





## MY SWACHH NEIGHBOURHOOD

A multi-stakeholder approach towards a garbage-free society

### FOREWORD



### Hardeep S Puri

Hon'ble Minister of State (Independent Charge) Ministry of Housing & Urban Affairs

The Swachh Bharat Mission, which aims to make India a clean nation by October 2019, needs to become a 'jan andolan' with participation from every stakeholder.

We have taken up a multi-pronged strategy for making the Mission a people's movement. It is heartening to note that in the last three years, the Swachh Bharat Mission has caught the imagination of citizens.

The increased participation from citizens, be it as part of thematic drives, or voluntary 'swachhata' activities from inspired individuals and organizations, is slowly but surely pushing the Mission towards becoming a 'people's movement'.

On the occasion of the third anniversary of launch of the Swachh Bharat Mission, I am pleased to see the Guidelines on "Swachh Neighbourhood" being released by my Ministry, which lays out the definition, citizen engagement options, infrastructure norms, assessment & inspection procedures and checklists, for making our neigbourhoods 'swachh' and garbage free. It is my firm belief that this document, when properly utilized, will go a long way towards making residents and citizens active participants in our collective journey towards a "Swachh Bharat" by 2nd October 2019.

### FOREWORD



### Durga Shanker Mishra

Secretary Ministry of Housing & Urban Affairs

With Swachh Bharat Mission (Urban) having completed a journey of 3 years, it becomes imperative for us to expedite efforts towards making our urban areas clean, healthy and liveable. Under the Mission, substantial progress has been made, especially when it comes to making our cities open defecation free. Nonetheless, public perception continues to be slightly adverse, given that our urban areas and public places continue to suffer from littering and dumping.

While we spend a lot of time and effort to keep our own houses clean and hygienic, we fail to keep our surroundings and neighbourhoods clean. More often than not, we end up disposing the garbage from our homes, religious places, shops, premises onto the streets, parks, drains, roads, etc. outside our homes / offices / institutions / temples etc. We litter in public places while keeping our homes clean. In the process, we fail to realise the risk we are posing to our own health by adopting these harmful practices. Our unclean surroundings give rise to various vector-borne diseases which adversely affect our health and well-being. However, it is also true that each of us have an emotional connect with our immediate neighbourhood, with our separate definitions of what constitutes our neighbourhood. In fact, we probably feel more strongly for our own neighborhoods rather than the larger cities that we live in.

Given this connect that we have with our neighborhoods, if each of us – householders, shopkeepers, healthcare providers, students, teachers, priests, RWAs, associations, corporates, institutions, visitors, customers, and any segment of society - makes a commitment towards keeping not only our houses but also our neighbourhood areas clean, in the true spirit of a 'jan andolan', we will be in a position to achieve our collective dream of a clean India much before 2nd October 2019.

In view of this, the Ministry of Housing and Urban Affairs is launching the Guidelines on "My Swachh Neighbourhood" to facilitate ULBs and multiple stakeholders to actively participate towards creating Swachh Neighbourhoods.

## **GLOSSARY OF ACRONYMS**

| ANM   | Auxiliary Nurse Midwifery                |  |
|-------|--|--|
| ASHA  | Accredited Social Health Activist        |  |
| СВО   | Community Based Organisation             |  |
| CFL   | Compact Fluorescent Light                |  |
| СРСВ  | Central Pollution Control Board          |  |
| HDPE  | High Density Polyethylene                |  |
| ICT   | Information and Communication Technology |  |
| IEC   | Information, Education and Communication |  |
| MoHUA | A Ministry of Housing & Urban Affairs    |  |
| MSW   | Municipal Solid Waste                    |  |
| MSWM  | Municipal Solid Waste Management         |  |
| NGO   | Non-Governmental Organization            |  |
| OD    | Open Defecation                          |  |
| O&M   | Operation and Maintenance                |  |
| PHC   | Primary Health Centre                    |  |
| PPE   | Personal Protective Equipment            |  |
| PPP   | Public Private Partnership               |  |
| RWA   | Resident Welfare Association             |  |
| SBM   | Swachh Bharat Mission                    |  |
| SHE   | Sanitation and Hygiene Education         |  |
| SHG   | Self Help Groups                         |  |
| SOP   | Standard Operating Procedure             |  |
| SWM   | Solid Waste Management                   |  |
| ULB   | Urban Local Body                         |  |

## CONTENTS

| 1.   | BACKGROUND, OBJECTIVES AND SCOPE                              | 11 |
|------|---|----|
| 2.   | DEFINITION OF A "SWACHH NEIGHBOURHOOD"                        | 13 |
| 3.   | CITIZEN ENGAGEMENT FOR MAKING A                               |    |
|      | "SWACHH NEIGHBOURHOOD"  | 15 |
| 3.1  | Citizens  | 16 |
| 3.2  | School Management, Faculty and Students                       | 17 |
| 3.3  | Market Associations and Vendors                               | 17 |
| 3.4  | Religious Leaders   | 18 |
| 3.5  | Transport Authorities   | 19 |
| 3.6  | NGOs / CBOs   | 19 |
| 3.7  | Offices and other Workspaces                                  | 20 |
| 3.8  | RWAs and Housing Complexes                                    | 21 |
| 3.9  | Hospitals / Primary Health Centres / Healthcare Institutions  | 21 |
| 3.10 | Elected Representatives                                       | 22 |
| 3.11 | Self-help Groups  | 23 |
| 3.12 | Celebrities and Influential Persons                           | 23 |
| 3.13 | Other Means of Engagement                                     | 24 |
| 4.   | REGULATORY FRAMEWORK  | 25 |
| 4.1  | Adoption of SWM Rules 2016                                    | 25 |
| 4.2  | Notificaton of Door-to-Door Collection Charges                | 25 |
| 4.3  | Fines for Littering During Social Gatherings and Processions  | 26 |
| 4.4  | Notification of Charges for Collection of C&D Waste           | 26 |
| 4.5  | Ban on Polythene Bags   | 26 |
| 4.6  | Notification Prohibiting Littering, Spitting, Open Urination, |    |
|      | Open Defecation and Defacing Neighbourhood                    | 27 |
| 5.   | INFRASTRUCTURE REQUIREMENTS                                   |    |
|      | FOR A "SWACHH NEIGHBOURHOOD"                                  | 29 |
| 6.   | INSTITUTIONAL MECHANISM                                       | 31 |
| 7.   | IMPLEMENTING THE CONCEPT                                      |    |
|      | OF A "SWACHH NEIGHBOURHOOD"                                   | 35 |
| 7.1  | Door-to-Door Collection                                       | 35 |
| 7.2  | Source Segregation  | 37 |
| 7.3  | Integrating Informal Sector into the SWM Chain                | 39 |
| 7.4  | Engaging Municipal Employees and Staff                        | 41 |
| 7.5  | Cleanliness and Beautification Options for all Public Places  | 42 |
| 7.6  | Addressing Issue of Stray Animals                             | 43 |
| 7.7  | Monitoring Mechanism  | 43 |
| 7.8  | Feedback Mechanism  | 44 |
| 7.9  | Independent Assessment  | 44 |









## BACKGROUND, OBJECTIVES AND SCOPE

#### BACKGROUND

Waste management, especially cleanliness in our neighborhoods due to littering, dumping of garbage, poor operation & maintenance of facilities, is a major problem in India, amongst other issues. According to Central Pollution Control Board (CPCB), urban India generates about 47 million tons of solid waste every year. Faced with rapid population growth, lack of public awareness and attitude of apathy towards cleanliness, our neighborhoods have been struggling to maintain good cleanliness and hygiene standards.

All citizens are responsible for the cleanliness and hygiene standards maintained in the different parts of the neighbourhood, however citizens fail to take ownership and responsibility towards this duty to the country. While measures are taken by households to ensure cleanliness and hygiene within their houses, these household freely dump their waste into the surrounding areas, citizens litter and urinate in public places, dispose garbage in an unscientific manner, etc. The burden of the same has to be borne by the civic authorities, while it should be a collective responsibility. Further, it also has a negative impact on public health and the environment. As part of the Swachh Bharat Mission's mandate, it is imperative for the concerned authorities and citizen stakeholder groups to work together towards creating clean, healthy and livable neighborhoods. It is key for each stakeholder group – households, RWAs, hospital authorities, transport authorities, shopkeepers, vendors, office management and staff, students and faculty, bulk waste generators, civic authorities, etc. – to take ownership of the neighbourhood, contribute and collaborate towards making it a "Swachh Neighbourhood".

#### **OBJECTIVES**

This document can act as a ready reckoner for all stakeholders to engage in improving the cleanliness standards of neighbourhoods. It lays down the





benchmarks, responsibilities, infrastructure setup and good practices, inspection/monitoring norms to be followed as well as an assessment framework. The assessment framework is a tool to enable authorities and citizen stakeholder groups to conduct independent assessments of progress made in keeping neighbourhoods clean and garbage free.

These directions will be updated continually to incorporate new procedures and revisions. As it is dynamic in nature, it is advisable to periodically check for the updated version on **www.swachhbharaturban.in** portal. Any amendments to the procedures based upon requirement should be identified and incorporated as per the requirement.

This document should be used as a reference and may be adapted based on site-specific requirements.

It is important that all aspects of cleaning are aligned with the Swachh Bharat Mission Guidelines and other relevant cleanliness-related guidelines issued by the Government of India. The multistakeholder approach towards a garbage-free society is set out in a detailed format to cover the issues required to implement proper cleanliness in neighbourhoods and the areas under their purview. Since neighbourhoods include various entities on which Standard Operating Procedures (SOPs) have been published earlier, it is encouraged to refer to these for further details (available on SPM official portal)

(available on SBM official portal).

#### SCOPE

This document on "Swachh Neighbourhood" is applicable to the following urban areas:

- Residential Areas (gated/ semi-gated/ nongated)
- Roads & related infrastructure (including streets, footpaths, passages, drains, garbage transfer stations, garbage vulnerable points)
- Parks and Gardens
- Transport Facilities (Bus stop, metro stations, etc)
- Commercial Markets (formal, informal, weekly, agriculture mandis, meat shops)
- Hotels/ Restaurants/ Canteen/ Mess
- Schools/ Colleges/ Educational Institutes
- Offices (Government/ Private)
- Hospitals/ Healthcare establishments
- Recreational Clubs/ Facilities
- Religious Places

## DEFINITION OF A "SWACHH NEIGHBOURHOOD"

A neighbourhood can be declared as a "Swachh Neighbourhood" if at any point of time in the day, no garbage or litter is found in any public locations in the neighbourhood.

#### Prerequisites for declaring a "Swachh Neighbourhood"

The operating principles to achieve this objective would involve the following:

- All households and waste generators mandatorily practice segregation of waste at source (wet and dry, as per national standards, and further segregation, if specified by local authorities)
- 2. Segregated waste is collected and transported

in a segregated manner to processing units / recycling units / landfill site

- 3. Waste is prevented or reduced through redesign, reduced packaging and material use, and less consumption
- 4. Waste is reused or refurbished (for original use or for another purpose)
- 5. Waste is recycled, reprocessed into raw materials and useful resources
- 6. Balance waste is landfilled in a safe, scientific and sustainable manner
- 7. The above steps are undertaken in a participative manner with engagement of all categories of citizen stakeholders.







# GITIZEN ENGAGEMENT FOR MAKING A "SWACHH NEIGHBOURHOOD"

Citizens play a key role in the Swachh Bharat Mission, not only in achieving the objectives

#### VADODARA: COMMUNITY ENGAGEMENT FOR SWM

In an attempt to engage the people in the task of keeping their city clean the Vadodara Municipal Corporation undertook a number of activities involving various groups such as senior citizen groups, NGOs, school students, Industry Associations, SHGs, Ganesh Youth Mandals, Navrati Youth Mandals, etc. These activities including:

- Appointing 30,000 students as Safai Champs who have personal contacts with 12 lakh people
- Distributing awareness pamphlets
- Preparing SBM logo using collected plastic waste
- Holding Swachhata rallies
- Organizing puppet shows and street plays to create awareness about cleanliness
- Put up hoardings and banners for spreading messages about the advantages of cleanliness
- Holding an inter-election ward Swacchata competition by forming a committee in each of the 19 wards

but also sustaining the outcomes. Since the neighbourhood is an amalgamation of citizencentric hubs, it becomes important for them to contribute towards making their areas and the neighbourhood Swachh. There needs to be a sense of ownership among citizens towards their neighbourhood and by extension - its cleanliness, just as they are responsible for the upkeep of their own homes. .

The Urban Local Body (ULB) will need to engage proactively and continuously with different citizen groups to ensure that the community is not only clean by itself but also adopts certain locations in their neighborhoods for maintaining upkeep of their cleanliness. Further, citizens also should proactively come forward as Swachhagrahis, to dedicate their time and efforts towards this initiative and work collaboratively with the ULB.

To take this forward, the ULB and citizens should hold a joint consultation to clearly outline and assign roles and responsibilities so that dutybearers can engage with the priorities and needs of the community and implementers are capacitated

#### TIRUNELVELI: MULTI-STAKEHOLDER PARTICIPATION

Several participatory planning meetings were held with various stakeholders such as Doctors, Self-help groups, Religious representatives, Waste recyclers, media representatives, RWA, sanitary workers, school administration etc. for achieving 100% source segregation.

to deliver in a timely and meaningful manner. This would necessitate empowering community platforms and structures and strengthening their linkage with all administrative bodies and programmes, enabling them to achieve the vision of a "Swachh Neighbourhood".

The section below details out an indicative list of activities that various citizen groups can carry out in collaboration with the ULB, for focused efforts within each neighbourhood area. As a first step, the ULB should conduct a collective stakeholder consultation to orient them towards the concept of "Swachh Neighbourhood", jointly identify and assign responsibilities and chart the way forward. Subsequently, the ULB and each stakeholder group can embark on one-on-one engagements to conduct the activities suggested in the following sections.

#### 3.1 CITIZENS

Citizens are the fundamental units of a neighbourhood and therefore, key agents for ensuring that we achieve clean, healthy and livable neighborhoods. The ULB and citizens should actively involve citizens to make the mission a Swachh Andolan and ensure that citizens take ownership of their neighbourhood's cleanliness. ULB can conduct the following activities:

 Cleanliness drives around garbage vulnerable spots and identification of Swachhagrahis that act as community champions to support ULBs in achieving zero garbage neighborhoods

- 'Walk with ULB' (e.g. citizens accompany the Municipal Commissioner on a walk around neighborhoods once a month to identify dirty areas) to engage citizen representatives in addressing issues related to the neighbourhood's cleanliness. These can be done in a phased manner, focusing on each of the areas within the neighbourhood.
- Periodic Townhall and citizen polls for obtaining ideas and suggestions from the citizens towards improving and strengthening current initiatives
- Citizen ambassadors i.e. Swachhagrahis appointed as swachhata champions in their communities, and felicitation of the swachhagrahis from time to time on the basis of exemplary work done
- Encourage citizens to use Swachhata App for grievance redressal related to cleanliness
- Engage with local entrepreneurs in the areas of localized and simple waste management solutions





- Engage with senior citizens to motivate them to dedicate their time in zero garbage initiatives conducted by the ULB (e.g. awareness activities)
- Engage with home-makers through various medium including door-to-door awareness campaign and radio campaigns to encourage them to adopt source segregation at the household level

#### 3.2 SCHOOL MANAGEMENT, FACULTY AND STUDENTS

Given the criticality of school students as key change agents in society, it is vital to make them equal and active partners in the journey towards a "Swachh Neighbourhood". Given below is a list of suggested activities that schools can take up:

- Set up a School Sanitation and Cleanliness Committee comprising students and staff, to oversee swacchata activities and monitor the cleanliness and hygiene standards in the school premises; the committee may prepare allocation plan for each event organised within the school (Independence Day celebrations, carnivals, fairs, etc.) and assign one class to each event for supporting cleanup post the event
- Schedule a 'Swachhata' hour every week wherein all students and staff dedicate their time towards cleanliness activities, including cleanliness drives within and outside school premises, awareness drives, engaging with local community to spread awareness about linkage of hygiene & health, etc.
- Issue a Swachhata Report Card to each student (or junior students for higher impact) based on the activities carried out during Swachhata hour as well as on bi-monthly reports of swachhata initiatives taken by the student (whether individually or in a group) at home or within the community/city
- Reward students / groups who have taken the most exemplary swachhata initiative
- Organise 'Swachhata' melas for students on topics related to 'swachhata' (segregation,



recycling, personal hygiene, and more)

- Conduct 'Swachhata' workshops by students for parents, family members, friends, etc. on topics related to 'swachhata'
- Institute a system of healthy competiton among classes and reward the 'cleanest' class
- Adopt a some nearby park / monument / road to maintain it clean and garbage free
- Engage parents through parent-teacher meetings to ensure that they inculcate hygienic and clean habits in the children

#### 3.3 MARKET ASSOCIATIONS AND VENDORS

Market places, and locations around street vending facilities are some of the most garbage-vulnerable points in cities and neighbourhoods. To make them clean, it is necessary for every shopkeeper, street vendor, hawker and trader to be engaged in this initiative and become active participants in achieving cleanliness. Below is a list of suggested activities that can be taken up by them:

- Ensure segregation of waste at source by the waste generators as prescribed by SWM Rules 2016.
- ULB should communicate waste collection schedule to the market association/ vendors to ensure proper collection of segregated waste in separate streams and handing over of recyclable materials to either the authorized waste pickers or authorized recyclers.
- Market Association/ Shopkeepers/ Vendors should set up a compost or bio-methanation



plant for processing of all bio-degradable waste, at suitable locations in the markets (vegetable, fruit, flower, meat, poultry and fish market) or in the vicinity of markets (for ensuring hygienic conditions). The residual waste shall be given to the waste collectors or agency as directed by the ULB.

- Every street vendor and hawker must keep suitable containers for storage of waste generated during the course of her/his activity such as food waste, disposable plates, cups, cans, wrappers, coconut shells, leftover food, vegetables, fruits, etc., and shall deposit such waste at waste storage depot or container or vehicle as notified by the local body
- ULB to levy fines on shopkeepers / hawkers
   / vendors who do not comply with the above,
   though the fines collected can be routed back to
   the association to ensure compliance.
- ULB should conduct training and orientation sessions for shopkeepers and market associations on the importance of solid waste management and its effective implementation
- ULB should revoke licenses of shopkeepers

who are not in compliance with segregation and disposal rules

 ULB and Market Association/Shopkeepers/ Vendors should jointly organize IEC activities to engage customers in awareness creation on swachhata

#### 3.4 RELIGIOUS LEADERS

Given the enormous clout and influence that religious leaders enjoy among their follwers, it is crucial to enlist their participation in the neighbourhood's cleanliness. Religious leaders are key influencers in the community and should be actively involved in ensuring that all religious places (temples, gurdwaras, mosques, churches, synagogues, etc) provide a clean and hygienic environment for visitors and staff. Religious leaders can contribute to the overall mandate of 'jan andolan' in the following suggested ways:

- Religious leaders can spread the message of cleanliness and hygiene practices among their follwers through their preaching/ religious address and discourses
- Mobilize devotees to engage in 'Swachhata



Shramdaan', i.e. dedicating their time in cleanup activities, awareness creation, etc. within and outside the premises

- Ensure segregation of waste at source within the premises of the religious place, and conversion of wet waste into incense sticks, etc, which can be re-used within the premises
- Set up compost or bio-methanation plant for processing of all bio-degradable waste (kitchen waste, food waste, etc.), within the premises. The residual waste shall be given to the waste collectors or agency as directed by the ULB
- Distribute holy offerings (eg. prasadam) in biodegradable packaging, such as bowls made out of dried leaves, paper packets, etc
- Prohibit devotees/visitors from carrying plastic bags into the complex/premises
- Provide for use of artificial water bodies for immersion activities during festivals
- Treat animal waste, resulting from religious offerings or activities, before disposal ULB to mandate that all religious festivals and religious rituals become 'zero-waste' festivals, with suitable themes (e.g. Swachh Diwali, zero-waste Id, eco-friendly visarjan, garbage-free Durga Puja, etc)
- ULB to institute a healthy competition of swachhata among all festival gatherings, and rewarding the festival gathering with the maximum 'swachh' practices



#### 3.5 TRANSPORT AUTHORITIES

Since transport hubs (bus stands, auto- and taxi stands, truck stations, etc) attract large numbers of commuters and other floating population, their participation is important in making the neighbourhoods clean and hygienic for commuters. Below is a list of suggested activities that they can engage in:

- Ensure provision of waste receptacles in buses and local trains, with the required security measures taken into view
- Raise awareness through dissemination of SBM (Urban) messages through hoardings / posters / LED signages at transport hubs and on modes of transport
- Conduct training and orientation sessions for drivers and staff on the importance of cleanliness and hygiene
- Impose fines for littering & spitting
- ULB to institute awards for the most "swachh" bus station / taxi stand / truck depot etc.
- ULB should ensure placement of compartmentalized/ twin bins (with proper signage) at all transport hubs for safe and segregated disposal of waste by commuters

#### 3.6 NGOS / CBOS

NGOs / CBOs form a vital link between the formal administrative machinery and communities, specially the economically disadvantaged



sections. Hence, all NGOs and CBOs (including SHGs, Mahila Arogya Samitis, ANMs, ASHA and Anganwadi workers) should be actively involved towards achieving Swachh Neighborhoods. Given below is a suggestive list of activites that they can take up:

- Conduct community mobilization drives towards decentralised waste management at the neighbourhood level
- Identify Swachhagrahis at the community level to supervise and monitor sustainability of cleanliness initiatives
- Conduct training and orientation sessions for Swachhagrahis/ community mobilizers/ facilitators for carrying out door-to-door campaigns, cleanliness drives, etc.
- Partner with either private agencies or local authorities for operation and maintenance of public and/or community toilets
- Carry out focused awareness drives at the household level by getting door-to-door signatures (preferably on a letter written by Municipal Commissioner to ensure buy-in) for practicing source segregation and maintaining a clean & hygienic neighbourhood
- Conduct beautification drives to eliminate and transform Garbage Vulnerable Points and other dirty areas in the neighbourhood
- Conduct awareness campaigns among appropriate citizen communities on opportunities for social entrepreneurship under the mission

 Partner with corporates to assist with implementation of their Corporate Social Responsibility (CSR) activities in the areas of sanitation and solid waste management

#### 3.7 OFFICES AND OTHER WORKSPACES

Given that corporate offices, through their employee and resource strength, are one of the key stakeholders under the Swachh Bharat Mission, it would be necessary for all office complexes and workspaces in the neighbourhood to provide a clean and hygienic environment. They can do so in the following suggested ways:

- Adopt nearby locations (parks, monuments, water-bodies, roads, etc) around their office premises for maintaining cleanliness and ensuring that it is a 'zero garbage' zone
- Designate and conduct 'Swachhata' day once each month, involving employees in office cleanup activities including clearing their individual workspaces of unnecessary litter/ waste
- Conduct 'Swachhata' melas inviting employees' families and friends for workshops on segregation, recycling
- Organize volunteering drives, in collaboration with institutions or NGOs, for employees to participate in cleanup, beautification or even sensitization (in low income communities) activities, with required training provided to the participants

### THIRUVANANTHAPURAM: RESPONSIBLE WORKSPACES

Large institutions and commercial complexes adopted environmentally friendly waste management practices in sites such as the Technopark, which hosts nearly 350 companies with over 50,000 employees. The processes include segregation of waste, composting, biogas generation, recycling of paper, plastics etc. and importantly, proper disposal of e-waste through authorized recyclers. • ULB to conduct swachhata rankings of all offices and award the cleanest offices to inculcate a spirit of healthy competiton among them

#### 3.8 RWAS AND HOUSING COMPLEXES

Ever since the launch of the Swachh Bharat Misison, there has been increasing awareness and interest among housing societies and RWAs to adopt 'swachh' practices. Given that they might also belong to the "bulk waste" generator category specified in the SWM Rules 2016, they become equal partners in the city's / neighbourhood's progress towards cleanliness. Below is a list of suggested activities that RWAs can take up at their level:

- Multiple RWAs may jointly conduct 'Compost melas', wherein composting methods may be taught, and suppliers of compost machines can showcase their equipment to interested RWAs or individual households members
- RWAs should set up on-site composting facilities in all societies and gated communities to process all bio-degradable waste within the premises, in alignment with SWM Rules 2016. If required, ULBs may provide subsidy of 35% for purchasing these composting equipments
- RWAs may adopt nearby properties park, garden, road, water-body etc to maintain cleanliness and upkeep
- ULB to conduct door-to-door campaigns in residential areas to create awareness about source segregation and showcase on-site composting techniques & its benefits

#### HYDERABAD: IEC ACTIVITIES FOR ENCOURAGING ADOPTION OF SOURCE SEGREGATION BY HOUSHOLDS

Greater Hyderabad Municipal Corporation conducted various IEC activities in order to reach out and connect with the residents of Hyderabad about the benefits of segregating waste.



- ULB along with RWA/ resident representatives/ Swachhagrahis to conduct campaigns in residential areas to create awareness on maintaining a litter-free environment
- ULB to institute awards for the cleanest RWAs to generate a healthy spirit of competitiveness

#### 3.9 HOSPITALS / PRIMARY HEALTH CENTRES / HEALTHCARE INSTITUTIONS

An increasing area of vulnerability with regards to unclean spaces are, unfortunately, hospital premises. Given the volume of population that they cater to, and the health implications that they deal with, it is crucial that hospitals become role models of cleanliness and swachhata. Below is a list of suggested activities to be taken up by them:

• Hospital Administration, Primary Health Centres and other Healthcare Institutions to ensure compliance with SWM Rules 2016, along with Biomedical Waste Management Rules 2016.



- Conduct trainings of all staff of the above institutions for ensuring cleanliness on the premises
- Institutions to display the message of 'swachhata' on the display boards at the entrances to their premises
- ULB to tie up with the Kayakalp programme of the Ministry of Health to conduct 'swachhata' rankings of all hopsitals and PHCs

Additionally, these medical institutions should:

- Segregate biomedical waste as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, notified by the Ministry of Environment, Forests and Climate Change
- Conduct cleanliness campaigns within premises, with participation from members in senior management as well as employees/staff
- Conduct training for canteen/mess staff on segregation of waste, and managing both wet and dry waste generated within

• Carry out on-site composting of wet waste generated in canteen/mess

#### 3.10 ELECTED RESPRESENTATIVES

For a socially relevant and critical mission like the Swachh Bharat Mission, it is imperative that elected representatives are made an integral part of any neighbourhood's journey towards cleanliness. This would be a win-win situation for both, with the necessary political will being mobilized through ward councilors and other political leaders to smoothen the progress towards cleanliness, and in turn assuring the elected representatives of a favourable verdict from satisfied citizens when the cleanliness situation visibly improves. Below is a list of suggested ways in which elected representatives can contribute:

 Elected representatives to engage with citizens, through various public initiatives involving discussions and interactions to discuss issues and ideate solutions in a collaborative manner

- Elected representatives to engage with citizens to instill a sense of responsibility and pride among them on the need for maintaining cleanliness in their localities and the city, and the role they may play in the same
- ULB to involve elected representatives in all key cleanliness and awareness drives across the neighbourhood, including the monthly "Walk with ULB"; encourage them to spearhead such campaigns or drives
- ULB to institute a system of ranking "swachh wards" to inculcate a spirit of healthy competition among the elected representatives for making their wards or mohallas 'swachh'

#### 3.11 SELF-HELP GROUPS

Involvement of Self-help groups (SHGs) can be another key component to achieving accelerated coverage of Swachh Bharat mission in India as SHGs can play a key role in mobilizing and sensitizing communities, and providing the last mile connect beween government programmes and the community. SHGs can not only empower the society but also generate additional income for multiple households in the country, by:

 Carrying out behavior change interventions through intensive inter-personal communications and community mobilisation drives, especially towards source segregation of waste, adopting decentralized processing methods, recycling and reusing dry waste, etc.





- Building local capacities and making localities self-sustainable
- Collaborating with local authorities on contract basis for undertaking collection of waste from households

ULB can carry out training activities for SHG members to equip them to further train residents and household members on segregation of waste and recycling at their level

#### 3.12 CELEBRITIES AND INFLUENTIAL PERSONS

Celebrities influence the public to a large extent because they become role models for many. Due to this, the message of swachhata can also be passed on to the desired audience through celebrities. Swachh Bharat mission has celebrities from different walks of life, associated with the Mission as brand ambassadors. These celebrities can set examples of cleanliness for the general public to follow. Below is a list of suggested activities that they can undertake:

• Mass cleanliness drives in localities or famous public spots



- Walkathons to create awareness among people on various aspects related to Swachh Bharat Mission
- ULB to conduct Town hall with SBM ambassadors to motivate citizens to adopt environmentally sustainable habits
- ULB to involve ambassadors in Informational and educational campaigns in local media, addressing issues in Swachh Bharat mission to bring about mass change in citizens of the country



#### 3.13 OTHER MEANS OF ENGAGEMENT

Across multiple user groups and citizen categories, some common engagement initiatives may be used for sustainable engagement and retaining citizens' interest and enthusiasm towards partnering with ULBs in a win-win manner. This could include:

- Getting users of each location to adopt a particular location and proactively take ownership for its cleanliness and maintenance, in partnership with the ULB
- Conducting cleanliness rankings in each of the areas of the neighbourhood, to encourage collective action towards creating a zero garbage neighbourhood through a healthy spirit of competition
- Ensuring notification and implementation of fines on littering and spitting in all areas of the neighbourhood
- Conducting felicitation ceremonies to commend the efforts of the various citizen champions towards creating a zero garbage neighbourhood

# **REGULATORY FRAMEWORK**

The storage, collection and disposal of municipal solid waste come primarily within the jurisdiction of municipalities and are largely governed by municipal by-laws which determine the legal and administrative arrangements for collection and safe disposal. Regulations promulgated under the Planning and Building bye laws set out requirements for stakeholder and citizens in general to adhere by them.

#### 4.1 ADOPTION OF SWM RULES 2016

At the outset, all the components laid down in the revised SWM Rules 2016 need to be adopted by ULBs and made an integral part of the municipal by-laws.

#### 4.2 NOTIFICATION OF DOOR-TO-DOOR COLLECTION CHARGES

- For solid waste management, it is essential that the operation and maintenance costs of collection and transportation of waste be assessed by the ULBs. Solid waste collection equipment is relatively short-lived and operating and maintenance costs are substantial.
   Operations and maintenance costs may be obtained from two sources: current general revenues (dependent upon the resources base of the ULB) and SWM operating revenue (essentially user charges).
- The ULBs should notify monthly or daily charges for collection of waste from residential and



commercial areas. Bulk garbage generators should also be charged proportionate user charges for recovering the operational cost associated with the collection and transportation of waste, depending on their level of in-house treatment/processing.

#### 4.3 FINES FOR LITTERING DURING SOCIAL GATHERINGS AND PROCESSIONS

- Littering roads or roadsides after any religious, social or personal function leads to heaps of garbage at public places, which is left for the ULB to clean. ULBs should notify rules to charge a fixed security amount from organizers, who should inform the ULB in advance if the gathering is expected to be more than 100 people (at an unlicensed place/premises). If the organizers fail to clear the garbage after the event, the security deposit will be forfeited.
- The security deposit should be fixed, according to the strength of the gathering.

#### 4.4 NOTIFICATION OF CHARGES FOR COLLECTION OF C&D WASTE

- The ULBs should notify that no person or entity disposes of construction/demolition waste on the streets, pavements, storm drains, and land parcels in the neighbourhood except own premises.
- Construction and Demolition waste should be stored within the premises till they are removed from the site to a place notified/permitted by the ULB.
- The ULB should charge suitably (at least full cost recovery) if it has provided containers on hire and provided service for removal of the waste.
- These rules/notifications should also be valid for Government, Semi Government and Public Sector Departments

#### 4.5 BAN ON POLYTHENE BAGS

 Polythene or plastic bags are a common sight in cities and contribute a major proportion in the solid waste generated. Plastic bags are





non-biodegradable and end up stuffing landfills, clogging sewers, polluting animal habitats, and even fluttering in trees for years.

- The ULBs in co-ordination with the District Administration and Pollution Control Board should notify the ban on plastic bags in phased manner. Fines should be notified as per the proportion of plastic bags confiscated, repeat offence etc.
- All commercial establishments, shopkeepers, street vendors, citizens should be discouraged to use plastic bags with fines imposed for violation.
- The ULBs should implement the ban in phased manner along with awareness campaigns discouraging the use of plastic bags.
- Regular enforcement drives imposing fines on shopkeepers, street vendors and manufacturers of such items should carried out intensively.
   Seizure of plastic bags in possession should be ensured to discourage usage of plastic bags.
- Licenses of commercial establishments that continue sale of plastic bags should be revoked.
   License fees should be increased to prohibitive levels for commercial establishments who continue to use plastic bags.

#### 4.6 NOTIFICATION PROHIBITING LITTERING, SPITTING, OPEN URINATION, OPEN DEFECATION, AND DEFACING NEIGHBOURHOOD

- The ULB byelaws should notify prohibition for littering and spitting in any occupied or unoccupied premises in the neighbourhood. The rules should forbid citizens from cooking, bathing, spitting, feeding animals or birds, or from keeping any type of storage in unoccupied premises in the neighbourhood, and also prohibit any open urination or open defecation anywhere in the neighbourhood.
- The byelaws should also prohibit defacing public/private properties while making it mandatory for all shopkeepers and hawkers to make necessary arrangements to keep containers or waste baskets for collecting litter and for proper disposal of its contents.
- The notification should impose significant amount of fines on offenders and should authorize the Sanitary Inspectors and other competent authorities to collect the fines.
- Shopkeepers and owners of commercial establishments should be incentivized for maintenance and beautification of garbage vulnerable spots in the neighbourhood.





# INFRASTRUCTURE REQUIREMENTS FOR A "SWACHH NEIGHBOURHOOD"

This section highlights the infrastructure needs for efficient solid waste management towards achieving the objectives of a "Swachh Neighbourhood".

#### **Segregation, Collection & Transportation**

Waste can be segregated into various fractions as given below.

In the neighbourhood context, waste can be segregated under the following categories:

- 1. Primary Level (At individual household or shop level)
- 2. Secondary or tertiary level (At a community level)

Collection receptacles used should be of appropriate sizes with respect to places in the

| Wet Waste                  | Cooked and uncooked food, plant leaves, compostable materials, coffee powder, tea powder, meat and poultry waste etc.       |  |
|----------------------------|---|--|
| Sanitary Waste             | Aste Menstrual cloth (used), disposable diapers, sanitary napkins, bandages, etc.   |  |
| Dry Waste (paper)          | All types of paper, paper plates, tickets, telephone bills, wrappers, leaflets, flyers, etc.                                |  |
| Dry Waste (plastic/ glass) | All types of plastic, plastic bags, coke bottles, water bottles, garbage packs, milk packets, pouches, bangles, crockeries, |  |
| Dry Waste (hazardous)      | Used syringes, insecticides and containers, discarded medicines, battery cells, household chemicals, etc.                   |  |
| E-Waste                    | e Mobile, CDs, electronic equipment, CFL, Tube lights,  |  |
| Dry Waste (others)         | Metal items, tetra packs, aluminum foils, aluminum cans, thermocol, bottles, plates, utensils, packaging material etc.      |  |
| Garden Waste               | Waste Plant leaves, dry and wet cut branches  |  |
| Inert Waste                | All types of construction materials, cement, mud, sweeping dust etc.  |  |



neighbourhood where it is used (e.g. households, streets, bulk generator level). Further, the receptacles should be colour codified as per the following:

| Wet Waste                   | Green |
|-----------------------------|-------|
| Dry Waste                   | Blue  |
| Hazardous/ Infectious Waste | Red   |
| E-Waste &                   | Black |
| Inert                       | Brown |

Four-wheeled, HDPE, injection or roto molded, international standard, UV tested bins or metal bins of different capacities—e.g., for 240 I (96 kg), 600 I (270–280 kg), 770 I (315–350 kg), 1,100 I (449– 495 kg)—may be used for bulk waste. These bins should be compatible with auto lifting by standard universal bin lifting devices on mobile compactors and other vehicles.

#### **Processing of waste**

The costs of MSW collection, transportation, processing and disposal are gradually increasing and thus becoming less sustainable. There is a need to treat the MSW near the source, assisted by segregation and recovery of recyclables for cost efficiencies. This can be done by adopting composting or biomethanation within premises, complexes and such localities. Decentralized solutions require robust citizen participation and technology to avoid pitfalls and increase revenue streams (as from sale of compost, biogas, etc.) and recovery and sale of recyclables. Decentralized systems require nil or very little transportation, which is the most cost intensive SWM component, therefore bringing down ULB expenditure resulting in significant savings that can be invested in development.

# 6 INSTITUTIONAL MECHANISM

The ULBs must ensure that appropriate systems and mechanisms are in place to enhance the the access and delivery of Municipal Solid Waste Management (MSWM) services towards creating Swachh Neighbourhoods. Further, ULBs may also leverage PPP models for increasing private sector engagement in enhancing the operational efficiency of SWM service delivery. The following infrastructure and manpower requirements should be provided by the ULB:

#### Infrastructure

- Ensure adequate equipment for primary and secondary collection and transportation of segregated waste streams
- Establish collection systems (e.g., community pick-up points or delivery systems through the retail trade) for domestic hazardous waste and special waste.
- Ensure placement of adequate bins in commercial areas and public places under the jurisdiction of the ULB
- Ensure compliance to SWM Rules 2016 and established norms for waste collection and transportation.
- Provide households and commercial

establishments with information on level of segregation required, waste collection schedule for different waste fractions and timings of collection

#### **Manpower and Training**

- Ensure appropriate manpower engaged in MSWM including formal integration of informal sector
- Provision of Personal Protective Equipment (PPE) to all MSW staff
- Training and capacity building of field and administrative staff including contract workers and supervisors involved in door to door collection and transportation of waste in an appropriate manner





• Ensure record-keeping of each MSW worker

#### **Penalty Provisioning**

- Notification and enforcement of fines in commercial areas for littering and spitting
- Levy User fees to cover full operation and maintenance (O&M) cost of collection and transportation and part of the cost of treatment and disposal of waste (A minimum of 50% of door-to-door collection costs (including O&M costs) should be recovered from households initially and 100% in case of non-residential premises)

#### **PPP Options**

The role and intervention of private sector in municipal solid waste management is growing rapidly in the country. The initial attempts of large-scale private sector participation started sometime during mid-1990s in progressive metro cities like Chennai, Hyderabad etc., aimed at achieving operational efficiency gains with managerial capability of private sector, however these are limited to specific components of collection, transportation and road sweeping as opposed to addressing the entire MSWM chain.

Therefore, ULBs must leverage PPP model in creating "Swachh Neighbourhoods". However it should be noted that the role of PPP is rather limited in this case. The table below outlines the types of PPP possible in case of activities relevant for this aspect.

Key Take aways from select PPP cases relevant to "Swachh Neighbourhoods":

 a) Pressing need to formulate structured IEC (Information, Education and Communication) activities to involve community of informal workers (rag-pickers), residents etc. and internal stakeholders like sanitary workers, employees. This is crucial to overcome apprehensions on

| SI. No | Services on PPP   | PPP Format   | PPP Projects in India  |
|--------|---|--|--|
| 1      | Door to Door Collection (Primary collection & Transportation) | Management Contracts/ Concession                                   | Bengaluru, Ahmedabad, Nagpur, Jaipur,<br>North Dum Dum, Gandhinagar, Delhi |
| 2      | Storage and Transportation                                    | Separate EPC and O&M Contract/<br>Management Contracts/ Concession | Surat, Ahmedabad, Mumbai, Delhi  |
| 3      | Street Sweeping   | Service Contracts  | Surat, Hyderabad   |
| 4      | Construction/Maintenance of<br>Community Bins                 | Separate EPC and O&M Contract                                      | Surat, Ahmedabad, Mumbai, Delhi  |

job insecurity/re-structuring among workers/ employees and helps in smooth implementation/ transition of activities to the private player. Further, it can be supplemented with separate policy on community participation like in the case of Guwahati, where a separate Guwahati Waste Management Society was formed involving rag-pickers, residents, RWAs, NGOs etc. for primary collection of the waste.

 b) Political championing is necessary for successful PPPs: for instance, the first attempt to privatize collection & transportation activities in Chennai received concurrence from all stakeholders as the Mayor steered clear the rationale for the privatization of MSWM services to the corporation council and passed a council resolution approving the privatization of MSW services.

c) Need for well-defined transition process/ duration – it is imperative to initiate steps in developing "service handover management competencies", else it can lead to complete failure of adequate service delivery during the transition period - as in the case of transition between CES Onyx to Neel Metal Fanalca in Chennai.



ANALARA ANALARA

# 7 IMPLEMENTING THE CONCEPT OF A "SWACHH NEIGHBOURHOOD"

This section consists of implementation measures that need to be put in place for achieving a "Swachh Neighbourhood".

#### 7.1 DOOR TO DOOR COLLECTION

Door-to-door collection of segregated waste is mandatory as per SWM Rules, 2016. Collection of segregated waste (wet waste, dry recyclables, and domestic hazardous waste), sanitary, horticulture, construction & demolition wastes from residential, commercial, and institutional areas is to be planned by ULBs. Frequency of waste collection is dependent on the type and quantum of waste generated. While residential (wet or biodegradable) waste is to be collected daily, such waste from market area, commercial establishments and institutions may be collected twice a day whereas the dry waste may be collected less frequently. The quantum of waste generated and collected also determines the mode of transportation used to collect waste from the source. Segregated containers are required for collection of different fractions (wet, dry and domestic hazardous).

#### **Responsibilities of ULB**

The ULB will need to:

- Arrange for door-to-door collection of segregated solid waste from all households (including slums and informal settlements), commercial, institutional and other nonresidential premises. This will be collected from the entry gate or any other designated location.
- Ensure primary and secondary collection and transportation of segregated waste streams consisting of at least three fractions (wet, dry, and domestic hazardous wastes).
- Establish collection systems (e.g., community pick-up points or delivery systems through the retail trade) for domestic hazardous waste and special waste. Wastes may be collected from these facilities once in 15 days or as found appropriate by the ULB.
- Ensure 100% door-to-door collection- through Door-to-door waste collection beat mapping i.e. depicting on a map the areas served by doorto door collection, community bin collection system, and areas not served, if any.
- Provide households and commercial



establishments with information on level of segregation required, waste collection schedule for different waste fractions and timings of collection

- Ensure that fractions of waste collected are handled through established norms.
- Entrust Door-to-door collection, transportation, processing, and disposal of waste completely to the private sector to ensure efficiency and to economize expenditure of the urban local body (ULB).
- Sustain efforts for waste segregation by involving local SHGs, slum level federations, town level federations, and sanitation workers in carrying out interpersonal communication involving persuasive dialogues and discussions with individual members of the household during door-to-door visits
- Levy User fees to cover full operation and maintenance (O&M) cost of collection and transportation and part of the cost of treatment and disposal of waste (A minimum of 50% of door-to-door collection costs (including O&M costs) should be recovered from households initially and 100% in case of non-residential premises)
- Educate workers, including contract workers and supervisors, for door-to-door collection of segregated waste and transporting the

unmixed waste during primary and secondary transportation to processing or disposal facility;

#### **Responsibilities of Collection Staff**

Unless door-to-door collection of segregated waste is followed by its transportation in a segregated manner by the ULBs, source segregation by waste generators will not have the desired efficacy. The system will collapse into mixing of all wastes. ULBs have to be vigilant in collection and transporting the waste in a segregated manner.

In this context, the role of collecton staff becomes critical, for:

- Ensuring regular and timely collection of waste from areas demarcated by ULBs, duly ensuring that the collection of segregated waste is done separately
- Residential premises: Collection on a daily basis
- Non-residential premises:
- a) Commercial establishments and offices or curbside stalls: Collection on a daily basis
- b) Bulk waste generators such as hotels, restaurant, and large complexes: Collection services can be given on a demand basis. The service levels may be determined on mutual contract depending on the amount and type of waste generated.
- c) Vegetable and meat market wastes: Waste
storage containers to be provided and transportation of waste done on a regular basis as per contractual terms. ULB responsible for carrying out checks & penalties against littering and unhygienic disposal.

# Responsibilities of citizens and bulk waste generators

Based on the recommendatins of the SWM rules 2016,

- At the household level, waste should be segregated into wet, dry, and domestic hazardous waste fractions, and stored in separate containers. (Refer Table 1)
- Waste should be placed at the doorstep/ common gate of the household / establishment before the appointed time of collection without any spillages of any kind.
- Domestic hazardous waste (e.g., batteries; used CFLs; tube lights; chemical, paint, and insecticide containers; etc.) should be handed

over separately to the waste collectors or at the domestic hazardous waste deposition centers for safe disposal as specified by the municipal authority

 Sanitary waste (e.g., diapers, sanitary napkins, tampons, incontinence sheets and any other similar waste) should be wrapped securely in pouches and handed over separately to the waste collectors on a daily basis. Sanitary waste should be preferably disposed in biomedical or MSW incinerators, as applicable to the local context or as directed by the State Pollution Control Board (SPCB).

### 7.2 SOURCE SEGREGATION

At the household level, dry waste, wet waste, and domestic hazardous waste should be stored in separate garbage bins, of appropriate capacity and color. The color of the garbage bins should be in accordance with the SWM Rules, 2016; wet waste is to be placed in a covered green bin and dry waste in a covered blue bin.

| BASIC SEGREGATION   |                                   |   |   |  |   |
|---|-----------------------------------|---|---|--|---|
| Wet waste (green bin)   | Dry waste (Blu                    | e bin)  |   |  | Domestic<br>Hazardous   |
|   | With further su                   | b-segregation BAS   | SIC+  |  |   |
| Food wastes of all kinds,<br>cooked and uncooked,<br>including eggshells and<br>bones, flower, fruit and<br>waste including juice,<br>vegetable peels and<br>household garden/plant<br>wastes. Soiled tissues,<br>food wrappers, paper<br>towels; fish and meat | Paper<br>cardboard<br>and cartons | Containers<br>& packaging<br>of all kinds<br>excluding those<br>containing<br>hazardous<br>materials<br>Compound<br>packaging<br>(tetrapak,<br>blisters etc.)<br>Plastics | Rags Rubber<br>Wood<br>Discarded<br>clothing<br>Furniture | Metals Glass (all kinds) Inerts<br>House sweepings and inerts<br>(not garden, yard or street<br>sweepings) | E-waste*<br>Hazardous<br>wastes**<br>Household<br>medical waste***<br>Batteries from<br>flashlights and<br>button cells. Lights<br>bulbs, tube lights<br>and Compact<br>Fluorescent<br>Lamps (CFL)<br>Car batteries,<br>oil filters and car<br>care products and<br>consumables |

## **TABLE 1: SEGREGATION OF WASTE**

\* E-waste: Printer & printer cartridges, electronic parts and equipment and others

\*\* Hazardous wastes: Chemicals and solvents and their empty containers, paints, oil, lubricants, glues, thinners and their empty containers, insecticides, pesticides and herbicides and their empty containers, photographic chemicals, bleaches and household kitchen & drain cleaning agents

\*\*\* Household Medical Waste: Thermometers and other mercury containing products, discarded medicines, injection needles and syringes after destroying them both, sanitary wastes and diapers (should be collected daily)



# Residential Complexes and Gated Communities

Primary Segregation (at the household level): A container of 12–15 litres capacity for a family of five members should be adequate for dry and wet waste each, if collection takes place daily. However, larger containers or more than one container may be kept to meet unforeseen delays in collection or unforeseen extra waste.

Secondary Segregation (at the apartment/ complex/ immediate neighbourhood level): In large apartment complexes, multistoried buildings and gated communities, large waste collection bins for wet waste and dry waste should be placed at a convenient location. Residents should deposit segregated waste in the respective bins either themselves or through organised door-todoor collection system of the resident welfare association (RWA). Typical specifications for garbage bins used in apartment complexes and large buildings are the following: 60 litres bins suitable for 12 households, 120 litres bins for 24 households, 240 litres bins for 48 households, etc. that are of standard quality, high-density polyethylene (HDPE), injection or roto molded, ultraviolet (UV) tested, durable and could withstand rough handling, and compatible with lifting

mechanism on primary collection vehicle, if applicable.

### **Bulk Waste Generators**

Bulk Waste Generators (i.e. hospitals, nursing homes, schools, colleges, universities, other educational institutions, hostels, hotels, commercial establishments, markets, places of worship, stadia and sports complexes) having average waste generation rate exceeding 100kg per day should store segregated waste on-site and also treat wet (biodegradable) waste within the premises.

Vegetable and flower market waste generators should deposit their waste in conveniently located large green bins for preferable utilization of waste on site or as directed by ULB. Number and capacity of bins required may be computed by considering quantity of waste to be stored before collection plus an additional 100% storage. Storage bins should be compatible with the primary collection system to avoid multiple handling of waste.

# Municipal Solid Waste in Public Places or Parks

With a view to ensure that streets and public places are not littered with waste, litter bins may

be provided at important streets, markets, public places, tourist spots, bus and railway stations, large commercial complexes, etc. at a distance ranging from 25m to 250m depending on the local conditions. The collection from these bins should be segregated into wet and dry waste.

#### Yard Waste or Garden Waste

Horticulture waste from parks and gardens should be collected separately and treated on-site to make optimum use of such wastes and also to minimise the cost of its collection and transportation. In large cities, the municipal authority may provide large containers for storage of waste. In small cities, such waste may be stored on-site and the municipal authority may facilitate its periodic collection.

# Special Wastes Including Domestic Hazardous Waste

Special wastes including domestic hazardous wastes generated by residential, commercial, or institutional facilities (consisting of fractions as mentioned in Table 1) can pose a substantial or potential threat to health and environment because of their constituents which may be hazardous. It is therefore important to ensure safe storage, and transportation of the domestic hazardous waste to the hazardous waste disposal facility or as may be directed by the SPCB or the PCC.

It is important to not mix special waste including domestic hazardous waste with either the wet waste or dry waste, but to store such wastes separately and hand-over to the special waste collection centers established by the urban local bodies.

ULBs should establish a minimum of one domestic hazardous deposition centre per ward or per zone, for ease of deposition of the users. The timings for receiving domestic hazardous waste at such centre should be notified to public, while ULBs should ensure safe handling of such waste as may be directed by the SPCB or PCC from time to time. Manufacturers and suppliers of products resulting in special wastes should be encouraged to develop systems for "take back", treat or recycle such wastes, or send wastes to registered recyclers, as appropriate.



### PUNE: ENGAGING INFORMAL WASTE PICKERS/COOPERATIVES IN SWM

Pune Municipal Corporation (PMC) teamed up with the waste workers cooperative, SWaCH, to provide adequate solid waste management services to its citizens and provide the waste pickers with a more structured, inclusive and secure working environment. This inclusive waste management system is helping the PMC to reduce costs of primary collection, processing and disposal.

## 7.3 INTEGRATING INFORMAL SECTOR INTO THE SWM CHAIN

The informal sector, comprising of the kabadi system and waste pickers, plays a significant role in collection and processing of recyclable material. The integration of the informal sector into the formal SWM system can contribute to the reduction of the overall system costs, provide support to the local recycling industry, and create new job opportunities. This may be done effectively by organising them into self-help groups (SHGs) or cooperatives, to capacitate them to work as entrepreneurs in a business entity.

#### Activities carried out by the informal sector

The informal sector / rag pickers can be integrated in Municipal Solid Waste Management system to carry out the following activities:

- Door-to-door collection
- Sorting of recyclable waste
- Collection and segregation of recyclable material
- Manual sorting at the conveyor belt in a material recovery facility
- Setup and management of recyclable or reusable waste take-back or buy-back facilities
- Waste sorting in processing facilities

# Capacity Building and Training of the informal sector

Capacity Building and Training of Informal Sector for providing municipal solid waste management services will need to be carried out for:

- Improvement of managerial skills (business management, accounting, marketing, negotiation skills)
- Maintenance of work ethics and team work
- Training in sorting, processing, recycling techniques, and value added services
- Formalisation requirements for waste worker organisations
- Environmental and health aspects of waste management activities
- Occupational hygiene and safety
- Business support services linked to large scale formal recycling industries

# Enablers to support integration of the Informal Sector

Certain enabling conditions and supportive actions for promoting the integration of the informal sector include:

- organizing informal sector into recognised membership-based associations or cooperatives, with true representation of women as part of their leaders and members;
- recognizing these associations for MSWM service delivery;
- creating a policy framework for informal waste sector recognition and an inclusive framework to facilitate their participation in the delivery of service;
- promoting social security and health benefits to members of these associations;
- encouraging informal sector, NGO, and CBO through linkage to National Urban Livelihoods Mission;
- providing low-interest loans to organisations of waste pickers seeking to bid for tenders and contracts;
- providing exemptions on fees and deposits for participation of informal sector associations in bidding for MSWM contracts;
- providing basic amenities and facilities for the informal workers to work effectively such as

timely wages and bonuses, proper facilities enabling women to leave their children during work and linkages with community centres or anganwadis, safety and security including PPE, proper redressal mechanisms for grievances;

- encouraging informal sector involvement in waste collection and sorting services; reserving land in development plans for decentralised processing of biodegradable wastes and collection of recyclables; and
- Supporting capacity development programs for informal sector associations (see box below).

## 7.4 ENGAGING MUNICIPAL WORKERS AND STAFF

Municipal workers and staff need to be engaged and their capacities need to be built to achieve the objectives of a "Swachh Neigbourhood". It is important to inculcate a sense of responsibility and pride towards their profession e.g. the positive impact of provision of hygienic and safe working conditions for workers and encouraging the use of PPE is far-reaching. These efforts will lead to an improvement in service delivery and better management of activities. It is very important that the municipal workers consistently convey the message of Swachhata, at all times, both on-duty and off-duty. Hence,

- It is important to introduce the safai karamcharis to the residents of the localities that they clean. This will not only help nurture a cordial relationship between the workers and residents but will also lead to upliftment of status for these karamcharis. For example, in the city of Hyderabad, the municipal worker introduces himself/ herself to the resident and takes their signatures on a diary provided by the Greater Hyderabad Municipal Corporation (GHMC), after cleaning their area. This helps in maintaining the work record of a worker and is directly linked to his/her salary.
- The ULB should invest time and effort in educating and informing municipal workers about the new initiatives and the reason behind those initiatives, under Swachh Bharat Mission. It is important to address the 'why' part for

#### TRAINING AND CAPACITY BUILDING ACTIVITIES FOR MSW STAFF SHOULD INCLUDE:

#### **SENIOR OFFICERS**

- Field level implementation
- Monitoring field activities
- Onsite supervision
- Welfare of field staff
- Feedback or reporting innovations
- Capacity building of field and administrative staff

### STAFF AT PROCESSING PLANT

- Quantification of waste received at plant
- Analysis of waste received
- Process design
- O&M of plant machinery
- Disposal of waste not being processed
- Fire, health, safety and environment

#### **COLLECTION STAFF**

- Door to door collection
- Collection of segregated waste separately
- Regular and timely collection
- Use of Personal Protective
   Equipment

#### **ELECTED REPRESENTATIVES**

- Elected Representatives
- Policy formation, plan preparation and legislation
- Infrastructure development
- Supervision and monitoring
- Continuous improvement
- Human resource development
- Budgeting and finance
- Ensure co-operation of citizens

#### TRANSPORTATION STAFF

- Transportation of segregated
   waste
- Synchronization between secondary collection and transportation
- Vehicle routing
- Safe and hygienic waste management & disposal

## NGOs/CBOs

- Community mobilization
- Community capacity building through IEC
- Capacity building of collection crew and waste generators



Municipal workers, as it is they who engage on a day-to-day basis with the citizens

- It is also crucial to adequately train municipal workers on new methods and technologies for waste processing. Training sessions maybe organised for them. For example, New Delhi Municipal Council has organised extensive training sessions for their staff to educate them on importance of source segregation, including what should go into green and blue bins, so that they are in turn able to educate residents.
- The ULB can also devise a plan to identify and eliminate garbage vulnerable points in the city. Here again for example, the GHMC not only identifies and eliminates garbage vulnerable spots, but they also make colorful rangolis on them. This deters people from throwing garbage on those spots.
- It is also important to adequately recognise and reward the efforts of municipal workers.
   For example, Indore Municipal Corporation and GHMC have been regularly rewarding and recognizing high performing municipal workers once a month.

## 7.5 CLEANLINESS AND BEAUTIFICATION OPTIONS FOR ALL PUBLIC PLACES

Neighbourhood beautification should be high on

the ULBs' and community organizations' agenda as a neighborhood or community organization. Simple projects range from planting flowers or shrubs to painting planters, benches, sign posts, or such street furniture that is beginning to look faded. Some options (not comprehensive) of projects that can be taken up for cleaning up and beautification of public spaces are as follows:

- a) Cleaning up garbage vulnerable points and beatification through wall paintings and street furniture
- b) Beautification of sanitation infrastructure such as bins, public toilets etc in aesthetically pleasing manner
- c) Cleaning up stained and dirty walls and beautification/fresh painting
- d) Provisioning of unique litter bins, giving character to the area
- e) Tree/Plant plantation in vacant/abandoned plots, making it less vulnerable as a garbage point
- f) Cleaning up shallow drains and desilting of the same
- g) Cleaning up stains, garbage etc on sidewalks/ footpaths and fresh painting

As there is no single prescriptive approach to beautification and cleaning up of the "Neighbourhood", local communities, in consultation with their respective ULBs, may plan and take up cleaning and beautification projects for their respective public spaces. This should ideally be done with maximum community participation and not simply by contributing money.

### 7.6 ADDRESSING ISSUE OF STRAY ANIMALS

A common characteristic of India's neighbourhoods is stray animal populations as a result of open garbage. Stray animals are scavengers, so they rely on uncovered garbage as a source of food. In countries where garbage is kept in bins and cleaned regularly, stray animals cannot survive on the streets. Therefore, managing how garbage is dumped and handled can help in controlling the population of strays in urban areas.

More strays signify more littering and increase the risk of spreading rabies & tetanus. Strays, especially street dogs, are extremely capable of selectively sniffing out meat protein in garbage bins. Hence, in order to manage dog populations on streets, it is essential to manage garbage, such that there are no open bins and garbage dumps within city limits. If residents are encouraged to process organic waste at home, this would further control stray animal menace. Citizens should also be advised to make sure the waste is inaccessible to strays. Protocols could be drawn up to ensure garbage is dumped only at specific locations.

### 7.7 MONITORING MECHANISM

It is imperative to create a monitoring and feedback mechanism which focuses on concerns of the community regarding doorstep collection, primary storage, and transportation of waste and ensure timely grievance redressal. The following tools can be leveraged:

| Monitoring Tool                      | Description   | Responsibility  |
|--------------------------------------|---|---|
| Swachhata App                        | ULB should encourage citizens to utilize the App to actively provide feedback regarding level of cleanliness in public areas and ensure timely resolution of the complaints.<br>The App ensures that grievances are resolved within the set timeline as per the Service Level Agreement (12 hours for 8 categories and 48 hours for 1 category). If the complaint is not addressed within the SLA time period, it gets escalated to the Nodal Officer/ Nominated Senior Official. Further, if the citizen reopens the complaint, the same gets escalated to both Nodal Officer/ Nominated Senior Official as well as the National Mission Directorate, Ministry for Housing & Urban Affairs | <ul> <li>Municipal Commissioner</li> <li>Nodal Officer, SBM</li> <li>Chief Engineer</li> <li>Executive Engineer</li> </ul>        |
| ICT based Staff<br>Attendance System | The ULB should introduce ICT based Staff Attendance System<br>for all municipal staff engaged in solid waste management.<br>This should linked to the staff appraisal. For contractual staff,<br>similar criteria be followed by releasing the monthly salary<br>basis the attendance registered in the ICT based attendance<br>system. This will encourage all staff (regular or contractual) to<br>mark their attendance through ICT based attendance system.<br>The best performing staff should be felicitated.   | <ul> <li>Municipal Commissioner</li> <li>Nodal Officer, SBM</li> <li>Executive Engineer</li> <li>Municipal Workers</li> </ul>     |
| Municipal Vehicle<br>Tracking System | ULB should install GPS/RFID based Vehicle Tracking system<br>on all Municipal Vehicles to track movements of all garbage<br>trucks and vehicles. The monthly performance of all drivers<br>should be captured in the form of a Report Card and best<br>performing drivers should be felicitated.  | <ul> <li>Municipal Commissioner</li> <li>Chief Engineer</li> <li>Executive Engineer</li> <li>Municipal Vehicle Drivers</li> </ul> |
| Performance based<br>Monitoring      | The ULB should link the cleanliness of the neighbourhood to<br>the performance appraisal of the concerned ULB officials to<br>ensure efficient service delivery.  | <ul> <li>Municipal Commissioner</li> <li>Nodal Officer, SBM</li> <li>Concerned ULB officials</li> </ul>                           |

| Door-to-Door Survey               | The ULB should conduct a survey by way of sending feedback forms to households during the daily waste collection schedule to obtain their inputs and suggestions on improvements regarding door-to-door collection and transportation of waste, etc. | <ul> <li>Municipal Commissioner</li> <li>Health Officer</li> <li>Executive Engineer</li> </ul>   |
|-----------------------------------|--|--|
| Townhall                          | The ULB should conduct a Townhall with participation from<br>the Municipal Commissioner, concerned officers and citizens<br>to obtain feedback from citizen representatives on issues,<br>initiatives and ways to collaborate with citizens          | <ul> <li>Municipal Commissioner</li> <li>Concerned ULB officials</li> </ul>  |
| Surprise ground-level inspections | The ULB officials should carry out inspections to examine the level of cleanliness on ground and service delivery by the ULB staff (i.e. door-to-door collection, transportation, sweeping/ cleaning, repair activities, etc.)                       | <ul> <li>Municipal Commissioner</li> <li>Deputy/Additional Municipal<br/>Commissioner</li> <li>Chief Engineer</li> <li>Other senior ULB officials</li> </ul> |
| Citizen Monitors                  | The ULB should nominate citizen representatives from each<br>area of the neighbourhood to carry out regular monitoring of<br>cleanliness in their area and provide feedback to the ULB for<br>any issues regarding service delivery.                 | <ul><li>Nodal Officer, SBM</li><li>Citizen representatives</li></ul>   |

### 7.8 FEEDBACK MECHANISM

Provision of citizen-centric services shall also be monitored through a feedback mechanism which should primarily focus on concerns of the community regarding doorstep collection, primary storage, and transportation of waste. Citizens should be given an avenue to report on and seek redressal for service issues through an appropriate complaint redressal system. This could be done:

- Online, with an ICT platform like the Swachhata app
- Telephonically, using a helpline number provided by the ULB on its website
- By e- mail (contact details of all officials related to SWM should be made available on the official website of the ULB)
- Through a grievance redressal portal
- By visiting the ward level office and by submitting a written complaint

After the complaint is registered, the concerned officials should first cross check the veracity of the problem in the area before routing the complaints to the concerned sanitary inspector. Each concerned official has to report the status of complaints within 24 hours, otherwise complaint should be reviewed by the higher level officials based on hierarchy.

### 7.9 INDEPENDENT ASSESSMENT

A comprehensive monitoring and evaluation system should be adopted for assessing progress towards meeting the targets of a "Swachh Neighbourhood". The monitoring system adopted should (i) collect data regularly; and (ii) analyze collected information, take or propose corrective measures, and support the planning and implementation process. Institutionalising appropriate quality assurance systems is essential to ensure the achievement of objectives. Collection and analysis of data is required to assess the existing situation and propose adequate measures to improve service delivery. Using an MIS system or mobile application can help in storing and retrieving information for analysis, which can then be used by decision makers.

Independent assessments of Swachh Neighbourhoods can be done by looking at a neighbourhood as an agglomeration comprising of majorly i) Residential Complexes and Gated Communities ii) Bulk Waste Generators (such as schools, malls, hotels, etc.) iii) Roads, Streets and Public Places iii) Gardens & Parks. Given this, the parameters for assessing cleanliness may be as follows:

| S.<br>No. | Parameter            | Standards   | Checklist |
|-----------|----------------------|---|-----------|
| 1.        | Basic Infrastructure | <ul> <li>Whether infrastructure including boundary wall around complex, entrance/exit gate, roads and pavements within locality are in good condition</li> <li>Whether Resident Welfare Association for maintenance of residential complex exists</li> <li>Ensure proper design and quality construction to reduce the burden of maintenance</li> <li>Repair of potholes and other physical damage</li> <li>Traffic Lights placed at appropriate intersections and functioning properly</li> <li>Streets Lights maintained regularly and in working condition</li> <li>Markings on roads done appropriately and are visible enough to serve the purpose (White/broken white/ solid white/ yellow lines)</li> <li>Regulatory, warning, information, one-way street and stop &amp; yield signs should be place appropriately</li> <li>Footpaths and walkways are maintained and regularly checked for repairs</li> <li>Parking spaces are appropriately marked</li> <li>Signages prominently displayed around parks</li> <li>Presence of benches/seats in parks</li> <li>Presence of adequate lighting at night in all streets, parks and other public areas</li> <li>All drains are covered</li> </ul>   | YES/ NO   |
| 2.        | Waste Management     | <ul> <li>Door to door collection system in place for all households</li> <li>Number of bins and color coding of bins at household, secondary and tertiary levels is as per norms</li> <li>Roadside litter bins available at suitable distances</li> <li>Infrastructure for processing of organic waste is in place and whether processing of organic waste is being done at source</li> <li>All bulk generators in the neighbourhood have set up systems for management of waste (as per SWM Rules 2016)</li> <li>Street sweeping schedule for all roads, within the residential complex is in place and adhered</li> <li>Presence of compartmentalized/twin bins every 500 meters in commercial areas, parks and other public areas</li> <li>Presence of Composting equipment/pits in parks for processing of garden waste</li> <li>Availability of waste baskets/bins for dry waste in every room/cabin (in the case of office and hotels)</li> <li>Availability of compartmentalized/twin bins in every mess/canteen/ kitchen area</li> <li>Signage on all bins to ensure proper segregation</li> <li>Bins are emptied in a segregated manner, on a regular basis or when full</li> <li>Wet waste generated on the premises is composted on-site, or handed over to composting facility/ULB collectors for composting</li> </ul> | YES/ NO   |

| 3. | Maintenance               | <ul> <li>Sewers, gutters, drain pipes, etc are well maintained and in good condition</li> <li>Signages in the public and residential areas are cleaned</li> </ul>  | YES/ NO |
|----|---------------------------|--|---------|
|    |                           | <ul><li>Waste collected regularly from all neighbourhood areas on a daily basis</li><li>Sweeping of all public areas twice a day</li></ul>   |         |
|    |                           | <ul> <li>Number of sweeping and collection staff deployed for households/premises/<br/>markets are as per norms</li> </ul>   |         |
|    |                           | <ul> <li>Mechanism is put in place to levy spot fines to those who litter in residential and<br/>public areas</li> </ul>   |         |
|    |                           | Bins washed/cleaned regularly  |         |
|    |                           | <ul> <li>All street furniture including road direction signage, benches, traffic barriers,<br/>post boxes, street lamps, bus stops, taxi stands, Garbage Transfer Stations are<br/>regularly cleaned and washed to ensure no foul odour in the area</li> </ul> |         |
|    |                           | <ul> <li>Internal common spaces in schools/offices/hospitals/other premises in the<br/>neighbourhood like lift, stairs area, indoor parking area, corridors in the complex</li> </ul>  |         |
|    |                           | are cleaned regularly  |         |
|    |                           | All rooms/cabins, corridors/walkways and general access areas are swept and kept clean   |         |
|    |                           | Infrastructure cleaned on a weekly basis   |         |
|    |                           | Walls and corridors are cleaned of cobwebs on a weekly basis     Operate if any any any any and the basis  |         |
|    |                           | <ul> <li>Carpets, if any, are vacuumed/cleaned on a weekly basis</li> <li>Repairs undertaken in timely manner</li> </ul>   |         |
|    |                           | <ul> <li>Maintenance protocol for parks and gardens (residential and public) is put in<br/>place</li> </ul>  |         |
|    |                           | <ul> <li>Parks/Gardens swept/maintained by grounds keeping staff periodically as per<br/>norms - jogging tracks, walking lanes, lakes / ponds, fallen leaves and flowers</li> </ul>  |         |
|    |                           | have been cleaned / swept - Grass is regularly trimmed, grass is composted on-   |         |
|    |                           | site or handed over to composting facility/ULB collectors for composting   |         |
|    |                           | Sports and gym equipment in the park adequately maintained   |         |
|    |                           | Regular cleaning, sweeping and maintenance of roads, flyovers, foot-over     bridges, factorithe, wellsweise, by lance, particle appages at  |         |
|    |                           | <ul><li>bridges, footpaths, walkways, by-lanes, parking spaces etc.</li><li>Beautification efforts for flyovers, walls on the streets to enhance the visual aesthetics</li></ul>   |         |
|    |                           | Accident site cleaned immediately since it might contain hazardous material  |         |
|    |                           | which needs to be disposed off appropriately with police consultation  |         |
|    |                           | Parking spaces regularly cleaned and maintained with appropriate markings done   |         |
| 4. | Visibility indicators     | <ul> <li>All areas in the neighbourhood have no visible garbage / litter spots</li> <li>No potholes or spaces where stagnant water is collecting exist</li> </ul>  | YES/ NO |
|    |                           | <ul> <li>Drains in the neighbourhood are free from solid waste</li> </ul>  |         |
|    |                           | construction and demolition waste is properly disposed   |         |
|    |                           | Roads are clean and free from litter, pet excreta, etc   |         |
|    |                           | No trash and waste (mud heaps, grass and hedge trimmings, branches and dead  |         |
|    |                           | trees) accumulated in the park (except designated places)  |         |
|    |                           | <ul> <li>All infrastructure and equipment in full working condition</li> <li>No signs of littering, spitting, open defecation that affect the cleanliness and</li> </ul>   |         |
|    |                           | aesthetics of the neighbourhood  |         |
| 5. | Drains                    | <ul><li>Regular inspection to ensure no blockage due to dumping of waste</li><li>Covering of drains to prevent dumping of waste</li></ul>  | YES/ NO |
| 6. | Garbage vulnerable points | Elimination and beautification of garbage vulnerable points  | YES/ NO |
|    |                           | Notification and enforcement of fines against littering and open urination   | YES/ NO |



Ministry of Housing and Urban Affairs Government of India

