MUNICIPAL SOLID WASTE MANAGEMENT AND THE CHALLENGES FROM COVID 19 PERSPECTIVE

GLOBAL PLATFORM FOR SUSTAINABLE CITIES (GPSC)

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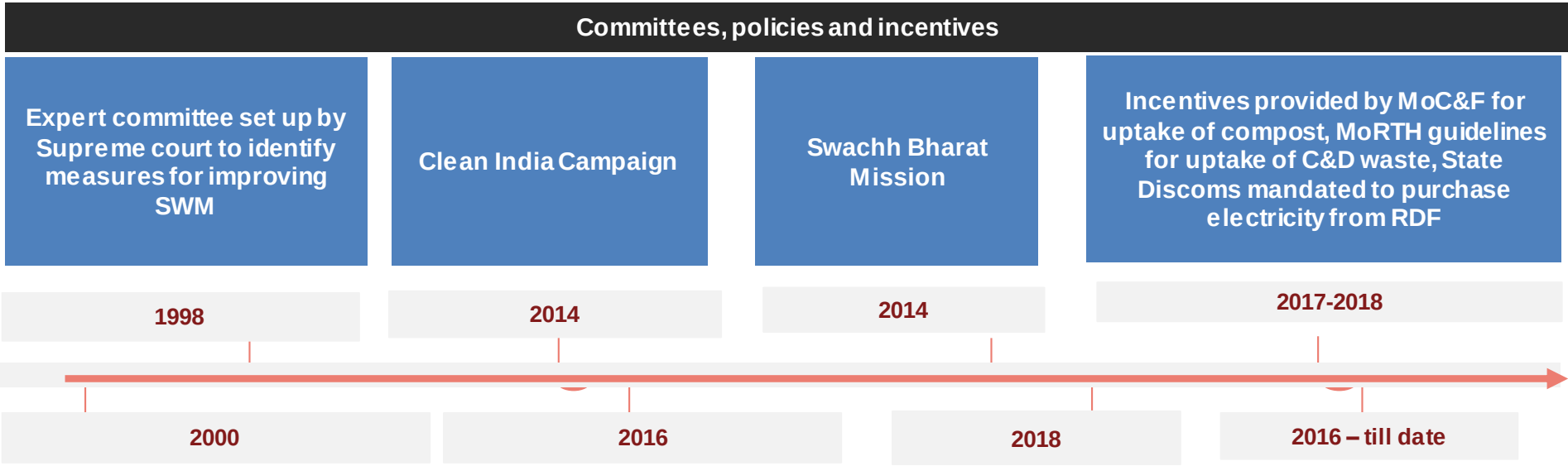
India's Urban Profile

- 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



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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

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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

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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

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DONTs 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

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THANK YOU…

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