



**SAFAIMITRA**

**SURAKSHA**

**CHALLENGE**

19 Nov 2020 to 15 Aug 2021

# SE LIKELY AGAINST MIRA ROAD CONTRACTOR



**THE LAW** As per provisions of the state's Municipal Solid Waste Management Act, 2000, manual cleaning of sewers and manholes is banned in all corporations that come under this Act. Sending a person into a sewer is prohibited under the Manual Scavenging Act of 2013

**COMPENSATION** The Supreme Court in 2014 ordered the government to identify those who died cleaning sewers from 1993 and offer ₹10 lakh compensation to each of their families

Workers, picked up from outside Mira Road station, had no protective gear

**CASES** entered the manhole using a ladder. As he at MIDC, Dombivli. Devadas Paige was the first

“ The sewage treatment plant at Mira Road was shut for a few months and

# Killer cesspool

Tamil Nadu tops the list in cases of deaths due to manual scavenging reported since 1999



STATE	DEATHS
Tamil Nadu	144
Gujarat	131
Karnataka	75
U.P.	71
Haryana	51
Rajasthan	33
Punjab	30
Delhi	28
West Bengal	18

In 4 cases, deaths were reported in 2019.

02 | hindustantimes.com | metro

## Man drowns in Jahangirpuri sewer

**Capital's killer sewers claim another life**

FRANCIS The worker, Chaman Ray, had entered the sewer to clean a pipe. He drowned when water started gushing in.

What the government is doing

# Safai Mitra Suraksha Challenge

without protective gear... of suffocation while... search for the other two... BHAYANDER MUNICIPAL CORPORATION COMMISSIONER... in Hyderabad. ■ NAGARA GOPAL... Telangana | 2

# National Competition

supposed to provide mechanised equipment at dangerous sites... 2016 | 48... worker dies while cleaning a sewer in northeast Delhi's Shahdara... November 2019 | A sanitation worker... 2018 | 68... 2019 | 110... \*SOURCE: SOCIAL JUSTICE MINISTRY IN THE LOK SABHA ON FEBRUARY 11, 2020

# City Challenge on Man-hole to Machine-hole Transformation

Aug 14 | Two workers cleaning a sewer die at a mall in Shahdara  
 Aug 7 | Three inhale toxic gas in Vasant Kunj, die  
 Jul 16 | Four labourers killed in a tank in Ghitorni  
 Mar 4 | Youth dies and his colleague is injured while cleaning sewer in Fatehpur Beri

Workers go in when the matches not extinguish, but like methane are under sediments released when removing debris

2018 | 68  
 2019 | 110

\*SOURCE: SOCIAL JUSTICE MINISTRY IN THE LOK SABHA ON FEBRUARY 11, 2020

YOU READ IT HERE  
 Unholy dip: How toxic chambers kill  
 27 Jul 2017

2 workers die cleaning septic tank, 3 critical  
 8 May 2019

22-year-old dies cleaning sewer, another injured  
 3 Feb 2020

Another sewer death in capital, Building owner among...

- 

# Legal Position

# PEMSRA 2013\*

**BANNED**

## (a) Manual Scavenging

Manually cleaning, carrying, disposing of, or otherwise handling, **human excreta** in an **insanitary latrine** or in an **open drain** or **pit**

## (b) Hazardous Cleaning

### Section 2(1)(d) of the Act

Manual cleaning of a sewer or a septic tank **without the protective gear, cleaning equipment, and observance of safety precautions** prescribed under the Rules

**Compliance**

100% Mechanized Cleaning, OR

Conditional Manual Cleaning (with written approval)

#### Punishment for 1<sup>st</sup> Time:

- Fine Upto 2 years of Jail;
- Or Fine Upto Rs. 2 lakh
- Or Both



**Non-Compliance**

#### Punishment for subsequent offences:

- Fine upto Five Years of Jail
- Or Fine upto Rs.5 lakh
- Or Both



# Hazardous Cleaning of Sewers and Septic Tanks: Penal Consequences

PEMSRA Act\*, 2013 Deals with two distinct aspects – (a) manual scavenging, and (b) hazardous cleaning

\*Prohibition of Employment as Manual Scavengers and their Rehabilitation Act

## Section 2(1)(d) of the Act

The Act defines “**hazardous cleaning**” as manual cleaning of a sewer or a septic tank **without the protective gear, cleaning equipment, and observance of safety precautions** prescribed under the Rules

## Under Section 7 of the Act

It is an offence to directly or indirectly employ or engage any person for hazardous cleaning. **Thus, violation of the aforementioned safety precautions is an offence under the Act, even in cases when hazardous cleaning does not result in death or serious injuries.** This prohibition applies to individual persons as well as local authorities and agencies.

## Under Section 9 of the Act

### Punishment for 1<sup>st</sup> Time:

- Fine Upto 2 years of Jail;
- Or Fine Upto Rs. 2 lakh
- Or Both

### Punishment for subsequent offences:

- Fine upto Five Years of Jail
- Or Fine upto Rs.5 lakh
- Or Both



## Provision under **section 9**

### **Procedure** : Section 9 is made cognisable and non-bailable **under section 22**

1. Any person coming across an **instance of hazardous cleaning** of a sewer or septic tank **can give this information to the police**, who are then required to file an FIR
2. The **police** can subsequently **arrest the accused without warrant** and the accused will be required to approach a Court for bail.
3. Under **section 21** of the Act, the offence may be tried summarily before a **Judicial Magistrate** of the first class. This results in simpler process for trial and conviction, **without the requirement of framing a formal charge**.

### **Nature of Evidence** : Proving the Offence **under section 9**

1. Act **only requires evidence of hazardous cleaning** being carried out by a worker in direct or indirect engagement or employment with the person being prosecuted
2. **Example:** If an officer of a local authority is found to be engaging workers for manual cleaning of a sewer without the written permission of the CEO, the **lack of such permission could provide evidence** of the offence being committed
3. Similarly a **photograph or video** of a worker cleaning a septic tank without prescribed safety equipment, can constitute evidence of an **offence by the person engaging or employing such worker**

# Safaimitra Suraksha Challenge

To Save the Lives of Formal/Informal Workers engaged in  
Septic Tank/Sewer Cleaning



## Bottomline

All informal Workers to be identified by the City to integrate them with formal mechanism in  
place for cleaning Septic Tanks/Sewer Lines

# Focus of the Challenge



- ❑ Thrust on mechanized cleaning of sewers and septic tanks, to minimize necessity of human entry
- ❑ Availability of proper protective gears and equipment in case manual entry is unavoidable.
- ❑ Creation of conducive eco-system through:
  - *trained workforce,*
  - *large scale citizen outreach,*
  - *24x7 helpline,*
  - *enforcement mechanisms*



Key Points  
to  
Remember

# Important Timelines

- **Preparatory period** : 19th Nov to 30<sup>th</sup> April 2021
- **IEC Activities** : January 2021 onwards
- **On-field Validation** : 1<sup>st</sup> May 2021 – 30<sup>th</sup> June 2021
- **Results** : 15<sup>th</sup> August 2021

# **Safaimitra Suraksha Challenge-2021 (SSC-2021)**

- **Monthly Progress** to be updated mandatorily by 5th day on SBM portal –
  - **March 2021** progress to be updated by **5<sup>th</sup> April 2021**
  - **April 2021** progress to be updated by **25<sup>th</sup> April 2021**
- **SSC-2021** will be **evaluated** by an **independent third party agency**
- **Assessment Agency** will create a **portal for SSC-2021**.
- **ULBs** are expected to upload their **supporting documents** and **pictures of IEC/Public Awareness** campaign on this portal. **Supporting documents** to be updated by **20<sup>th</sup> April 2021**
- **Pictures of IEC/Public Awareness** campaign are also expected to be updated on **Swachh Manch** and **ULBs Face Book Page**
- The **assessment agency** may ask for any other **document** which are required for the **evaluation**. ULB will be given **48-Hours window** to upload the same – **state will also be alerted simultaneously**.

# Safaimitra Suraksha Challenge-2021 (SSC-2021).....contd.

- If **satisfactory documents not given** upon requests, **zero marks will be given** – agency will take a call on all such cases **in consultation with the Ministry**.
- **Progress claimed** by the ULB against each indicator will be **validated through call/field visits**.
- Log Books/supporting documents, supporting the progress, should be maintained at the plant/24X7 call centre only – to be provided/uploaded, if asked.
- Ministry will share the IEC creatives for ULBs to disseminate. ULBs may also design similar creatives to promote the campaign
- **Safaimitra** : Any worker engaged in cleaning of Septic tank/sewer lines

# Awards

## □ Award Categories for Best performing Corporations

Sub-Categories (population)	1 <sup>st</sup> prize	2 <sup>nd</sup> prize	3 <sup>rd</sup> prize
➤ 10 lakh	Rs 12 Crores	Rs 6 Crores	Rs 3 Crores
3 - 10 lakh	Rs 10 Crores	Rs 5 Crores	Rs 2.5 Crores
Upto 3 lakh	Rs 8 Crores	Rs 4 Crores	Rs 2 Crores
<b>Total</b>	Rs 52.5 crores		



□ Cities ranked 4<sup>th</sup> & 5<sup>th</sup> in each category will also be felicitated

□ Top-2 performing States will be felicitated

□ Top performing UT will be felicitated



# Evaluation Process Summary

# Key Performance Areas : Total 1000 Marks

## Qualification Conditions for Participating Cities

1. Setting-up RSA and SRU
2. Certified ODF+
3. Ban on Single-Use Plastic

### Core Parameters : 700 Marks

#### 1. Citizen's Empowerment

- 24X7 Helpline
- Public Awareness Campaigns

#### 2. Mechanised Cleaning: Men & Machine

- Equipment & Infrastructure
- Workforce

#### 3. Mechanised Cleaning: Soft Measures

- Capacity Building
- Empowerment of Safaimitra

Marks  
200

Marks  
400

Marks  
100

### Eco-System Parameters: 300 Marks

#### 1. Periodic preventive maintenance

Marks  
100

#### 2. Sustainable O&M

Marks  
50

#### 3. Treatment Capacity

Marks  
50

#### 4. Adoption of Innovative Approach

Marks  
50

#### 5. Standardization of Septic Tank

Marks  
50



**70%**  
**Core Parameters**  
**(Drivers)**

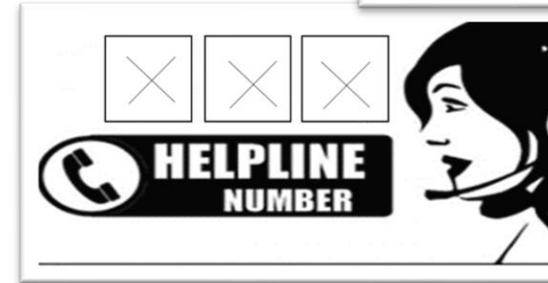
**700 Marks**

# 1. Citizens Empowerment – Total Marks 200

## 1. 24X7 Helpline

24X7 Helpline Number, Portal and WhatsApp number for queries/ complaints

50



## 2. Public Awareness Campaigns

Citizens/Service providers familiar with Do's and Don'ts of the business

150



## 2. Mechanised Cleaning: Men & Machine – Marks 400

### 1. Equipment & Infrastructure (as per CPHEEO norms)

Basic  
Maintenance  
Machines

200

Special  
Equipment

50

PPE & Safety  
Gears

50

**Note:** If mandatory PPEs mentioned (in red) in the list not in place, 20% marks will be deducted from this section carrying total 400 marks



# Mechanised Cleaning: Men & Machine (contd.)

## 2. Workforce as per CPHEEO norms



Requisite  
Water borne  
Safaimitras  
**(Sanitation  
Commandos)**  
in place

**100  
Marks**



# 3. Mechanised Cleaning: Soft Measures – Marks 100

## 1. Capacity Building

**Training / Skill  
Development of  
Safaimitras/workers  
engaged in cleaning of  
Septic Tank/Sewer lines**

**60 Marks**



**Standard Operating Procedure for Cleaning of Sewers and Septic Tanks**

Central Public Health and Environmental Engineering Organisation  
(CPHEEO)

# Mechanised Cleaning: Soft Measures ..(Contd.)

## 2 (a). Empowerment of Safaimitra

Rehabilitation of  
informal Safaimitras  
..linking with social  
welfare schemes,  
Ration Cards,  
Education for  
Children etc.

20 Marks



# Mechanised Cleaning: Soft Measures ...(contd.)

## 2 (b). Empowerment of Safaimitra

Rehabilitation of  
informal Safaimitras  
..linkage with  
**Entrepreneurship/  
Lilvehood  
Opportunities**

**20 Marks**





**30%**

**Eco-System Parameters  
(Enablers)**

**300 Marks**

# Periodic Preventive Maintenance – Total Marks 100

**Scheduled de-sludging of Septic Tanks and Sewer manholes**

**50 Marks**



**All Critical Hot Spots mapped**

**25 Marks**



**% of Wards connected to closed system (septic tank/sewers)**  
**% of Septic Tanks Geo-tagged**

**25 Marks**



# Sustainable O&M – Total Marks 50

Whether  
Revenue  
collected is  
matching the total  
O&M expenses



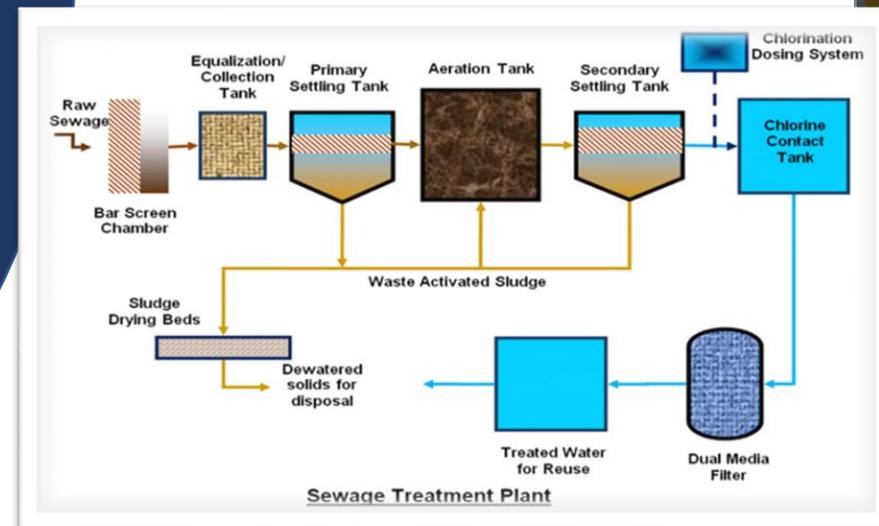
Whether **treatment capacity** is **matching** with the total faecal sludge/sewage **generated/collected**

What % of faecal sludge/sewage is **actually treated**



# Innovations – Marks 50

Like low-cost solutions, faster solution, alert system, efficiency improvement etc.



# Standardization of Septic Tanks – Marks 50

Septic tanks to be constructed as per the prescribed design and specifications

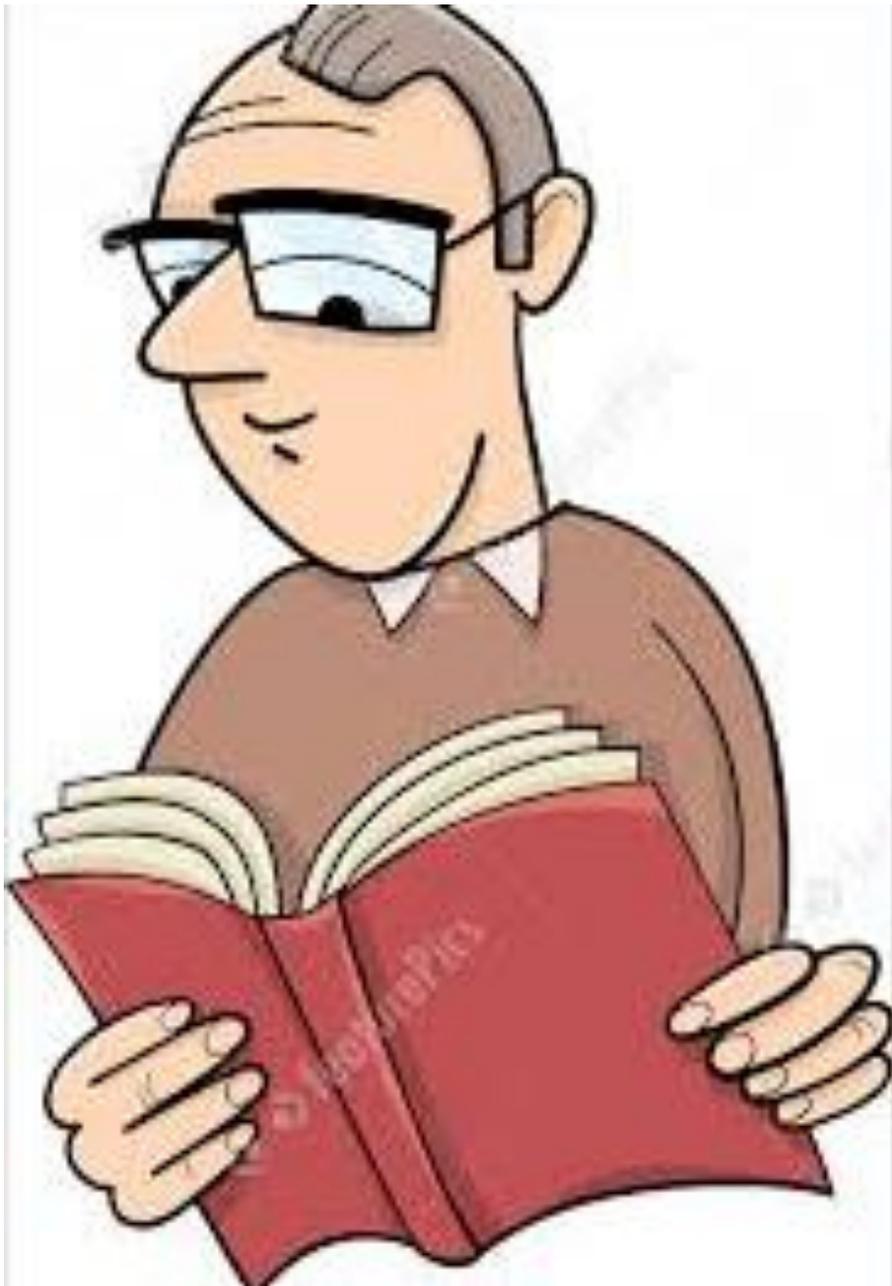


Standardized septic tank design to be incorporated in building by-laws



% of Septic tanks in compliance with IS 2470 Code

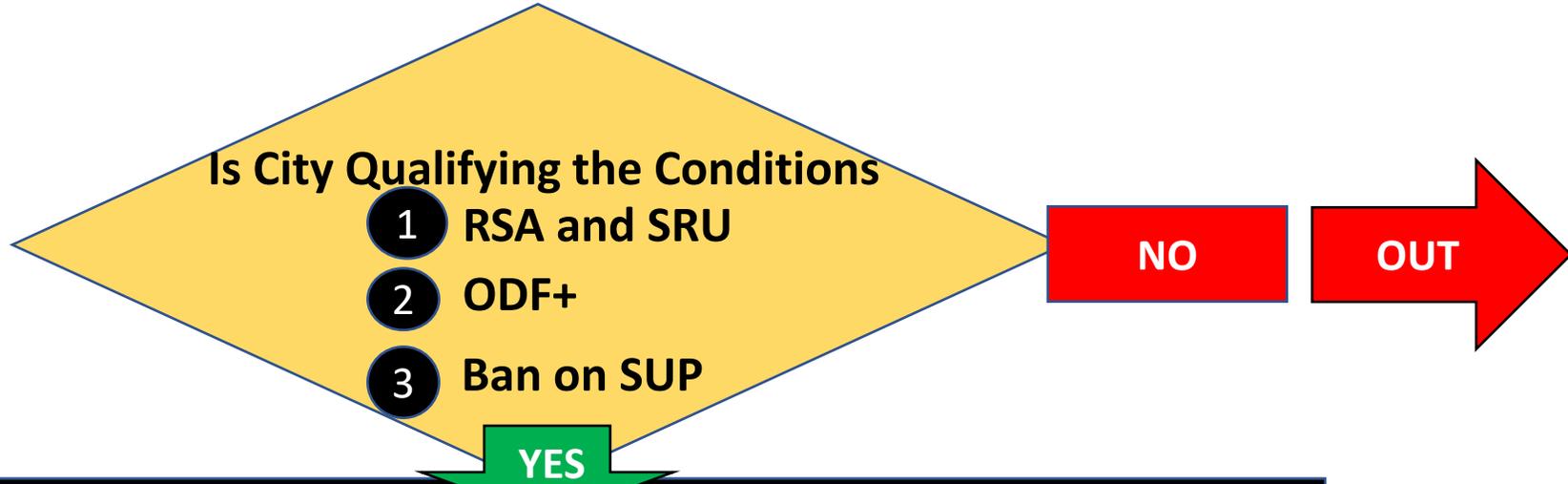




# TOOLKIT

For detailed indicators

# City Challenge



Performance Parameters : 1,000 Marks	
Core Parameters 700 Marks (70%)	Eco-System Parameters 300 Marks (30%)
<ol style="list-style-type: none"><li>Citizen's Empowerment<ul style="list-style-type: none"><li>24X7 Helpline</li><li>Public Awareness Campaigns</li></ul></li><li>Mechanised Cleaning<ul style="list-style-type: none"><li>Equipment &amp; Infrastructure</li><li>Workforce</li></ul></li><li>Mechanised Cleaning: Soft Measures<ul style="list-style-type: none"><li>Capacity Building</li><li>Empowerment of Safaimitra</li></ul></li></ol>	<ol style="list-style-type: none"><li>Periodic preventive maintenance</li><li>Adoption of Innovative Approach</li><li>Standardization of Septic Tank</li><li>Treatment Capacity</li><li>Sustainable O&amp;M</li></ol>



City with Maximum Marks will be the Winner

# Pre-qualification criteria to participate in challenge

## 1. **Setting up of Responsible Sanitation Authority (RSA) and Sanitation Response Unit (SRU)**

State must have notified RSAs and established SRU in the participating cities to take care of emergency situations of blockages of sewers & septic tanks and thereby preventing manual hazardous cleaning

## 2. **Valid ODF+ Certification**

City must have valid ODF+ Certification on the closing date of application

## 3. **Notification of ban on single use plastic**

Ban on single use plastic including <50 micron plastic is notified so as to minimize the choking of sewers & septic tanks

**Total Marks 1,000**

**70% Core Parameters**

**(Drivers)**

**700 Marks (70%)**



## **1. Citizen's Empowerment**

- **24X7 Helpline** (to seek information, register complaint and track resolution status)
- **Public Awareness Campaigns** (IEC campaigns on mandatory mechanized cleaning and penal provisions for non-compliance)

## **2. Mechanised Cleaning**

- **Equipment & Infrastructure** (Availability of mechanized cleaning vehicles and equipment)
- **Workforce** (Requisite resources along with PPE Kits & Safety Gears as per CPHEEO norms)

## **3. Mechanized Cleaning: Soft Measure**

- **Capacity Building** (In-house/private trained desludging operators/staff – following CPHEEO Manual)
- **Empowerment of Safaimitra** (Linkages with social welfare schemes along with developing entrepreneurship in this sector)

**Total Marks 1,000**

**Eco-System Parameters**

**(Enablers)**

**300 Marks (30%)**



- 1. Periodic preventive maintenance of sewers/septic tanks** (whether mechanism exists for periodic/need-based maintenance of sewers/septic tanks)
- 2. Adoption of Innovative Approach to eradicate manual cleaning** (promoting innovations in low-cost solutions for cleaning sewers/septic tanks, mainstreaming informal workers etc.)
- 3. Sewage/Septage Treatment Capacity** (whether sewage and septage treatment capacity is matching with its generation )
- 4. Sustainable O&M** (Ensure financial sustainability to match the operational cost like salary of contractual staff, diesel, consumables, breakdown repairs etc.)
- 5. Standardization of Septic Tank** (Standardise septic tank designs in Municipal bye-laws and a mechanism in place to ensure compliance during building plan approval)



**70%**  
**Core Parameters**  
**(Drivers)**

**700 Marks**

Citizens Empowerment

200



50

Public Awareness  
Campaigns



150

## 24X7 Helpline, Portal & WhatsApp Number

1. Is **24X7 Helpline number, portal and WhatsApp number** in place and operational to help citizens in registering their complaints and provide their resolution status on real-time basis ?

**Max  
Marks  
50**

Sl. No.	Services Provided			
			Yes	No
1.	Whether a 24X7 Helpline, Portal and a WhatsApp number in place for calling de-sludging operators or registering complaints for septic tank/sewer overflow?	- Helpline 15 - Portal 5 - WhatsApp 5	25	0
2.	Whether following services provided:			
	a) Queries answered related to services available/legal obligations		5	0
	b) Complaints can be registered 24x7		5	0
	c) Real Time Status of Complaints available including resolution		5	0
	d) Complaint is not closed till complainant is satisfied and 4 digit Happiness Code shared for closure or any other mechanism to ensure customer is satisfied before complaint is closed		5	0
	e) Service Level Agreement (SLA) in place with Escalation Matrix for non-compliance in resolution time		5	0
	<b>Total</b>		<b>50</b>	<b>0</b>

**Note:** Each redressal system should have mechanism for generating monthly report showing all complaints received, in process, resolved and feedback received.

## Public Awareness: IEC

1. Whether **IEC carrying following messages** have been carried out in print, electronic media, social media or through murals to educate citizens, other stakeholders as well as ULB employees about importance of **following approved de-sludging practices** for septic tank/sewer/storm water drain manhole cleaning from **January 2021 onwards**

**Max  
Marks  
45**

1.	IEC messages around <b>availability of 24X7 Helpline</b> to help citizens in all queries/issues around cleaning of septic tanks and sewer lines/stormwater drains manhole. The helpline should also address Safaimitra's grievances	<b>12</b>
2.	IEC messages around <b>scheduled cleaning (once in every 3 years)</b> of septic tanks	11
3.	IEC messages around <b>penal actions</b> for non-compliance	11
4.	IEC messages around engagement of <b>ONLY licensed operators</b> in all wards	11
<b>Total</b>		<b>45</b>

**Note: All supporting pictures for monthly awareness campaigns to be uploaded by 5<sup>th</sup> day of the following month. Pictures to be uploaded on Safaimitra Suraksha Challenge-2021 portal and associated social media channel, Swachh Manch and FaceBook page. (City name and ULB Code mandatory for entries)**

## Public Awareness – Legal Picture

2. Whether **monthly Public Awareness campaign** carried out in 100% wards, to educate citizens, other stakeholders as well as ULB employees about importance of **following correct legal practices** for septic tank/sewer/stormwater drain manhole cleaning

**Max Marks**  
**35**

Public Awareness created for correct legal practices/penal provisions for non-compliance while cleaning septic tanks, sewer lines and stormwater drains through-

- Street plays (**monthly 2 in each ward**)

7

- Door-to-Door messaging (**monthly once**)

7

- Focused Group Discussions(FGDs) in all vulnerable places i.e. unplanned colonies/slums/ hot spots identified etc. (**monthly twice in each such vulnerable places**)

7

- Messaging done on 100% CT/PTs

7

- 100% de-sludging vehicles registered with ULB carrying messages

7

**Total**

**35**

## Public Awareness – Hoarding, Posters, Wall Writing/Murals etc.

3. Whether **Public Awareness campaign** carried out in 100% wards to educate citizens, other stakeholders as well as ULB employees through Hoardings, Posters, Wall Writings/Murals about importance of **following correct legal practices** for septic tank/sewer/stormwater drain manhole cleaning

**Max  
Marks  
35**

### Public Awareness activities

- In each ward minimum **1 hoarding** is placed (each hoarding to be geo-tagged with unique ID) 6
- In each ward minimum **20 posters** are pasted on walls 6
- In each ward messaging done through Wall Writing/Murals – **Minimum 10 walls** 6
- In each **slum & unplanned colony** with 25 households minimum **1 hoarding** is in place (each hoarding to be geo-tagged with unique ID) 6
- In each **slum & unplanned colony** with 25 households minimum **10 posters** are pasted on walls 6
- In each **slum & unplanned colony** with 25 households messaging done through Wall Writing/Murals – **Minimum 3 walls** 5

**Total**

**35**

**Note: Hoarding/Poster Sizes: Hoarding minimum 8'x10' and Poster minimum 2'X4'**

## Public Awareness– Impact on Citizens

**4. Impact of Public Awareness Campaigns:** Whether public awareness campaign carried out by the ULB has been able to penetrate key messages among all citizens and other key stakeholders (including service providers)

**Max  
Marks  
35**

Sl. No.	Do Your Citizens Know that ...	
1.	there is a helpline number for calling de-sludging operators or registering complaints for septic tank/sewer/stormwater drain manhole overflow?	7
2.	Would they still call regular informal cleaner to clean their septic tanks or call 24X7 helpline to employ ULB registered cleaners/operators ?	7
3.	In how many years a septic tank should be cleaned?	7
4.	There is a provision of penal action for non-compliance?	7
5.	Are Citizen's satisfied with the call centre services?	7
	<b>Total</b>	<b>35</b>

# Mechanized Cleaning

Marks  
400



Infrastructure & Equipment



Workforce

## Infrastructure & Equipment

**1. Holding of Core Sewer and Septic Maintenance Machines :** Whether ULBs has number of machines / equipment available, **as per CPHEEO norms**, to clean sewers/septic/stormwater drain manholes tanks

**Max  
Marks  
200**

**Performance areas :** ULBs are expected to match the 100% requirement of Maintenance Machines to get 100% marks

**Max  
Marks  
180**

Percentage as calculated by the formula (**CPHEEO norms**) will be applied on 'Maximum score' which will become the score of the ULB

**Sl. No.** **Performance indicators** (This indicator will ascertain whether private desludging operators are registered with ULB / PHED and are being monitored to ensure zero tolerance on non-compliance)

**Marks  
20**

1. 100% private de-sludging operators (de-sludging staff) **registered/license** given

10

2. All de-sludging vehicles are tracked by ULB through **RFID/GPS**

10

**Total**

**20**

## Workforce

**2. Holding of Requisite Water borne Sanitation Workforce/Safaimitras and SEPs (Sanitation Commandos) - Whether ULBs has dedicated workforce available, as per CPHEEO norms, to meet daily de-sludging requirements**

Max  
Marks  
100

**Performance areas :** ULBs are expected to match the 100% requirement of Waterborne Sanitation Workforce/staff to get 100% marks

Marks  
80

Percentage as calculated by the formula (CPHEEO norms) will be applied on 'Maximum score' which will become the score of the ULB

**Performance areas :** Hardship Allowance

Marks  
20

Whether hardship allowance added with monthly salary of the Safaimitras – minimum 10% of the salary

## Infrastructure & Equipment

**3. Holding of PPE and Safety Gear:** Do you have required number of PPEs and Safety Gears to meet daily cleaning requirements as per **CPHEEO norms**?

### Performance areas :

- a) ULBs are expected to match the 100% requirement of PPE and Safety Gears to get 100% marks
- b) ULBs are expected to meet the requirement of specified **Safety Gear** to get 100% marks

Marks

50\*

Percentage as calculated by the formula (CPHEEO norms) will be applied on 'Maximum score' which will become the score of the ULB

**\* Failure to obtain >25 marks in this indicator will lead to deduction of 200 Marks in the ULB's overall score.**

# **Machine and Workforce Benchmark**

## Sanitary Sewer Coverage

Sample

### Length of Sanitary Sewers

(In metres)

a) More than 900 mm Diameter	35000	m	*Not being Judged
b) 601-900 mm Diameter	100000	m	
c) 301-600 mm Diameter	200000	m	
d) Upto 300 mm Diameter	600000	m	

Length of Combined Sewers, if Any  m

Total Sanitary Sewerage  m

Population Covered by Sewers

**No of Combination Hydro Vac Equipment**

The Hydrovac Set can be a single vehicle, usually called Super Sucker  
Else a train of one suction vehicle (Gully Emptier) and a water tanker can do the same job  
The Standard Hydrovac Set is expected to clear 15m/hr in a sewer of 601-900mm dia,  
30m/hr in a sewer of 301-600 mm dia and 60m/hr in a sewer of <300 mm dia

**Minimum Number of Hydrovac Sets**

With Alternate Arrangements for small dia(upto and including 300mm diameter) sewers  
(to be proven by the City)

No of Sanitary Maintenance-holes (incl on Combined Sewers)

If Known

Else @30 per KM

**No of Grabbers/ desilting machines**

**Household units (or equivalent) Covered by Septic Tanks**

Includes others

If Known

Else, for Competition  At 4.8 pers per HH

**The Septic Tank Vehicle cum Pumping Equipment may come in various combinations**

A **Standard** Septic Tank Vehicle is one which may collect and transport 9000 litres/day  
and manage 6 Households per day in the maintenance Cycle

**No of Standard Septic Tank Vehicles**

## Note:

1. Calculator/Calculation sheet shared with all participating cities to prepare better for the challenge.

# Mandatory Safety Gears for Safaimitras / Swachhata Commandos



## Rule 4 of MS Rules:

Any person engaged to clean a sewer or a septic tank shall be provided by his employer, protective gear and safety devices including, but not limited to the following:



### PPE Items

- Reflecting Jacket
- Safety helmet
- Normal face mask
- Hand gloves (pair)
- Safety Gumboots (pair)
- Safety body clothing

### Safety Gear Items

- Safety Tripod Set
- Nylon Rope ladder
- Blower with Air Compressor
- Gas Monitor (4 Gases)
- Full body Wader Suit
- Gas Mask
- Breathing Apparatus
- Safety body Harness
- Air Line Breathing Apparatus

### Other machinery

- Sewer Inspection Camera Apparatus
- Hydro Jetting Machines
- Power Bucket machine
- Power Rodding Apparatus
- Hydraulic Sewer Root cutters

**PPE**



**Pack of 2**  
Face Mask



**Disposable  
Gloves**

1 Pair



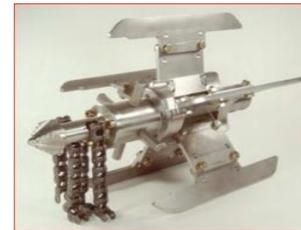
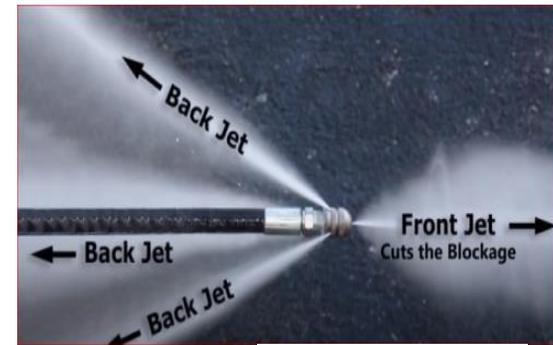
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# Safety Gear





# Mechanical Equipment



# Scaling of Items for Evaluation purpose

While all items as stated in the MS Rules are needed to be held by a ULB, however the scale of any item will depend on various local situations and redundancies.

## For purpose of Safai Mitra Suraksha Challenge –

**PPE and Safety Gear Scaled items-** The holding of PPE and Safety Gear will be considered adequate if the following scale of select equipment is maintained by the ULBs (including holding by parastatal, State PHED office responsible for the city or private empanelled sanitation service organisation

	PPE Item	Scale
1	Reflecting Jacket	Number equal to Sewermen+ sanitary beldars on roll/ required under CPHEEO norms
2	Safety helmet	
3	Normal face mask	
4	Hand gloves	
5	Safety Gumboots	
6	Safety body clothing	

	Safety Gear Item	Scale
1	Safety Tripod Set	One per each SEP team
2	Safety body Harness	two per each SEP team
3	Nylon Rope ladder	One per each SEP team
4	Blower with Air Compressor	One per each SEP team
5	Gas Monitor (4 Gases)	One per each SEP team
6	Full body Wader Suit	One per SEP
7	Gas Mask	One per SEP
8	Breathing Apparatus	One per SEP
9	Air Line for Breathing Apparatus	One per SEP

## Infrastructure & Equipments

**4. Holding of Special Maintenance/ Cleaning Equipment:** Do you have special maintenance/cleaning equipment meeting daily cleaning requirement, as per CPHEEO norms?

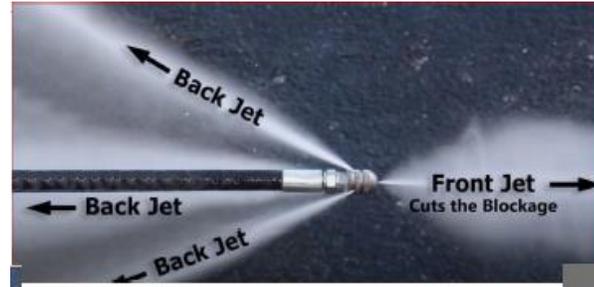
**Performance areas :** ULBs are expected to match the 100% requirement of cleaning equipment to get 100% marks

**Marks**

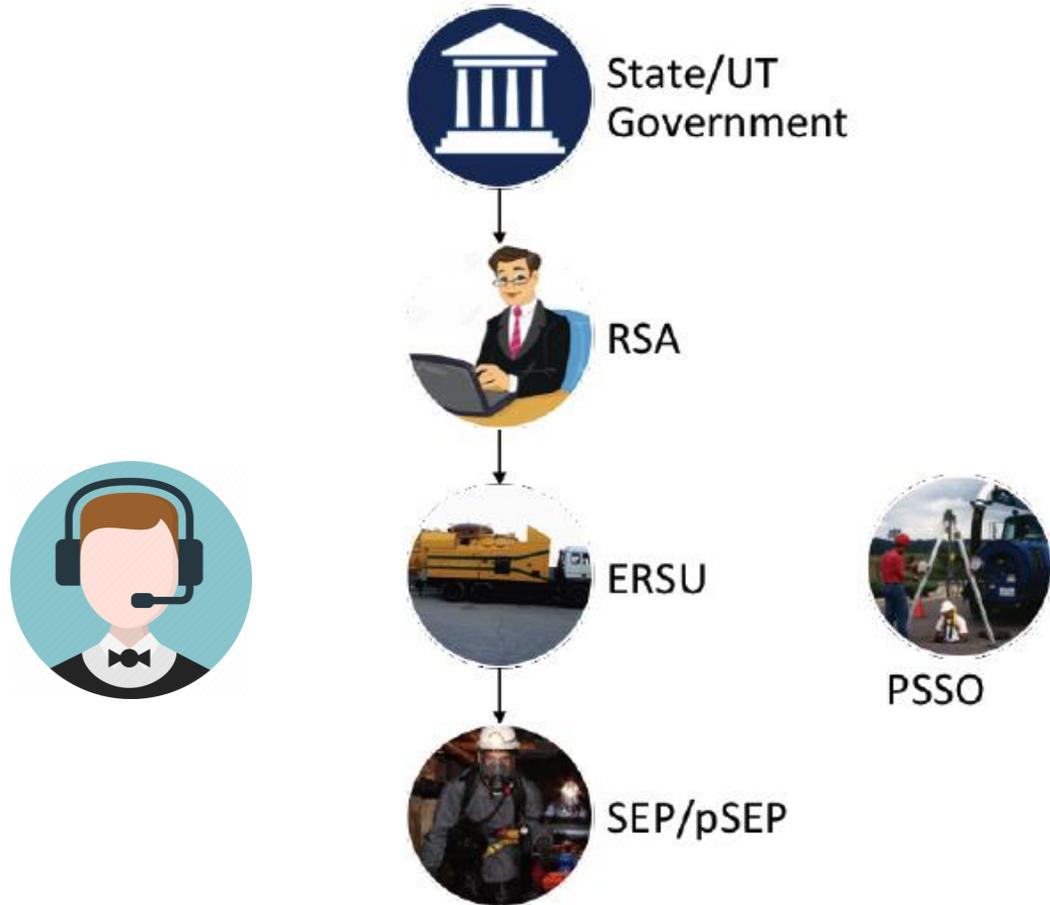
**50**

Percentage as calculated by the formula (CPHEEO norms) will be applied on 'Maximum score' which will become the score of the ULB

5. The local authority shall ensure that the following cleaning devices are used by persons engaged in cleaning sewer or septic tanks. including but not limited to the following:

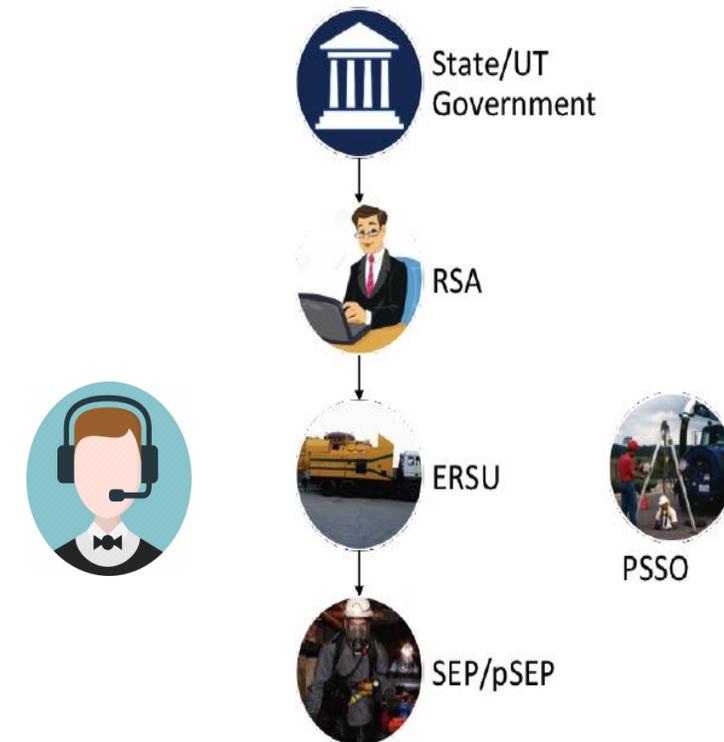


# Establishment of RSA and SRU



# Composition

S/ N	Officer/ Staff	Mechanism of Appointment	Nature of Appt.
1	<b>Responsible Sanitation Authority (RSA)</b>	Nomination through <b>State Gazette Notification</b> Disst Collector or Equivalent	Additional Role
2	<b>Officer In-charge of ERSU</b>	Through Municipal or Distt <b>Office Order</b> Executive Engineer or Eq AEE or Eq for ULBs < 2 Lakh	Additional Role
4	<b>Duty/ Entry Supervisor</b>	Through Municipal or Distt <b>Office Order</b> Junior Engineer or Sanitary Inspector	Additional Role
5	Administrative Supervisor	Through Municipal or Distt <b>Office Order</b> Junior Engineer or Sanitary Inspector or Eq Ministerial	Full Time
6	Call centre Attendant	Through Municipal or Distt <b>Office Order</b>	Full Time/ Outsourced
7	Sewer Entry Professionals ( <b>Sewer Commandos</b> )	Through Municipal or Distt <b>Office Order</b> 7% of Municipal sewer men/ beldars or sewer men of parastatal/ PHED or Empanelled PSSO workmen	Additional Role



# Sewer Entry Professional (Sewer Commandos)

- Dedicated teams of at least two trained persons
- **One team for 200 km of sewer length**
- Minimum **team of 2 for 1 lakh population and 7 % of overall sanitary persons** required (sewer-men & sanitary beldar)
- **Sewer-men & sanitary beldars** (sanitary helpers) to be nominated as sewer entry professional through annual order from Municipal Commissioner/ head of parastatal.
- **Private Sanitation Service Organizations (PSSOs)** may be empanelled by ERSUs to provide an assured number of professionally trained and equipped private SEPs (pSEPs) and equipment sets.



# Equipment holding with ERSU

- 5% of sewer/septic tank maintenance equipment will be placed at disposal of ERSU through Office Order of Municipal Commissioner or Head of Parastatal
- **Special Entry Support Vehicle: Under Design process**
- Akin to safety eqpt transporter, fire brigade veh and Ambulance



# Source of Equipment and Manpower

	Sum Total of
a)	Municipal Corp own employees and equipment Resources
b)	Parastatal or PHE Department Resources deployed in the ULB
c)	Empanelled and Registered Private Sanitation Service Organisations (PSSO)
d)	Contracted Manpower and/ or Equipment

# Mechanized Cleaning: Soft Measures

Marks  
100



Capacity Building

Marks  
60



Empowerment of Safaimitra  
(Sanitation Commando)

Marks  
40

# Capacity Building

1. **Training / Skill Development:** Are registered de-sludging operators (de-sludging staff), sewer, stormwater drain manhole maintenance staff trained on safety related issues

Sl. No.	Performance indicators	Marks 60	
		Yes	No
1.	Whether the toolkit and applicable norms have been translated in vernacular language	10	0
2.	Whether all de-sludging operators/Staff (In-house/Private Operator)/informal Safaimitras gone through a certified training on <ul style="list-style-type: none"><li>- safety measures and legal norms to be followed, and</li><li>- mechanized septic tank/sewer line/stormwater drains manhole cleaning</li></ul>	25	0
3.	Whether validation test conducted post-training sessions to ascertaining the learning captured by the participants	25	0
<b>Total</b>		<b>60</b>	<b>0</b>

**Note:** Knowledge of all trained de-sludging operators/staff will be tested through a questionnaire designed by CPHEEO to qualify for marks claimed. Questionnaire to be shared.

## Empowerment of Safaimitra

### 2(a). **Rehabilitation of informal Safaimitras** engaged in cleaning of septic tanks/ sewer lines /stormwater drains

Sl. No.	Performance indicators	Marks 20	
		Yes	No
1	Minimum 20% of total informal Safaimitras identified are integrated with private de-sludging operators	4	0
2.	Whether 100% informal Safaimitras identified, have been linked with at least 3 social welfare schemes of the Central/State Government	4	0
3.	Whether 100% informal Safaimitras identified, have been informed about soft loan schemes available through NSKFDC	4	0
4.	Whether children of 100% Safaimitras are enrolled in schools, if applicable	4	0
5.	Whether 100% Safaimitras are given ration cards	4	0
<b>Total</b>		<b>20</b>	<b>0</b>

## Empowerment of Safaimitra

2(b). **Rehabilitation of Safaimitras** : Percentage (%) of Safaimitras identified are linked with entrepreneurship opportunities either through convergence or providing soft loans through NSKFDC or under any other scheme

Performance indicators	Marks
	20
- Minimum 5 informal <b>Safaimitras identified</b> from each ward	10
- 2-4 informal <b>Safaimitras identified</b> from each ward	5
- >80% informal Safaimitras indentified are <b>linked</b> with <b>entrepreneurship/livelihood opportunities</b>	5

# Summary of Performance Parameters : **1,000** Marks

## 30% Eco-System Parameters (Enablers)



**300 Marks**

**Periodic preventive maintenance**

**100**

**Sustainable O&M**

**50**

**Sewage and Septage Treatment Capacity**

**50**

**Innovative Approach**

**50**

**Standardization of Septic Tank**

**50**

# Periodic Preventive Maintenance

## 1(a). Periodic preventive maintenance of septic tanks, Sewer and stormwater drain manholes/lines in the city

Sl. No.	Whether ULB has scheduled de-sludging of 1/3 <sup>rd</sup> of total septic tanks of the city in each year	Marks 25
1.	1/3 <sup>rd</sup> of the septic tanks scheduled for de-sludging and 50% of them already de-sludged by 30 <sup>th</sup> April 2021	25
2.	1/3 <sup>rd</sup> of the septic tanks scheduled for desludging and 25% of them already de-sludged by 30 <sup>th</sup> April 2021	20
3.	1/3 <sup>rd</sup> of the septic tanks scheduled for de-sludging by 30 <sup>th</sup> April 2021	15

Sl. No.	Whether ULB has scheduled de-sludging of 50% of total sewer and stormwater drain manholes of the city in each year	Marks 25
1.	50% of the sewer manholes/lines scheduled for de-sludging and 50% of them already de-sludged by 30 <sup>th</sup> April 2021	25
2.	50% of the sewer manholes/lines scheduled for desludging and 25% of them already de-sludged by 30 <sup>th</sup> April 2021	20
3.	50% of the sewer manholes/lines scheduled for de-sludging by 30 <sup>th</sup> April 2021	15

## Periodic Preventive Maintenance

**1 (b). Critical Sanitation spots (Hot Spots):** Whether the ULB/WSSB/Jal Board have identified the areas of the city / town (particularly informal/vulnerable groups are living) wherein frequent blockages/ accidents take place and has put in place necessary action plan.

Sl. No.	Performance indicators (This indicator will ascertain whether the <b>Hot Spots</b> have been identified and steps taken as preventive maintenance or at least plans have been developed)	Marks 20
1.	Preventive maintenance or at least plans developed for <b>&gt;95% Hot Spots</b> identified	20
2.	Preventive maintenance or at least plans developed for <b>75% -94% Hot Spots</b> identified	15
3.	Preventive maintenance or at least plans developed for <b>50% -74% Hot Spots</b> identified	10
4.	Preventive maintenance or plans developed for <b>25% -49% Hot Spots</b> identified	5

## Periorid Preventive Maintenance

**1(C) Sanitation Coverage** - What percentage of Wards in the city / town are connected to a closed system such as sewerage and / or septic tank + soak pit. And what % of Septic tanks are geo-tagged (**ULB must submit sewer network map to claim the progress**)

Sl. No.	Performance indicators (This indicator will ascertain whether the city has adequate sanitation coverage with sewerage network and / or septic tanks. No open flow of sewage).	Marks
1.	>95% of Wards in the City are connected to a closed system (Sewerage/Septic Tank)	20
2.	75% - 94% Wards in the City are connected to a closed system	15
3.	50%-74% Wards in the City are connected to a closed system	10
4.	25%-49% Wards in the City are connected to a closed system	5
Sl. No.	% of Septic Tanks in the ULB have been geo-tagged	Marks
1.	>95% Septic Tanks in the ULB have been geo-tagged	10
2.	75-94% Septic Tanks in the ULB have been geo-tagged	8
3.	50-74% Septic Tanks in the ULB have been geo-tagged	6
4.	25-49% Septic Tanks in the ULB have been geo-tagged	4

## Sustainable O&M

**2. Sustainable O&M :** Whether the revenue collected is sustainable to carry out O & M of the mechanized cleaning system including its related expenses like salary, diesel, consumables, breakdown repairs, etc.

Scheme of Marking	Marks
	<b>50</b>
100% of the operational cost met by revenue collected	50
80% – 95% of the operational cost met by revenue collected	45
60% – 79% of the operational cost met by revenue collected	30
40% – 59% of the operational cost met by revenue collected	25
20% - 39% of the operational cost met by revenue collected	15
10% - 19% of the operational cost met by revenue collected	5

**Note:**

1. Only user charges collected or sanitation charges collected under property tax will be considered
2. Grant under 14<sup>th</sup> Finance Commission will not be considered.
3. If ULB has outsourced/engaged private operator to manage de-sludging of septic tanks/sewers/storm water drains, expenses incurred and revenue earned/collected by the private operator will not be added in O&M expenses /revenue for/ from the services/operators directly handled by the ULB.
4. Period under consideration 1<sup>st</sup> April 2020 to 31<sup>st</sup> March 2021

## Treatment Capacity & Actual Treatment

### 3. Sewage & Septage Treatment Capacity and Actual Treatment

Whether <b>capacity</b> of FSTP /STP in the city is matching with the total faecal sludge/sewage which is collected/ generated in the city	Marks 25
>95% capacity matching with total faecal sludge/sewage generated	25
Between 75% -95%	20
Between 50% - 74%	15
Between 30% – 49%	10
<30% but not zero	5
What percentage of faecal sludge <b>collected or sewage generated</b> from Households/Commercial Establishments/ CTs/PTs <b>is treated</b> at FSTP/STP - Scientific treatment of faecal <b>sludge/sewage</b>	Marks 25
>95% Faecal sludge/Sewage treated	25
85-94% Faecal sludge/Sewage treated	21
75-84% Faecal sludge/Sewage treated	17
65 – 74% Faecal sludge/Sewage treated	13
55 – 64% Faecal sludge/Sewage treated	9
45% - 54% Faecal sludge/Sewage treated	5
<45% Faecal sludge/Sewage treated <b>OR</b> no data available	1

Note: If required, possibility of shared facility with other ULBs, co-treatment may be explored

## Innovations

**4. Adoption of Innovative Approach :** Whether any innovative system for cleaning the sewers, stormwater drains and septic tanks have been developed / implemented.

Sl. No.	Suggested (but not exhaustive) Innovation areas	Marks 50
1.	Innovation proposed is a <b>low-cost solution</b> (with justification)	
2.	Innovation proposed has provided <b>faster solution</b>	
3.	Innovation proposed has considerably <b>improved the efficiency</b> in the cleaning/ maintenance system	
4.	Innovation proposed has <b>prevented entry</b> into the septic tank/sewer/stormwater drain man-hole	
5.	<b>Innovative welfare scheme</b> proposed	
6.	Innovation proposed has an advanced warning system in the sewer/stormwater drain network which can inform the likelihood of a blockage so as to carry out preventive maintenance.	

**Note:** All Innovations must be implemented by **31<sup>st</sup> March 2021** and uploaded on **Safaikarmi Suraksha Challenge** portal by **30<sup>th</sup> April 2021**.

## Standardization of Septic Tank

### 5. Standardization of Septic Tank

Sl. No.	Performance indicators	Marks 50
1.	Whether all the new septic tanks ( <b>after 1<sup>st</sup> January 2021</b> ) are constructed as per the prescribed design ( <b>IS Code 2470</b> ) and specifications to facilitate mechanized cleaning and reduce blockages.	15
2.	Whether standardized septic tank design has been incorporated in building bye-laws. Whether these included as part of the building construction phases or the issuance of building use (BU) permission?	25
3.	How many masons/contractors in the ULB are trained in standardization of septic tank (as per <b>IS 2470</b> Code)	<b>10</b>
	- >95%	10
	- 75-94%	8
	- 50-74%	6
	- <50%	0



# Independent Validation Matrix



## Sampling Criteria

## Independent Validation Matrix: Population wise respondents

Assessment Area	Population				
	<50 K	50 K - 1 Lakh	1-3 Lakh	3-10 Lakh	>10 Lakh
Sample respondent count/ locations Or Actual Locations <b>(whichever is lower)</b>	75	90	120	150	180

### Independent Validation – Impact on ‘Service Level Progress’ Marks claimed

#### Step-2: Negative Marking Table

Sample Failure (%)	% of Negative Marking on Total Marks claimed, to be deducted from 'Adjusted Marks'
<20%	0%
20% - 30%	5%
31% - 40%	10%
41% - 50%	20%
51% - 60%	30%
61% - 70%	40%
71% - 80%	50%
81% - 90%	60%
91% - 100%	70%

- **Step-1: Adjusted Marks** - % of samples failed will lead to same % of marks deducted from the marks claimed under ‘Service Level Progress’
- **Step-2: Negative Marking** - On account of failure of samples from 20% onwards, further negative marking will be applied as per the following table, to calculate ‘Final Marks’

**Note:** At least 40% of the wards (samples) where progress claimed, will be covered under citizens validation.

**Thank You**