Report of the committee set up to frame National Sustainable Habitat Standards for the Municipal Solid Waste Management

Introduction

The National Mission for Sustainable Habitat was approved by the Prime Minister’s Council for Climate Change in June 2010. One of the deliverables of the Mission is the formulation of National Sustainable Habitat Standards. These standards would subsequently get integrated with relevant regulations to ensure that future developments are aligned in accordance with concerns related to climate change. Accordingly, a sub-committee was appointed under the chairmanship of Shri. A.K. Mehta, Joint Secretary, Ministry of Urban Development to evolve the standards in respect of municipal solid waste management sector. The order regarding constitution of the committee is placed at Annexure.

Background on Municipal Solid Waste Management

Solid waste management systems adopted in Indian cities/towns are highly inefficient and outdated, lacking public participation. Overall apathy is observed in the matter of Collection, Transportation and disposal of municipal waste. A system of depositing domestic, trade and institutional solid wastes on the streets / Open Spaces by waste generators and its collection by Municipal authorities from the streets, Open Space and its disposal at dump sites in a most unhygienic manner is in vogue. A pilot project on the implementation of service level benchmarking in 28 cities/towns conducted by MoUD revealed the following:

<table>
<thead>
<tr>
<th>Solid Waste Management</th>
<th>Benchmark</th>
<th>Lowest</th>
<th>Highest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household level coverage</td>
<td>100%</td>
<td>2.6</td>
<td>100</td>
</tr>
<tr>
<td>Collection efficiency of MSW</td>
<td>100%</td>
<td>43.2</td>
<td>100</td>
</tr>
<tr>
<td>Segregation of MSW</td>
<td>100%</td>
<td>2.7</td>
<td>64.9</td>
</tr>
<tr>
<td>MSW recovery</td>
<td>80%</td>
<td>3.8</td>
<td>100</td>
</tr>
<tr>
<td>Scientific Disposal of MSW</td>
<td>100%</td>
<td>0.8</td>
<td>57.6</td>
</tr>
<tr>
<td>Cost recovery - SWM</td>
<td>100%</td>
<td>0.1</td>
<td>159.9</td>
</tr>
<tr>
<td>Collection efficiency</td>
<td>90%</td>
<td>30.2</td>
<td>100</td>
</tr>
<tr>
<td>Complaints redressal</td>
<td>80%</td>
<td>62.5</td>
<td>100</td>
</tr>
</tbody>
</table>
For improving solid waste management practices in urban areas, it is essential to incorporate suitable mandatory provisions in the state laws and frame municipal bye-laws to ensure stake holders’ active participation and minimum level of service delivery by Municipal Authorities.

It is observed that, besides educating the masses to effectively participate in SWM services, some punitive actions need to be taken against those who do not adhere to the direction given to protect public health and environment. State Laws therefore need to provide for punishment on the spot to those who litter and do not adhere to the directions given for maintaining solid waste management systems in the Urban Areas and give adequate powers to the Municipal authorities to penalize the offenders.

The Municipal Solid Waste (Management & Handling) Rules, 2000 has specific directives to the Local Bodies, District Administrations and the Urban Development Departments of the State Governments for proper and scientific management of municipal solid waste. Under these rules, it is mandatory for all the urban local bodies to provide facilities for collection, transportation, treatment & disposal of municipal solid waste in a scientific and hygienic manner. The law also should empower the state to penalize municipal authorities who fail to discharge their obligatory duties in terms of Municipal Solid Waste (Management & Handling) Rules 2000. The rules had prescribed time limit of 31st December 2003 for implementation. This time limit was over and most of the cities and towns in the country had failed to implement the rules due to various constraints. Therefore, The Ministries of Urban Development and Environment & Forests are in the process of amending the MSW Rules 2000 in consultation with various State Govts. and ULBs.

Keeping the above background in mind, the committee recommends that the following principles be incorporated in legal provisions/ bye laws by the Union, State Governments and Municipal Authorities. At Govt. of India level, the MSW Rules 2000 need to be amended in consultation with various stakeholders with a view to remove the
barriers in implementation of MSW Rules, 2000. Adequate provision should be made in the MSW Rules, 2000 to initiate legal action against the Municipal Authorities under provisions of Environmental Protection Act, 1986 and the MSW Rules, 2000. The State Govt. may modify the State laws with a view to impose penalty on the Municipal Authority in the form of deduction of Govt. grants (State/Central) till they comply with the aforesaid directions and those contained in the MSW Rules, 2000. The ULBs shall modify their municipal by-laws in the context of MSW Rules suitably incorporating the provisions made therein after amendment of MSW Rules, 2000.

**LEGAL PROVISIONS**

1 **Duty of occupiers of premises to store solid waste at source of generation**

It shall be incumbent on the occupiers of all premises to keep two receptacles, one for the storage of food/organic/bio-degradable waste and another for non-bio-degradable/ recyclables and other types of solid wastes generated at the said premises. The hazardous waste generated by households to be notified by State Government from time to time, shall however be kept separately in a suitable container as and when such waste is generated.

2 **Duty of municipal Authority to collect domestic, trade and institutional waste from the source of waste generation**

Municipal Authority shall arrange for door to door collection and/or community bin collection of domestic, trade and institutional waste stored by waste generators as per 1 above in a segregated manner through its own staff or NGO/ CBO/ RWA/ Private Sector on a day to day basis; and may levy and collect or permit to collect, user charges to meet the cost of providing this service.

3 **Municipal authority to identify & allocate suitable locations to facilitate sorting of recyclable waste.**

The Municipal Authorities may identify and allocate suitable pieces of land in
their Jurisdiction to facilitate sorting of various components of recyclable material collected by waste collectors and prevent such activities being carried out on the footpaths, road side, etc.

4 Duty of occupier of households / shops / establishment to hand over the bio – degradable, recyclable material / non-bio-degradable waste to the waste collectors.

It shall be incumbent on households / shops / establishments and all other waste generators to hand over their segregated bio – degradable, recyclable waste and Non-bio-degradable wastes to waste collectors of the municipal authorities, or any agency fixed by the municipal authorities as may be notified by the Municipal Authorities from time to time, and pay the user fees as may be prescribed by Municipal Authority. Such waste shall not be disposed of on the streets, open spaces, water bodies etc.

5 Duty of Societies/Associations/Management to provide community bins

In a situation where door to door waste collection system could not be introduced, by the municipal authority, it shall be incumbent on the management of Co-operative Societies, Associations, Residential and Commercial Complexes, Institutional buildings, markets and the like to provide community bins of appropriate size in a manner as may be prescribed by Municipal authority, for the temporary storage of bio – degradable waste as well as recyclable waste and domestic hazardous waste, to facilitate primary collection by the municipal authorities.

6 Receptacles to be kept in good repair

Receptacles as stated in 5 above shall at all times be kept in good repair and condition and shall be provided in such number and at such places as may be considered adequate and appropriate to contain the waste produced by the citizens supposed to be served by the community bins.
7 Duty of occupiers to deposit solid waste in community bins

It shall be incumbent on occupiers of all premises for whom community bins have been provided as per 5 above, to cause all segregated domestic solid waste, trade waste, institutional waste from their premises to be deposited in the appropriate community bins.

8 Duty of Municipal Authorities to provide temporary Waste storage depots

It shall be incumbent on the Municipal Authorities to either Provide and hygienically maintain adequate covered waste storage depots in the city or place at such depots large mobile covered Containers / receptacles of green colour for Separate storage of Organic/ bio- degradable waste collected from households, shops and establishments and black containers for storage of waste collected from streets and public spaces until the waste is transported to processing and disposal sites or arrange for direct transportation of such segregated waste from the source of generation to the treatment or disposal site. They shall also make adequate provision for the safe deposition of domestic hazardous waste material by the citizens as may be notified and arrange for their collection and safe disposal.

9 Duty of Municipal Authorities to collect waste from community bins and to deposit it at Bulk Waste Storage depots for onward transport

At places where waste is stored in community bins in compliance to 5 above, it shall be incumbent for Municipal Authorities, or an appropriate party contracted by the Authority, to remove all solid waste deposited in community bins on a daily basis and transfer it to the temporary Waste Storage depots/containers identified in the city or make suitable arrangement for direct transportation of organic/bio – degradable waste to the transfer station or treatment plant and non Bio-degradable/inert waste to the disposal sites.
10 Duty of Municipal Authorities to arrange sweeping of all public streets and slums

It shall be incumbent on Municipal Authorities to arrange for sweeping of all public streets having habitation/commercial activity on both or either side and all slums on all days of the year including Sundays and public holidays. The Municipal Authorities shall also arrange cleaning of all public spaces at regular intervals and keep them clean.

11 Duty of Municipal Authorities to transport the waste stored at the waste storage depot regularly.

It shall be incumbent for the Municipal Authorities to arrange for the transportation of waste stored at waste storage depots on a daily basis and ensure that waste is transported before the waste storage containers start overflowing at places where covered containers are placed.

12 Municipal Authorities to construct engineered landfills and setup treatment facilities to minimize the waste going to landfills.

Municipal Authorities shall undertake construction of engineered landfills on priority as per the provisions of MSW Rules, 2000 and ensure that no MSW is disposed of at any place other than engineered landfill. This shall be done in a time bound manner in conformity with Municipal Solid waste (Management &Handling) Rules 2000. Municipal Authorities shall simultaneously promote the processing of Municipal Solid waste and shall reduce the waste going to landfill by adopting the concept of Reduce, Reuse, recover & Recycle (RRRR). The Municipal Authorities shall reduce the waste going to landfills each year in phased manner (at-least 15% each year) to achieve not more than 20% waste to be landfilled after a 5 year period.
Municipal Authority to have freedom to select appropriate technology

It shall be the discretion of the Municipal authority, depending on the physical and chemical characteristics of the waste, to determine the treatment of Municipal Solid waste either through composting or waste to energy technology, or integrated technologies in accordance with Municipal Solid Waste (Management & Handling) Rules 2000.

Bio-degradable waste not to mix with inert wastes such as street sweepings, Construction debris, Bio – Medical Wastes etc.

a) Municipal Authorities shall ensure that the street sweepings and Bio – degradable waste collected during door to door collection are not allowed to mix with inert wastes such as street sweepings, Construction debris, Bio – Medical Wastes.

The domestic, trade and institutional waste collected from the door step, (other than recyclable material, if allowed to be taken away by waste Collectors), kept in separate bins, should be taken to treatment plants; and street sweepings, dust and silt from the drains, which are generally inert, stored separately in black bins should be taken directly to disposal site to minimize the burden of segregation of inert waste at the treatment facility.

b) The construction debris should be collected separately and should not to be allowed to mix with the waste stream leading to treatment facility, nor should it be taken to the engineered landfill. Such inert waste may be used for filling in low lying areas or may be recycled or used for other profitable purposes as deemed fit. Construction debris may however be used as a cover material at the landfills to the extent it is considered necessary.

c) The Bio-medical waste and industrial hazardous waste should not be allowed to mix with Municipal solid waste. They should be dealt with according to the Rules framed for management & handling of such wastes by MOEF,GOI.
appropriate framework for reporting of incidents of mixing of bio-medical and/or industrial hazardous waste with municipal solid waste should be formulated, so that they may be controlled.

15 Prohibition against deposition of building rubbish

No person shall deposit or cause or permit to be deposited any building rubbish in or along any street, public place or open land except at a place designated for the purpose and in conformity with conditions laid down by the municipal Authorities.

16 Prohibition on disposal of carcasses etc.

No person shall deposit or otherwise dispose of the carcass or parts of any dead animal at a place not provided or appointed for this purpose.

17 Penalty for non segregation of waste or littering on streets and depositing or throwing any solid waste in contravention of the provisions of this Act/Bye Law.

Whosoever fails to segregate Bio-degradable & non bio degradable wastes from domestic, trade and institutional waste at Source or litters the streets/or public places or deposits or throws or causes or permits to be deposited or thrown any solid waste or construction debris or carcasses at any place in contravention of the provisions of this Act/ Bye Law or permits the flow of any filthy matters from his premises shall be punished on the spot with a fine in the range of Rs.100 to 5000 as may be prescribed under the Rules framed by the State Govt. or by the Municipal Authorities under the byelaws for various types of waste generators from time to time. Such spot fines may be imposed and collected by officers and Supervisory Staff authorized by the Municipal Authorities including Police personnel. The amount of fine imposed, if not paid on the spot, shall be recoverable as arrears of Property Tax or in any other manner deemed appropriate by the Municipal Authority.
The Municipal Authority may also recover the cost of removal such waste from the defaulter in addition to fine imposed.

The amount of fine shall be kept higher for repeat offences.

18 **Sanctions against municipal authority failing to comply with MSW Rules, 2000 or Provision of this Act.**

If the Municipal Authority fails to discharge its obligatory functions under MSW Rules, 2000 or the direction given in aforesaid provisions of the Act, on the recommendation of the State Pollution Control Board, or on its own, the State Govt. may impose penalty on the Municipal Authority in the form of deduction of Govt. grants (State/Central) ranging from Rs. 50000 to 5 lacs per month till they comply with the aforesaid directions and those contained in the MSW Rules, 2000.

This would be besides the legal action that could be taken against the Municipal Authorities under provisions of Environmental Protection Act, 1986 and the MSW Rules, 2000. The Municipal Authorities, may in turn, fix the responsibility of officers and staff for non performance and impose punishment as deemed appropriate.

19 **District Collector/Deputy Commissioner to allot suitable parcels of waste land/less productive agriculture land for setting up municipal solid waste treatment and disposal facilities.**

In absence of availability of suitable land for construction of municipal solid waste treatment and disposal facilities, and on request from a municipal authority to allot suitable land for the aforesaid purpose, the district collector/deputy commissioner of the district shall identify and allot suitable parcels of waste lands, (and in absence of waste land, relatively less productive land), for setting up waste processing/treatment facility and engineered landfill for the municipal
authority at a price that may be determined by the State Govt. In order to optimize the use of the land for the benefit of several such Authorities, the State Govt. may also identify a suitably large parcel of land, using satellite imagery, for setting up regional (common) landfill for clusters of cities / towns, within a reasonable travel distance from the Town/Cities. As a preferred course of action, the State may direct all the Municipal Authorities below 10 Lac populations falling in the clusters so determined to set up a common waste disposal facility on such land on a cost sharing basis. It is desirable for State Governments to create a suitable policy framework to enable shared facilities to be implemented. The modus-operandi for construction & O & M of such common facility may be determined by State Govt.

20 Planning authorities to reserve suitable land for treatment and disposal of Municipal Solid wastes.

The Planning authority of the State / region/ District/ City shall reserve suitable land for treatment and disposal of municipal Solid waste in the development plan/ land use plan of the city / district /region and state, as and when prepared / approved by them.

Mainstreaming of Service Level Benchmarks (SLBs) for sustainability

Service level benchmarks have been formulated by the MoUD with a view to achieving all-round sustainability including environmental sustainability. Accordingly, in addition to the specific recommendations above, the committee suggests that implementation of service level benchmarking which implies an outcome oriented approach be mainstreamed further at every stage i.e planning, implementation and monitoring. In recognition of the fact that the SLB framework may not be met initially, a range of values for SLB indicators has been suggested as per the chart (on the next page) for different grades of sustainability, the ideal being the SLBs themselves.