

MUNICIPAL SOLID WASTE MANAGEMENT AND THE CHALLENGES FROM COVID 19 PERSPECTIVE

GLOBAL PLATFORM FOR SUSTAINABLE CITIES (GPSC)
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Committee to oversee the implementation of
SWM Rules**



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Urban Governance | Financial Reforms | Infrastructure Development

India's Urban Profile

- Population (2020 projected) – 1380 million
- Urban centers (2011 Census) – 7935
- Urban Local Bodies (2011 Census) – 4041
- Urban population (2020) – 450-475 million
- Waste generation per capita – 250-600 grams
- Daily waste generation – 152600 MT
- Annual waste generation – 56 million MT

Management of Municipal Solid Waste in India

- Solid Waste Management (SWM) is the primary responsibility of Urban Local Bodies (ULBs) for over 300 years
- SWM is a state subject under Indian constitution
- States have made ULBs responsible for management of Municipal Solid Waste (MSW)
- Low compliance from ULBs and weak enforcement from States necessitating Supreme Court and federal government's interventions

Progress of regulations

Committees, policies and incentives

Expert committee set up by Supreme court to identify measures for improving SWM

1998

2000

Clean India Campaign

2014

2016

Swachh Bharat Mission

2014

2018

Incentives provided by MoC&F for uptake of compost, MoRTH guidelines for uptake of C&D waste, State Discoms mandated to purchase electricity from RDF

2017-2018

2016 – till date

Legislations

Municipal Solid Wastes (Management & Handling) Rules, 2000

Solid Waste Management Rules 2016
Biomedical waste management Rules 2016
Construction and Demolition Waste Management Rules, 2016

Plastic Waste Management Rules, 2016 Amended 2018

NGT orders for implementation of SWM rules

Assessment of evolution of MSW rules

Key drawbacks of MSW rules, 2000 implementation



Partial storage of waste at source

No segregation of recyclable waste at source



Partial door to door collection of waste

littering on the streets



Secondary storage continue on roadside, open spaces

Transportation through open trucks



Insignificant treatment of waste



Inadequate recognition of the informal waste recycling sector

Irregular street cleaning. Low income settlements get ignored



No sanitary landfills were setup for waste disposal and dumping in low lying areas

Bridging the gaps through MSW Rules 2016



Waste generators directed not to litter, burn or bury waste; Ensure segregation at source

practice home or community level composting /biogas generation from biodegradable waste



Door to door collection of segregated wet and dry wastes

Day to day/periodic sweeping of streets & secondary storage in covered containers if required



Process biodegradable waste (composting/biogas) & segregate all possible component of non-biodegradable waste at MRF

Disposal of process rejects and inerts only at Engineered Landfill

Status of Implementation of new Rules






Sr. No.	Activity	Achievement
1	Segregation of waste at source (Nov. 2019)	73 %
2	-Door-to-door collection of waste (Nov. 2019) -16 states have achieved 100% coverage	98 %
3	Material Recovery Facility	13 %
4	Processing of waste (Dec. 2019)	63 %
5	Waste disposal at SLF (Dec. 2019)	30 %

MSW service delivery challenges

1. Segregation of waste at source is the key to ensure waste minimization and processing of waste, efforts to ensure 100% segregation at source
2. Segregated collection mechanism is highly inadequate. System of having vehicles with partition to collect biodegradable & non-biodegradable waste separately is constraint
3. Material Recovery Facilities are highly inadequate. 87% gap needs to be bridged expeditiously
4. A huge gap in waste processing needs to be bridged; non-availability of suitable land key constraining factor.
5. Challenge of setting up of sanitary landfill due to lack of suitable land. In absence of sanitary landfill, 70% waste lands up at the open dumpsites.
6. Bio-remediation/Bio-mining of over 4000 dumpsites in the country to be initiated

Inefficient MSW service delivery leading to environmental degradation, problems of health and poor quality of life of the citizens

Initiation of Measures in the context of COVID 19

-  Challenges in maintaining service delivery and infrastructure for bio-med waste management with the spread of COVID19
-  Establishment of 12000 COVID management centers to check the spread of COVID19
-  120-150 TPD COVID19 waste collected
-  COVID centers generate both BWM and MSW. Poor segregation adding load on bio-medical waste disposal facilities. Separation of bio-medical & municipal waste being focused
-  COVID waste handled at bio-medical waste treatment facilities - 70% COVID waste incinerated, non-bio-medical waste from COVID centers processed by Municipal Authorities
COVID waste is being transported through dedicated vehicles

Challenges in the context of COVID 19



Limited understanding on safe handling of COVID19 waste by Waste collectors from lower strata of society



Social distance while collecting waste from the doorstep



Sanitization of tools & equipment used in the service delivery of COVID19 waste



Limited use of PPE's by workforce

DON'Ts for Waste collectors in the context of COVID 19

- Avoid assemble in a group without wearing a mask and maintain a distance of minimum 6 feet at the time of marking attendance or work distribution
- Avoid ring the door bell or knock the door of waste generator with bare hands
- Avoid visit to household or a building notified as quarantine area
- Avoid accept any food or drinks from the waste generators while at work;
- Use PPE's while collecting waste
- Sanitization of hands prior to touch their face, nose or eyes



THANK YOU...

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