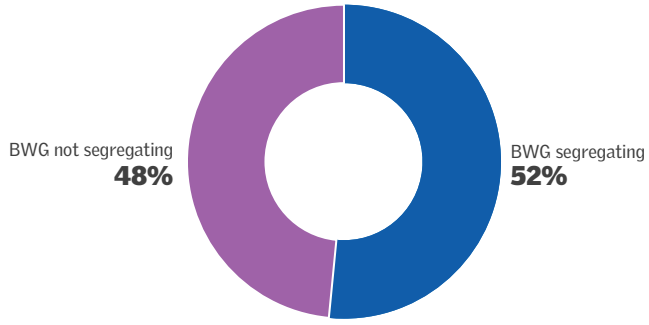
malls in these areas. Zone 3 has the most residential BWGs registered, followed by Zone 4. Overall, Zone 3 records the highest total BWG registrations across all categories. In the absence of the data of identified BWGs in all the zones, however, the number of registered BWGs is not comparable (see *Graph 4: Zone-wise distribution of categories of the registered BWGs*).

SEGREGATION

Segregation of waste at source is a primary and non-negotiable criteria for sustainable solid waste management. According to the mandate of Solid Waste Management Rules 2016, all the BWGs are supposed to segregate their waste at source and then manage the organic fraction within their premises as far as possible. The following is the analysis of the current rate of segregation by the BWGs on the basis of their self-reporting.

DEDICATED PORTAL FOR MANAGEMENT OF BWGS

Graph 5: Current rate of segregation by BWGs



Source: BWG web portal by MCG; analysed by CSE

The current data shows that only 52 per cent BWGs are segregating waste at source while the remaining 48 per cent have reported giving away unsegregated waste. The notable point is that without segregation, in-situ or off-site management of biodegradable waste is not possible. Hence this is definitely an agenda for enforcement going forward (see *Graph 5: Current rate of segregation by BWGs*).

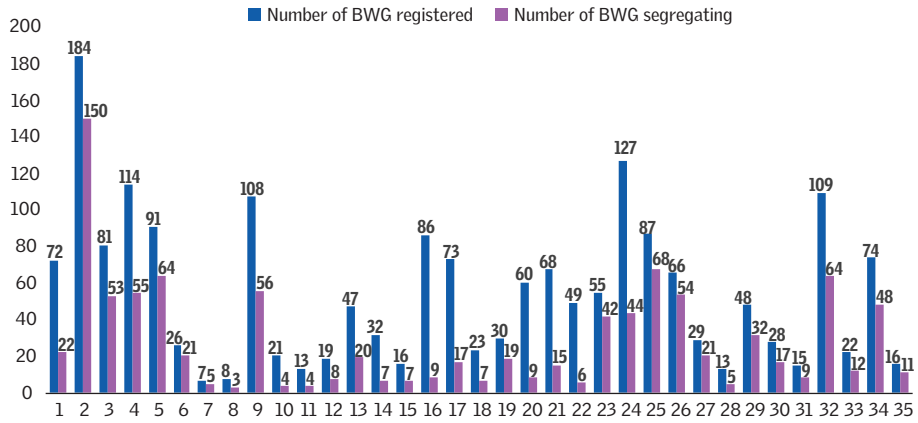
Ward-wise segregation

The ward-wise distribution of data on source segregation provides further clarity on the current scenario. Of the total number of registered BWGs, 988 (52 per cent) have reported that they are segregating waste at source. This leaves MCG with a lot of enforcement responsibility to make the BWGs comply and meet the segregation mandate. Segregation practices vary across different wards. Ward 2 leads with the highest number of BWGs segregating waste (81.5 per cent) out of the total registered. In contrast, Wards 17 (23.3 per cent), 21 (22 per cent), 20 (15 per cent) and 16 (10.5 per cent) show significant gaps in terms of segregation rate.

This highlights the need for the BWG cell in MCG to focus more on improving compliance rather than just getting the BWGs registered. The portal can serve as an effective tool for tracking compliance rates and implementing necessary actions, ultimately strengthening enforcement efforts of MCG.

The portal, with the current limitations, provides the city with a comprehensive overview of registration versus segregation trends, helping to determine strategies for improving segregation levels among BWGs (see *Graph 6: Ward-wise registration versus segregation*). Possible approaches include intensified Information, Education and Communication (IEC) and/or Behaviour Change Communication (BCC) campaigns coupled with stricter penal provisions.

Graph 6: Ward-wise registration versus segregation



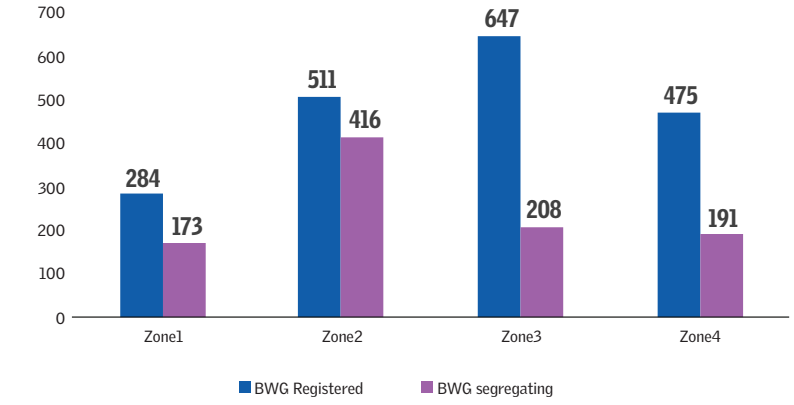
Source: BWG web portal by MCG; analysed by CSE

Zone-wise segregation

The segregation rates across the four zones vary significantly. While Zone 2 reports 81.40 per cent, the remaining three zones have relatively less segregation rates, i.e. 60.91 per cent in Zone 1, 40.21

per cent in Zone 4 and 32.14 per cent in Zone 3 (see *Graph 7: Zone-wise registration versus segregation*). The BWG cell of MCG therefore must prioritize a segregation drive across the city to help institute a sustainable mechanism of compliance by the BWGs. Such a drive may call for measures such as penalization for non-compliance and incentivization for complying. Furthermore an IEC drive for the BWGs who are not segregating is also the need of the hour to make the process more inclusive.

Graph 7: Zone-wise registration versus segregation

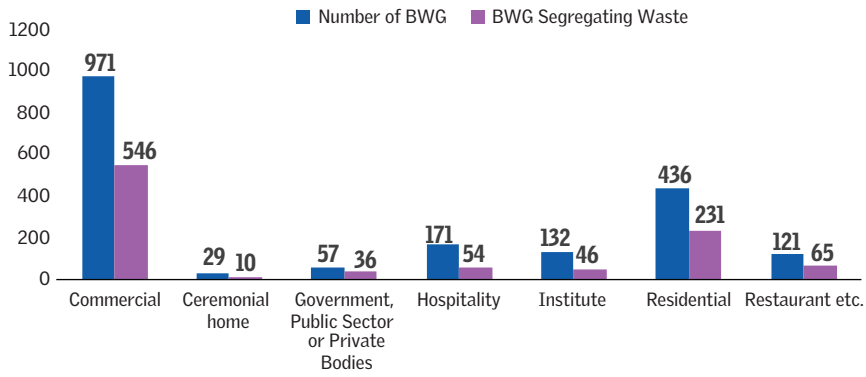


Source: BWG web portal by MCG; analysed by CSE

Category-wise segregation

The distribution of segregation data among different categories shows that government, public sector and private bodies (63.15 per cent) report the highest rate of segregation, but since the total number of registration of this category is minimal (57), the second-highest category, i.e. the commercials (56 per cent), are significant in terms of segregating waste (see *Graph 8: Category-wise number of BWG registered versus BWGs segregate*).

Graph 8: Category-wise number of BWG registered versus BWGs segregate



Source: BWG web portal by MCG; analysed by CSE

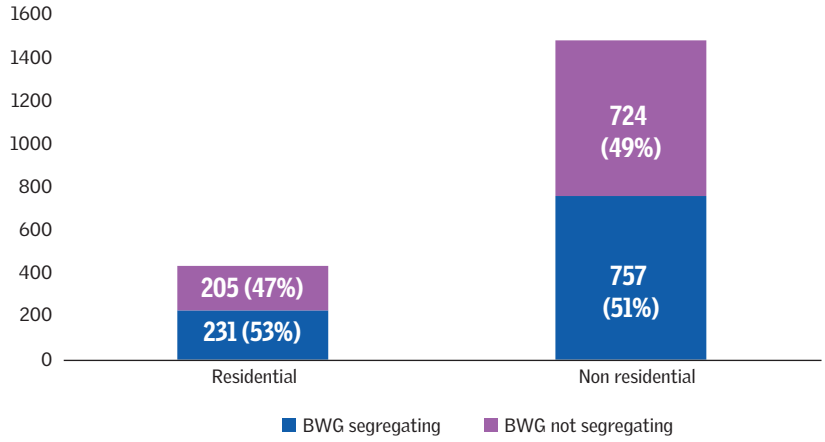
Among the other categories, restaurants (53.8 per cent), residential (53 per cent), institutes (34.8 per cent), event places (34.4 per cent) and hospitality (31.6 per cent) followed. It is noteworthy that the nomenclature 'event places' is not among the prescribed categories in the guidelines for BWGs published by the Central Public Health & Environmental Engineering Organisation (CPHEEO) in 2017; 'ceremonial halls' or 'social infrastructure' is the nomenclature given. Again, it is worth mentioning that categorizations such as 'restaurants' and 'hospitality' should come under the category of 'commercial establishments' as mentioned in the guidelines. If that comes under considerations, the segregation percentage of the commercial establishments should be much higher. This suggests that MCG should reconsider the categorization of the BWGs in the portal and make it as per the guideline.

Residential versus non-residential segregation

Residential and non-residential BWGs vary slightly, i.e. 53 per cent and 51 per cent respectively, in terms of segregating their waste at source. However, to

DEDICATED PORTAL FOR MANAGEMENT OF BWGS

Graph 9: BWG segregation: residential versus non-residential



Source: BWG web portal by MCG; analysed by CSE

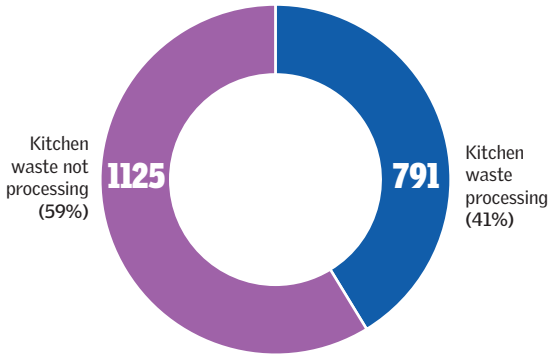
enhance segregation across all BWGs, the city must effectively utilize this data to develop a strategic plan of action (see *Graph 9: BWG segregation: residential versus non-residential*). The term 'kitchen-waste processing' fetched from the portal is considered as organic waste processing.

WET WASTE PROCESSING

The Solid Waste Management Rules of 2016 mandate bulk waste generators (BWGs) to manage organic waste on their premises as far as possible primarily through composting or biomethanation. BWGs facing constraints such as limited space or financial challenges may opt for off-site waste processing with prior permission or special orders from the urban local body (ULB). In the case of MCG, BWGs are required to process waste on-site. However, if onsite processing is not feasible, the city has empaneled service providers to facilitate waste processing.

The total organic waste processing rate among the registered BWGS is 41 per cent, in compared to not

Graph 10: Setup for kitchen-waste processing



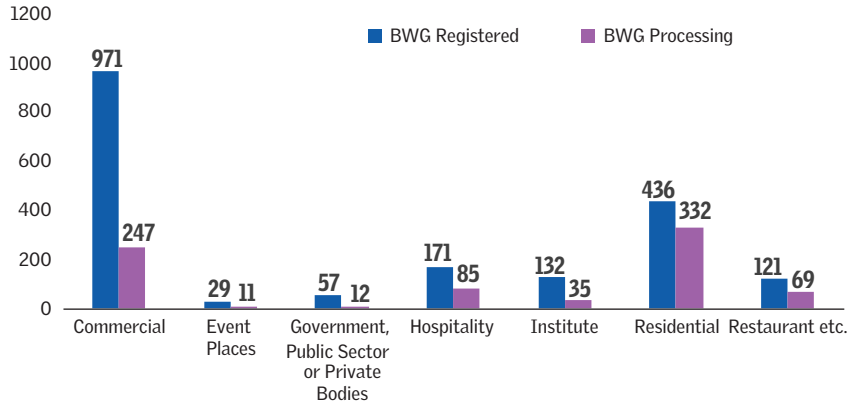
Source: BWG web portal by MCG; analysed by CSE

processing 59 per cent. And this signifies the need of taking relevant measures to enhance compliance (see *Graph 10: Setup for kitchen-waste processing*). The term 'kitchen waste processing' fetched from the portal is considered as organic-waste processing.

The analysis of cumulative data of January–December 2024, uploaded monthly by BWGs, of bulk waste generators (BWGs) across various sectors reveals a significant gap between registered and processing rates (see *Graph 11: BWG registered versus processing*), particularly in the **Commercial** and **Government** sectors, which exhibit low processing rates of 25.4 per cent and 21.1 per cent, respectively. In contrast, the **Residential** sector performs notably better, with a processing rate of 76.1 per cent. Despite widespread segregation level reported, especially in the **Commercial** (56.2 per cent) and **Residential** (53.0 per cent) sectors, the conversion of segregated waste into processed waste remains insufficient. So categories such as **Ceremonial halls** and **Institutes** (see *Graph 12: Segregation versus kitchen waste processing)* indicate that segregation is not effectively translating into waste-management outcomes.

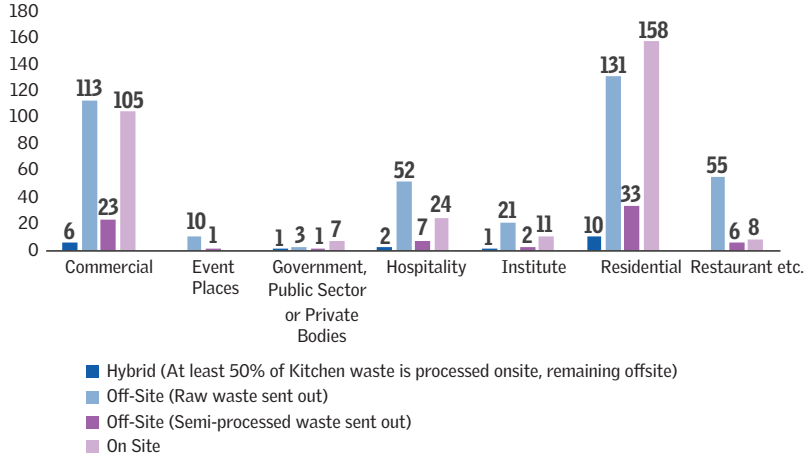
DEDICATED PORTAL FOR MANAGEMENT OF BWGS

Graph 11: BWGs registered versus processing



Source: BWG web portal by MCG; analysed by CSE

Graph 12: Category-wise waste-processing method

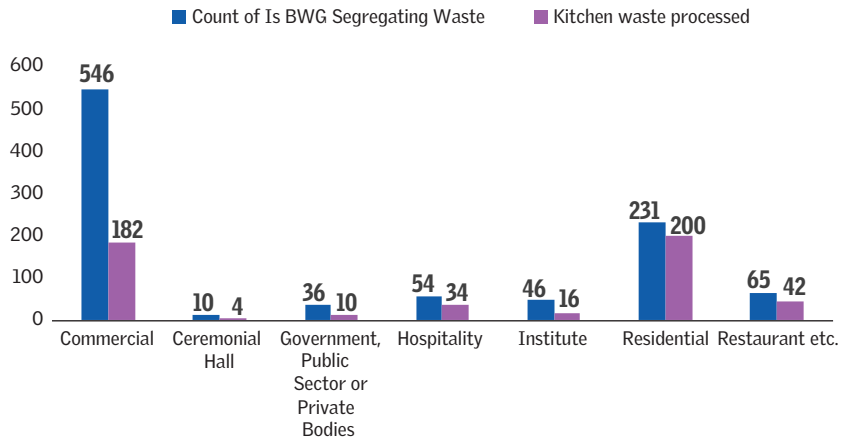


Source: BWG web portal by MCG; analysed by CSE

SEGREGATION VERSUS KITCHEN-WASTE PROCESSING

Furthermore, while the **Residential** and **Commercial** sectors excel in on-site processing (158 and 105 units and 47.6 per cent and 42.5 per cent respectively), sectors such as **Hospitality** and **Restaurants** continue to rely heavily on offsite raw waste disposal, highlighting a need for decentralized, on-site waste processing solutions (see *Graph 13: Category-wise waste-processing method*).

Graph 13: BWG segregating versus BWG processing



Source: BWG web portal by MCG, analysed by CSE

This should serve as a wake-up call for the city to take strict action. Non-processing means non-compliance, and immediate measures are needed—whether by strengthening penalties or providing hands-on support, capacity building, and IEC/BCC initiatives. If the issue stems from errors in data entry, as claimed by city administrators, then training should be provided to both monitoring staff and BWGs to ensure accurate and timely data submission.

DRY WASTE MANAGEMENT

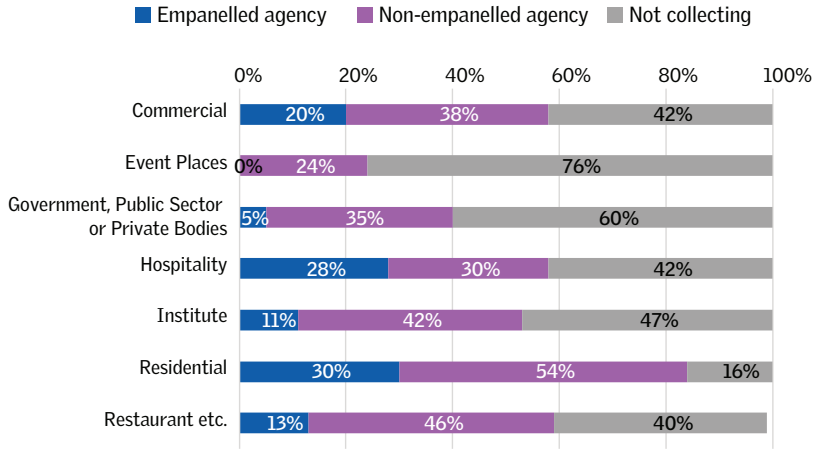
For dry waste management, BWGs are required to segregate waste and hand it over to authorized waste collectors designated by the ULB, while also paying user charges as specified. The cumulative monthly data, however, does not track whether BWGs are making these payments; it only indicates whether waste is handed over to empaneled agencies or others.

According to the SWM Rules 2016, inorganic waste and recyclables must be given to authorized waste collectors. However, the city's portal states that BWGs

are free to use services from agencies other than the empaneled ones. This creates ambiguity, as there is no clear mechanism to verify whether these non-empaneled agencies are authorized by MCG. Additionally, there is no structured monitoring system to track the destination of dry waste once collected.

A key observation from the data is that a range of 16–76 per cent of BWGs reported that their dry waste is not being collected (see *Graph 14: Dry waste management*). However, during registration, the BWGs have filled up this column as 'null'. In the absence of the clarity of the terminology used here, 'null' has been considered as 'not collected'. This raises an important question about where this waste is going. Field visits suggest that the informal sector plays a role in managing this waste. To enhance efficiency, the city could consider mapping informal waste handlers or integrating them into the formal collection system. Additionally, updating the reporting structure could help improve monitoring and compliance.

Graph 14: Dry waste management



Source: BWG web portal by MCG; analysed by CSE

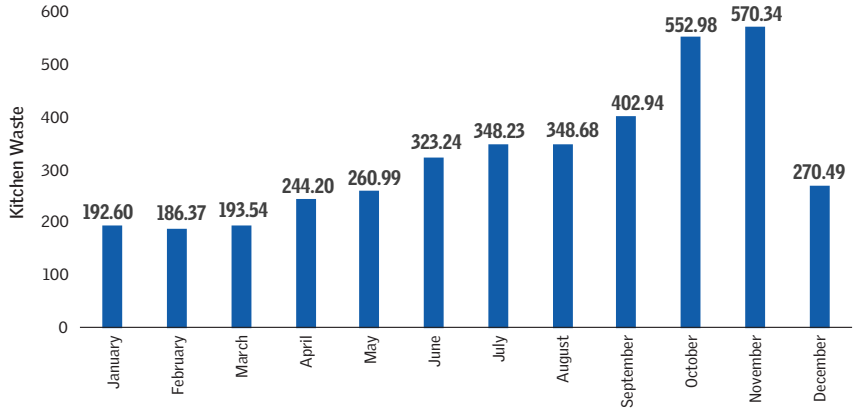
WET WASTE PROCESSING BY BWGs

The data on consolidated wet waste processing since the inception of the portal shows a steady increment between January and July 2024. The wet waste processing rate increased by 67.83 per cent (192.6 to 323.2 TPD). The rate of increase continued till November 2024 when processing reached 552.9 TPD, recording an increment of 76.45 per cent over July 2024. However, the processing rate in December 2024 dipped drastically by 51.1 per cent (270.4 TPD) as observed from the portal data. The data for January and February 2025 could possibly provide further insights to ascertain whether the decrease was a result of limited reporting or triggered by some other factors (see *Graph 15: Month-wise processing of wet waste*).

DRY WASTE PROCESSING BY THE BWGs

Unlike the wet waste, the dry waste processing rate shows significant variations during January–December 2024. Significant differences have been observed between January (313.1 TPD) and March (93.4 TPD), when the processing rate dipped by 70 per cent. It gained momentum thereafter and maintained a steady trend till September 2024 when it reached

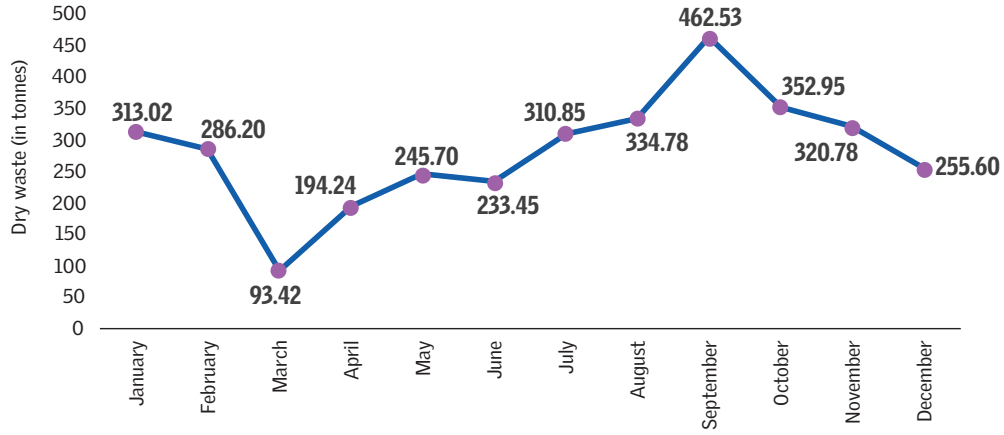
Graph 15: Month-wise processing of wet waste (in tonnes)



Source: BWG web portal by MCG; analysed by CSE

DEDICATED PORTAL FOR MANAGEMENT OF BWGS

Graph 16: Month-wise processing of dry waste (in tonnes)



Source: BWG web portal by MCG; analysed by CSE

the peak (462.5 TPD) and made a record increase of 395.2 per cent before decreasing significantly by 44.7 per cent (255.6 TPD) in December 2024 (see *Graph 16: Month-wise processing of dry waste*). The inconsistency in the rate of dry waste processing across the year is significant enough for the MCG BWG unit to undertake frequent on-site verification to address the issue. The other way of addressing the issue could be to create an institutional mechanism to re-visit the processing data and drill down to the category or ward level to make meaningful intervention.

Impact created by the portal-based system for BWG compliances

Compliance of the legal mandate in terms of waste management by the BWGs in Gurugram has significantly improved upon the introduction of the portal-based system for management. Even though the system is still at a nascent stage, it has already shown a series of co-benefits. The system has clearly demonstrated its potential to be replicated by other Indian cities.

Based on data received from the MCG as in February 2025, compliance by the BWGs has significantly contributed to the following co-benefits:

- **Efficient waste processing**: In the first year alone 3,894.60 tonnes of wet waste was successfully processed and 3,403.52 tonnes of dry waste was channelized to respective recycling facilities.
- **Landfill diversion:** A total of 7,298.12 tonnes of waste has been diverted from the Bhandwari landfill, reducing the environmental footprint substantially.
- **Economic benefit:** The initiative has resulted in an estimated ₹72.98 lakh in savings on annual waste collection and transportation costs assuming that MCG pays ₹1,000 per tonne of tipping fee to the concessionaire.
- **GHG emission reduction:** Gurugram's Bandhwari dumpsite continues to receive unprocessed waste, with decomposing organic matter emitting greenhouse gases (GHGs). The current system for managing the BWGs has been critical to divert wet waste from getting to the landfill, thereby saving significant amounts of GHG emissions. This diversion not only minimizes GHG emissions but also enhances air quality and impacts public health.

- **Model for sustainable urban waste management by the BWGs**
  By further scaling up BWG compliance, Gurugram can be one of the best models for sustainable urban waste management by the BWGs, reinforcing its commitment to environmental stewardship and smart city development.


BULK WASTE GENERATORS
DATA
RECOMMENDED
RECOMMENDED

4

RECOMMENDATIONS

MCG is yet to get their byelaws notified with elements of current systems in place, including use of the centralized portal. It may consider an overall performance rating of the BWGs with the help of the available data in the portal.

MCG should establish a clear penalty framework to ensure accountability of non-compliant BWGs.

It should include a transparent, well-defined user charge/tariff policy in the municipal byelaws for dry waste collection from BWGs.

The city should integrate its informal waste sector with empaneled and non-empaneled agencies to enhance service continuity.

It should leverage the BWG portal as a tool for informed policy-making, system strengthening and setting a model for other cities.

RECOMMENDATIONS

While most Indian cities are grappling with managing their ever-growing quantum of solid waste largely due to rapid urbanization, huge population growth, and securing financial, human and infrastructural resources to address this pressing issue, Gurugram presents one of the best examples of waste management by bulk waste generators. The unique portal-based system acts as a stringent monitoring and management tool for the Municipal Corporation of Gurugram (MCG) and has the potential to be replicated in other Indian cities.

Although MCG has been instrumental in introducing measures and systems by issuing public notices and newspaper notifications to inform the BWGs about orders and compliance mandates—which has nearly 2,000 BWGs already registered—properly framed byelaws are a constitutionally more sound legal document that can increase the replicability of the initiative from both the policy and implementation point of view.

While the initiative by MCG is truly unique and has the potential to inspire other Indian cities to adopt similar measures, it leaves scope for implementing the following recommendations to make the entire system more sound, user-friendly, effective, transparent and accountable.

Policy

a) Notification of municipal byelaws

Despite being one of the most progressive ULBs in the country in terms of managing BWGs, MCG is yet to officially notify its municipal byelaws.

Even if there are other administrative instruments available to communicate to the citizens about local policies and mandates, the byelaw happens to be the most powerful legal tool that any ULB can use for notification of local norms, rules and practices. The process goes through a rigorous political discourse before being finalized. MCG therefore needs to have the byelaws notified with elements of current systems in place, including use of the centralized portal.

To enhance enforcement and incentivization, the byelaws should clearly outline current penal provisions and specify the collection of user fees for dry waste management. Additionally, management of BWGs is closely linked to the city's overall solid waste management system and its associated provisions. The byelaws must explicitly mention the protocol to be followed by the BWGs in terms of getting their wet and dry waste managed. It must also mention the systems for collection of dry waste along with the charges to be paid by the BWGs.

b) Introduce provisions for incentive and penalty to strengthen the ecosystem of the BWGs

Incentivization: The data accumulated in the centralized BWG portal has paved a strong way to introduce policy provisions for incentivizing well-performing BWGs. MCG may consider an overall performance rating that can be termed '**star rating of the BWGs**'. The rating methodology could be objectively defined on the basis of performance benchmarking of the BWGs on elements such as source segregation, in situ processing, systematic disposal etc. The portal back-end data could be

RECOMMENDATIONS

THE STAR RATING CAN BE LINKED WITH DIFFERENT INSTRUMENTS FOR INCENTIVIZATION

re-engineered with coding to design the system of automatic ranking of the BWGs. The star rating can then be linked with different instruments for incentivization. For instance, offering property tax or water tax rebates to high-performing BWGs, providing subsidies for setting up in situ organic waste management facilities, BWGs with space constraints may be brought under a cluster, and MCG may provide land for setting up common facility for waste processing. Like many other ULBs in India, MCG may even consider a complete or partial waiver of user charges for collection and processing of inorganic waste as an incentivization strategy.

Penalization: Like incentives, a well-defined policy and systems for penalization to ensure accountability of BWGs, particularly for those who fail to comply with the legal mandates, are equally important. The penal provisions must be designed very objectively and must be connected to the quantity of mismanaged waste as a mandatory criterion. In addition, aspects such as failure to segregate waste, non-processing of organic waste in situ, quantity of unprocessed waste and delayed reporting on the portal may also be brought under the larger scope of penalization. The penalties should be tailored as a deterrent rather than just a procedural formality. Moreover, penalization should set precedents, encouraging others to adopt proper waste management practices. Importantly, the effectiveness of penalties depends on their timely enforcement, meaning fines must be recovered without delay to reinforce accountability.

c) Introduce objective criteria-based user charges for BWGs

The municipal byelaws must incorporate a transparent and objectively defined user charges/ tariff policy for collection of dry waste by the ULB or its authorized representatives from the premises of the BWGs. The criteria should be based on quantity or weight of generated waste, starting with basic minimum charges, with incremental rates linked with the quantity of waste collected. However, if dry waste is collected and managed by the private agencies, BWGs may be left to negotiate their price with the agency hired. In such cases, MCG must keep such entities within the scope of mandatory reporting in the portal along with the report submitted by the BWGs.

d) Integration of informal sector

Currently, a significant number of BWGs are getting their inorganic recyclables managed by informal waste-pickers or itinerant buyers. MCG should do a comprehensive mapping of such entities where informal waste-pickers play the role of service provider—like a private entity—and get them organized with the help of the local civil society organization just like the BWGs in Pune have engaged waste-pickers from SWaCH cooperative. Alternatively, the existing pool of informal-sector waste-pickers in Gurugram could be integrated with empaneled agencies so that they could continue to serve BWGs and the empaneled or non-empaneled agencies are held accountable for reporting and compliance. This way the informal sector could secure their livelihoods and upskill. MCG can monitor

CURRENTLY, A SIGNIFICANT NUMBER OF BWGs ARE GETTING THEIR INORGANIC RECYCLABLES MANAGED BY INFORMAL WASTE-PICKERS OR ITINERANT BUYERS

GURUGRAM IS THE FIRST CITY IN INDIA TO ESTABLISH A WEB PORTAL DEDICATED TO BWGs, MAKING IT A PIONEERING EFFORT IN WASTE MANAGEMENT

their performance through the BWGs and/or the empaneled or non-empaneled agencies.

e) Using the portal data for further policy reforms

The web portal dedicated to BWGs is a valuable tool for the city to plan future initiatives. Gurugram is the first city in India to establish such a platform, making it a pioneering effort in waste management. This dataset not only supports monitoring and evaluation but also helps identify challenges and opportunities in BWG waste management, enabling informed decision-making.

MCG can leverage substantially more using the data captured through the portal to make use of its full potential. By developing a strategic approach, Gurugram can maximize the portal's impact, using it to drive policy decisions, strengthen waste-management systems, and set a benchmark for other cities to follow. For example, MCG can revise the penal provision of incentive for complying/ non-complying BWGs based on the portal data and subsequently amend the municipal byelaws, circulars, notices etc. Likewise, MCG can felicitate best-performing BWGs on a monthly basis with some kind of reward mechanism. The ranking of BWGs could be done on the basis of the reports submitted by the BWGs and the list of top performers may feature in the homepage of the portal. The data could be connected with the economic and environmental co-benefits to sensitize the citizens and other BWGs.

Institutional arrangement

To strengthen institutional arrangements for improved compliance rate by the BWGs, MCG should consider the following measures to enhance its monitoring mechanisms, streamline reporting processes and foster better stakeholder engagement:

a) Systems for monitoring of the empaneled/non-empaneled agencies

Currently, there are very limited checks and balance to track the activities of private agencies, placing the entire onus on the BWGs. MCG may consider create a robust mechanism to deal with the 'agency verification system' to ensure their manpower, waste-processing infrastructure, reported waste collection and processing data, disposal practice etc.

b) Introducing risk-based management system to improve compliance

MCG needs to introduce a risk-based audit mechanism to compare reports uploaded in the portal and the situation on the ground. Such risk-based approach may categorize the BWGs in high-, medium- and low-risk BWGs based on the categories such as:

i) BWGs doing in situ management in the low-risk category;

ii) BWGs doing partial in situ management and partial off-site management in the medium-risk category; and

MCG NEEDS TO INTRODUCE A RISK-BASED AUDIT MECHANISM TO COMPARE REPORTS UPLOADED IN THE PORTAL AND THE SITUATION ON THE GROUND

iii) BWGs getting their entire waste quantity managed away from their premises in the high-risk category.

Once the mapping is done, MCG may mobilize its ground-level officials to conduct audit in the premises of the BWGs. Further policy decision may be taken on the basis of the audit outcomes.

c) Increasing mandatory reporting

The declining trend of reporting on the compliance is a concern as observed in the data, especially in the beginning of 2025. In order to increase the consistency in reporting compliance and performance data, MCG may consider the following:

i) Using the database of the contact person, MCG may create a SMS gateway to notify BWGs that are not reporting in time or consistently. The warning may be repeated though an automated system till report is filed by the entity. MCG may even think of introducing penal provisions for repeat offenders.

ii) Preparing a list of high-performing BWGs and floating the same in the home page of the portal to create a sense of competition among others. MCG may also plan to felicitate the best BWGs in its annual event.

d) Strengthening enforcement of in situ management of wet waste

It is apparent from the portal data that MCG has almost saturated the process of registering the existing BWGs within its jurisdiction. The existing data on compliance with the legal mandate of in situ/

off-site management of the wet waste clearly depicts that only 786 (41 per cent) of all the 1,917 registered BWGs have reported full or partial compliance. MCG therefore needs to shift its focus on enforcement of the compliance with the legal mandate.

e) Designing systems for capacity building and grievance redressal

During field work and engagement with BWGs, the research team found that a significant number of BWGs had not been able to understand the portal interface and were not particularly aware of the legal mandates. It is therefore critical to devise mechanisms to build capacities of the BWGs on both aspects. MCG may plan to organize meetings and sessions using the virtual platform to engage with BWGs for their capacity-building. Such an event also requires prior planning and content development. A platform like this could be an excellent interface to address grievances from the BWGs.

f) Rejuvenation of citizens to government interface

At the start, the Citizen Supervisory Committee (CSC), established by the city, played a critical role in awareness generation among the BWGs, providing insights on new systems and approaches for MCG to help efficiently manage the waste ecosystem.

It has been observed that the interface with the CSC for frequent exchange of opinion has been weakened. MCG needs to be more proactive to keep the citizens and government interface active and functional to benefit from on-ground learning. Such a system may add significant value even to design and implement new systems for managing the BWGs.

RECOMMENDATIONS

Improving the efficacy of the portal

a) Redesign portal interfaces to make it more user friendly

i) Existing menu options and phrasing of the menu titles needs to be simpler and more user-friendly. For example, while registering, columns such as 'is dry waste', 'is high-value plastic', 'is paper' or 'is horticulture' are unclear and do not convey specific meanings. Instead, titles should be more descriptive—for example, 'Is BWG generating dry waste?'—with only relevant waste types listed under each category. This approach will make the information more accessible for both BWG representatives and laypersons. Moreover, this clarity must be accompanied by a multilingual (Hindi and English) user manual so that users can get familiar with the software interface for ease of reporting and accessing information.

ii) The 'profile' of the BWGs are created at the time of registration. Thereafter the profile is not editable, which acts as a major limiting factor for the BWGs to update information as and when needed. The profile must be kept editable and follow a due diligence system administered by the portal administrator.

b) Adding critical elements for transparency and accountability

i) Mandatory inclusion of waste generation data: MCG must ask each BWG to furnish how much waste they were producing while they are being registered for the first time into the portal. For

ease of calculation, MCG may also introduce a 'waste calculator' as a built-in option to enable the user to easily estimate their waste generation using some basic data like number of households, number of businesses, total built-up area etc. The waste-generation data must be the backbone for compliance monitoring, collection of tariff/ user charges, on-site verification, conducting environmental audit in the premises of the BWGs or their private partners, implementing incentive or penal provisions, creating a performance-based ranking system etc.

ii) Dashboard with performance summary: MCG may consider creating a live dashboard at the home page of the portal which will show real-time data on the quantum of waste managed through the BWGs and diverted from the landfill that way, wet waste processed in situ, dry waste channelized to recyclers, quantum of emission/pollution saved etc. Apart from providing a bird's eye view of the entire BWG ecosystem in Gurugram, this would be an efficacious tool to showcase the model and its achievement to the visitor.

iii) A dedicated help-desk cum feedback platform for the users: The portal can be significantly more effective if a virtual helpdesk is created for the users, i.e. a) BWGs and (b) empaneled/non-empaneled service providers. This arrangement will enable a continuous communication between MCG and the BWGs, facilitate speedy redressal of challenges and grievances and receive critical feedback from the ground. The mechanism can

be linked to the registered email and/or mobile of the entities (BWGs) and may use WhatsApp as the most popular medium of communication.

With the proposed draft Solid Waste Management Rules 2024 set to mandate all cities to register identified bulk waste generators (BWGs) on a centralized portal, to be launched by the Central Pollution Control Board (CPCB) before the Extended Bulk Waste Generators Responsibility (EBWGR) is enforced, MCG's existing model can be seen as a frontrunner. Through proactive efforts, out-of-the-box thinking and administrative wisdom, MCG have created a model that can be seen as creating a paradigm shift towards management of bulk waste generators by urban local bodies.

This report documents the transformative journey of the Municipal Corporation of Gurugram in streamlining the regulation of bulk waste generators (BWGs). Recommended by earlier CSE research, the city launched a dedicated online portal that now registers and monitors nearly 2,000 BWGs. The portal allows monthly compliance reporting, data-driven enforcement and public access to information, making it one of the first systems of its kind in India.

This report also captures the institutional reforms, community involvement and digital innovation that have made Gurugram a model for BWG governance. It also presents a set of actionable recommendations to strengthen the system further and offers insights for replication in other urban contexts. The report is a testament to how proactive policy, technology and collaboration can shift waste governance from mere compliance to meaningful impact.

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