



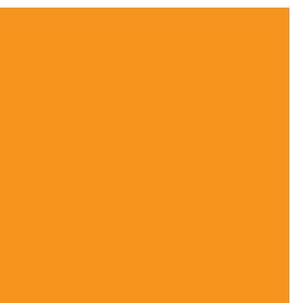
Ministry of Housing and Urban Affairs
Government of India



Protocol for STAR RATING OF GARBAGE FREE CITIES 2021



Making Cities Garbage Free





Executive Summary

In January, 2018, Ministry of Housing and Urban Affairs (MoHUA) launched the Protocol for Star Rating of Garbage Free cities in order to institutionalize a mechanism for cities to achieve Garbage Free status, and to motivate cities to achieve higher degrees of cleanliness. The star rating protocol builds on aspirations of cities to progress towards higher standards of “Swachhata”. The protocol designed in a way as to enable cities to gradually evolve into a model (7-star) city, with improvements in cities’ overall cleanliness. Additionally with increasing levels of stringency and aspirational in nature, the protocol feeds cities with ambitions and dreams of becoming an ideal city for its residents and a role model for other cities to follow. As per the recent assessment conducted for Star Rating of Garbage Free Cities, a total of 143 cities have been certified with 6 cities being rated 5-star, 72 cities being rated 3-star and 65 cities as 1-star.

MoHUA has constantly endeavored to revisit and strengthen the framework basis the feedback received from cities which led to the launch of the modified protocol ‘Star Rating Protocol of Garbage Free Cities 2021’ on 19 May 2020. The protocol follows a graded approach through which cities are evaluated and given a graded score for each component as per the progress achieved by the cities. The protocol is, based on 24 components follows a **SMART** framework – **S**ingle metric, **M**easurable, **A**chievable, **R**igorous verification mechanism and **T**argeted towards outcomes. The protocol has been devised in a holistic manner including components which are critical drivers for achieving garbage free status, such as: door to door collection, segregation at source, sweeping in residential, commercial and public areas, provision of litter and/or storage bins, processing of wet and dry waste, responsibilities of bulk waste generators towards on-site waste processing, penalties, spot fines & user charges, scientific landfill, cleanliness of drains & water bodies, screening of nallahs, plastic waste management, managing construction & demolition waste, beautification with sustainability, resolution of citizen complaints covering issues related to littering, garbage dumping, overflowing litter bins, etc..

The above mentioned components have been divided into Mandatory, Essential and Desirable indicators and allocated the required weightage respectively. A city may score anywhere between level 1 (minimum) to level 4 as per its performance. Thus, a city can be declared as “Garbage Free” and achieve Star Rating certification if it complies with the conditions as prescribed under this protocol.



Ministry of Housing and Urban Affairs
Government of India



Swachh Bharat Mission - Urban
STAR RATINGS
of
GARBAGE FREE CITIES
2021





❖ Garbage Free Protocol

- ❖ Definition
- ❖ Key Components and Features
- ❖ Changes from the previous Protocol
- ❖ Assessment Mechanism
- ❖ Protocol for self-declaration and third party verification
- ❖ Citizen/Stakeholder engagement in achieving Star Rating



What is a Garbage Free City



GARBAGE FREE CITY ensures holistic evaluation across entire SWM Chain

Door to Door Collection of waste



Scientific Waste Processing, Scientific Landfilling and C&D Waste Management



Source Segregation of waste at both ward and city level



Citizen Grievance Redressal and feedback system



Sweeping of public, commercial & residential areas



Eradication of crude dumping of garbage and dump remediation



Waste Storage Bins, Litter Bins



Cleaning of surface of water bodies and screening of Storm Water Drains/Nallahs



User Fees, Penalties, Spot Fines for littering and Enforcement of Plastic Ban



Visible beautification in the city with a focus on it's sustainability



Bulk Waste Generators Compliance



On-site processing of wet waste



Star Rating includes SMART Rating

SINGLE METRIC

One rating comprising all components of SWM

MEASURABLE

E.g. what % of door to door collection is taking place in the city? What % of waste is processed?

ACHIEVABLE

All parameters are based on citizen's expectations of the ULB therefore achievable

RIGOROUS
VERIFICATION

Similar to ODF Certification, declarations and service levels of a city is assessed by Third Party Agency

TARGETED
TOWARDS OUTCOMES

Does not score on inputs, processes but solely on outcomes. E.g. dumpsite remediated, waste processed, etc.

Additional features of Star Rating

PROGRESSIVE

Increasing levels of **stringency** to spring-board city's journey towards 'swachhata'

ASPIRATIONAL

3, 5 and 7 star include **desirable criteria** such as sustainability, on-site wet waste processing, dumpsite remediation etc.

SUSTAINABLE

Four levels of ratings for cities to **continuously work towards higher rating. Re-verification** of rating after one year

TRANSPARENCY

Verification by third party agency for all star ratings

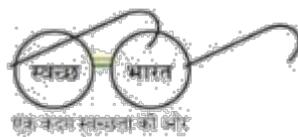
PARTICIPATORY

Citizens from different categories are to be involved through citizen declarations

INTER-LINKED

City has to be **certified with appropriate Open Defecation Free status** in order to apply for any star rating

Changes from the previous protocol (1/2)



12 components

25 Components with Mandatory, Essential & Desirable categories and respective weightages assigned

6 Star Ratings

4 Star Ratings

Out of 6 Star Ratings, **certifications for 3 ratings conducted** by third party appointed by MoHUA.

Certifications for all 4 star ratings to be conducted by third party appointed by MoHUA.

In case city fails third party assessment, it **DOES NOT** automatically achieve certification for lower star

In case a city fails for the applied star, it will be validated and certified for a lower star.

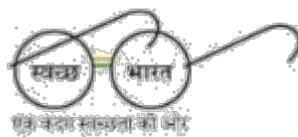
Binary Scoring: A city needs to meet all criteria of a star rating to qualify for that star rating. A city not meeting any criterion for any component at ward/city level, the city is not eligible for star rating.

Graded Scoring: A city may score anywhere between level 1 (minimum) to level 4 as per its performance. Additionally, for ward level parameters, every ward will be evaluated for each component followed by average score of all wards will be considered as the final score of that component. In case a city does not score at least level 1 in any of the ward/city level condition, it will not be considered eligible for star rating.

OLD PROTOCOL

NEW PROTOCOL

Changes from the previous protocol (2/2)*



OLD PROTOCOL

NEW PROTOCOL

Pre-Qualifying Conditions:

- 1,2,3 and 4 Star: Valid ODF Certification
- 5 Star: Valid ODF+ Certification
- 7 Star: Valid ODF++ Certification



Pre-Qualifying Conditions:

- 100% Processing of Domestic Hazardous Waste (applicable only for 5 Star and 7 Star)
- 1-star : Valid ODF+ Certification* • 5-star: Valid ODF++ Certification
- 3-star: Valid ODF+ Certification • 7-star : Valid Water+ Certification

No Pre-Qualifying Condition for unaccounted waste

(i.e. Difference between waste generation and waste collection)



Pre-Qualifying Conditions:

- % of unaccounted waste after considering waste processed by BWGs or processed by Informal Workers/ On-site waste processing by non-bulk waste generators:
- 1-star : 15% • 3-star: 10% • 5-star: 5% • 7-star: Nil

Either Administrative/ Electoral wards



ONLY 'Electoral Wards' to be considered; in case of no political wards in the city, administrative wards will be taken into consideration.

* 'Alert #4' dated 04th January 2021 (Zonal Ranking is NOT APPLICABLE)

* 'Alert #6' dated 06th January 2021 (1-Star-ODF+ Certification mandatory; Geo-Mapping of cities is NOT APPLICABLE)

Additional conditions while applying for star ratings as per the revised protocol (1/2)



- **TPA FAILURE:** In case a city fails third party assessment for the applied star, it will be validated and certified for a lower star (provided city fulfils lower star conditions).
- **COOLING OFF PERIOD:** If a ULB fails in DA, it can undergo re-assessment immediately (no cooling-off period), while if a ULB fails in FA, it can undergo re-assessment after 6 months (the cooling-off period). However, if the ULB fails in the re-assessment (DA/FA) as well, it will only be able to re-apply after 6 months.
- **RE-APPLICATION FOR HIGHER RATING:** If a ULB has been certified a star rating, it can re-apply for higher star rating after 3 months (maximum twice in a year and as per the timelines issued by Ministry). If the ULB fails during the higher star rating assessment, it will still be considered as certified with previous star rating till its validity.

Assessment mechanism for Star Rating

Self-assessment

1. Cities fulfilling the necessary conditions for Star Rating will have to carry out self-assessment as per the methodology of the protocol.

Self-assessment tool will be available on SBM Portal

Declaration of Star Rating

1. The ULB may follow prescribed steps to self declare the star rating of the city
2. For all star ratings, request to be communicated to MoHUA through the State Govt. request for third party verification.

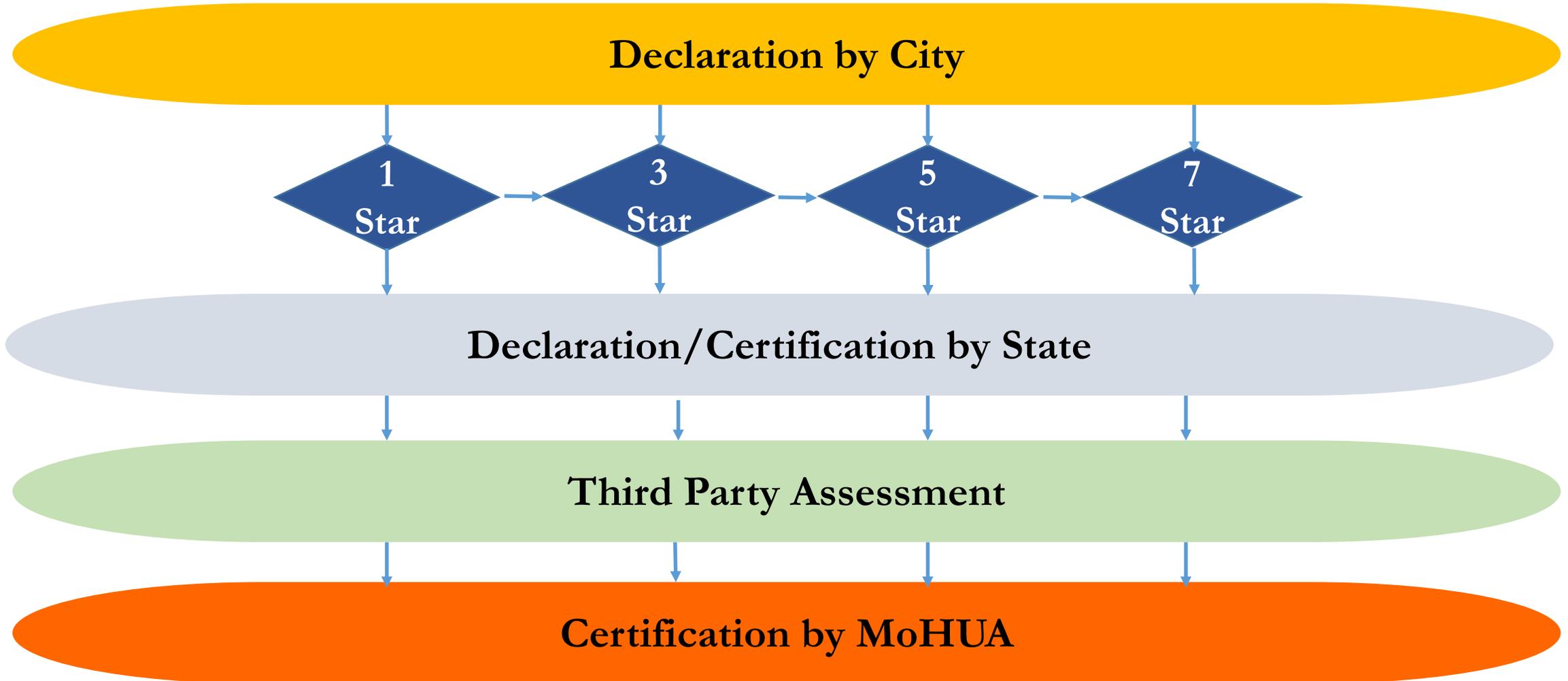
Citizen involvement through system of citizen declarations for declaring any star rating

Third Party Certification

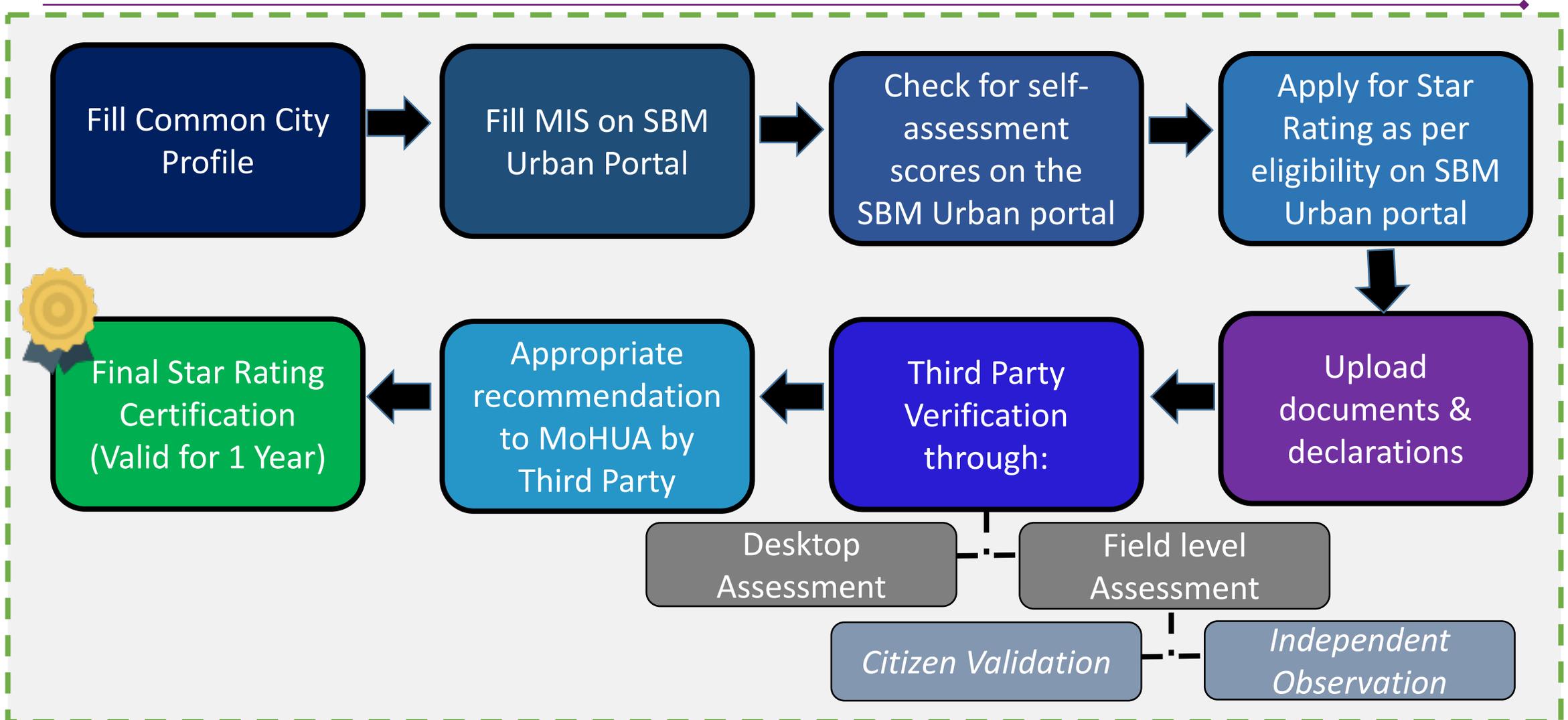
1. MoHUA will take up independent verification and validation through a third party agency and will only recognize the MoHUA-TPA certified/ re-certified cities
2. Third party certification will be valid for one (1) year and city will have to be re-assessed and re-certified every 12 months.

City has to ensure 100% domestic hazardous waste processing (applicable for only 5 Star and 7 Star) and certified ODF (1 Star), ODF+ (3 Star), ODF++ (5 Star), Water+ (7 Star)

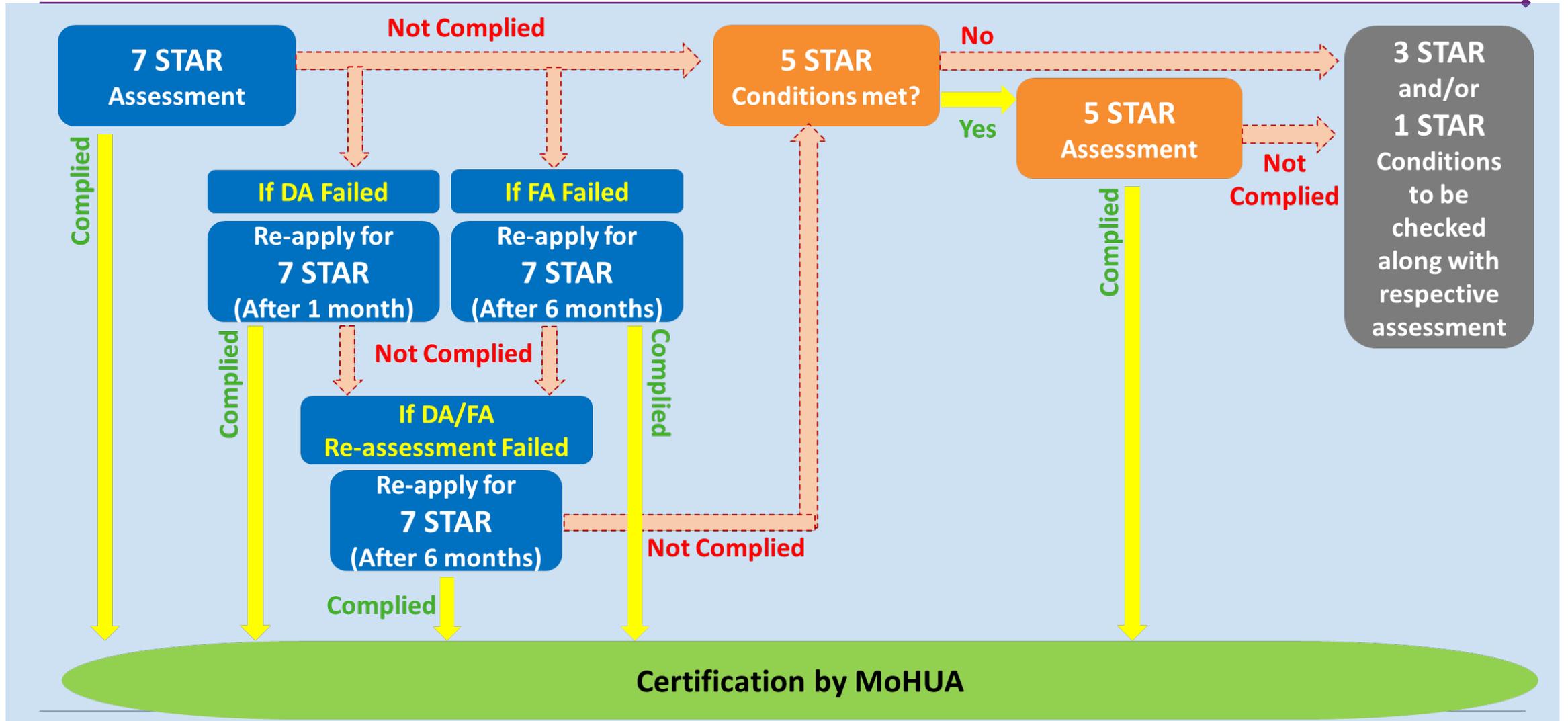
Star Rating Process Flow



Star Rating Process Flow for ULBs



Third Party Assessment - Example



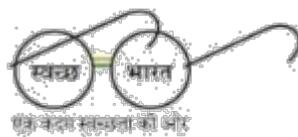
Scoring matrix

Matrix- Star Rating Protocol for Garbage Free Cities

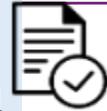
Indicator	1 Star	3 Star	5 Star	7 Star
Mandatory	At least 40%	At least 60%	At least 85%	At least 95%
Essential	At least 30%	At least 50%	At least 80%	At least 90%
Desirable	-Not Applicable-	At least 30%*	At least 60%	At least 80%

* 30% in case of Desirable condition under 3-Star will be considered out of 5 Desirable parameters (D2, D3, D4, D5)

Protocol for Self Declaration by city for Star Rating



- City has to ensure 100% domestic hazardous waste processing (applicable for only 5 Star and 7 Star) and certified ODF (1 Star), ODF+ (3 Star), ODF++ (5 Star), Water+ (7 Star)
- A city shall score at least level 1 in all the ward*/city level conditions.
- For Star Rating 3, 5, 7 city needs to score respective %ages in desirable conditions as per the protocol



- **Self-declaration from citizen categories** (as per population) that the city fulfils all conditions for the specific star rating



- **Declarations to be obtained from all ward members of the city/town, without exception#**
- Submit these to city municipal administration as per due process



State Government may write formally to MoHUA communicating self-declared star rating of city and request Third-Party certification



- **Public objections/feedback may be invited, within 15 days**
- If no objections are received at the end of this time, a final resolution is adopted by the City Council and the same is communicated to respective State Govt.



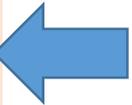
A suitable public announcement (in the highest circulating local newspaper) mentioning feedback /suggestion mechanism may be made for the same^.



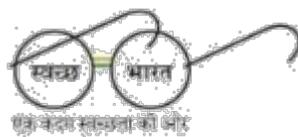
City Council may then pass a preliminary resolution declaring the city as per relevant star rating



- *Circle if the city is divided into circles instead of wards
- # In exceptional circumstances when a ward-member/councillor/Corporator is not willing to give declaration for his/her ward even after two formal requests from the city commissioner with a feasible time gap, then a 5 member committee may be appointed to sign declaration for that ward. The committee will consists of: Municipal Commissioner, Chairman, corresponding ward-member, 2 prominent citizens of the city appointed by Chairman.
- ^Govt. notification may be made on the state/city website **additionally**.
- **Alternate terminology such as "Compliance of Star Rating protocol for Garbage Free Cities by ABC ULB"** can be issued by the Administrative head of the ULB, if the declaration is not permissible due to model code of conduct (council/state Legislative/ Lok Sabha elections)



Protocol for Third Party Certification for Star Rating



a) City self-declares itself as '1', '3', '5' or '7' Star (as applicable) and communicates the same to MoHUA through the State SBM Mission Directorate

b) Upon request by MoHUA, a third party (appointed by MoHUA) will mobilize assessors to conduct the verification.

c) For the verification, the third party agency will assess Service Level Status as well as conduct Independent Validation.

f) Star Rating certificate will need to be recertified annually (every 12 months) upon receiving request by the city. The third party will repeat step (c) for recertification.

e) MoHUA will subsequently issue the relevant Star Rating to the city for the same based upon the recommendation of the Third Party

d) Based upon the assessment, TPA will make recommendations to MoHUA for cities to be rated as per Star Rating, protocol

Protocol for Third Party Certification for Star Rating



SERVICE LEVEL STATUS

- **Preliminary data will be collected in advance** by a process of self-assessment[#] from cities as per the defined protocol. The **city will fill the MoHUA common city profile and MIS.**
- **Third party assessors will visit cities to validate** the claims made ensuring that the process is independent and unbiased.

INDEPENDENT VALIDATION

- Collection of data will be based on **physical observation of the households/premises*** by the third party assessors.
- **Third party will also interact with respective citizens** to validate the service level status claimed by the city.
- The structured questionnaire/tools to facilitate citizen validation/independent observation will be created by the third party in consultation with MoHUA
- **Assessors will use IT enabled devices to record their observations and findings** along with photographs
- **Third party will systematically collect photos as evidence for field observations** ensuring that the location, date and time are tagged

* Public & commercial areas (including market areas, railway stations, bus stations, other transport hubs, schools, colleges, hospitals, offices, religious areas, industrial areas, institutional areas, ULB managed parking areas, ULB managed parks & gardens), residential areas, water bodies, storm drainage system, roads and streets, and other relevant areas

All evidence/documentation for each component shall be of minimum 3 months (one quarter) prior to the date of self-declaration unless specified in the component. It is **not** required by municipal commissioner to certify/sign on each of the evidence documents. However all the protocol requirements such as: stakeholders, city and state declarations etc. shall be fulfilled.

Third Party Inspection for Certification

Desktop Assessment

- ❖ Verify wards
- ❖ Assess and verify the documents submitted by the cities for all components as per Level 1 requirements. The agency to validate the figures updated on MIS and the documents submitted by cities with corresponding minimum requirement (Level-1) for the following components:
 - Door to Door Collection,
 - Source Segregation,
 - Litter Bins,
 - Storage Bins,
 - Waste Processing and Capacity (Wet and Dry)
 - User Charges
 - Scientific Landfill - Waste Disposed,
 - Screening of Nallahs
 - On-site wet waste processing,
 - C&D Waste (Storage, Segregation, Processing & Recycling)
 - On-Site wet waste processing by Bulk Waste Generator
- ❖ Flag the Waste Processing Facilities, C&D facilities, landfills, dumpsites, drains, nallahs etc. if the city has claimed for these components but these are not available in city profile to ensure coverage during field assessment.

Field Assessment

- In addition to the Citizen validation, the agency will also assess the following components on the ground: door to door collection, segregated transportation, processing and sweeping as part of independent observation.
- In case of re-assessment of cities that failed in field assessment, the samples during re-assessment will also include failed samples (33% or more) from the earlier assessment in addition to the fresh samples.

Third Party Certification: Independent Observation[#] Locations

- **Cities will be assessed ward-wise.** The number/percentage of locations/checkpoints, of the total claimed locations, to be visited in each ward for purpose of physical observation is provided below.

Location Type	No. of locations/ checkpoints per ward
Residential Areas	5
Roads and Streets	Roads and Streets of the identified sampled areas
Market Areas*	5
Parks & Gardens**	Minimum 3 or actual no. of parks and gardens
Bulk Waste Generators	Minimum 10 or 5% of BWGs (in case less than 10, all BWGs as per service level status documentation shall be assessed)
Transport Hubs	Railway/Metro Stations, Bus Stations, Airports, Taxi/ Auto stands, and other Transport Hubs. (At least one of each category of transport hub shall be checked)
Industrial Areas	Industrial and Institutional areas (if applicable)
Water Bodies, Storm Water Drains and Nallahs	Water-bodies with public access and Storm Water Drains/Nallahs of the identified sampled areas
MSW Processing Plants	All functional plants
Scientific Landfill	Existing SLF
Dumpsite	All identified dumpsite(s)
Tourist areas***	All tourist areas (with high footfalls), if applicable

*Shops, offices, agriculture mandis, vegetable/ fish/ fruit/ meat markets, as applicable

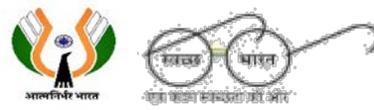
**Greenspaces that are not part of roads & have play-fields for public use, roundabouts and greenspaces under bridges are excluded

***Include religious sites, historic sites, beaches, lakes/ponds etc.

#Door to Door Collection, Segregation, Transportation and Processing of waste to be validated under Independent Observation.

^Success criteria of 90% will be used to validate claims made by the city. For example, 9 of 10 validations shall match with city claims.

Third Party Certification: Citizen Validations



As part of the validation, assessor should also interact with respective citizens to validate the service level status claimed by the ULB.

S. No.	Category [#]	No. of Citizen Validations per ward* [^]
1	Households (including slums)	Minimum 50 or .5% of no. of HHLs as per SLS documentation, whichever is higher
2	Shops/ Street Vendors	Minimum 10 or 1% of no. of shops/Street vendors, whichever is higher
3	Schools/Colleges/Education Institutions	Minimum 10 or 10% of the total number of schools/colleges/education institutions, whichever is higher
4	Hotels/Guest Houses/Dharmshalas/ Shelter homes/ Ashrams/ Hostels/ Clubs	Minimum 10 or 5% of the total number of Hotels/Guest houses/Dharmshalas, whichever is higher
5	Restaurants/Dhabas/ Eateries	Minimum 10 or 5% of the total number of Restaurants/Dhabas, whichever is higher
6	Bulk Waste Generators	Minimum 10 or 5% of the total number of Bulk Waste Generators, whichever is higher
7	Offices (Private & Government)	Minimum 10 or 1% of the total number of Offices (Private and Government), whichever is higher
8	Tourist areas	Minimum 5 or 10% of the total number of Tourist areas, whichever is higher
9	Parks & Gardens	5 citizens in all the parks & gardens covered under independent observation
10	Transport Hubs	5 citizens in each category of transport hub covered under independent observation

*For categories 1 to 8, in case less than the minimum number defined above, all shall be covered. These validations should be exclusive among citizen categories, for example: one citizen can only validate for one category.

[#]For categories 2 to 8, owners/responsible persons of respective category shall be surveyed to validate service level delivery status

[^]Success criteria of 90% will be used to validate claims made by the city. For example, 9 of 10 validations shall agree with city claims.

Weightage to Independent Observation and Citizen Validation



Component/ Condition			Independent Observation	Citizen Validation
Mandatory				
WARD LEVEL	M1	Door to Door Collection	20%	80%
	M2	Segregation at Ward Level	20%	80%
	M3	Sweeping	80%	20%
	M4	Litter Bins	100%	0%
	M5	Storage Bins	100%	0%
CITY LEVEL	M6	Waste Processing- Wet Waste	100%	0%
	M7	Waste Processing Capacity- Wet Waste	100%	0%
	M8	Waste Processing- Dry Waste	100%	0%
	M9	Waste Processing Capacity- Dry Waste	100%	0%
	M10	Grievance Redressal	0%	100%
Essential				
WARD LEVEL	E1	BWG	100%	0%
	E2	Penalty/ Spot Fines	0%	100%
CITY LEVEL	E3	Segregation at City Level	20%	80%
	E4	User Charges	0%	100%
	E5	Plastic Ban	0%	100%
	E6	C&D Waste- Collection	20%	80%
	E7	Scientific Landfill- Availability & Use	100%	0%
	E8	Scientific Landfill- Waste disposed	100%	0%
	E9 (A)	No visible solid waste in water bodies	100%	0%
E9 (B)	Screening of Storm water drains/ Nallahs	100%	0%	
Desirable				
WARD LEVEL	D1	Sustainability	100%	0%
CITY LEVEL	D2	Onsite wet waste processing	20%	80%
	D3	C&D waste- Storage, Seg, Processing, Recycling	100%	0%
	D4	C&D Waste- Use of materials	100%	0%
	D5	Dumpsite Remediation	100%	0%

Citizen Declarations

Number of citizen declarations required for declaration **will be classified based on population:**

- >5 Lakh population: 6 citizen categories (5 citizen representatives from each)
- 1-5 Lakh population: 4 citizen categories (3 citizen representatives from each)
- < 1 Lakh population: 3 citizen categories (2 citizen representatives from each)

MANDATORY*

- School children (**age more than 14 years**)
- Central/ State Government Offices/ Banks
- Self Help Group/ Civil Society Organisations/ Non-Governmental Organisations
- Resident Welfare Associations/ Gated Societies/ Housing Complexes (in case these are not present, declarations from 10 residents to be taken)

ADDITIONAL

- Business Organisations (Market Associations, Hotel Associations, Business Associations, Transport Associations, Railways/Bus/Transport Hub Managers, Trade Associations, Professional associations)
- Hospitals (min. 10 beds)
- Private sector organisations (min. 50 employees)
- Prominent personalities including SBM ambassadors, government officers (excluding municipal officers) / public sector officers (head of department/head of organisation) equivalent to the rank of Under Secretary (US) GoI, bank officers (branch head, head of department)

* In case any category is not present then equivalent no. of declarations from citizens in additional categories may be taken with declaration from Municipal Commissioner mentioning unavailability of citizens of a particular category.

NOTE: Cities need to submit new citizen declarations as per the revised protocol and old declarations used for Star Rating applications in October, 19 - January, 20 will not be considered.

Methods of engaging with key citizen categories



Resident Welfare Associations

- Door to door campaigns in residential areas to create awareness about source segregation and showcase on-site composting techniques & its benefits
- Door to door or other campaigns on the need for and ways of keeping a litter free environment
- Awards for cleanest RWAs to generate a healthy spirit of competitiveness
- Encourage to adopt nearby areas and take ownership to ensure these become 'garbage-free'

School Children & Staff

- Invite students and staff to experience the complete waste management chain, from collection to disposal, and sensitize them about their role in making this chain more effective
- Make students the youth ambassadors of the message of 'Garbage-Free Cities'

Self-Help Groups

- Awareness and sensitization sessions/workshops on importance of segregation and its long-term impact on public health through diversion of waste from landfills
- Involvement of SHGs in the waste management value chain, as formalized contributors

NGOs

- Partner with NGOs to conduct community mobilization drives on various SWM interventions
- Identify avenues for NGOs to contribute to door-to-door campaigns, sensitisation drives, cleanliness drives, etc. envisioned by the ULB

Hotel Association

- Award for most "Swachh" hotel, that segregates waste and has minimal waste output, along with user fee discount

Prominent Persons

- Make them "Swachh Champions" for their neighborhoods, promote the message of segregation and decentralized processing.

Methods of engaging with key citizen categories



Private sector organisations

- Encourage to adopt nearby areas and take ownership to ensure these are 'garbage-free' zones
- User fee discounts for doing on-site composting and having dry waste recycled

All Swachhagrahis

- To be given ownership of areas to monitor garbage free status of that area, such as littering, garbage vulnerable points, etc.
- Competition aspect may be introduced among Swachhagrahis

Senior Central Govt/ State Bank Officials

- Discussions and workshop on the importance of segregating and managing own waste till the extent possible
- Request to appoint Swachhata monitoring officials to be in-charge departmental waste segregation

Hospital authorities

- Award for most "Swachh" hospital premises, that segregate waste and manage wet waste on-site
- Discussion meetings on segregation of waste and on-site composting/processing of wet waste from hospital canteens

Transport authorities

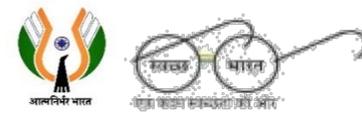
- Awards for most "Swachh" bus station / taxi stand / truck depot, etc.
- Placement of compartmentalized/twin bins at all transport hubs for safe and segregated waste disposal by commuters

Market Association

- Communicate waste collection schedule to market association/vendors to ensure segregated collection of waste and handover of dry waste to authorised recyclers
- Training and orientation sessions for shopkeepers/associations on importance of segregation and decentralised waste management
- Joint IEC activities for awareness creation of customers



Declaration Formats



Format for declaration to be submitted by City / town

I, Mayor / Municipal Commissioner / Chief Officer/ Chairperson of..... (name of ULB/ Municipal corporation / municipality / town panchayat/ cantonment board) do hereby declare that:

- All Councillors/ Corporators/ Ward Members in the city / town have submitted their self-declarations regarding garbage free status (as per relevant star rating)
- Preliminary resolution has been passed declaring the city / town as Garbage Free....1/3/5/7 (strike off as applicable).... Star;
- Above resolution has been publicly announced (in print media), inviting public feedback / objection within 15 days of announcement.
- Since no objections have been received within the stipulated time period / since objections and feedback received from the public have been rectified, a final resolution has been adopted by this ULB to declare the city as Garbage Free1/3/5/7 (strike off as applicable)... Star
- This final resolution is being communicated to the Government of(State/Union Territory).... for further communication to MoHUA for record and further third-party verification (applicable for Star Rating '1', '3', '5' and '7') (Resolution Number)

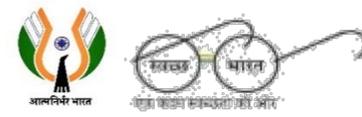
Accordingly, (name of city/ town) is hereby self-declared Garbage Free
....1/3/5/7 (strike off as applicable)...Star

.....
(Signature, and Name of Mayor / Chairperson/ Chief Officer/ Municipal Commissioner)

Date:

Seal

Declaration Formats



Format for declaration to be submitted by Ward Councillor

I, Ward councilor/ Corporator of (ward details), under..... (name of ULB/ Municipal corporation / municipality / town panchayat / cantonment board) do hereby declare that the ward is in compliance with all necessary conditions of Garbage Free Star Rating ...1/3/5/7 (strike off as applicable)

.....
(Signature, and Name of Ward Councilor/ Corporator)

Address:

Phone Number:

Date:

Seal:

Declaration Formats



Format for self-declaration to be submitted by Bulk Waste Generators (wherever applicable)

I,(name), authorized representative on behalf of (name and address of bulk waste generator) in (name of ULB/ Municipal corporation / municipality / town panchayat/ cantonment board) do hereby declare that we are managing all our generated waste in compliance with SWM Rules 2016

.....
(Signature and Name of authorized representative of bulk waste generator)

Address:

Phone Number:

Date:

Seal:

Declaration Formats



Format for self-declaration to be submitted by citizen representatives

I,(name), authorized representative on behalf of (name of citizen category) in (name of ULB/ Municipal corporation / municipality/ town panchayat/ cantonment board) do hereby declare that the city is in compliance with all necessary conditions of Garbage Free Star Rating1/3/5/7 (strike off as applicable).

.....
(Signature and Name of authorized representative of citizen category)

Address:

Phone Number:

Date:

Seal:

Defining a ‘Commercial Area – Mixed’

- ❖ **Commercial area** is real estate intended for use by for-profit businesses, such as office complexes, shopping malls, service stations and restaurants.
- ❖ Please note, **number of shops (floor wise or in a row and either side or only one side of the road)**, as per following criteria, in a residential/industrial area shall be qualified as **commercial area – mixed**.

Population Category	Up to 25K	Between 25K - 50K	Between 50K - 1 Lakh	Between 1 Lakh – 3 Lakh	Above 3 Lakh
Number of Shops	10	20	50	75	100



Ward Level Parameters

❖ MANDATORY:

- M1: Door-to-Door Collection
- M2: Source Segregation at Ward Level
- M3: Sweeping of residential, public & commercial areas
- M4: Litter Bins
- M5: Waste Storage Bins



Component M1: Door to Door Collection

CONDITION

At least 'x' percent of households/ premises/gates in the ward are covered by door-to-door collection and transportation of solid waste (through ULB/ ULB-authorized garbage collectors)
Note: Waste collector needs to inform each household/ premise/ gate to provide their waste

Level	Level 1	Level 2	Level 3*	Level 4*
Condition	At least 60 %	At least 80 %	100 %	100 %
Marks	50	75	100	100
Weightage	12%			

NOTE

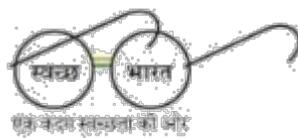
- *In case of **Level 3/ Level 4**, Cities with more than 1 Lakh population should have separate vehicles to collect segregated waste from households, mandi, streets/commercial areas/litter bins, hotel/restaurants, parks/horticulture waste and religious places.
- All waste should be collected in compartmentalized/separate vehicles with closed lids to prevent the foul odour, littering and unsightly conditions.



Component M1: Door to Door Collection

Means of Verification

- List and details of all the wards in the ULB
- Ward wise list and details of all the residential areas, commercial areas and institutional areas in the ULB in each ward.
- Area-wise staff/vehicle deployment plan and record of waste collection.
- Copy of contract/ MoU/ Official Engagement letter and payment/activity report, if this service has been outsourced.



Door to Door Collection

Suggested Interventions

- Ensure **adequate manpower** (integrating informal waste pickers, outsourcing, etc.) and equipment provisions
- Installation of **GPS/RFID system** on waste collection trucks/vehicles to ensure route and household coverage **Felicitation of best performing** waste collection trucks/vehicle drivers
- **ICT-enabled monitoring** of D2D collection activities (biometric staff attendance system, route mapping, Household RFID tags, mobile applications, camera-based surveillance, etc.)
- Adopt the **Collection & Transportation App** developed by MoHUA
- If work is outsourced to an external agency, **insert a clause in the contract for performance-based payments**
- **Establish weighing mechanism** at transfer station/processing/disposal site to record vehicle weight with & without garbage
- **Staff at transfer station/ processing/ disposal site must check that waste collected only contains Municipal Solid Waste (MSW)** - no waste from other waste streams, Biomedical waste, Inert waste, Industrial Waste etc.
- **Establish separate collection systems for separate waste streams** [household, commercial, street sweeping, C&D waste, garden/ horticulture waste, meat, Bulk Waste Generators (if not managed onsite), etc.] to the extent possible
- Provide **personal protective equipment** to all SWM staff and mandate outsourced agency to also provide
- Ensure **regular cleaning of SWM equipment** (collection & transportation vehicles, container bins, etc.)
- City should also work towards collecting electronic waste separately and setting appropriate management mechanism

As per SWM Rules, 2016, collect horticulture, parks and garden waste separately and process in the parks and gardens, as far as possible;

Door to Door Collection

Suggested Interventions

- **Integration of Informal Waste Pickers**
 - Carry out field level assessment and identify waste pickers/ self-help groups across the city
 - Conduct enrolment drives to integrate informal waste pickers in the SWM system
 - Make a cooperative/organization of identified informal workers to be integrated to ensure accountability (Incase D2D Collection/ Transportation outsourced to third party, encourage them to formally integrate rag pickers in their payroll)
 - Record ward-wise list of waste pickers with ID numbers issued to them
 - Conduct trainings for these stakeholders to ensure proper integration into city's SWM system
- **Assessment of waste collection trucks/ vehicle drivers**
 - ULB/ Outsourced Agency should record monthly performance of each vehicle in the form of a Driver's Report card
 - GPS/RFID log, manual entry log and activity report from the last month for each vehicle (any penalties are levied by the ULB based on underperformance being tracked by GPS) should be recorded by ULB/ Outsourced Agency
 - Route map and driver details should be provided to the households and also available in public domain by ULB (Incase of Outsourced Agency, these details should be provided to ULB to share in public domain)

As per SWM Rules, 2016

- **Establish a system to recognise organisations of waste pickers or informal waste collectors and promote & establish a system for integration of these authorised waste-pickers & waste collectors to facilitate their participation in SWM including door to door collection of waste;**
- **Facilitate formation of Self Help Groups, provide identity cards and thereafter encourage integration in SWM**

Performance Penalties

The Monitoring System based on self-reporting by the Concessionaire is proposed (refer table no. 1 to 112 in annexure-I). It may be noted all these self-assessment reports shall tally with GPS report (auto analyzed by the computer system) for this monitoring system to properly work.

Penalty for non-conformance shall be imposed by Authority based on one or both of the following:

- (a) Complaint by 2 or more actual users, and validated by field report or GPS system;
- (b) Spot inspection and reporting by Authority officials/ appointed Project Monitoring Consultant.
- (c) The penalties imposed on the basis of above MIS reports shall over-ride the self-reporting by the concessionaire, notwithstanding the fact that the self-assessment may have been accepted by the authority. In addition, the Concessionaire shall be given an opportunity of being heard. Certain Tolerance for default(s) are prescribed in the table 1. If the performance of the concessionaire falls below the tolerance level, the penalties are applicable on all defaults (and not just that are in excess of the tolerance limits).

Table 1: Performance Penalties as per the MIS

Default	Penalty/ Deduction	Tolerance	Rectification
1. Deficient Service			
(a) Non-servicing of area covered under door-to-door	Rs. ■■■ per day for each area not serviced	No penalty if 90% of households covered under door to door get serviced during the day	Within 24 hours
(b) Non-deployment of vehicle / auto tippers	Rs. ■■■ for each route for auto tipper not deployed	No penalty if 90% routes get serviced during the day	Within 24 hours
(c) Late deployment of vehicle/ Auto tippers	Rs. ■■■ per ■ hour of delay, subject to maximum of Rs ■■■	No penalty if 90% of routes are operated within time (upto 1 hour delay) during the day	Within 24 hours
(d) Non-deployment of rickshaws	Rs ■■■ per day for each route not serviced	No penalties if 90% of rickshaws (as per action plan) do get deployed	Within 24 hours

Reference: Collection & Transportation of MSW, Street Sweeping Waste, Drain Silt, Green Waste and C&D Waste in South, Central, West and Najafgarh Zones on PPP Basis, South Delhi Municipal Corporation
Available on SBM Portal → Knowledge Repositories → Sample RFPs



Component M2: Source Segregation at Ward Level

CONDITION

At least 'x' percent of households/ premises/ gates in the ward have segregation at source (wet, dry & sanitary/domestic hazardous) maintained till processing/disposal facilities.

Note: Waste collector must check that waste is segregated properly by waste generator before collection. Sanitary/Domestic hazardous waste to be disposed in a separate bag and placed in separate area of vehicle

In case of collection of mixed waste from households/ premises/ gates, it should be kept separately and not mixed with segregated waste collected, till processing/disposal facilities. Mixed waste shall not be mixed with segregated waste at any point.

“Domestic hazardous waste” means discarded paint drums, pesticide cans, CFL bulbs, tube lights, expired medicines, broken mercury thermometers, used batteries, used needles and syringes and contaminated gauge, etc., generated at the household level



Component M2: Source Segregation at Ward Level

CONDITION (Contd.)

Level	Level 1	Level 2	Level 3	Level 4
Condition	At least 30 % (Excluding Sanitary Waste / Domestic Hazardous Waste)	At least 60 % (Sanitary Waste i.e. diapers, sanitary pads, masks and gloves to be segregated, wrapped securely in the pouches provided by the manufacturers or brand owners of these products or in a suitable wrapping material as instructed by the local authorities and collected separately)	At least 80 % (All kinds of sanitary and domestic hazardous waste to be segregated, wrapped securely in the pouches provided by the manufacturers or brand owners of these products or in a suitable wrapping material as instructed by the local authorities and collected separately)	At least 95 % (All kinds of sanitary and domestic hazardous waste to be segregated, wrapped securely in the pouches provided by the manufacturers or brand owners of these products or in a suitable wrapping material as instructed by the local authorities and collected separately)
Marks	30	60	80	100
Weightage	16%			

NOTE

- Wet, Dry and Sanitary Waste collection to be done on daily basis, domestic hazardous waste may be collected on weekly basis.*
- Segregated waste should be collected in compartmentalized/separate vehicles with closed lids to prevent foul odour, littering and unsightly conditions.*
- All kinds of sanitary waste to pouches provided by the manufacturers or brand owners of these products or in a suitable wrapping material as instructed by the local authorities. Domestic hazardous waste need not to be wrapped.
- ULB's Bye Laws to be framed to incorporate criteria for levying of spot fines/penalties for littering, non-segregation and unsecure wrapping/handling of sanitary/domestic hazardous waste.

* 'Alert #2' dated 30th September 2020 and Letter to all State Mission Directors dated 18th November 2020



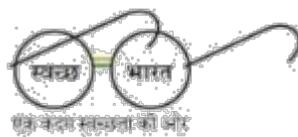
Component M2: Source Segregation at Ward Level

Means of Verification

- Copy of contract/ MoU/ Official Engagement letter and payment/activity report, if this service has been outsourced.
- Area-wise staff/vehicle deployment plan for segregated waste collection (wet, dry and sanitary/domestic hazardous waste)
- Area-wise quantity of wet/dry/sanitary/domestic hazardous waste collected.

Segregation at Source

Suggested Interventions



- Ensure that **provisions for setting up of centers for collection, segregation and storage of segregated wastes, are incorporated in building plan** while granting approval of building plan of a group housing society or market complex (as per SWM Rules 2016)
- **Awareness drives** regarding waste segregation in households/ premises
- **Distribution of two bins should NOT be a pre-condition for initiating source segregation** in the city
- **All waste pickers should be trained to collect dry and wet waste separately**
- **All waste collection & transportation vehicles to be compartmentalized/ separate vehicles to be deployed** to ensure collection and transportation of segregated waste/ **separate days** are fixed for collection of dry and wet waste
- **Data** regarding amount of segregated waste collected and transported to be **recorded daily**
- Ensure that **segregation is maintained across the SWM chain**, i.e. collection, transportation and processing (waste should not be mixed at any stage)
- In case D2D Collection is outsourced to an agency, ULB should penalize agency for collection of unsegregated waste
- Introduce **incentive schemes for onsite composting by households/ premises**
- **City may ask households to further segregate dry waste (paper, plastic, etc.) at the household level before handing to ULB/collection agency**

Segregation at Source - Best Practices

Port-Blair Municipal Corporation - Incentive Scheme

PORT BLAIR MUNICIPAL COUNCIL

Prize-Scheme

Collect Segregated Plastics -> Waste Bags...Bottles...etc and Get Money, Prize & Employment

Scheme is available for whole of the year 2018. Any person can become partner with Municipal Council in its efforts of keeping the City clean and green. The salient features of the Prize Scheme are as under:

Collect Segregated Plastics -> Waste Bags...Bottles...etc **Deposit**
⌚ 09.00 am to 12.00 Noon on every first Monday of the Month
at the following locations

- Compost Yard**
Gandhi Park
- Community Hall**
Dairy Farm
- Sanitary Site**
Dollygunj
- Community Hall**
Paththar Gudda
(Old Panchayat Char)
- Near Vegetable Market**
Bathu Basthi
- Dry Resource Park**
Brookshabad

Segregation at Source - Best Practices

Port-Blair Municipal Corporation – Incentive Scheme

Prize Scheme

1 Cash amount @ ₹2/- per kg will be paid at the time of deposit

2 The 20 persons who deposit maximum quantity will be given cash prizes at following scale which will be credited in their Bank Account, within next 10 days

- ✓ ₹10,000/- each to first five persons
- ✓ ₹5,000/- each to next five persons
- ✓ ₹3,000/- each to next five persons
- ✓ ₹2,000/- each to next five persons



3 Five persons, who win highest total money, during the year 2018 will be given preference in job on Muster Roll basis in the Sanitary Section of PBMC, subject to following conditions :-

- ✓ Must be an Islander Card Holder and aged between 18 years to 50 years; and
- ✓ Must be one of the winners in atleast 06 months, during the year 2018

Appeal for Suggestions:

Plastic/Pet bottles have become serious environment hazard in the City. Despite best efforts by the Municipal Council, it has been seen that empty bottles are lying on road side and sea side at many places. This serious issue can be dealt by public participation and therefore suggestions are invited from the General Public about various possible options. Based on the suggestions, different alternatives will be considered by the Municipal Council to arrive on some workable policy decisions. Suggestions can be sent in either of the following way:-

 swmpbmc@gmail.com

- ✓ Letter by post to -
Secretary, PBMC, Municipal Head Quarter, Mohanpura, Port Blair-744101
- ✓ Suggestion Box provided in the Office of Secretary, PBMC, Municipal Headquarter, Mohanpura, Port Blair-744101

Note: Employees of PBMC, including DRM/Muster Roll workers, are NOT eligible to participate in this scheme. However their family members are allowed to participate in the scheme.

“ Kind co-operation from all the Citizens is solicited to maintain the City clean and green. ”



Indrapal Singh
Chairperson, PBMC

Segregation at Source - Best Practices

Sanquelim Municipal Council

Sankhali Municipal Council
Presents



स्वच्छ भारत
Swachha Sankhali
Nitol Sankhali

Eco-Police Competition

A Competition Of Collecting Segregated Household Dry Waste



Clean Sankhali
Green Sankhali

Competition Duration
1st December 2017
to
January 31st 2018



FREE ENTRY

The competition:

- ∞ The competition will involve collection of segregated dry waste (excluding glass and metal waste) on a weekly basis from schools.
- ∞ The waste collected will be weighed and the student bringing in the highest amount of waste will be given an award at the end of two months.
- ∞ The competition will be conducted by Sankhali Municipal Council with the help of the schools in Sankhali.
- ∞ The competition will be conducted over a span of two months. (Starting Date -01.12.2017 and Ending Date - 31.01.2018)

Instructions:

- ∞ Students should submit their waste to school representatives in the school premises and they will note down the weight of that garbage in the excel sheet provided by the organizers.
- ∞ Municipal council representatives will collect the total waste from the school on weekly basis on specified day, which will be communicated later.
- ∞ In case of two or more students having same weight at the end of the competition the highest plastic waste will be considered as overall highest.
- ∞ The school should weigh & record details of plastic and paper waste separately.
- ∞ The student with the highest total weight will be considered as the best Eco-police of the town.

TYPES OF WASTE TO BE CONSIDERED FOR THE COMPETITION ARE AS FOLLOWS:

PLASTIC WASTE

- Plastic Bags
- Thermocol
- Plastic/PET bottles
- Plastic containers
- Broken plastic toys
- Bubble wrap
- Take-away containers
- Plastic Food packets, Pickle packs
- Milk Sachets & tetra packs
- Multilayered plastics like chips packets

PAPER WASTE

- Boxes
- Carboard
- Pamphlets
- Paper plates
- Paper wrappers
- Chocolate wrappers
- Envelopes & Covers
- Cotton & cotton clothes
- Tickets, Bills, Statements
- Paper, Book, Magazine

Rewards for students:

- ∞ The student with the highest total among all participants at the end of the Two months will be declared the winner of Sankhali and will be awarded with a **Laptop**.
- ∞ One student with the highest total from each school at the end of Two months will be declared the winner of their respective school and he/she will be awarded with a **Gear Bicycle**.
- ∞ One student with highest total from each class at the end of Two months will be winner of that class and he/she will be awarded with a **school bag**.
- ∞ Every week, from each class, the student bringing in the highest amount of waste will be rewarded with an **Eco-Police badge**.
- ∞ Every participant will get a certificate of participation and a gift from the Municipal council as follows:
 - From standard 1 to 4: **Tiffin box**
 - From standard 5 to 10: **Geometry Box**

Rewards for School & teachers:

- ∞ In each respective school, the class from which the highest amount of total waste is collected at the end of Two months, the class teacher of that class will be awarded with a **mobile phone**.
- ∞ The school from which the highest amount of total waste is collected at the end of Two months, will be awarded with a **trophy and a winning certificate**.
- ∞ To be eligible for winning the best school title, following activities need to be performed by the schools –
 1. The schools need to conduct a drawing & an essay competition once in the duration of the competition with the theme of Swachh Bharat Abhiyan.
 2. The schools need to take their students on a visit to the garbage treatment plant of Sankhali/Saligao.
 3. A cleanliness drive needs to be conducted by schools with their students (Class-V to Class-X only) along with their parents at the location given by municipal council on any of the Sundays during the duration of the competition.

Chance to win a Refrigerator:

Also grab a chance to win a refrigerator by sending the pictures/videos of offenders throwing garbage in the open areas on WhatsApp number 7057344488. All the numbers from which pictures/ videos are received will be considered for the lucky draw which will be announced at the end of the competition.

Registration:

1. Every student from standard 1* to 10* must mandatorily register for the competition.
2. Students will get a unique Identity number after the registration, which will be as School acronym/Class/Section/Roll No. for example for Student with roll no. 20 in Section A of Class 5* in Ganesh Vidyalaya will get a no. of GV/05/A/020

Rules:

1. Participant must be a student of the school in Sankhali
2. Every student must collect at least 10 kg of waste at the end of Two months to be eligible for the certificate.
3. There will be no participation fee for the competition.
4. All participants must register themselves with their class teacher.
5. Waste submitted must be clean & dry i.e.
 - 5.1. Food packets, pickle packs and take-away food containers have to be thoroughly rinsed and dried before submission
 - 5.2. Food covers that are too oily will not be collected.
 - 5.3. Papers that are oily and soiled tissue papers will be discarded.
6. Student should bring plastic and paper garbage separately.
7. Waste must be properly submitted in waste disposal bags which will be provided by the Municipal council.
8. No other type of waste beside mentioned in guidelines will be accepted.
9. Waste will be collected only in the respective school campus.
10. The total weight calculated by the school will be cross checked by municipal representative while collecting it on weekly basis.

Supported By



Initiated By
Chairperson Mr. Dharmesh Saglani,
Contact No.: 09822183775

Segregation at Source - Best Practices

Tirunelveli – Multi-stakeholder approach for achieving 100% source segregation



Tirunelveli Municipal Corporation: Achieving 100% source segregation

Population: ~4.74 Lakhs

City started with an **aggressive information, education and communication campaign** in April 2016 about MSW Rules and achieved the ambitious target by 21st December 2016.

- **Letter to all households** urging to participate in 'Litter Free Tirunelveli movement' and got undertaking from all HHs to participate
- **Extensive multi-media campaign** through radio, local TV channels, etc.
- **Participatory planning meetings with various stakeholders** including doctors, SHGs, religious representatives, waste recyclers, media representatives, RWAs, sanitary workers, school administration, etc.
- All **key personalities** of city beginning with Municipal Commissioner **started waste segregation**. Spread message through sharing pictures of the same
- **Targeted school children** to spread message
- TMC decided to make **Wednesday as dry waste collection day** therefore making it necessary to segregate waste - announcements of the same were made through several media channels like radio, on autos, through letters, etc.
- **Direct supervision of waste collection by Municipal Commissioner and municipal staff**





Component M3: Sweeping of Residential, Public & Commercial Areas (1/2)

CONDITION

At least 'x' percent of commercial, public, residential areas, have sweeping (one time or twice, including night sweeping)

Note: *Mechanised Sweeping* to be encouraged especially in cities with population above 10 lakh



Component M3: Sweeping of Residential, Public & Commercial Areas (2/2)

CONDITION (Contd.)

Level	Level 1	Level 2	Level 3	Level 4
Condition	100% public and commercial areas have daily sweeping	100% Public, commercial, and residential areas have daily sweeping	100% Public and commercial areas have twice daily sweeping, including night sweeping and residential areas have daily sweeping Cities with population above 10 lakh shall have mechanized sweeping for 4-lane roads having median.	100% Public and commercial areas have twice daily sweeping, including night sweeping and residential areas have daily sweeping Cities with population above 10 lakh shall have mechanized sweeping for 4-lane roads having median.
Marks	50	75	100	100
Weightage	12%			



Component M3: Sweeping of Residential, Public & Commercial Areas

MEANS OF VERIFICATION

- Ward wise staff/vehicle deployment plan as per claimed frequency
- If work is outsourced, then copy of contract/MoU/Official Engagement letter as per claimed frequency
- Evidence of mechanism in place for continuous identification and monitoring of visible eyesores/garbage vulnerable spots
- There should not be any GVPs in the areas covered under sweeping.

Sweeping of Residential, Public & Commercial Areas- Suggested Interventions



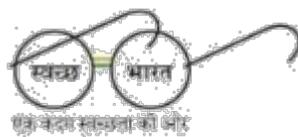
- Conduct **training of staff** (including staff of outsourced agencies) employed in cleaning residential, public and commercial areas to ensure regular sweeping and cleaning
- Before collecting sweeping waste, it should be **sieved** to ensure no C&D waste is collected (incase C&D waste is identified, it should be reported and separately collected). Incase **C&D waste is being mixed with sweeping waste**, the concerned worker/ agency must be **penalized**
- **Dust from sweeping activities should not be mixed** with other waste collected from sweeping
- **Set up covered secondary storage facility** for temporary storage of street sweepings and silt removed from surface drains where direct collection of such waste into transport vehicles is not convenient. Waste so collected shall be collected and disposed of at regular intervals as decided by ULB.
- Introduce **ICT-enabled monitoring** of sweeping activities (through CCTV cameras) and GVPs
- Install **biometric staff attendance system** and link the same with staff payroll
- **Insert a clause in contract for performance-based payments**, if work is outsourced
- **Penalty must be imposed on street vendors/hawkers for littering** in public & commercial areas
- ULB should **use mechanical sweepers/ suckers** for sweeping **wider roads** to the extent possible
- **Separate system** should be instituted for **collection of animal carcass**
- ULB should carry out efforts for managing stray animals
- ULB may **implement land use zones** in the city to ensure commercial activities are only taking place in commercial areas, therefore enabling efficient monitoring of cleanliness

Elimination of Garbage Vulnerable Points (GVPs)

- Carry out field level assessment to **identify GVPs in the city** (utilize Swachhata App and other city level grievance redressal systems)
- **Involve citizens to conduct cleanliness and beautification drives** at these points
- Conduct **regular monitoring** of these areas to ensure sustained results

As per SWM Rules, 2016, collect waste separately from sweeping of streets, lanes and by-lanes daily, or on alternate days or twice a week depending on the density of population, commercial activity and local situation;

Sweeping of residential, public & commercial areas - Best Practices



Surat- Anudaan Scheme for sweeping of residential areas

Population: ~50 Lakh

Waste generation: 1799 TPD (280 grams per capita per day)

- **City-wide scheme for RWAs and Gated Societies providing them with 25% subsidy on charges for contracting sweeping of residential premises**
- **SMC provides training to the contracted workers and also holds an annual competition for RWAs/gated societies under this scheme**
- **SMC conducts an inspection of RWAs/Societies under this scheme every 15 days**
- **President of RWA/Housing Society is responsible for running of scheme in collaboration with SMC.**
- **844 societies are taking part in this scheme**

Benefits:

- **Reduced requirement of 6,000 sanitation workers and associated expenditure**
- **Societies have also collaborated with an organisation for dry waste recycling**

Sweeping of residential, public & commercial areas - Best Practices



Visakhapatnam- Technology enabled eradication of GVP

Population: ~17.28 Lakh

Waste generation: 1000 MTPD

- Identification of Garbage Vulnerable points and areas through physical surveys
- Corporation has created a special application, called as the Black spot app for citizens to update any GVP in their vicinity.
- After updating details, the local ward officer is required to survey the spot for at least 2 days and ascertain the reason for incessant dumping of waste
- Adapting a localized approach basis the reason for existence of the spot, and converting it into a green one within 24 hours
- Monitoring of GVPs for 6 months through the Black Spot application to ensure sustainability
- The city has carried out behaviour change campaigns to deter people from littering and disposing of waste indiscriminately

Benefits:

- Successful elimination of 221 Garbage Vulnerable points in the city at reasonable costs





Component M4: Litter Bins

‘x’ percent of Twin-bin/segregated litter bins are available in commercial and public areas at every 50-100 meters, as per CPHEEO norms
 Note: Waste should only be deposited in such bins - no littering or spill over of waste

CONDITION

Level	Level 1	Level 2	Level 3	Level 4
Condition	At least 40 %	At least 60 %	At least 80% and all available Litter Bins should be covered (with a lid or mechanism to restrict access by animals)*	At least 90% and all available Litter Bins should be covered (with a lid or mechanism to restrict access by animals)*
Marks	35	50	75	100
Weightage	8%			



Component M4: Litter Bins

CLARIFICATION*

- ❖ ***In case the already existing bins are NOT covered with lids, ULB to ensure:**
 - there should not be spillover, or it would be considered as Garbage Vulnerable Point
 - there should be a mechanism in place to restrict access of litter bins by animals
 - the bins required to be placed in future should be covered (with a lid or mechanism to restrict access by animals)
- ❖ **If 100% dustbins are distributed/available to the shops in commercial/ public areas, ULB to ensure:**
 - the bins to be visible and accessible by citizens to avoid roadside littering
 - the bins should have the ULB logo (in a standard format)
 - the emptying/collection schedule of litter bins should be developed and monitored to ensure no spillage/littering around bins
- ❖ **The concept of 'Bin-less' city is relevant for secondary storage bins and not litter-bins. The public areas shall mandatorily have installed and fixed litter bins. No temporary bins will be considered.**
- ❖ **In Industrial areas, the ULB may decide the requirement of number of litter bins while ensuring that the Industrial Areas are kept clean and there is no littering**



Component M4: Litter Bins

MEANS OF VERIFICATION

- Number of segregated litter bins required vs. available (conduct an in-house/third party survey to assess number of litter bins required as per floating population, amount of footfall etc.)
- Frequency of cleaning of litter bins to ensure no littering and/or spill over of waste
- For litter bin-less cities, provision of open access to Twin-bin/segregated litter bins of commercial establishments to ensure there is no littering/spill-over of waste and waste is properly collected.

Litter bins ranging in capacity 60-100 litre twin bins placed along roadside to cater to the needs of the public for throwing garbage along roadside including commercial and public areas.

NOTE: This component will be assessed 100% through Independent Observation

Litter Bins

Suggested Interventions

- Carry out **field level assessment to assess gap** in terms of coverage of all premises with bins
- **Ensure all existing bins in commercial areas are replaced with and all new bins that are compartmentalized with proper labeling** (ULBs may procure compartmentalized bins from GeM portal)
- ULBs should keep **records of installation log of litter bin, or mapping of bin locations/numbers**
- **Schedule for emptying of litter bins should be developed and monitored to ensure no spillage/littering around bins**
- **Periodic cleaning and painting of litter bins should be carried out**
- **Awareness activities** in commercial areas to ensure all shops/commercial establishments have compartmentalized bins and have adopted segregation practice



Component M5: Waste Storage Bins

CONDITION

Waste storage bins are placed in strategic locations across the city, as per the requirement

Note: Waste should directly be transferred from generators' premises to transportation vehicles to processing center (verification will be done)

Level	Level 1	Level 2	Level 3	Level 4
Condition	At least 80 %	100 %	No Storage Bins (Binless)	No Storage Bins (Binless)
Marks	50	75	100	100
Weightage	8%			

CLARIFICATION

In case of **'Underground Bins'**, ULB needs to ensure that a monitoring mechanism is in place to check if the bins are frequently cleaned/emptied and only segregated waste is transferred in the vehicles.



Component M5: Waste Storage Bins

MEANS OF VERIFICATION

- Number of waste storage bins required vs. available (conduct an in-house/third-party survey to assess number of such waste storage points.)
- Frequency of cleaning of waste storage bins to ensure no littering and/or spill over of waste

Waste storage bins ranging in capacity 1.1 – 4.5 cubic meters or so placed at strategic locations along roads/in public/commercial/residential areas to receive waste collected from houses/commercial units etc..

NOTE: This component will be assessed 100% through Independent Observation

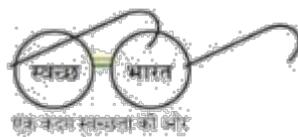
Waste Storage Bins

Suggested Interventions

- Carry out **field level assessment to assess gap** in terms of coverage of waste storage
- **Ensure that waste storage provides facility for disposal of waste in a segregated manner**
- ULBs should keep **records of installation log of waste storage or mapping of waste storage locations/numbers**
- **Schedule for emptying of waste storage should be developed and monitored to ensure no spillage/littering around waste storage**
- **Periodic cleaning and painting of waste storage should be carried out**
- **Waste storage should be covered and designed to facilitate mechanical lifting to avoid multiple handling and environmental harm**

Litter Bins and Waste Storage - Best Practices

Dharamshala – India's first city-wide sensor based underground waste bin network



Population: 56,543

- Issue of garbage spilling, animals digging into piled up garbage, foul smell, leachate, etc.
- 70 hi-tech underground bins installed across each ward of the city and provided with 3 stickered bins for wet, dry & inert material
- Bins take lesser space and are designed with low-level throw-ins to ensure user accessibility for children and persons with disabilities
- Fully automated system to reduce physical contact with waste thereby improving work condition for sanitary workers
- In-built sensor which sends alert to operator when bin is full



Ward Level Parameters

❖ ESSENTIAL:

- E1: Bulk Waste Generators
- E2: Penalty/ Spot Fine

Component E1: Bulk Waste Generators (1/2)

Bulk Waste Generators (i) doing onsite processing of wet waste generated, including kitchen and garden waste or organic waste or getting wet waste collected and processed by private parties authorized by ULB. (ii) Handing over segregated dry waste to authorized waste pickers or waste collectors.

Note:

- For cities with more than 1 lakh population, BWGs shall do onsite processing of wet waste on their own or through private parties authorized by ULB. No BWG shall give their waste to ULB.
- For cities with less than 1 lakh population, BWG may process their wet waste on their own or hand over the waste to either ULB or any private agency against appropriate user charges.
- A BWG will be considered as one that generates more than 100 kg of total waste per day (or as defined by ULB/state) for more than 15 days a month
- Community Hall/Function Hall/Marriage Hall/Public gathering waste generators shall be considered as BWG if the holding capacity is more than 200 pax

In case no BWG, score for E1:

The lowest marks of the level nearest to the average marks in all the essential components x Weightage of E1

Component E1: Bulk Waste Generators (2/2)

CONDITION (Contd.)

Level	Level 1	Level 2	Level 3	Level 4
Condition	All BWGs as defined by SWM Rules 2016, including RWAs identified and issued official notice for compliance	Compliance by all commercial BWGs as defined by SWM Rules 2016	Compliance by all BWGs as defined by SWM Rules 2016, including RWAs	Compliance by all BWGs as defined by SWM Rules 2016, including RWAs generating more than 50 kgs of waste per day Separate Guidelines to ensure reduction of waste by BWGs such as at community hall/function hall/marriage hall/public gathering etc.
Marks	30	50	75	100
Weightage	12%			

Component E1: Bulk Waste Generators

MEANS OF VERIFICATION

- List of all BWGs (as per BWG definition and claims by city) as defined by SWM Rules 2016, including RWAs identified in the city
- Copy of Official Notice issued to all BWGs regarding compliance with SWM Rules 2016
- Total quantity of wet/dry waste generated and processed by BWGs
- Evidence of BWGs complying with conditions stated in the rating framework
- For Level 4: Guidelines to ensure reduction of waste by BWGs such as at community hall/function hall/marriage hall/public gathering etc.



Bulk Waste Generators Compliance

Suggested Interventions

- As per **SWM Rules 2016**, “**bulk waste generator**” means and includes buildings occupied by the Central government departments or undertakings, State government departments or undertakings, local bodies, public sector undertakings or private companies, hospitals, nursing homes, schools, colleges, universities, other educational institutions, hostels, hotels, commercial establishments, markets, places of worship, stadia and sports complexes having an **average waste generation rate exceeding 100 kg per day**;
- **Stakeholder consultation with RWAs/ Bulk Generators** to create awareness regarding waste segregation
- Launch **incentive scheme/ competition** to encourage RWAs/Bulk Generators to implement waste segregation
- **Felicitate efforts** of RWAs/Bulk Generators who have adopted the practice



Bulk Waste Generators Compliance - Best Practices

Bengaluru Municipal Corporation – Managing Bulk Waste

Population: ~84 Lakh

Waste Generation: 4000 MTPD

Percent of waste generated by BWGs: 35-40%

- BBMP issued a **public notice regarding the delivery and disposal of MSW from bulk generators** within BBMP area, with effect from Oct 1st 2012
- As per notification, Bulk Generator is “any hotel/restaurants, choultry, mall, shopping complex, marriage halls, convention hall, temple, residential apartments (10 units and above), institutions, public offices, railway stations, bus stands or any other residential, commercial or a public entity which generates 100 Kg and more wet waste per day and any other such entity that is specifically identified and notified by the Commissioner as bulk generator”
- BBMP also **issued notification (Dt. 15.09.2012) which illustrated collection schedule** for Bulk Generators as per types of waste
- The **notification focused on managing the waste at its own site (in-situ) and to make own arrangements for the bulk generators.** The notification stressed on **adopting technologies like biogas units, composting and vermi composting units.**
- BBMP has **made it mandatory for the bulk generators to give their waste (wet, dry and C&D Waste) only to the empaneled vendors by BBMP** and develop a contract between the bulk generators and the empaneled agency.



Bulk Waste Generators Compliance - Best Practices

Pimpri Chinchwad Municipal Corporation – Managing Bulk Waste

Population: 18 Lakhs

Waste Generation: 850 MTPD

Scheme: Adarsh Paryavaran Santulit Society (Ideal Environmental friendly Society)

Categories:

1. Society with 12 to 100 Flats/Bungalows/Row-houses
2. More than 100 Flats/Bungalows/Row-houses

Conditions: Shall have paid 100% water charges and 90% of the property tax payers shall have paid the property tax

Evaluation/Selection committee: 2 Municipality officials, 1 Non for profit representative and 1 Journalist

Evaluation/Selection Methodology: 100 marks divided in following components:

1. 100% garbage segregation and processing (30 Marks)
2. Water conservation and recycling (20 Marks)
3. Solar energy and LED usage (15 Marks)
4. Tree plantation and Landscaping (20 Marks)
5. New environmental initiatives (15 Marks)

Reward & Recognition:

- A. 86 – 100 Marks: 5 Star Rating and 25% Tax Benefit
- B. 76 – 85 Marks: 4 Star Rating and 15% Tax Benefit
- C. 66 – 75 Marks: 3 Star Rating and 10% Tax Benefit
- D. 51 – 65 Marks: 2 Star Rating and 5% Tax Benefit

Bulk Waste Generators Compliance - Best Practices

Tirupati Municipal Corporation – Managing Bulk Waste

Population: 2.95 lakh

Waste generated: 198 Tons per day

Tirupati's approach for Wet Waste Management

1. Private Sector Engagement

- MCT and Mahindra Waste to Energy Solutions, with assistance from Swachh Andhra Corporation set up **Bio-Methanation plant with 50 TPD capacity** in PPP mode, having a concession period of 20 years.
- MCT empanelled Mahindra for collection and management of wet waste from bulk waste generators.

2. ICT enablement of Operations

- Use of ICT based tools, including **MCT's Online Waste Management System** for monitoring collection and transportation.

3. Hotel Waste Management (Bulk Generators)

- Stakeholder consultation workshops held to enforce bulk generators, ensuring that food waste is not sent to piggeries
- Tie-Ups with hotels for **supply of cooking gas at concessional cost** for the waste provided.



Impact Generated

Bio-CNG generated is motor grade fuel with multiple uses like cooking, auto-fuel, electricity generation etc. with high demand

About **1728 m³** of compressed bio-gas and **5 tons** of compost produced are sold daily.

Component E2: Penalty/ Spot Fines

Deterrent penalty / spot fines for non-segregation, littering and non-compliance of SWM Rules 2016

CONDITION

Level	Level 1	Level 2	Level 3	Level 4
Condition	Notification Issued	Implemented in 100% of the area covering littering in public places, storm water drains and water bodies	Implemented in 100% area covering littering in public places, storm water drains and water bodies System in place: 1. To identify repeat offenders; 2. To enforce a rule making shops and commercial establishments responsible for littering around their establishments 3. To impose Penalty/ Spot fine on pet-owners for littering with pet dropping	Implemented in 100% area covering littering in public places, storm water drains and water bodies System in place: 1. To identify repeat offenders 2. To enforce a rule making shops and commercial establishments responsible for littering around their establishments 3. To impose Penalty/ Spot fine on pet-owners for littering with pet dropping 4. To make sweeping staff responsible/ accountable for littering in drains and water-bodies with sweeping waste
Marks	30	50	75	100
Weightage	12%			

Component E2: Penalty/ Spot Fines

- Notification of spot fine/penalty for littering, non-segregation, open burning of waste
- **For Level 2-4:**
 - ✓ Mechanism/Rules/Notification to include:
 - To identify Repeat offenders;
 - Making shops and commercial establishments responsible for littering around their establishments
 - ✓ List of litter spots – cross checked through independent observation and minimum number of spot fine collections in the city must not be less than the sum of litter spots
- **Additional requirements for Level 4:**
 - ✓ Mechanism/Rules/Notification to include sweeping staff responsible/ accountable for littering in drains and water-bodies with sweeping waste

Representative Penalties under SWM

Andaman & Nicobar Islands	
Subject of Contravention/ Violation	Fine for every single attempt of violation (in INR)
Dumping and littering in any public place & other assets of council such as drain footpath, road, etc. meant for public utility	500
Disposing wastes outside the storage containers	500
Allowing rubbish, filth, etc. to accumulate on premises for more than 24 hours	1000
Unlawful and improper disposal of carcasses rubbish and filth	1000
Failure to keep one's premises clean	500
For delivering waste that is not segregated and stored in separate bins as specified	
• Individual	500
• BWG	1000



Ward Level Parameters

❖ DESIRABLE:

- D1: Sustainability

Component D1: Sustainability (1/2)

CONDITION

Visible beautification of city with focus on sustainability, including repairs and maintenance of public places under ULB jurisdiction to achieve a clean and aesthetically pleasing city. Every ward shall have:

- Well-lit public places
- Footpaths/ Side-road/ Medians/ Crossing/ Circle well-maintained
- Roads and pavements free from pot-holes with proper signage and no debris
- Maintenance of green belts of roads and public places in the ward with Tree Plantation and proper landscaping for mitigation of air pollution based open location of pollution sources
- Incorporation of local art, culture and heritage elements
- Introduce water fountains at traffic intersection, wherever feasible, to reduce air pollution or **installation of wire mesh on bridges over water-bodies to reduce littering in the water-bodies**
- Use of treated effluent of STPs, or rainwater harvesting as Pollution Control Measure such as watering of Plants, sprinkling for dust suppression purposes, etc.
- Pedestrianisation of high footfall commercial places and other public places

This component is applicable only for 5 Star and 7 Star

Component D1: Sustainability (2/2)

CONDITION
(Contd.)

Level	Level 1	Level 2	Level 3	Level 4
Condition	At least 2 parameters met	At least 4 parameters met	At least 6 parameters met	At least 8 parameters met
Marks	30	50	75	100
Weightage	25%			

MEANS OF
VERIFICATION

- Parameter will be verified only through independent observation.
- Ward-wise list and details of activities for each parameter.





City Level Parameters

❖ MANDATORY:

- M6: Waste Processing- Wet Waste
- M7: Waste Processing Capacity- Wet Waste
- M8: Waste Processing- Dry Waste
- M9: Waste Processing Capacity- Dry Waste
- M10: Grievance Redressal



Component M6: Waste Processing- Wet Waste

CONDITION

At least 'x' percent of Wet waste being processed (out of total wet waste collected)

Level	Level 1	Level 2	Level 3	Level 4
Condition	At least 60%	At least 80%	At least 95%	100%
Marks	35	50	75	100
Weightage	10%			



Component M6: Waste Processing - Wet Waste

MEANS OF VERIFICATION

- Total wet waste collected and processed.
- Plant wise details of quantity of wet waste received, processed, compost/bio-gas etc. produced and revenue generated.
- Copy of contract and payment/processing report if outsourced.

Component M7: Waste Processing Capacity- Wet Waste

CONDITION

At least 'x' percent of Wet waste processing capacity of functional plants (out of the total wet waste collected)

Level	Level 1	Level 2	Level 3	Level 4
Condition	At least 70%	At least 90%	100%	100%
Marks	35	50	100	100
Weightage	8%			



Component M7: Waste Processing Capacity- Wet Waste

CLARIFICATION

For Pit composting facilities:*

- ❖ The processing capacity shall be 15-20 times the daily wet waste input of the processing facility. For example, for a 1 TPD pit composting facility, the facility shall have pits (2 or more) equivalent to accommodate 15-20 Tons of wet waste.
- ❖ Efforts shall be made to not have haphazard pits considering the following guidelines:
 - The bottom of pits shall be cemented or on a suitable waterproof barrier to prevent infiltration of leachate. The bottom of compost beds shall be at least 2 meter above the highest yearly ground water table (GWT) depth. Leachate shall be properly collected, treated and re-circulated.
 - The lowest groundlevel in the pits facility shall be above ground and atleast 1 meter above HFL (highest flood level) recorded



Component M7: Waste Processing Capacity- Wet Waste

MEANS OF VERIFICATION

- Plant wise details of wet waste processing capacity.
- Copy of contract and processing capacity if outsourced.



Component M8: Waste Processing - Dry Waste (1/2)

CONDITION

At least 'x' percent of Dry waste being processed (out of total dry waste collected) through **MRFs with further linkages/tie-ups to authorized recyclers or recycling or RDF or Waste to Energy plants or cement manufacturers and/or NHAI (other road construction organizations).**

Additionally, cities shall segregate and sell/use recyclables (with records tracking from receiving to final use/sale):

- For cities with more than 10 lakh population, 'x' percent of Total waste collected
- For cities with less than 10 lakh population, 'x' percent of only Dry waste collected



Component M8: Waste Processing - Dry Waste (2/2)

CONDITION (Contd.)

Level	Level 1	Level 2	Level 3	Level 4
Condition	Dry waste processing: At least 60% Recyclables: More than 10 lakh Population: 10% of Total waste collected; Less than or equal to 10 lakh Population: 20% of Dry Waste collected	Dry waste processing: At least 80% Recyclables: More than 10 lakh Population: 20% of Total waste collected; Less than or equal to 10 lakh Population: 40% of Dry Waste collected	Dry waste processing: At least 95% Recyclables: More than 10 lakh Population: 25% of Total waste collected; Less than or equal to 10 lakh Population: 50% of Dry Waste collected	Dry waste processing: 100% Recyclables: More than 10 lakh Population: 30% of Total waste collected; Less than or equal to 10 lakh Population: 60% of Dry Waste collected
Marks	35	50	75	100

Weightage 8%



Component M8: Waste Processing - Dry Waste

MEANS OF VERIFICATION

- Total dry waste collected and processed.
- Plant wise details of quantity of dry waste received, recycled, processed, sold and revenue generated.
- Copy of contract and payment/processing report if outsourced.



Component M9: Waste Processing Capacity - Dry Waste

CONDITION

At least 'x' percent of Dry waste processing capacity (out of total dry waste collected) of **functional MRFs with further linkages/tie-ups to authorized recyclers or recycling or RDF or Waste to Energy plants or cement manufacturers and/or NHAI (other road construction organizations).**

Please ensure that there is no double counting of capacities, and in case of shared facility being used by the cities, the capacities are divided.

Level	Level 1	Level 2	Level 3	Level 4
Condition	At least 70%	At least 90%	100%	100%
Marks	35	50	100	100
Weightage	8%			



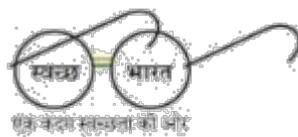
Component M9: Waste Processing Capacity - Dry Waste

MEANS OF VERIFICATION

- Plant wise details of dry waste processing capacity.
- Copy of contract with processing capacity if outsourced.

Scientific Waste Processing

Relevant Policies



1. Compost Policy: Market Development Assistance Policy under SBM(U)

- Market Development Assistance (MDA) of Rs. 1500 per metric tonne of city compost to be paid to fertilizer marketing companies.
- Fertilizer Marketing Companies obligated to purchase all city compost manufactured by respective cities to which they have been tagged.
- Amendment on 28th September 2016: ULBs / Compost Manufacturers can also market compost directly to farmers (in bulk) and claim MDA of Rs. 1500 per tonne. DAC&FW Notification in this regard released for 43 plants and Notification for 47 plants is underway.

2. Waste to Energy

- **Tariff Policy under Central Electricity Act, 2003 as amended:** The policy as notified on 28.01.2016 mentions at 6.4 (1) (ii) that Distribution Licensee (s) shall compulsory procure 100% power produced from all waste-to-energy plant in the State, in the ratio of their procurement of power from all sources including their own, at the tariff determined by the appropriate Commission under Section-62 of the Act (Ministry of Power Resolution, New Delhi, 28 January, 2016 regarding TARIFF POLICY).

Scientific Waste Processing

Suggested Interventions

- Carry out an assessment of amount of waste generated in the city and resultant amount that is currently processed
- Develop plan to ensure 100% processing of waste through decentralized (on-site composting) or centralized processing facility. GIZ tool can be used to plan waste processing.
- Carry out an assessment of amount of dry waste generated in the city and resultant amount that is currently processed/ recycled
- Setup meeting with community based organisations/ NGOs/ private players/ etc. working in the area of dry waste recycling to identify collaboration areas (e.g. establish tie-ups to send sorted material to recyclers/ processors/ manufacturers)
- Develop plan to ensure 100% recycling/ processing of dry waste through decentralized (dry waste collection and recycling centres/ initiatives) or centralized processing facility (WtE and RDF)
- If SWM facility is contracted to third party, include clause on performance based payment/ damages

12.2 Damages

A key objective of the facility is to reduce the environmental impact of Municipal Solid Waste. The Performance Standards for which the Lead ULB has zero tolerance and violation of which could lead to termination are as described in the table below

Performance Standards	Acceptable Level	Cure Period	Penalty	Tracking mechanism	Event of Default
Processing Plant					
1) Suspension of MSW processing	Incidence in ≤ 16 shifts per year and ≤ 6 continuous shifts		Operation Performance Security at the rate of 0.2% each day's default	Daily Report	Event of Default in case >20 shifts per year or >8 continuous shifts
2) Total quantity of unprocessed MSW stored at the Processing Plant	≤ 20 days of MSW quantity (calculated from the 15 days trailing average)	7 days	Operation Performance Security at the rate of 0.2% each day's default	Daily Report	Event of Default in case not cured in the cure period
3) Noncompliance to compost quality standards, if applicable	No variation	180 days	Operation Performance Security at the rate of 0.1% each day's default	Checks conducted by Independent Engineer and other agencies	Event of Default in case not cured in the cure period
Scientific Landfill					
4) Instances when MSW is found to be landfilled without processing	Nil	N/A	Operation Performance Security at the rate of 5% each day's default	Random checks	Event of Default for third instance in the concession period

Scientific Waste Processing - Best Practices

HARIT: New Civic Way of Life. Initiative by Government of Maharashtra

- **Market development assistance for scaling up production and consumption of the compost**
- Scheme initiated in May 2017- Out of 256 ULBs in Maharashtra 44 are HARIT certified till date
- **Objectives:**
 - To provide support for marketing of compost produced by ULBs.
 - To ensure consistent quality of compost as per FCO, 2013 and SWM Rules 2016.

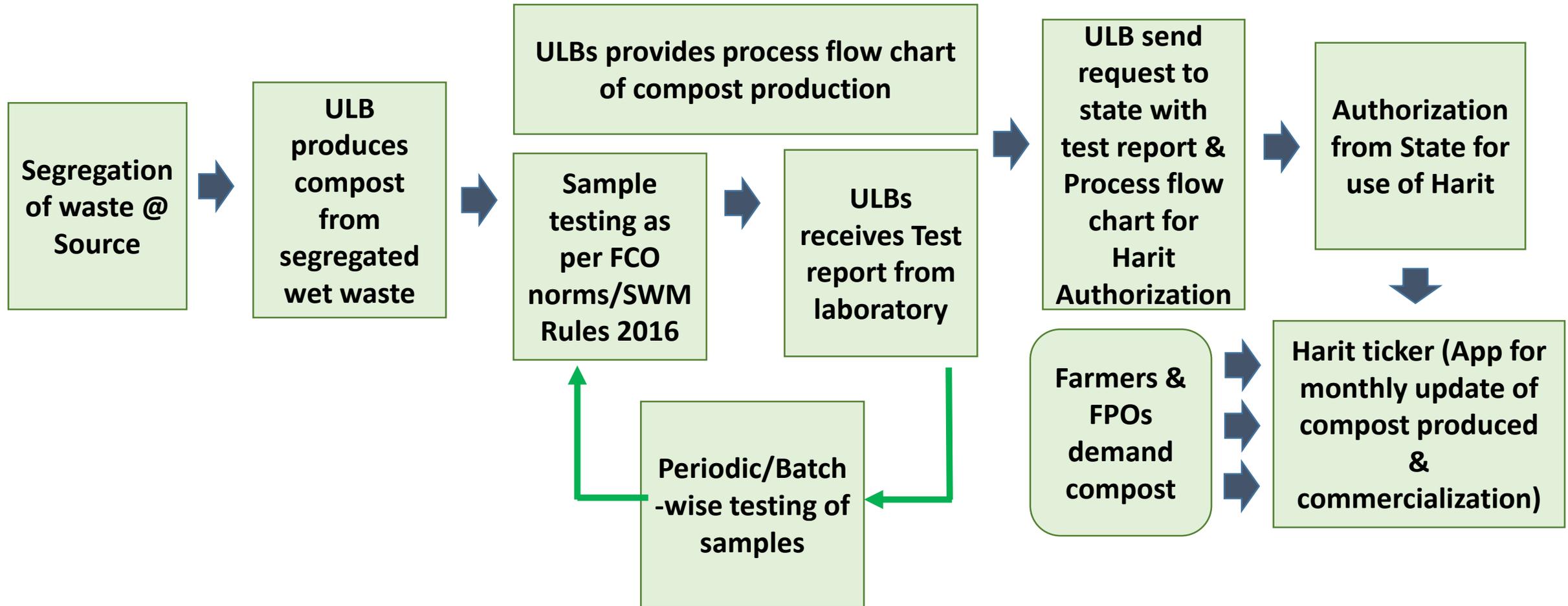


Benefits of the scheme

- ✓ Compost made from segregated waste
- ✓ Assured Quality of City Compost
- ✓ Government certified-Enhanced Brand Value
- ✓ Assured Market for City Compost
- ✓ 95-100% segregation in all HARIT certified cities

Scientific Waste Processing - Best Practices

HARIT: New Civic Way of Life. Initiative by Government of Maharashtra



Scientific Waste Processing - Best Practices

MRF in Leh



Population: 31,000

Waste generation: 4 Tons

Tourist population: ~2.7 Lakhs p.a.

- Established **dry waste segregation centre** on an area of 230 sq. mt., wherein dry waste collected from 400 households and commercial establishments is further **segregated into 15 categories**
- Categories include cardboard, paper, polythene (plain), printed polythene, metal coated polythene, plastic bottles, mineral water bottles, glass bottles, bone china, tin, thermocol, synthetic, batteries, cotton cloth and plastic.
- Employees as well as citizen volunteers are engaged at the segregation centre and go through a strenuous training program on segregation and sorting of waste
- Collected **1660 kg of dry waste**, out of which **170 kg** has been sold to **scrap dealers**, approx. **800 kgs** has been sold at subsidized rate to **NGO**, and remaining has been **utilized in construction activities** by the District Administration
- Plans to scale up to other parts of Leh district to ensure enforcement of waste segregation as well as 33 principle.

Scientific Waste Processing - Best Practices

MRF in Indore



Impact Generated

- ✓ 606 TPD Combined utilisation capacity of 2 MRFs in Indore
- ✓ 700+ ragpickers and Kabadis have been benefited by direct livelihood opportunities
- ✓ INR ~1.5 cr. Revenue generated by the plan for IMC

Population: 19.64 lakh

Waste generation: 1133 Tons per day

- One of the MRF plants has been established on Public-Private Partnership (PPP) mode, with private investment of 30 crores, reducing the financial burden on IMC. As a result of this initiative, IMC has been able to attract more recyclers due to provision of better quality product with 98% purity level to attract more recyclers
- Key Features of the model:
 - ✓ **SORTING INTO CATEGORIES OF WASTE:** The waste is sorted into 13 categories with the help of optical sorting technology and robotics.
 - ✓ **CONVERGENCE-DRIVEN APPROACH:** Integration of ragpickers and kabadis post training to support quality check and segregation
 - ✓ **MARKETED TO RECYCLE INDUSTRIES:** Paper, plastics and metals sorted and processed for manufacturers, increasing value of waste
- The plant will help in achieving authenticated status of zero waste landfill (90% to recycling & 10% to RDF), and will be well linked by Collection and Transportation App of IMC to ensure ICT based record keeping to enable robust monitoring of plant operations.

Scientific Waste Processing - Best Practices

Alwarkurichi Town Panchayat

Population: 11,543

Households: 4226

Commercial units: 147

Education Institutions: 11

Tailoring Shops: 5

Mutton and Chicken Stalls: 4

Community/Marriage Halls: 2

17 push-carts and 2 mini autos

100% Door to Door Collection

Waste Generation: 2.57 MTPD

Biodegradable Waste: 1.54 MTPD

Compost generation per month: 9.5 MT

Compost sale price per month: Rs. 5/Kg



Scientific Waste Processing - Best Practices

Vengurla Municipal Council

Population: 12,392

Floating Population: 8,000

Households: 5333

100% Door to Door Collection

Four-way Segregation:

- Wet Waste
- Dry Waste (paper, cardboard, tetra packs, rubber, cloth, wood etc.)
- Plastic Waste (packaging material, PET bottles, milk packets etc.)
- Metal & Glass (Glass bottles, aluminum, iron and tin etc.)

Waste Generation: 7 MTPD

- **Biodegradable Waste:** Vermi-composting and Bio-methanation
- **Dry Waste:** Briquettes
- **Plastic Waste:** Crushed to be used for road construction
- **Glass and Metal:** Sale to Recyclers

Zero Landfill



Scientific Waste Processing - Best Practices

Decentralized Wet waste processing in Rajkot



Population: 12.86 lakh

Waste generation: 5481 Tons per day

- In order to make the waste management process efficient and sustainable, Rajkot Municipal Corporation (RMC) initiated the practice of De-centralized solid waste management system (DSWM) by setting up several small scale waste management centers, spread across the city.
- RMC's Decentralised SWM implementation strategy:
 - ✓ **Procurement of composting machines, which were placed in 2 different wards of the city – utilised to full capacity for processing of wet waste collected from nearby locations**
 - ✓ Installation of 2 MRFs at the transfer stations for processing of dry waste in addition to the manual recovery facility already installed
 - ✓ Procurement of 2 additional trommels for additional screening capacity during the processing of solid waste at centralised process plant

Impact Generated

- ✓ Reduction of 110+ waste collection vehicle trips to the centralised processing plant
- ✓ Higher quality of compost produced at decentralized units

2 Composting Plants	25 Garden composting pits	6 Vegetable Market composting pits	2 MRFs	11 Composting pits in RWA	1 Bio-methanation plant
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Component M10: Grievance Redressal

CONDITION

'x' percent of total Swachhata App/Local App complaints that cover issues related to solid waste management (Burning Of Garbage In Open Space, Debris Removal/Construction Material, Dustbins not cleaned, Garbage dump, Garbage vehicle not arrived, Sweeping not done etc.) are resolved within SLA

Level	Level 1	Level 2	Level 3	Level 4
%age SWM complaints resolved within SLA*	At least 40%	At least 75%	At least 90%	At least 95%
Marks	50	75	90	100
Weightage	10%			

**SLA is the existing SLA in Swachhata App*



Component M10: Grievance Redressal

MEANS OF VERIFICATION

- Summary of complaints received on Swachhata App/ equivalent grievance redressal platform
- Evidence of redressal of complaints related to SWM within SLA



City Level Parameters

❖ ESSENTIAL:

- E3: Source Segregation at City Level
- E4: User Charges
- E5: Plastic Ban
- E6: C&D Waste- Collection Facilities
- E7: Scientific Landfill- Availability & Use
- E8: Scientific Landfill- Waste disposed
- E9 (A): Water Bodies
- E9 (B): Screening of Drains/Nallahs

Component E3: Source Segregation at City Level

At least 'x' percent of wards in the city have 100% segregation at source (wet, dry & sanitary/domestic hazardous) maintained till processing/disposal facilities.

CONDITION

Level	Level 1	Level 2	Level 3	Level 4
Condition	At least 10 % (Excluding Sanitary Waste / Domestic Hazardous Waste)	At least 40 % (Sanitary Waste i.e. diapers, sanitary pads, masks and gloves to be segregated, wrapped securely in the pouches provided by the manufacturers or brand owners of these products or in a suitable wrapping material as instructed by the local authorities and collected separately)	At least 60 % (All kinds of sanitary and domestic hazardous waste to be segregated, wrapped securely in the pouches provided by the manufacturers or brand owners of these products or in a suitable wrapping material as instructed by the local authorities and collected separately)	At least 80 % (with additional level of segregation for dry waste into plastic and non-plastics) (All kinds of sanitary and domestic hazardous waste to be segregated, wrapped securely in the pouches provided by the manufacturers or brand owners of these products or in a suitable wrapping material as instructed by the local authorities and collected separately)
Marks	30	50	75	100
Weightage	10%			

Component E3: Source Segregation at City Level

NOTE

- Wet, Dry and Sanitary Waste collection to be done on daily basis, domestic hazardous waste may be collected on weekly basis.*
- Segregated waste should be collected in compartmentalized/separate vehicles with closed lids to prevent foul odour, littering and unsightly conditions.*
- All kinds of sanitary waste to pouches provided by the manufacturers or brand owners of these products or in a suitable wrapping material as instructed by the local authorities. Domestic hazardous waste need not to be wrapped.
- ULB's Bye Laws to be framed to incorporate criteria for levying of spot fines/penalties for littering, non-segregation and unsecure wrapping/handling of sanitary/domestic hazardous waste.

* 'Alert #2' dated 30th September 2020 and Letter to all State Mission Directors dated 18th November 2020

MEANS OF VERIFICATION

- Details of the wards with 100% segregation at source
- Copy of contract/ MoU/ Official Engagement letter and payment/activity report, if this service has been outsourced.
- Ward-wise staff/vehicle deployment plan for segregated waste collection: wet, dry and sanitary/domestic hazardous waste, plastic and non-plastic (only applicable for Level 4)
- Ward-wise quantity of wet/dry/sanitary/domestic hazardous/plastic/non-plastic waste collected.

NOTE: This component will be assessed 20% through Independent Observation and 80% through Citizen Validation

Component E4: User Charges

User charges[#] for solid waste management being collected

Level	Level 1	Level 2	Level 3	Level 4
Condition	Byelaws notified; Affordable & Differential User charges collected from at least 25% commercial, institutional and industrial establishments	Affordable & Differential User charges collected from at least 50% of commercial, institutional and industrial establishments and at least 25% of households	Affordable & Differential User charges collected from at least 70% of commercial, institutional and industrial establishments and at least 50% of households	Viable & Sustainable User charges collected from at least 90% of commercial, institutional & industrial establishments, and at least 75% of households.
Marks	30	50	75	100
Weightage	14%			

CONDITION

#

- User charges collected in the last financial year to be considered.
- In areas where user charges are being collected by the informal waste collector and not ULB, cost of waste collection & transportation services that are not covered by the informal waste collectors may be considered. In such cases, ULB needs to ensure that informal waste collectors are identified, formalized and record of use charges collection is maintained as per the charges notified in ULB bye-laws.

Component E4: User Charges

MEANS OF VERIFICATION

- Copy of byelaws including user charges for waste management.
- Summary of total number of households, commercial, institutional and industrial establishments, the user charges per establishment for solid waste management and number of households, commercial, institutional establishments user charges are collected from
- City level SWM revenue and operational expenditure details for viable and sustainable user charges calculations
- Evidence/ Summary sheet of user charges covering SWM operational costs

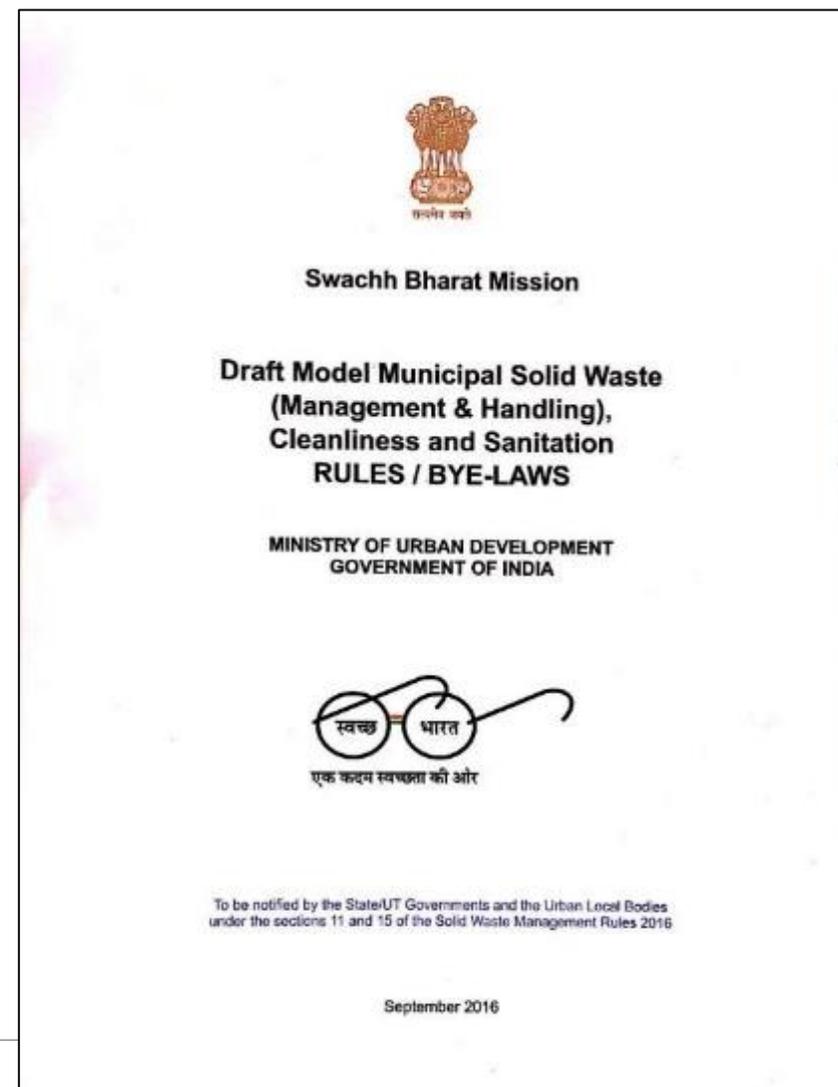
User Charges - Definitions

- **Affordable:** Based on the income levels of the citizens of the ULB
- **Differential:** Different user charges for separate citizen categories of waste generators (commercial/non-commercial) for example: slums, single floor houses as per surface area, multi-storey houses/ apartments, houses disposing waste in a segregated manner, street vendors, schools/ colleges, restaurant/ hotels, etc. based on the waste generation, discount for onsite waste processing etc.
- **Viable & Sustainable:** User charges are sufficient to cover SWM operational costs (collection, transportation, salary expenses of daily wagers, contractual, or outsourced staff through service providers). Capital costs, land costs and public sweeping costs shall be excluded from operational costs calculations.
- If ULB is collecting charges through property tax/any other tax/cess, then those should be specified and shall be used only for SWM operations to be considered as user charges. These charges and corresponding expenditure shall be maintained under separate accounting heads.

User Charges

Suggested Interventions

- States are requested to notify user charges and bye-laws as per Model Rules/ Bye-Laws
- As per SWM Rules 2016, it is the responsibility of the ULB to “prescribe from time to time user fee as deemed appropriate and collect the fee from the waste generators on its own or through authorized agency”
- Households/ Premises should be charged less if they process their own wet waste
- User fee should be kept separate from Property Tax collection to enable fairness, ensure proper service provisioning and encourage private sector participation



Representative User Charges

Andaman & Nicobar Islands		Lucknow Municipal Corporation	
Type of establishment	Monthly fee (INR)	Type of establishment	Monthly fee (INR)
Households disposing waste in a segregated manner	50	Residential Units	10 – 50
Households intends collection & segregation of waste done by the sanitary worker	1000	Single floor houses constructed on 50 sq. m.	10
Grocery, department & other shops	150	Houses in area between 50 – 100 sq. m.	30
Hotels & Restaurants	500	Houses (upto 1 st Floor) on area > 101 sq. m.	40
Vegetable & meat shops	300	Apartments and housing complexes/ Houses from 2 nd Floor onwards on area > 101 sq. m.	50
Private/ Government establishment	300		
Schools & Colleges	150		
Other commercials	50 - 100		
Street vendors	20 per day		
Charges for BWGs per cubic metre	300 per day		

Representative User Charges

Chhattisgarh		
Type of establishment	Municipal Council (INR/Month)	Nagar Panchayat (INR/Month)
Residential Dwelling Unit		
a) Up to 500 sq. ft.	20	20
b) Over 500 sq. ft. up to 1000 sq. ft.	30	30
c) Over 1000 sq. ft.	50	50
Commercial establishments		
a) Vendors	30	20
b) Up to 500 sq. ft.	80	50
c) Area between 101-300 sq. ft.	150	100
d) Area between 301-500 sq. ft.	200	150
e) Area between 501-1000 sq. ft.	250	200
f) Area over 1000 sq. ft.	500	400
g) Shopping mall/Complex	.75/sq. ft.	.50/sq. ft.
Restaurants		
a) Establishment not having Customer Chairs	200	150
b) Customer chairs below 25	250	200
c) Customer chairs between 26-50	350	300
d) Customer chairs above 50	500	450

Representative User Charges

East Delhi Municipal Corporation	
Type of establishment	Monthly fee (INR)
Residential Dwelling Unit	
a) Up to 50 sq. m.	50
b) Over 50 sq. m. up to 200 sq. m.	100
c) Over 200 sq. m.	200
Street Vendor	100
Commercial establishments, shops, eating places (Dhaba/sweet shops/coffee house, etc.)	500
Guest Houses/ Dharamshalas	2,000
Hostel	2,000
Restaurants up to sitting of 50 persons	2,000
Restaurants with sitting of >50 persons	3,000
Hotel (unstarred)	2,000
Hotel (up to 3 star)	3,000
Hotel (over 3 star)	5,000
Commercial offices, govt. offices, bank, insurance offices, coaching classes, educational institutes	2,000
Clubs, Cinema Halls, Pubs, Multiplexes and other such places	4,000

Component E5: Plastic Ban

Ban on the use, sale and storage of non-biodegradable plastic bags/ single-use plastic products/Styrofoam/Thermocol.

CONDITION

Level	Level 1	Level 2	Level 3	Level 4
Condition	Public Notification and enforcement of ban on non-biodegradable plastic bags/ plastic products less than 50 microns	Public Notification and enforcement of ban on non-biodegradable plastic bags/ plastic products less than 50 microns, and user fee on use, sale and storage of plastic bags more than 50 microns	Complete ban on storage, supply, transport, sale or distribution of single use/Throw-away Plastic, non-woven bags , Styrofoam and thermocol Note: 'Single use/ Use and Throw-away Plastic' may be defined by States respectively and may include: plastic carry bags or plastic flags, plastic sheets used for food wrapping, spreading, plastic plates, plastic coated tea cups, water pouches, packets, plastic straw irrespective of thickness.	Complete ban on storage, supply, transport, sale or distribution of single use/Throw-away Plastic, , non-woven bags , Styrofoam and thermocol Note: 'Single use/ Use and Throw-away Plastic' may be defined by States respectively and may include: plastic carry bags or plastic flags, plastic sheets used for food wrapping, spreading, plastic plates, plastic coated tea cups, water pouches, packets, plastic straw irrespective of thickness.
Marks	30	50	100	100
Weightage	12%			

Component E5: Plastic Ban

MEANS OF VERIFICATION

- Copy of notification of ban on the use, sale and storage of non-biodegradable plastic bags less than 50 microns in the city or complete ban on the use, sale and storage of non-biodegradable plastic single use/Throw-away Plastic, Styrofoam and thermocol
- Summary sheet of fines collected post spot fine/ penalty notification for plastic ban

Plastic Ban - Best Practices

Maharashtra Plastic Ban

India's first buyback depository scheme

Penalties:

- First Instance: INR 5000/-
- Second Instance: INR 10000/-
- Third Instance: INR 25000/- + 3 Months Jail

Banned



Less than 200 ml of PET/PETE water bottles/sachets



All types of plastic bags, non-woven bags (polypropylene) with or without handles



Thermocol (Polystyrene) and Plastic based single-use disposable cutlery and articles



Plastic Food packaging material and straws



Compostable Plastic Bags



Plastic and Thermocol decorative material

Plastic Ban - Best Practices

Maharashtra Plastic Ban

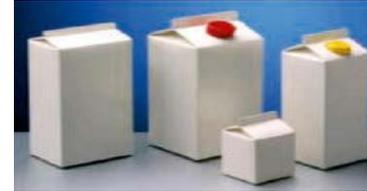
Allowed



More than 200 ml of PET/PETE bottles



Plastic covering for export purposes produce in Special Economic Zone and Export Industries



Tetra-pack/Card-box based boxes



Plastic packaging of more than 50 micron thickness used for milk packaging with buyback value and manufacturer's name



Grocery and food sealed packaging of more than 50 microns and weigh of more than 2 grams with buyback value and manufacturer's name



Compostable Plastic Bags used for agriculture, gardening and solid waste disposal



Plastic/Thermocol covering of more than 50 micron thickness and 20% recyclable plastic with buyback value and manufacturer's name

Plastic Ban - Best Practices

Maharashtra Plastic Ban

Allowed



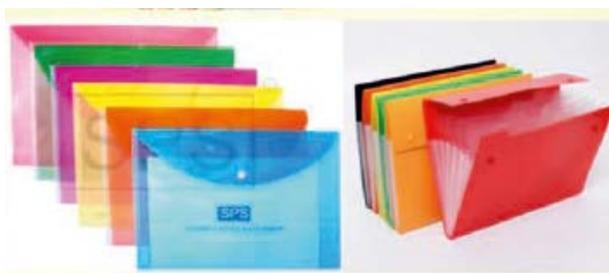
Recyclable multi-layer packaging – chips, chocolate, shampoo, toothpaste packets/sachets



Plastic articles for domestic use



Thermocol material for fish and meat storage



Recyclable plastic stationary used in academics and offices



Packaging for Medicines, Medical equipment and produce



Other plastic produce

Plastic Ban - Best Practices

Panhala Hill Station Municipal Council

Population: 4,000

Flow:

- Single Entry/Exit point
- Cloth bag distribution and collection of deposit amount of Rs. 50
- Collection of waste by tourists
- Return of waste and bag by tourists at exit point, return of security deposit to tourists

Key Features:

- Waste collection by tourists
- Single waste collection point
- Lower waste management costs for ULB
- Sponsorship by local hotels through advertisement on cloth bags



पन्हाळा गिरिस्थान नगरपरिषद, पन्हाळा
चला करु कापडी पिशव्यांचा वापर,
पन्हाळयाला करु प्लॅस्टिक मुक्त शहर.

पर्यटकांना विनम्र आवाहन :-
सर्व पर्यटकांनी कापडी पिशव्यांचा
वापर करुन शिवरायांची पावन
भूमी पन्हाळयास कचरा मुक्त
करण्यास हातभार लावावा

Download
Swachhata App

All Funds with Swachh Bharat Mission

**We Support Plastic Free Panhala
by Use of Cloth Bags**

* कचऱ्याविषयी प्रभागातील तक्रारीसाठी सर्वांनी स्वच्छ ता ॲपचा वापर करावा
* टोल फ्री नं. १८००२३४८१३ किंवा २३५०२७ वर संपर्क करावा

स्वच्छ सर्वेक्षण
महाराष्ट्र 2018

Key messages for citizen awareness



Carry cloth/jute/canvas bags for impulse purchases



Think twice before buying anything that will generate garbage



Carry reusable containers for storing / packing food items/ beverages



Always throw waste in a litter bin or carry a trash bag to save your litter in the case of no bins



Don't accept single-use plastic/ thermocol cutlery while ordering food



Avoid using plastic straws

Component E6: C&D Waste- Collection Facilities

CONDITION

Facilitation of collection of C&D waste from premises of non-bulk generators through:

- mobile collection unit (on call basis facility and weekly schedule);
- designated collection points within reasonable distance for generator to bring and deposit

Note:

- ULB to ensure suitable vehicles of different capacities (such as Rickshaws at ward level, Tempo at Zonal Level and Tractors/ Trucks at ULB Level) are made available at fixed rate, and staff is assigned at each level
- For C&D Waste, Bulk Generators are that generate ≥ 20 Tonnes/day or 300 tonnes/month per project, other generators are considered non-bulk generators

Component E6: C&D Waste- Collection Facilities

CONDITION (Contd.)

Level	Level 1	Level 2	Level 3	Level 4
Condition	Notification & Enforcement of charges for C&T, P&D of C&D Waste and Facility of collection of C&D waste from premises of Non-bulk generators to be available in 25% of wards.	75% of total number of wards	100% of total number of wards	100% of total number of wards
Marks	30	75	100	100
Weightage	10%			

Component E6: C&D Waste- Collection Facilities

MEANS OF VERIFICATION

- Copy of notification of charges for collection, transportation, processing and disposal of C&D Waste
- Summary of construction and/or modification of buildings approved by ULBs: Ward No./Name, Location, layout, Construction period, Approx. C&D waste generated etc.
- Evidence of separate collection vehicles and/or designation collection points with quantity of waste collected from non-bulk/retail generators

Component E7: Scientific Landfill-Availability & Use

Availability and use of Scientific Landfill

CONDITION

Level	Level 1	Level 2	Level 3	Level 4
Condition	Land identified either in own city or in another city	Remaining unprocessed waste/ Process Rejects are sent to Scientific Landfill either within the city or to another city.	Only Process rejects are transported to Scientific Landfill either within the city or to another city	Only Process rejects are transported to Scientific Landfill either within the city or to another city
Marks	30	50	100	100
Weightage	10%			

CLARIFICATION*

- The landfill may not necessarily be scientific landfill for Level 1 and Level 2 only for cities with population < 1.00,000. For Level 3 and Level 4, only scientific landfills to be considered.

* Letter to all State Mission Directors dated 18th November 2020

Component E8: Scientific Landfill- Waste disposed

'x' per cent of waste collected is sent to landfill

CONDITION

Level	Level 1	Level 2	Level 3	Level 4
Condition	Not more than 45% including process rejects, if any	Not more than 25% including process rejects, if any	Not more than 15% including process rejects, if any	Not more than 10% (Process rejects only, no unprocessed waste is sent to scientific landfill)
Marks	30	50	75	100

CLARIFICATION*

- The landfill may not necessarily be scientific landfill for Level 1 and Level 2, only for cities with population < 1.00,000. For Level 3 and Level 4, only scientific landfills to be considered.

Component E7 & E8: Scientific Landfill

CLARIFICATION
ON

- In case city is **zero landfill**: Evidence showcasing 100% processing of all municipal solid waste to be provided
- The **concept of Simple Landfill has been removed*** from both Swachh Survekshan and Star Rating Protocol. With the clarification sent through DO... dated 18th November 2020, all the previous communication related to this matter are superseded. Cities/ States are encouraged to set-up scientific landfills on cluster basis.

* Letter to all State Mission Directors dated 18th November 2020

MEANS OF
VERIFICATION

- Evidence of identification of land for landfill in city or other city
 - Quantity of waste/process rejects going to land-fill
- In case city is zero landfill:
- Evidence showcasing 100% processing of all municipal solid waste and no process rejects/unprocessed waste is going to landfill.

NOTE: Both E7 & E8 components will be assessed **100% through Independent Observation**

Component E9 (A): Water Bodies

No visible solid waste in water bodies (not limited to ponds, lakes, tanks, rivers etc.)

CONDITION

Level	Level 1	Level 2	Level 3	Level 4
Condition	No visible solid waste in water bodies (not limited to ponds, lakes, tanks, rivers etc.) in 100 percent of area under ULB jurisdiction	<ul style="list-style-type: none"> No visible solid waste in water bodies (not limited to ponds, lakes, tanks, rivers etc.) in 100 percent of area under ULB jurisdiction, and Anti-Littering & Cleanliness messages along the water bodies through signage/ painting/ displays/ hoarding (no plastic usage). 	<ul style="list-style-type: none"> No visible solid waste in water bodies (not limited to ponds, lakes, tanks, rivers etc.) in 100 percent of area under ULB jurisdiction, and Anti-Littering & Cleanliness messages along the water bodies through signage/ painting/ displays/ hoarding (no plastic usage). No open dumpsites present within the radius of 1 km from edge of the water body Garbage Vulnerable Points (GVPs) are eliminated and transformed within the radius of 1 km from edge of the water body Trash Cleaners*/ suitable methods are available to trap the solid waste floating on the river surface 	<ul style="list-style-type: none"> No visible solid waste in water bodies (not limited to ponds, lakes, tanks, rivers etc.) in 100 percent of area under ULB jurisdiction, and Anti-Littering & Cleanliness messages along the water bodies through signage/ painting/ displays/ hoarding (no plastic usage). No open dumpsites present within the radius of 1 km from edge of the water body Garbage Vulnerable Points (GVPs) are eliminated and transformed within the radius of 1 km from edge of the water body Trash Cleaners*/ suitable methods are available to trap the solid waste floating on the river surface
Marks	30	50	100	100
Weightage	5%			

Component E9 (A): Water Bodies

NOTE

Trash Cleaners* to be available in Cities having Water Bodies exceeding certain size such as:

1. Greater than 1 Acre area; and/or
2. Greater than 30 m width

MEANS OF VERIFICATION

- Verification through independent observation
- List/Map of Water bodies
- List of trash cleaners available (level 3 & 4)

Component E9 (B): Screening of Drains & Nallahs

At least 'x' percent of Storm Water Drains and/or Nallahs should have screens to avoid waste getting discharged directly into lakes/ rivers/ water bodies

CONDITION

Level	Level 1	Level 2	Level 3	Level 4
Condition	At least 50% SWD/ Nallahs should have screens/filters at points of discharge into other nallahs/water-bodies	At least 90% SWD/ Nallahs should have screens/filters at points of discharge into other nallahs/water-bodies	100% SWD/ Nallahs should have screens/filters: <ul style="list-style-type: none"> At points of discharge into other nallahs/water-bodies Additionally , At a distance of every 1 km in case of 'Secondary Nallahs' For cities with more than 10 Lakh population: Automated/Mechanical screens on Secondary Nallahs for collection and cleaning of waste 	100% SWD/ Nallahs should have screens/filters: <ul style="list-style-type: none"> At points of discharge into other nallahs/water-bodies Additionally , At a distance of every 1 km in case of 'Secondary Nallahs' For cities with more than 10 Lakh population: Automated/Mechanical screens on Secondary Nallahs for collection and cleaning of waste
Marks	30	50	100	100
Weightage	5%			

Component E9 (B): Screening of Drains & Nallahs

CLARIFICATION

- ❖ Definition of Nallahs/Drains based on their width:
 - **Primary Nallahs/Drains** : More than 5m width
 - **Secondary Nallahs/Drains** : Between 1m to 5m width
 - **Tertiary Nallahs/Drains**: Less than 1m width
- ❖ Any storm water drain which carries wastewater/ sewerage, or is mixed with wastewater/ sewerage, it will be considered as a 'Nallah', and NOT storm water drain
- ❖ All 'tertiary nallahs/drains' (irrespective of the width) and 'secondary nallahs/drains' having width between 1 meter to 5 meter, are to be considered for screening
 - Screens/Filters shall be regularly monitored to keep the screens/filters clean
 - Minimum cleaning schedule of screens/filters:
 - Quarterly for 'Primary Nallahs/Drains'
 - Monthly for 'Secondary & Tertiary Nallahs/Drains'

Component E9 (B): Screening of Drains & Nallahs

MEANS OF VERIFICATION

- Verification through independent observation
- List/Map of all Drains & Nallahs with placement of screens/filters
- Cleaning schedule of screens/filters



City Level Parameters

❖ DESIRABLE:

- D2: On-site wet waste processing by Waste generator
- D3: C&D Waste- Storage, Segregation, Processing & Recycling
- D4: C&D Waste- Use of Materials
- D5: Dumpsite Remediation

Component D2: On-site wet waste processing by waste generator

At least 'x' percent of waste generators (excluding BWGs, RWAs) shall have on-site wet waste processing facility (composting/biomethanation). This may include individual homes (not part of RWAs), commercial and other waste generators.

Note: ULB to provide ecosystem/ mechanism to support citizens with home or community composting/ biomethanation needs, to help reduce waste.

Level	Level 1	Level 2	Level 3	Level 4
Condition	2%	5 %	7%	10% Innovative community waste reduction measures such as Bartan Bank, Food Bank, Cloth bank, Exchange shops are in place.
Marks	25	50	75	100
Weightage	20%			

Component D2: On-site wet waste processing by waste generator

MEANS OF VERIFICATION

- List with count and details of waste generators with on-site wet waste processing facilities (composting/bio-methanation)
- Evidence of the technical support for on-site wet waste processing provided by the ULB
- Evidence of Community waste reduction measures taken by the city

Component D3: C&D Waste- Storage, Segregation, Processing & Recycling (1/2)

CONDITION

Facilitation of storage, segregation, processing & recycling of C&D waste - 'X' percent of C&D waste **collected** is stored, segregated, processed and recycled within municipal limits in a designated area or space allotted by appropriate authorities and/or in C&D recycling plant.

Segregation should be in the following five categories:
Concrete, soil, steel, wood & plastics, bricks & mortar

Component D3: C&D Waste-Storage, Segregation, Processing & Recycling (2/2)

CONDITION (Contd.)

Level	Level 1	Level 2	Level 3	Level 4
Condition <i>(i.e. X' percent of C&D waste collected is stored, segregated, processed and recycled within municipal limits in a designated area or space allotted by appropriate authorities and/or in C&D recycling plant.)</i>	Bulk Generators: 100% Non-bulk Generators: 25% ULB to ensure a designated area for storage and segregation.	Bulk Generators: 100% Non-bulk Generators: 50% ULB to ensure a designated area for storage and segregation. Segregation machineries/ plants for cities with population > 50,000.*	Bulk Generators: 100% Non-bulk Generators: 50% ULB to ensure a designated area for storage and segregation. Segregation machineries/ plants for cities with population > 50,000.*	Bulk Generators: 100% Non-bulk Generators: 75% ULB to ensure a designated area for storage and segregation. Segregation machineries/ plants for cities with population > 50,000.* For cities with more than 10 Lakh population, ULB to ensure C&D waste processing plants with provision of Segregation/ Recycling center with machineries such as separators for segregation, hammer for crushing, conveyor belts for movement of materials, etc.
Marks	50	75	75	100
Weightage			20%	

Component D3: C&D Waste-Storage, Segregation, Processing & Recycling

MEANS OF VERIFICATION

- Details of bulk C&D waste generators: C&D waste generated, segregated, processed, recycled.
- Quantity of C&D waste collected from non-bulk generators that is segregated, processed/recycled
- Details of C&D facilities – storage, segregation (including machineries installed), processing and recycling
- Facility wise evidence of quantity of C&D waste received, segregated and/or processed/recycled AND/OR Copy of contract (if outsourced) of C&D storage, segregation, recycling facility with evidence of quantity of C&D waste handled at the designated facility (whichever applicable)

NOTE*

- ❖ As per the protocol for mobile collection, ULBs to ensure suitable vehicles of different capacities (such as Rickshaws at ward level, Tempo at Zonal Level and Tractors/ Trucks at ULB Level) are made available at fixed rate, and staff is assigned at each level to ensure C&D waste collection is completed within the SLA period for Debris Removal/ Construction Material as delined in Swachhata App i.e. 12 hours.

* Letter to all State Mission Directors dated 18th November 2020

NOTE: *This component will be assessed 100% through Independent Observation*

Component D4: C&D Waste- Use of Materials

Provisions made for use of 'X' percent of raw C&D waste in municipal/ government/ municipality approved construction activities in nonstructural applications: lower layers of road pavements, inner colony roads, filling of plinth and basement etc.

'OR'

Provisions made for use of 'X' percent of material made out of C&D Waste in municipal and/or government construction activity (if available) in kerb stones, structural concrete as manufactured aggregate, paving blocks, bricks etc.

Level	Level 1	Level 2	Level 3	Level 4
Condition	Notification and enforcement of charges for C&T, P&D of C&D Waste + At least 5% (For cities more than 1 lakh population)	At least 10%	At least 20%	At least 30%
Marks	30	50	75	100
Weightage	15%			

Component D4: C&D Waste- Use of Materials

MEANS OF VERIFICATION

- Copy of notification of charges for collection, transportation, processing and disposal of C&D Waste
- Evidence of use of raw C&D waste (nonstructural applications) and/or material made out of C&D waste (structural application) in municipal/government/municipality approved construction activities, as per rating condition
- Sale receipt for C&D Waste Material used/processed

C&D Waste Management

Key Policy Interventions

- 35% central assistance under SBM(U)
- In March 2015, **BIS has issued proposed revisions in IS: 383, which will allow use of coarse and fine aggregate derived from processing of recycled concrete as part replacement of natural sand** (18). The amounts permitted, for both coarse and fine aggregate, are;
 - 100 percent in lean concrete (up to M15 grade),
 - 25 percent in plain concrete, and
 - 20 percent in RCC (up to M20 grade).
- CPWD issued guidelines on Reuse & Recycling of Construction & Demolition Waste through a book titled CPWD Guidelines for Sustainable Habitat.
<http://cpwd.gov.in/Publication/Guideleines Sustainable Habitat.pdf>
- CPCB has launched a “Guidelines on Environmental Management of C&D Wastes”
<http://cpcb.nic.in/upload/Latest/Latest 171 Final C&D March 2017.pdf>

C&D Waste Management - Best Practices

East Delhi – C&D Waste Disposal through PPP

East Delhi Municipal Corporation – C&D Waste Disposal through PPP

- Facility setup in 2009 by EDMC in collaboration with private party
- Plant in first phase had a capacity of 500 MTD which was later expanded to cover C&D waste from across Delhi
- Plant produces fine sand, dust and other building construction materials like pavement blocks and curbs stones
- Processing fee for C&D waste is ~INR 205 per ton
- All vehicles used for the facility have been equipped with GPs
- Capex incurred from the project is proposed to be covered over a period of 10 years by deriving value from the processed C&D waste



Component D5: Dumpsite Remediation (1/2)

CONDITION

Remediation of all identified dumpsites.

CLARIFICATION

- In case of no existing/old dumpsites (within the city limits) and not dumping waste in shared dumpsites/dumpsites outside city limits, this criteria will not be applicable and considered as 100% work has been completed.
- However, if old dumpsite is outside city limits, then the city that contributed majority of waste in the dumpsite shall be responsible for its remediation.
- If ULBs are using a shared landfill and the remediation of shared landfill is not viable, for a ULB to pass this component, following conditions shall be met:
 - not more than 10% should be going to landfill;
 - no waste should be going to non- landfill (i.e. dumpsites)

Component D5: Dumpsite Remediation (2/2)

CONDITION
(Contd.)

Level	Level 1	Level 2	Level 3	Level 4
Condition	25% work as per remediation project plan has been completed	50% work as per remediation project plan has been completed	75% work as per remediation project plan has been completed	100% work as per remediation project plan has been completed
Marks	25	50	75	100
Weightage	20%			

MEANS OF
VERIFICATION

- Survey/List of dumpsites identified within the ULB
- Details of Remediation sites with completion status of remediation and evidence of 'X' percent work completion (copy of completion/closure report etc.)

NOTE: This component will be assessed 100% through Independent Observation

Dumpsite Remediation - Best Practices

Saswad Municipal Council

Volume of dumped waste: 28000 cubic meter

Weight (Approximate): 19600 MT

Land occupied: 2.71 Acre

Sanctioned cost: 66.10 Lakh(236 Rs./ cubic meter)

Actual tender Cost: 54.99 Lakh (196.42 Rs./ cubic meter)

Per Day processing: 300 TPD

30% land reclaimed

Process:

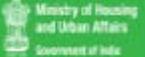
- Digging of Dumped Waste
- Feeding Material & Sorting
- Metal Partial Sorting & Screening
- Ballistic Separation
- Final Treatment of Separated Partials
 - Recycling Material
 - RDF



Suggested Intervention:

- Carry out an assessment of amount of waste disposed in an unplanned manner and develop a plan for remediation of existing dumpsites

Reference Advisories




Ministry of Housing and Urban Affairs
Government of India

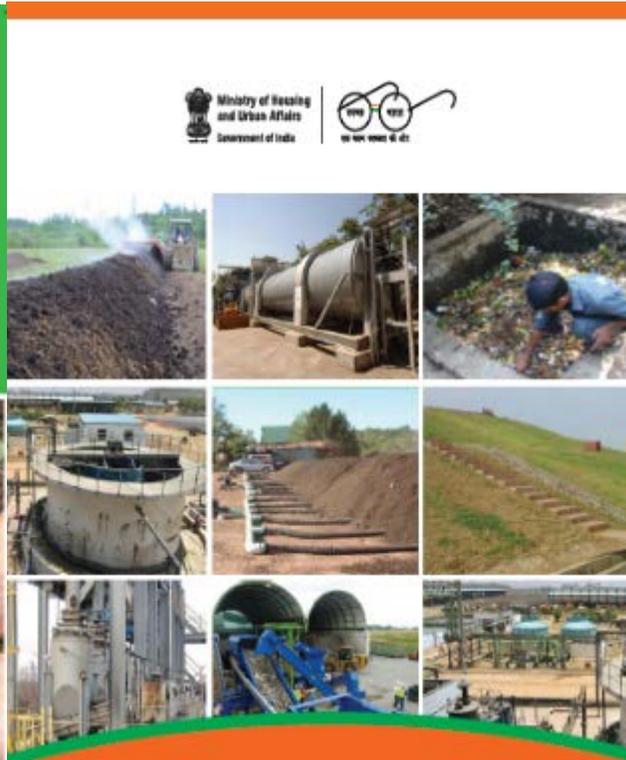
Swachh Bharat Mission - Urban

Advisory on On-Site and Decentralized Composting of Municipal Organic Waste



Central Public Health and Environmental Engineering Organisation (CPHEEO)
MINISTRY OF HOUSING AND URBAN AFFAIRS

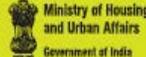
June 2018



Waste To Wealth

A READY RECKONER FOR SELECTION OF TECHNOLOGIES FOR MANAGEMENT OF MUNICIPAL WASTE

November, 2017




Ministry of Housing and Urban Affairs
Government of India



BULK SOLID WASTE GENERATORS

A Step by Step Guidance for Urban Local Bodies to implement the Solid Waste Management Rules, 2016

November, 2017





Ministry of Housing and Urban Affairs
Government of India



PLASTIC WASTE MANAGEMENT

ISSUES, SOLUTIONS & CASE STUDIES

MINISTRY OF HOUSING & URBAN AFFAIRS
GOVERNMENT OF INDIA

www.mohua.gov.in

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Scoring Mechanism (For reference)

Matrix – Star Rating Protocol for Garbage Free Cities				
Indicator	1 Star	3 Star	5 Star	7 Star
Mandatory	At least 40%	At least 60%	At least 85%	At least 95%
Essential	At least 30%	At least 50%	At least 80%	At least 90%
Desirable	Not Applicable	At least 30%	At least 60%	At least 80%

Steps to calculate percentage to check eligibility for Star rating:

1. For each component*, assess and assign marks on the basis of the level of progress achieved by the cities.
2. Calculate weighted scores: Marks (step 1) x Weightage assigned for that component
3. Calculate the percentage of each indicator (Mandatory, Essential & Desirable):

Sum of weighted scores of all components (step 2) under that indicator

Maximum score of that indicator

* For each ward-level component, every ward will be assessed and average score of all wards will be considered as the final score of that component.

An example for clarification is enclosed...

An example where a city meets the conditions of the different levels for different components and becomes eligible for **Star 1 rating** (by achieving more than 40% score in Mandatory and more than 30% score in Essential components**), provided the city is ODF certified.

Component/ Condition			Maximum Marks	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	Weightage	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	Max Score
Mandatory									Weighted Score				
WARD LEVEL	M1	D2D	100	50				12%	6	0	0	0	12
	M2	Segregation at Ward Level	100		60			16%	0	9.6	0	0	16
	M3	Sweeping	100	50				12%	6	0	0	0	12
	M4	Litter Bins	100		50			8%	0	4	0	0	8
	M5	Storage Bins	100	50				8%	4	0	0	0	8
CITY LEVEL	M6	Waste Processing- Wet Waste	100				100	10%	0	0	0	10	10
	M7	Waste Processing Capacity- Wet Waste	100				100	8%	0	0	0	8	8
	M8	Waste Processing- Dry Waste	100			75		8%	0	0	6	0	8
	M9	Waste Processing Capacity- Dry Waste	100			100		8%	0	0	8	0	8
	M10	Grievance Redressal	100				100	10%	0	0	0	10	10
								Total Score	71.6				100
								%age	71.6%				
Essential									Weighted Score				
WARD LEVEL	E1	BWG	100	30				12%	3.6	0	0	0	12
	E2	Penalty/ Spot Fines	100	30				12%	3.6	0	0	0	12
CITY LEVEL	E3	Segregation at City	100			75		10%	0	0	7.5	0	10
	E4	User Charges	100	30				14%	4.2	0	0	0	14
	E5	Plastic Ban	100		50			12%	0	6	0	0	12
	E6	C&D Waste- Collection	100	30				10%	3	0	0	0	10
	E7	Scientific Landfill- Availability & Use	100				100	10%	0	0	0	10	10
	E8	Scientific Landfill- Waste disposed	100	30				10%	3	0	0	0	10
	E9 (A)	Drains and water bodies	100	30				5%					5
E9 (B)	Nallahs with Screens	100	30				5%	1.5	0	0	0	5	
								Total Score	42.4				100
								%age	42.4%				

**Please note, in case of Star 1 rating, 'Desirable component' is not applicable.



Swachhata Pledge

Mahatma Gandhi dreamt of an India which was not only free but also clean and developed.

Mahatma Gandhi secured freedom for Mother India.

Now it is our duty to serve Mother India by keeping the country neat and clean.

I take this pledge that I will remain committed towards cleanliness and devote time for this.

I will devote 100 hours per year that is two hours per week to voluntary work for cleanliness. I will neither litter nor let others litter.

I will initiate the quest for cleanliness with myself, my family, my locality, my village and my work place.

I believe that the countries of the world that appear clean are so because their citizens don't indulge in littering nor do they allow it to happen.

With this firm belief, I will propagate the message of Swachh Bharat Mission in villages and towns.

I will encourage 100 other persons to take this pledge which I am taking today.

I will endeavour to make them devote their 100 hours for cleanliness.

I am confident that every step I take towards cleanliness will help in making my country clean.



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