



The Gurugram Story

Gurugram: A changing landscape



1966 – State of Haryana Formed, Gurgaon designated district

2000 – Second wave of growth with real estate and IT boom

2016 – Gurgaon renamed Gurugram

1980s – Maruti Udyog triggers growth for the city 2008 – Municipal Corporation of Gurgaon 2017 – Formation of Gurugram Metropolitan Development Authority



Most densely populated region by working professionals in India

Global Hub – More than half of Global Fortune 500 companies are in Gurugram

Accounts for the highest share of revenues in Haryana

Third highest per capita income in the country (4.46 lakhs PCI - 2015)

Municipal Corporation Gurugram total area 231sq. km.

Gurugram: A changing landscape



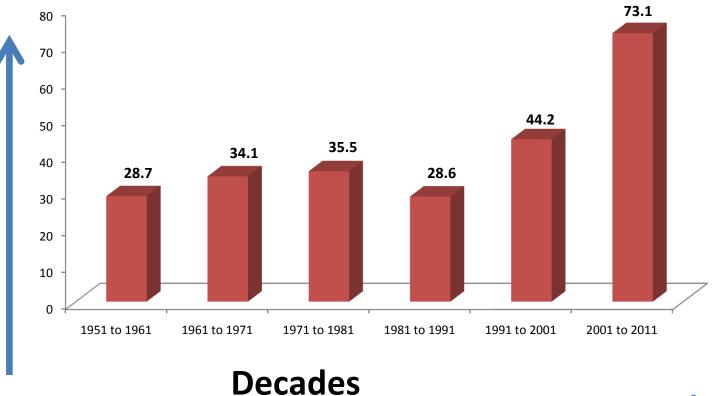
- Gurugram the 'Millennium City' has witnessed exponential growth in terms of population over the last few years due to employment avenues.
- This has led to an unplanned development over the years in past which resulted in tremendous increase in the waste being generated.
- With active participation of citizens and RWAs, a significant amount of waste is today being segregated at source and used for composting and recycling.
- Citizens adopting healthy waste disposal practices is key to a successful waste management ecosystem.
- Efficient and smart waste management is today key to a progressive city like Gurugram.
- With active citizen participation, Gurugram has an aim to be a 100 percent source segregated city.



Gurugram: Population Growth MC







Current status of WasteManagement



- Current Population of Gurugram Around 18 lacs.
- Over 800 tonnes of waste is being generated in Gurugram everyday. On an average, around 30 % generated waste is biodegradable and the rest being non-biodegradable and inert in nature.
- Waste Segregation started in the city since <u>September, 2015</u>
- Over Seven wards in Gurugram today segregate significant amount of waste at source and more are following the league.
- 2.5 % of the total generated waste is being segregated at present in the city. As
 we roll out the ambitious 'Integrated solid waste management' project in the
 city by January 2018, we are sure to achieve 100 % source segregation.

Current status of Waste Management



- Door to door waste collection is taking place in all the 35 wards 100 percent collection efficiency
- Processing 5 composting plants are run by MCG to convert wet waste to compost. Many other composting plants have been handed over to RWAs, which are being managed by the local community.
- Many private colonies and societies have adopted source segregation and composting as best practices.
- Disposal At present, dry waste finds its way to the landfills, however very soon with the 'Integrated solid waste management' project, the dry waste will be used to generate power.

Processing and Disposal - Composting MC®



- The main composting methods implemented across the city are:
- Pit Composting
- In vessel Composting
- Organic Waste Composter







Composting Units by MCG





Existing legislation on Waste



Management

- Notification regarding user charges for Door to door collection of waste has been rolled out in Gurugram
- Laws under approval Bulk Garbage Generator and Spot Fine
- As per the Municipal Corporation Act 1994, there is a provision of penalty for littering.
- Plastic below 50 microns has been banned in Haryana
- Various IEC activities like Nukkad Nataks, banners, door to door awareness initiatives with partners like Feedback Foundation are being done.
- Social Media has been effectively used to generate awareness with the citizens.

Decentralized Waste Management



- Gurugram has adopted Decentralized Waste Management through composting and other initiatives like involvement of rag pickers for further segregation of plastic and recyclable waste.
- Challenges faced in ensuring treatment at source The dry and wet waste handling is in distant locations increasing the overhead cost and bringing down the efficiency.
- Major Gaps and Challenges of Source Segregation:
- Limited awareness with citizens around the benefits of source segregation
- Citizen resistance towards user charges for door to door collection.

Philosophy behind Waste Management - SaTWaS (Segregation and



Treatment of Waste at Source)

- As a part of our efforts in realizing the objectives of Swachh Bharat Mission, Municipal Corporation of Gurugram is working towards SATWAS (Segregation and Treatment of Waste at Source), a philosophical approach in driving a behavioral change within stakeholders to highlight the importance of cleanliness and hygiene.
- Under SATWAS, source segregation of waste is propagated at various levels of waste producers across the value chain viz. Households at unit level, RWAs/Market Associations at Community level, Industrial and Corporate houses at institutional level.
- Currently, source segregation at household and institutional level is accelerated by creating awareness through mass outreach programs that involve direct engagement with stakeholders.

SaTWaS (Segregation and Treatment of Waste at Source)



- Initiated decentralized composting; as well as in-situ composting at Households level, RWA level and Institutional level.
- Decentralized composting units have been set up at various strategic sites in the city including Nandidham Gaushala, Sector 15 Part-1, Nathupur near Vidhya School, Chakarpur dumping site, Sector 45 and Sector 56 amongst others.
- The composting is primarily done through underground unlined pits, underground lined pits, over-ground lined pits and bin composting besides mechanical composting.
- Generated interest in this direction across a number of RWAs/Group Housing Societies like Garden Estate ward 35, Sahara grace, Hextax, Belevdere Ward 34, National Media Centre Ward 35, Indian Airlines Pilots Society Ward 33, Police Line RWA Ward 18, G and H block DLF Phase-1 ward 34 to undertake RWA level composting; demonstrating a successful model of decentralized waste management.

SaTWaS (Segregation and Treatment of Waste at Source)



- Its MCG's endeavor to create wide spread awareness around safe disposal, and attain sustainable development goal of Zero-waste Gurugram. We are investing in community partnerships and engaging with domain experts and experienced organizations to achieve this goal.
- Initiatives to sensitize the bulk garbage producers from hotels, hospitals, educational institutions, religious intuitions and other for source segregation and in-situ composting at their own level.
- MCG has initiated targeted interventions with NGOs at multiple levels wherein techno functional guidance and support is provided through dedicated team of well-trained field staff.

Some Best Practices being adopted



- Clear signs in the bin rooms and consistent wording, symbols and colors on all bins are being ensured
- Providing clean bins and bin rooms, that are free of dumped and undisposed waste since dirty and untidy waste facilities will demotivate visitors and staff to use the facilities
- Closed-circuit television (CCTV) monitoring of waste rooms and bin storage areas.
- Leveraging students as change makers. Educating the students, teaching faculty and staff on importance of adequate waste management and sanitation facilities









- Offering operable Online Grievance Redressal System with response being sent back to the complainant to close the loop.
- •Lot of waste related citizen issues have been successfully
 •Active Grievance Redressal System, with the complaints being registered online.
- Mobile App launched with features of registering the grievance through mobile phones.
- Every grievance registered online through the website or through the Mobile App is given a unique number which can be further tracked.
- Integration of Mobile App and the Website Online Grievance System.
- Dedicated Toll free



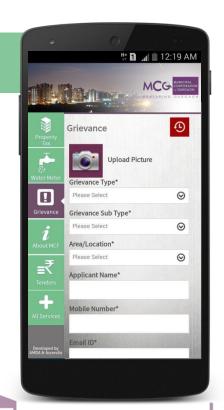
MCG Mobile App

Swachh App

Web Portal

Call Centre

MCG Social Media Channels











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Web Portal

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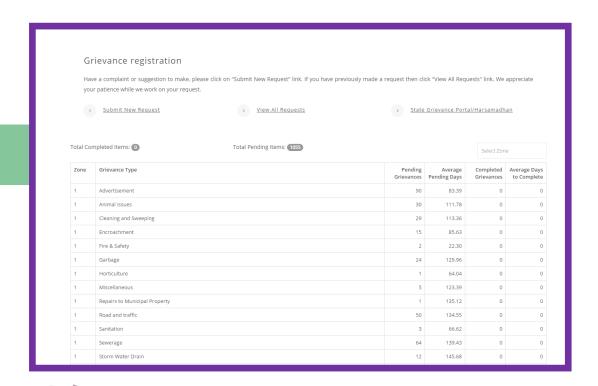
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CM Window

MCG Facebook and Twitter accounts are used to create awareness of the new citizen centric initiatives. Any issue or grievance posted by the citizen is also effectively handled.







MCG Mobile App

Swachh App

Web Portal

Call Centre

MCG Social Media Channels

CM Window

All grievances marked to the Chief Minister Facebook and Twitter handles are captured through an automated tool and resolved ideally within 24 hours depending on the issue

Haryana's First Integrated Solid Waste Management Project



Key Highlights

- Municipal Corporations of Gurugram and Faridabad signed MoU with Ecogreen Energy Pvt Ltd for the construction of Haryana's First Integrated Solid Waste Management Project
- Developed in accordance with all norms, regulations & directions by National Green Tribunal (NGT) and Solid Waste Management (SWM) Rules
- Includes collection, transportation, processing and disposal of the solid waste along with setting up of waste to energy power plant in the due course
- Ecogreen Energy Pvt Ltd has been identified as the vendor to roll out the solid waste management project.





Solid Waste Management Project Background



- ❖The project will be developed on Develop, Built, Finance, Operate & Transfer (DBFOT) model on PPP Mode.
- **❖**The private developer has been selected through an open competitive bidding process

❖ Total Current MSW generation of cluster-1236 TPD

(Population projection has been done on assumption of 3% annual growth on 2011 census and corresponding MSW generation @ 450gms/capita/day (Niti Aayog Report 2015)

- Gurugram 476.35 TPD
- Faridabad 759.80 TPD

Project Details:

- Site: Bandhwari 27.81 acres land
- Concession Period: 22 Years (20 + 2 From the date of Signing of Concession Agreement)
- Estimated Project Cost: INR 330.48 Crore
- Project will be in compliance with SWM Rules 2016 and NGT Guidelines

Solid Waste Management Project - WMCG collection and transportation







Primary Transportation



Transfer Station

Door-to-Door Collection of MSW

Operator will carry out door-to-door collection of MSW, transport the same to processing site, carry out pre-processing and make RDF, setup treatment facility for organic fraction and use RDF in Waste to Energy plant. Operator will also design, construct and operate a SLF where all process inert will be disposed off



Sanitary Landfill (SLF) For disposal of Processing rejects and Inert



Processing Plant

Useful Products:

- Recyclables
- Power
- Compost

Solid Waste Management Project – WINCE MUNICIPAL CORPORATION OF GURUGRAM COllection Vehicles



Solid Waste Management Project



Transfer stations / Mini Transfer stations replacing open dumping of garbage



Current situation before project roll out - Open Garbage Dumping Place

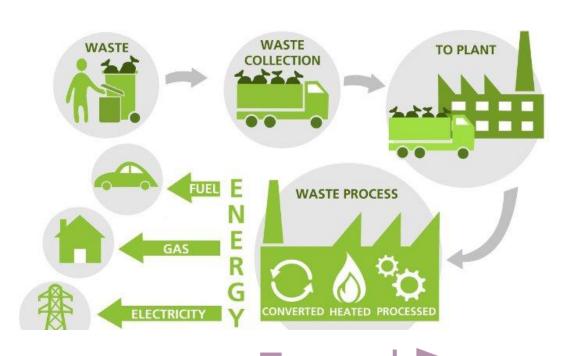


Expected situation after project roll out - Mini Transfer Station with no garbage spill

Integrated Solid WasteManagement Initiative









On 14th August 2017, MCG executes the MOU for Haryana's first Integrated Solid Waste Management Project with Ecogreen Energy India Pvt Ltd.



Integrated Solid Waste Management Initiative — Salient Features





Integrated Solid WasteManagement Initiative





Foundation Laying on November 01, 2017

Start C&T Ops by December 01, 2017 100% coverage for C&T Ops by December 2018

Commission
Waste-Electricity
Plant within 21
months

Engage and Sensitize Citizens - Lets Work Hand-In-Hand!





I can do things you cannot, you can do things I cannot. Together we can do great things.

- Mother Teresa

Alone we can do so little, together we can do so much.

- Helen Keller





Thank you.

