





Safaimitra Suraksha Challenge

A Report on Capacity Building Workshop for City Officials















Ministry of Housing and Urban Affairs Government of India

Safaimitra Suraksha Challenge

A Report on Capacity Building Workshop for City Officials

2020-21

Submitted to
MINISTRY OF HOUSING AND URBAN AFFAIRS (MoHUA)







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Task: Delivery of online training sessions and technical assistance to 246 participating cities under Safaimitra Suraksha Challenge

Project team

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Submitted by

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Year of submission 2021

Preface

We are very grateful to the Ministry of Housing and Urban Affairs, Government of India for entrusting the National Institute of Urban Affairs, as an anchor organisation for the training and capacity building efforts to facilitate the *Safaimitra Suraksha* Challenge launched to eradicate the practice of unsafe sewer management in over 246 cities across India.

Intending to achieve the goals of the challenge, NIUA adopted a two-pronged approach collaborating with the training organisations and service providers and encouraging them to partner with the cities based on the needs of the ULBs. To implement this challenge, NIUA collaborated with over thirty training institutes and organisations. These organisations were mapped spatially and in terms of their capacities. The representatives and nodal officers were trained to aware and edify the importance and need of this challenge.

Ensuring that the content delivery is demand-driven and addresses the needs of its stakeholders, NIUA conducted a Rapid City Need Assessment to understand the needs of the cities. The institute has provided the platform to the cities, partner organisations, and various other agencies to interact with each other to discuss the needs and the kind of support and engagement required during the challenge.

The interactive sessions brought all stakeholders together on a single platform. The resource persons included domain experts from public and private sectors, procurement specialists, service providers, innovators and communication professionals. It also helped ULBs exchange good practices, thereby promoting peer-to-peer learning.

By building the capacities of the people across India, the institute hopes to contribute towards the journey of the prohibition of manual scavenging and safeguarding and empowering the lives of the *safaimitra* across India.

The report on 'Training of city officials under Safaimitra Suraksha Challenge' summarises the challenge and its objectives and expected outcomes. Additionally, the report covers the activities and the role of the NIUA and highlights a few commendable success stories. Lastly, it concludes with the feedback of the stakeholders and provides recommendations for successful completion of the challenge and similar initiatives in the future.

I congratulate the SMSC team at NIUA for their efforts and hope that they leverage the experiences gained in the process of facilitating this challenge.

Hitesh Vaidya
Director
National Institute of Urban Affairs

Acknowledgment

Being part of the arduous and critical mission to eradicate unsafe practices in sewage cleaning and maintenance has been a very rewarding experience. We are thankful to the Ministry of Housing and Urban Affairs (MoHUA), Government of India, for giving us the opportunity and the United Nations Industrial Development Organization (UNIDO), for its support, to anchor the Safaimitra Suraksha Challenge across India.

We would like to make a special mention of Mr. Kamran Rizvi, Additional Secretary, Mr. Naveen Agarwal, Director and Mr. Binay Kumar Jha, Director, from the Ministry of Housing and Urban Affairs (MoHUA) for their invaluable guidance at every step. We also wish to acknowledge the efforts of Mr. Rohit Kakkar, Technical Advisor, and Mr. Anil Prakash, Advisor, NIUA, and the team members of National PMU, Mr. Prabal Bhardwaj and Mr. Rahul Jha. We are indebted to Mr. Rene van Berkel, Ms. Katarina Barunica Spoljaric, Mr Tomasz Pawelec, Mr. Nand Pal Singh and Ms. Manasa Suresh from UNIDO for continuous supervision throughout the process.

The journey of the Safaimitra Suraksha Challenge in the challenging times of the COVID-19 pandemic has been possible due to the commitment and flexibility of the officials of the municipal corporations across India. We are grateful to our training partners, resource persons and members of the other relevant organisations who have spared their valuable time and contributed their expertise to enlighten the city officials as and when required. We extend our sincere gratitude to each one of them.

We are grateful to Mr. Hitesh Vaidya, Director, National Institute of Urban affairs (NIUA) for his leadership and guidance at every stage.

Paramita Datta Dey Team Lead

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Table 2

1. About the Challenge

The Ministry of Housing and Urban Affairs (MoHUA), Government of India, launched a national competition titled "Safaimitra Suraksha Challenge" on 19 November 2020. The Challenge, aptly launched on World Toilet Day, aims to prevent 'hazardous cleaning' of sewers and septic tanks and promote their mechanized cleaning.

Chief Secretaries, State Mission Directors, and other senior State/ Union Territory and city officials came together and pledged their commitment on behalf of 246 cities to mechanize all sewer and septic tank cleaning operations by 30 April 2021. They gave their commitment to work towards preventing any deaths from hazardous entry into sewers and septic tanks.

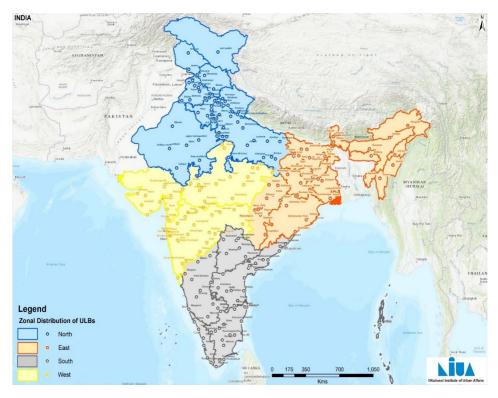


Figure 1 Number of cities participating under Safaimitra Suraksha Challenge

Speaking on the occasion, Shri Hardeep Singh Puri (Honorable Minister of State MoS, I/C, MoHUA), said, "The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act (2013) and various judgements of Hon'ble Supreme Court expressly prohibit hazardous cleaning, i.e. manual entry into a septic tank or sewer without protective



Figure 2 No. of ULBs participating in the challenge

gear and observing operating procedures. Despite this, recurring episodes of human fatalities among those engaged in cleaning of septic tanks and sewers, typically belonging to the economically disadvantaged and marginalized communities of society, continue to be an issue of concern." Shri Puri highlighted that the success of the challenge does not only depend on the intent and commitment of political representatives, bureaucrats or Municipal authorities but also the citizens of the country. The objective of this challenge is to encourage more cities and towns to adopt 'Mechanized Cleaning of Sewers and Septic Tanks' as a practice.

The Safaimitra Suraksha Challenge (SMSC) focuses extensively on creating citizen awareness and infrastructure creation for mechanized cleaning and capacity building of the workforce. To register complaints and provide real-time solutions on desludging or sewer overflow, a dedicated helpline number has been set up. An independent agency will conduct the on-ground assessment of participating cities in May 2021. The results of the challenge would be declared on 15 August 2021 and participating cities will be awarded in three subcategories – those with a population of more than 10 lakhs, 3-10 lakhs, and up to 3 lakhs. Total prize money of Rs 52 Crores will be given to winning cities across all categories.

A set of advisories prepared by the Central Public Health and Environmental Engineering Organisation (CPHEEO), MoHUA were also launched on 19th November 2020. These included a 'Training Module for Sanitary Workers on Cleaning of Sewer and Septic Tanks', a document on 'Equipment & Workforce Norms for Managing Waterborne Sanitation in India'

and a Consultative Document on 'Land Application of Faecal Sludge'. MoHUA also released a series of posters as part of a citizen-centric behaviour change and communication campaign on the subject of hazardous cleaning of sewers and septic tanks. All these documents are available on the Swachh Bharat Mission - Urban portal.

1.1 Objectives and Outcomes of this challenge

The challenge aims to aware, edify and build the capacity of people to promote the mechanized cleaning of sewers and septic tanks across India. The specific objectives and outcomes of the challenge are as follows:

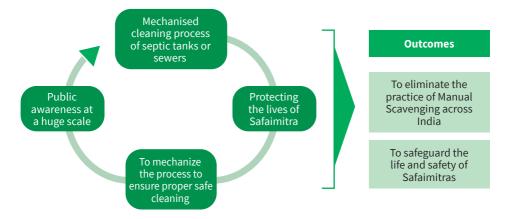


Figure 3 Objectives and Outcome of Safaimitra Suraksha Challenge

2. Role of NIUA

MoHUA nominated the National Institute of Urban Affairs (NIUA) to anchor the capacity-building initiative for this challenge. The major role of the institute spans the following: conducting ToT sessions (explaining the aims and objectives of the challenge); creating a knowledge repository; organizing need-based training sessions for the Urban Local Bodies; and facilitating technical support to the city officials for better implementation.

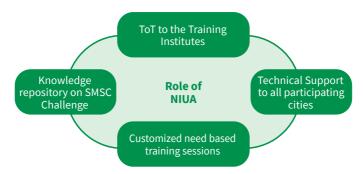


Figure 4 Role of NIUA under Safaimitra Suraksha Challenge

To initiate the challenge, the institute has taken various steps. The first step was to map the training organisations across India that can enhance the capacities of the officials of ULBs.

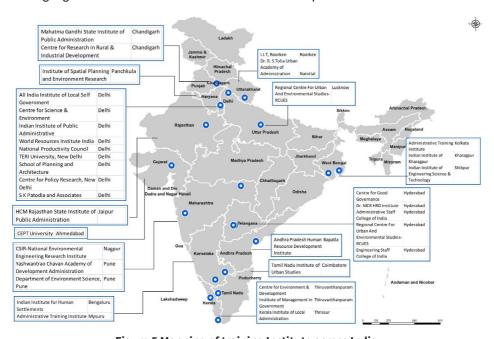


Figure 5 Mapping of training Institute across India

Following this, the organisations were asked about their willingness to extend support, and those that were willing were mapped into a roster. Over 30 partner organisations across India, expressed their willingness to assist the chosen 246 cities. As a third step, these organisations were mapped based on their potential nature of engagement. This involved capacity building, implementation and execution Figure 5. Some organisations additionally offered other kinds of engagements like action research, GIS Mapping, IEC assistance, etc. This nature of engagement was further matched with the needs expressed by ULBs.

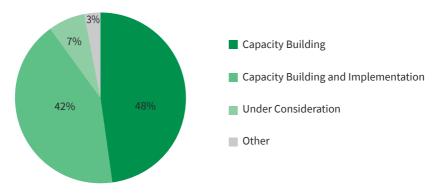


Figure 6 Engagement offered by Training organisations

Accordingly, the city officials were encouraged to approach the organisation/training institute for support required under the SMS challenge.



Figure 7 Analysis of Rapid Need Assessment of City Needs

3. Activities and outcomes achieved under Safaimitra Suraksha Challenge by NIUA

NIUA conducted five workshops to date. The details of the workshops are summarized in Table 1. A one-month window was provided between each workshop to let the cities participate and implement their plan of action.

Table 1 Brief about the workshops conducted by NIUA under SMSC challenge

Sl. No.	Title	Date	Theme/Topics covered
1	Orientation Meeting for Safaimitra Suraksha Challenge	4 th December 2020	To orient more than 30 partner organisations about the Safaimitra Suraksha Challenge
			To conduct Rapid city need Assessment
	Collab Meet For Cities And Partners	28 th December 2020	Introduction and findings of the rapid city need assessment and partner potentials
2			Activities, steps needed and support available from MoHUA, NIUA and other partner organizations for the SMS challenge
			Experience sharing by partner organization
	Coordination Meet -1 For Cities And Partners	15 th January 2021	Affordable and Innovative technologies for mechanised sewage cleaning
3			Understanding the mechanism of Loan Mela
			Brief on the use of equipment for mechanised cleaning
			Experience sharing by partner organizations
	Coordination and Experience Sharing Meeting -II For Cities And Partners	10 th February 2021	FAQs related to MIS
4			Different kinds of IT solutions for SMSC
			Importance and use of IEC and communication campaign
			Experience sharing by partner organization

Sl. No.	Title	Date	Theme/Topics covered
		16 th March	FAQs related to the challenge
	Open House For Safaimitra Suraksha Challenge		Insights on skill development for the challenge
3		2021	FAQs related to National Helpline Number '14420'

On 4th December 2020, the institute organized the 'Orientation meeting for the cities and training institutes' in association with MoHUA, to orient the city officials and training entities for effective implementation of this challenge across India. In continuation, based on the FAQs and the queries of the participants, another workshop was conducted on 28th December 2020, 'Collab Meet for SMSC', for better understanding and clarifying the doubts that cities have with regards to the activities and components, steps to be followed and the kind of support a city can avail through various agencies, institutes, etc.





Figure 8 Orientation and Collab meet organised by NIUA under SMSC



Figure 9 Coordination and Experience sharing Workshop-II

Enlightening and equipping the cities and entities with the knowledge and the required capacity to participate, the institute came up with an experience-sharing platform, where a city and a training partner can highlight their initiatives, strategies and action plans. This was held on 15th January 2021 and 10th February 2021 namely 'Coordination and Experience sharing Meeting-I' and 'Coordination and Experience sharing Meeting-II' respectively. On 16th March 2021, an Open house meeting was organised to discuss the insights on skill development and FAQs related to the challenge and the National helpline number. Through these five workshops, NIUA has successfully built the capacity of more than 500 people across India.

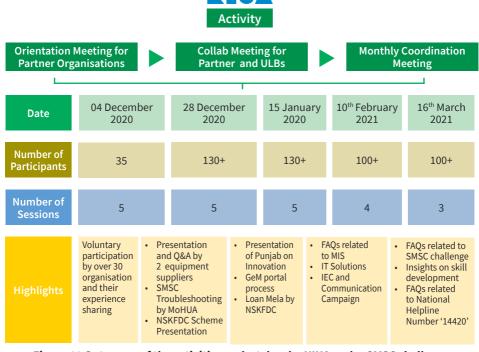


Figure 10 Outcomes of the activities undertaken by NIUA under SMSC challenge

4. Success Stories

This section elucidates few commendable success stories as part of the challenge.

4.1. Telangana

The Greater Warangal Municipal Corporation (GWMC) of Telangana State have effectively participated in the challenge and organized various initiatives for creating awareness on the same. The GWMC has created awareness on the usage of PPE to sanitation workers, conducted yoga, sports, and health camp for Safaimitra, and distributed PPE kits. On the other hand, the Karimnagar Municipal Corporation has conducted door-to-door awareness campaigns.



Figure 11 Citizen Empowerment 24X7 Helpline



Figure 12 Public Awareness Campaigns





Figure 13 Mechanized cleaning, men and machine

4.2. Ladakh

The Municipal Committee Leh has organized a day-long training on the 'Municipal Governance and Sanitation workers' for the ward members of Leh and Kargil districts. They have also conducted Focused Group Discussion in the unplanned colony Changspa (Ward No.3). The residents were educated about the penal actions against the hazardous cleaning of septic tanks or Dry Toilets under the PEMSRA Act, 2013. At the closing ceremony of the LG Ice Hockey Cup, an awareness campaign was organized to eradicate manual scavenging.





Figure 14 Capacity Building (Private trained desludging operators)



Figure 15 Training on Municipal Governance and Sanitation workers for the ward members



Figure 16 Focused Group Discussion at Changspa





Figure 17 Awareness Campaign at LG Ice Hockey Cup

4.3. Punjab

In Punjab, 2485 Safaimitras have completed training programme under this challenge. Some training pictures from Bathinda and Abohar, Punjab follow in the subsequent section.



Figure 18 Training on Mechanised Cleaning

4.4 Nellore

Nellore Municipal Corporation has developed and adopted innovative approaches under this challenge.

To detect overflow of machine-holes, the corporation has developed an innovative sensor-based device. This device functions by detecting overflow through the sensor and alerts the same by buzzer and also sends a message (SMS) to the registered mobile. This is primarily planned to be attached at machine-hole hotspots. Also, a cost-effective Manual de-silter is developed by the corporation to remove silt from deep machine holes. The corporation had conducted various public awareness campaigns through Radio Jingles, a message from leaders, Video messages, Social media campaigns, Print media (newspaper, banners, posters, pamphlets), Promotional campaigns (Street plays, rallies, marathons, Involvement of youth, children and elderly, etc.), etc. to eradicate manual scavenging and had distributed safety gears and PPE kits for safeguarding the lives of safaimitra.





Figure 19 Testing Prototype



Figure 20 On-field testing prototype



Figure 21 Innovative model developed for removal of slit from the machine holes











Figure 22 Safety gears and PPE kits

4.5 Behrampur

Berhampur Municipal Corporation created a digital platform for FSM to assist the urban local body in managing, monitoring, and streamlining FSM (Faecal Sludge Management) service delivery.

Through enabling systematic FSM performance management, the Platform can assist the state and local governments in:

- Exercising effective cost control which is especially crucial for FSM given that O&M costs makeup 60-75% of total FSM systems' costs
- Informing data-driven policy decisions on costs, tariffs, and additional upgrading requirements
- Setting and monitoring levels of service for citizen satisfaction.



Figure 23 Digital platforms for FSM

Also, the corporation has deployed mini cesspool vehicles for mechanized and subsidized desludging process in slums having narrow lanes and has successfully availed the benefits of the loan under "scheme for rehabilitation of manual scavengers" and made 7 women safaimitras as entrepreneurs with sewer cleaning & septic tank cleaning machines.





Figure 24 Mini cesspool vehicle for mechanized and desludging process in slums



Figure 25 Berhampur Swacchata Bahini

Public awareness campaigns through radio jingles, social and video messages have been initiated by the corporation. The primary aim was to aware the sanitation workers of their health and safety and to sensitize the citizens with respect to the possible hazards that can take place in the absence of mechanized cleaning.



Figure 26 Public awareness through radio jingles, social media and video messages

4.6 Nizampet

For enlightening and uplifting the Safaimitra, Nizampet Municipal Corporation has conducted the following IEC activities for public awareness under the Safaimitra Suraksha Challenge.

1. Yoga Training

The training was carried out by the members of Pragathinagar Yoga center at Puchalapalli Leela Sundarayya function hall, Pragathinagar. In which all Safaimitras attended yoga and awareness session on the associated health benefits of yoga.





Figure 27 Yoga sessions for Safaimitra

2. Flash play on official web portal

Flash play was shown on the official website of Nizampet municipal corporation. Through this people were getting aware about the duration of cleaning of septic tank, how and where to contact for the septic tank or sewer line Cleaning and Complaint, and about the protocols that safaimitra's need to follow during septic tank or sewer cleaning if not then the legal actions that will be imposed on the responsible person.





Figure 28 Flash play on Nizampet corporation website for safaimitras

3. Awareness Message

For creating awareness the Nizampet Corporation had taken various initiatives like spreading awareness messages through desludging vehicles, door-to-door messages, or through wall painting. People should be well versed about the cleaning of the septic tank, know-how and where to contact for Septic tank or Sewer line cleaning and Complaint, etc.













Figure 29 Awareness messages through desludging vehicles, door-to- door messages and wall painting

4. Rally and 5k Run Event

The 5K Freedom Run was initiated to promote Safaimitra Suraksha challenge helpline number '14420', a ban on manual scavenging and single-use plastic. The run started from the Pragathinagar STP plant towards Pargathi Nagar Kaman bawarchi. About 500 People were awarded during this event. Another rally Campaign was initiated to enlighten the people through slogans and banners on the consequences of the use of single-use plastic, ban on manual scavenging, and fine for breaking the rule. It was started from Bhavya Anandam and ended at HP petrol pump ward no 14. About 700 People were aware of the consequences and the fine for the same.









Figure 30 Rally and 5k Event organised by the corporation for Safaimitras

4.7 Shahjahanpur

The Shahjahanpur Corporation has initiated various IEC activities such as Door-to-door audio messaging through door-to-door collection vehicles, Posters, Street plays, Ads on vehicles, etc to aware and effectively implement this challenge.





Figure 31 IEC activities organised by Shahjahanpur



Figure 32 Distribution of PPE kits to safaimitras

The corporation has also adopted innovative ways to reduce hazardous cleaning by implementing the 'Safai Mitra Rakshak' award among the citizen of ULB. They have issued a notification for the "Safai Mitra Rakshak Award" for the persons who complain through 14420 or WhatsApp on the registered No. for unsafe and Unhygienic Cleaning of septic Tank. Award will be given on 2nd October 2021 on the Birth Anniversary of Mahatma Gandhi.

4.8 Singrauli

Public awareness campaigns were organized by Singrauli Municipal Corporation through social media campaigns and video messages. The primary aim was to aware the sanitation workers of their health and safety and to sensitize the citizens with respect to the possible hazards that can take place in the absence of mechanized cleaning.

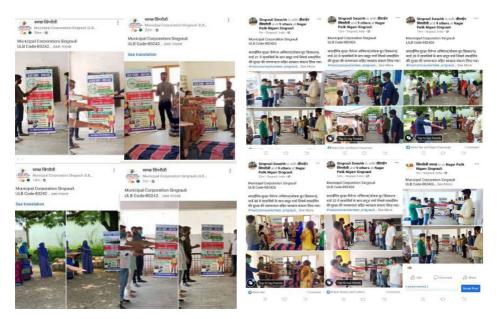


Figure 33 Social Media campaigns

Also, the corporation has adopted innovative approaches under this challenge. They had established the Trans Bio-Filter (ETP) at Tali Nala which is located at Ganiyari. The approximate capacity is around 10 to 20 KLD and 20-30 KLD on rainy and non-rainy days respectively. A unique effort is being made to treat the water from the drains. The easiest and most cost-effective wastewater treatment solution, the trans bio-filter concept is "design with nature" how to work cooperatively with nature, while at the same time learning the tools of modern science. It's a decentralised system for the treatment of wastewater at its source.

An Aerobic Bio-filtration (ETP) plant has been constructed near the nallah dam site, which has a capacity of 30kld and after treating the water, it produced 30,000 Ltr. of treated water which is being used for three different purposes: -

- Free use for gardening of PMAY Awaas
- Being sold to Contractor Garbage plant
- Free use for local agriculturists for irrigation purposes





Figure 34 ETP plant at Ganiyari

4.9 Adityapur

The Adityapur Municipal Corporation undertook various IEC activities to promote the mechanised cleaning of sewer and septic tanks.





Figure 35 IEC activities by Adityapur Municipal Corporation

4.10 Panchkula

The Panchkula municipal corporation has been distributing PPE kits with different gears as per guidelines for Safai Mitras. They have also initiated various public awareness campaigns through uni poles and municipal corporation portal to aware the sanitation workers of their health and safety and to sensitize the citizens with respect to the possible hazards that can take place in the absence of mechanized cleaning.





Figure 36 The Corporation distributing PPE kits to safaimitras

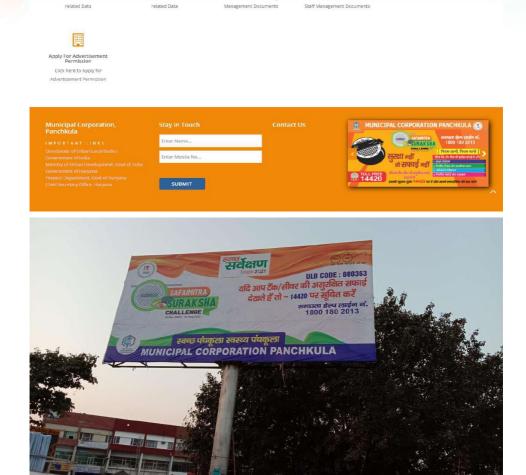


Figure 37 Public awareness campaigns through unipoles and municipal corporation portal

5. Resource Persons' Profile

For conducting the training program under SMSC challenge across India, sector experts from various agencies, organizations, and Institutes were engaged to deliver the sessions to the cities. The profiles of the sector experts are provided in this report.

Table 2 Resource persons' profile under Safaimitra Suraksha Challenge

Name

Dr Nitesh Sharma

He's an advisor to the Urban Department of Government of Chhattisgarh and has experience of over 20 years in the Urban Sector covering diverse fields of Urban development such as Sustainable Development, Solid Waste Management, Livelihood Missions, Water Supply, etc. In his many achievements, the one which highlights itself is bringing Chhattisgarh State to rank one all over India in Swachh Survekshan 2019 and taking Ambikapur to become the 2 cleanest cities of India. He has pioneered and championed the cause of sustainable sanitation. He was instrumental in the implementation of the Ambikapur Model across the state of Chhattisgarh under the banner of Mission Clean city. He holds a doctorate along with an MBA and Bachelor of Engineering degree in Electronics and Communication. With this wide range of educational qualifications and multi-sector experience he understands the requirements of sustainable cities and also understands how to achieve the same.

Bio



Mr Jobin Joseph

Mr Jobin Joseph is an IEC Expert (Consultant) to the Urban Department, Government of Chhattisgarh. He has experience of over 5 years in Planning, Executing, Monitoring and Evaluation of IEC/BCC Campaigns. He was instrumental in the implementation of campaigns based on sanitation, hygiene, household waste segregation, plastic waste management, Eradication of manual scavenging, uplifting the socioeconomic status of sanitation workers for the Urban Department and campaigns on road safety for Chhattisgarh police. With his B.Tech. in Media and Social work experience, he has widely helped Chhattisgarh Government in improving the living environment by the implementation of strategically planned IEC Campaigns.



Mr Manohar Krishna

He is a graduate in Commerce and an MBA from the Indian Institute of Management, Bangalore. He was always passionate about the environment and in the early nineties he and an ex-colleague set up Kam-Avida with a meagre share capital of INR 501/-. In a time when cleaning was looked down upon and considered a job reserved for the backward sections of society – Krishna ventured in head-first, to develop the Solid and Liquid Waste Management Industry in India. Under the company-wide philosophy of Cleaning and Maintenance with Ease and Dignity, Kam-Avida now boasts of over 7000 machines running nationwide and hundreds of lives of Safai Karamchari's improved.

Name Bio



Mr Sanjay Kumar Deharia

He's posted in Madhya Pradesh as a Regional Business facilitation manager for execution, implementation, Training capacity building and Business facilitation. He has more than 16 years of experience in the e-gov profession including Public procurement policy and the GeM process. He has delivered more than 250 GeM workshops/Webinars and sessions successfully including Buyers Central Govt / State Govt / PSUs / Banks and institutions and industries associations MSME associations and industry partners like FICCI, DICCI, PHDCCI, LUB, CCI etc.



Ms Akhila Sivadas

She is a founder member and Executive Director of the Centre for Advocacy and Research. She has been working in the WASH sector from 2006 both in mega and capital cities -Delhi, Jaipur, Bhubaneswar, Pune and Kolkata and in many other smaller Towns-Jodhpur and Sambalpur. Over this decade and a half and more so in the last five to six years in the context of the urban Swachh Bharat Mission she and her team have had the opportunity to work in a very granular way on improving the knowledge, aspiration and collective effort of the urban poor to access and avail safely managed sanitation. It is this experience and expertise she will be sharing with us



Dr Himani Tiwari

She is a coordinator under the City Manager's Association, Directorate of Local Bodies, and Government of Rajasthan. She has an expertise of 23 years in the WASH Sector with a speciality in the role of Community Participation. She also has a was an experience of around 10 years as an Associate Professor in the Environment Sector and 5 years experience in USAID. Her biggest achievement was, being awarded by the Hon'ble CM, Govt. of Rajasthan twice (2016 and 2018) under the Swachh Bharat Mission at the State Level.



Mr Rakesh Kasba

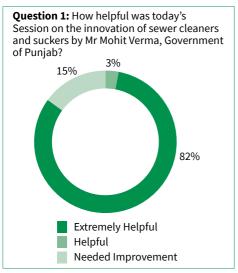
He's Co-founder and innovator at JALODBUST. Inventor, implementer, and entrepreneur serving those who serve. Aspiring to reach 6.00 lakh Villages and 4000 Towns to end Manual Scavenging. JALODBUST, a globally awarded innovation, will provide sight, smell and splash-free emptying of faecal sludge from pit based toilets and manholes. He's a Project Manager of Mega Projects, Ex. Govt Officer and has 30+ Years in Hydro Power Construction, now a full-time hardware-led social entrepreneur.

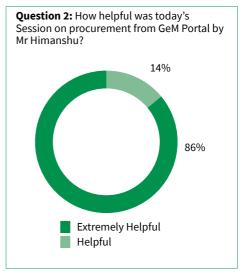
Name	Bio
Mr Mandeep Singh	He's at GG enterprise with expertise in the use of equipment's for mechanised cleaning
Mr Niladri Chokrabarti	He's a faculty at Institute for Human Settlements.
Mr Pashim Tewari	He is an expert in urban development and sustainable studies, having worked extensively with the state and local governments in India. Presently, he is the Technical Director at All India Institute of Local Self Government (AIILSG). Before joining AIILSG, he has worked with SEEDs India and as an Advisor ICT in Delhi Mumbai Industrial Development Corridor. He is spearheading projects in AIILSG (North and West). His strength lies in developing and implementing frameworks for making environmentally friendly and sustainable cities. He has also worked extensively with UNDP, UNWOMEN and other developmental agencies for developing reports and publication on several subjects including MNERGA, RGGVY, Climate change, etc.
Mr Mohit Verma	He is working as an Executive Engineer in Punjab Water Supply and Sewerage Board, Ho, Chandigarh. He has expertise in Sewerage Treatment, Low-cost Mechanization, implementation of mechanization, Low-cost In-Situ remediation, application of IIT in drinking water sampling and surveillance.
Mr Manohar Reddy	He's an Environmental Engineer at Swachh Andhra Corporation. He's Professional in renewable energies and conversion technologies specialized in Integrated waste management & energy recovery and Rural development along with hands-on experience in industrial automation and specific process logic development

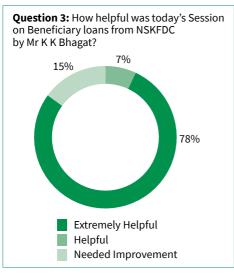
6. Feedback

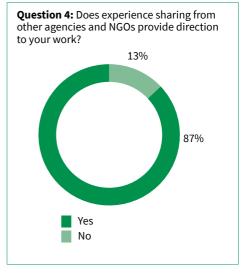
During the workshop under this challenge, polls were conducted to understand the feedback of the participants on the online sessions organized by NIUA.

The summary of ''Coordination and Experience Sharing Meeting -I" feedback polls are as follows:

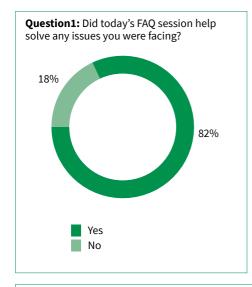


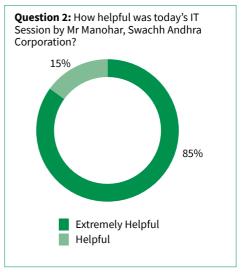


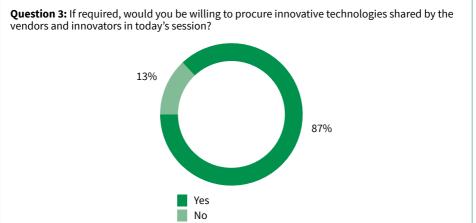




The summary of "Coordination and Experience Sharing Meeting -II" feedback polls are as follows:







7. Recommendation and Way Forward

The ongoing pandemic prompted NIUA to hold the capacity building sessions online. Despite the challenges of the online mode, the participation in most of the sessions was over 150 participants. In many cases, several officials joined from one connection. Therefore, in terms of people who benefitted, the number is much higher. The sessions have led to an improved awareness in Urban Local Bodies (ULBs) on ways to efficiently adapt and manage mechanized cleaning of sewers and septic tanks.

Several ULBs have expressed the desire for handholding in the procurement of equipment and further imparting sessions to improve the skill of workers for the operation and maintenance of equipment and machines procured. As more cities join the challenge subsequently, it would help to celebrate success, discuss challenges and setbacks to prevent many from committing the same mistakes.

To make an impact at the grass-root level, there is an immediate need to conduct continuous capacity building programmes on livelihood options and skill development of Safaimitras. The following suggestions can be considered:

- Conduct regular and customized training programs on affordable technologies, operation and maintenance of equipment and their Standard Operating Procedures (SOPs) for concerned officials and Safaimitras
- Empowerment of Safaimitras for skill development and alternate livelihood options
- Encourage adoption of innovative solutions offered by and start-ups and other solution providers
- Improve awareness among citizens through novel and transformative IEC campaigns on septic tank construction, desludging cycle, available techniques for cleaning, city helpline number, etc.
- Encourage more experience sharing and peer-to-peer learning on various aspects of the challenge
- Integrate the objectives of Safaimitra Suraksha Challenge (SMSC) with those of Swachh Bharat Mission 2.0 this challenge will eventually need to be extended to all cities that are part of SBM 2.0.
- Create an online training platform for monitoring capacity-building activities. This online platform may act as a repository of knowledge where comprehensive modules, information on good practices, posters, handbooks, etc. can be made available.
- Integrate SMSC indicators in the upcoming ranking of cities under Swachh Survekshan.
 This will help in monitoring and assessment of registered de-sludging operators, health and safety of sewer maintenance staff and use of mechanized cleaning machines.
- The above needs to be augmented by continuous technical assistance to ULBs for selection of machines and equipment, Information Education and Communication (IEC) strategies, MIS related support and assistance in the procurement process for equipment and machinery.

Annexure - I

Agenda of the Meetings









COLLAB MEET FOR CITIES AND PARTNERS

As part of SMS challenge December 28, 2020

	Agenda
2:30 - 2:40 pm	Introduction and findings of rapid city needs assessment & partner potentials - Ms. Paramita Datta Dey, Programme Lead, NIUA, New Delhi
	Activities, steps needed and support available from MoHUA , NIUA and partner organizations for SMS challenge - Mr. Rohit Kakkar, Deputy Advisor (CPHEEO), Ministry of Housing and Urban Affairs (MoHUA), Government of India, Mr. Anil Prakash, SBM- U (MoHUA)
3.40 – 4.00 pm	Experience sharing by partner organizations
4:00– 5:00 pm	Q&A session Panel members - Mr. Rohit Kakkar, Advisor, CPHEEO, MoHUA Ms. Sanghamitra Bhattacharyya, Mr. Anil Prakash, Mr. Prabal Bhardwaj, SBM-U (MoHUA)
5:00- 5:15 pm	Closing remarks









COORDINATION MEET - 1 FOR CITIES AND PARTNERS

As part of SMS challenge January 15, 2021

Agenda		
2:30 - 2:40 pm	Welcome Remarks by Ms. Paramita Datta Dey, Programme Lead, NIUA	
2:40 - 3:20 pm	Use of Affordable and Innovative Technologies in Punjab - Mr. Mohit Verma, Executive Engineer, Punjab Water Supply and Sewerage Board, Government of Punjab	
3:20 - 4:00 pm	Process Flow for Shortlisting and Procurement of Items from GEM Portal— Mr. Himanshu Chaturvedi, PMU, MoHUA	
4:00 - 4:30 pm	Highlights of Loan Mela by NSKFDC - Mr. K. K. Bhagat, Chief Manager (Projects), NSKFDC	
4:30- 5:00 pm	Use of Equipment for Mechanised Sewage Cleaning— Presentation by Mr. Priyashil Choubey, TPS Infrastructure limited	
5:00- 5:20 pm	Experience of Capacity Building for officials of Bruhat Mumbai Municipal Corporation - Dr. (Prof.) Sneha Palnitkar, CEO, Waste Management Resource Centre, and Ms. Madhura Palnitkar, Programme Director, Centre for the Study of Social Change	
5:2 0 5:30 pm	Closing remarks	









COORDINATION AND EXPERIENCE SHARING MEETING - II For cities and partners as part of SMS challenge February 10, 2021

Agenda		
2:30 - 3:00 pm FAQs related to MIS for Safaimitra Suraksha Challenge- Mr. Anil Prakash, SBM- U (MoHUA)		
3:40- 3:30 pm	IT related solutions for SMS Challenge(including integrating local helpline numbers with common helpline number, and necessary architecture, etc.)- Shri. Sampath Kumar, State Mission Director, Andhra Pradesh	
3:30 - 4:00 pm	Use of IEC and communication campaigns in SMS Challenge- Mr. Nitesh Sharma, Advisor, SUDA, Chhattisgarh	
4.00 – 5.00 pm	Experience Sharing by Partner Organizations: -Mr. Niladri Chakraborti, Faculty, IIHS -Mr. Paschim Tiwari, Technical Director, AIILSG Delhi	
5:00- 5:15 pm	Closing remarks	









OPEN HOUSE FOR SAFAIMITRA SURAKSHA CHALLENGE March 16, 2021

Agenda		
3:15 - 3:30 pm	Introduction and Welcome Note- Ms. Paramita Datta Dey, Programme Lead, NIUA	
3:30 - 4:00 pm FAQs related to Safaimitra Suraksha Challenge -Mr. Rohit Kakkar, Deputy Advisor (CPHEEO), MoHUA, Gol -Mr. Anil Prakash, NIUA, MoHUA		
4:00 - 4:30 pm Insights on Skill Development for Safaimitra Suraksha Challenge -Mr. Prabal Bhardwaj, PMU, SBM-U (MOHUA)		
4.30 - 4.45 pm FAQs related to National Helpline Number for Safaimitra Suraksha Challenge '14420' - Mr. Rahul Jha, PMU, SBM-U (MoHUA)		
4:45 - 5:00 pm	Closing remarks- Ms. Paramita Datta Dey, Programme Lead, NIUA	

Annexure - II

List of Participating Cities

LIST OF PARTICIPATING CITIES

Andhra Pradesh Chittoor Andhra Pradesh Chittoor Andhra Pradesh Eluru Andhra Pradesh Guntur Andhra Pradesh Guntur Andhra Pradesh GVMC Visakhapatnam Andhra Pradesh Kadapa Andhra Pradesh Kakinada Andhra Pradesh Kurnool Andhra Pradesh Machilipatnam Andhra Pradesh Nellore Andhra Pradesh Nellore Andhra Pradesh Nellore Andhra Pradesh Rajahmundry Andhra Pradesh Srikakulam Andhra Pradesh Tirupati Andhra Pradesh Vijayawada Andhra Pradesh Vijayawada Andhra Pradesh Vijayawada Andhra Pradesh Itanagar Andhra Pradesh Itanagar Bhar Begusarai Bihar Ara Bihar Bhagalpur	Sl. No.	State	Participating cities
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25 Bihar Chapra 26 Bihar Darbhanga 27 Bihar Gaya 28 Bihar Katihar 29 Bihar Munger 30 Bihar Muzaffarpur 31 Bihar Patna 32 Bihar Purnia	23	Bihar	Bhagalpur
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	31	Bihar	Patna
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	33	Chandigarh	Chandigarh

34	Chhattisgarh	Ambikapur
35	Chhattisgarh	Bhilai charoda (m)
36	Chhattisgarh	Bhilai nagar
37	Chhattisgarh	Bilaspur
38	Chhattisgarh	Birgaon (m)
39	Chhattisgarh	Chirmiri
40	Chhattisgarh	Dhamtari (m)
41	Chhattisgarh	Durg
42	Chhattisgarh	Jagdalpur
43	Chhattisgarh	Korba
44	Chhattisgarh	Raigarh
45	Chhattisgarh	Raipur
46	Chhattisgarh	Rajnandgaon
47	Chhattisgarh	Risali
48	Dadra and Nagar Haveli, Daman and Diu	Daman
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50	Dadra and Nagar Haveli, Daman and Diu	Silvassa
51	Delhi	East delhi (EDMC)
52	Delhi	New Delhi Municipal Council
53	Delhi	North delhi (North MCD)
54	Delhi	South delhi (SDMC)
55	Goa	Panaji
56	Gujarat	Ahmedabad
57	Gujarat	Bhavnagar
58	Gujarat	Dahod
59	Gujarat	Gandhinagar
60	Gujarat	Jamnagar
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62	Gujarat	Rajkot
63	Gujarat	Surat
64	Gujarat	Vadodara
65	Haryana	Ambala
66	Haryana	Faridabad
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68	Haryana	Hisar
69	Haryana	Karnal
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71	Haryana	Panipat
72	Haryana	Rohtak
73	Haryana	Sonipat
74	Haryana	Yamunanagar

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· ·	110	Madhya Pradesh	Gwalior
112 Madhya Pradesh Jabalpur	111	Madhya Pradesh	Indore
	112	Madhya Pradesh	Jabalpur

113	Madhya Pradesh	Katni
114	Madhya Pradesh	Khandwa
115	Madhya Pradesh	Morena
116	Madhya Pradesh	Ratlam
117	Madhya Pradesh	Rewa
118	Madhya Pradesh	Sagar
119	Madhya Pradesh	Satna
120	Madhya Pradesh	Singrauli
121	Madhya Pradesh	Ujjain
122	Maharashtra	Ahmedanagar
123	Maharashtra	Akola
124	Maharashtra	Amravati
125	Maharashtra	Aurangabad
126	Maharashtra	Bhiwandi nizampur
127	Maharashtra	Chandrapur
128	Maharashtra	Dhule
129	Maharashtra	Greater mumbai
130	Maharashtra	Jalgaon
131	Maharashtra	Kalyan dombivali
132	Maharashtra	Kolhapur
133	Maharashtra	Latur
134	Maharashtra	Malegaon
135	Maharashtra	Mira-bhayandar
136	Maharashtra	Nagpur
137	Maharashtra	Nanded waghala
138	Maharashtra	Nashik
139	Maharashtra	Navi mumbai
140	Maharashtra	Panvel
141	Maharashtra	Parbhani
142	Maharashtra	Pimpri chinchwad
143	Maharashtra	Pune
144	Maharashtra	Sangli
145	Maharashtra	Solapur
146	Maharashtra	Thane
147	Maharashtra	Ulhasnagar

148	Maharashtra	Vasai virar
149	Manipur	Imphal
150	Meghalaya	Shillong
151	Mizoram	Aizawl
152	Nagaland	Kohima
153	Odisha	Bhubaneswar
154	Odisha	Brahmapur (M corp)
155	Odisha	Cuttack
156	Odisha	Raurkela town (m)
157	Odisha	Sambalpur town (m)
158	Puducherry	Oulgaret
159	Puducherry	Puducherry
160	Punjab	Abohar (m cl)
161	Punjab	Amritsar
162	Punjab	Batala (m cl)
163	Punjab	Bathinda
164	Punjab	Hoshiarpur (m cl)
165	Punjab	Jalandhar
166	Punjab	Kapurthala
167	Punjab	Ludhiana
168	Punjab	Moga
169	Punjab	Pathankot
170	Punjab	Patiala
171	Punjab	Phagwara
172	Punjab	S.A.S. Nagar (mohali)
173	Rajasthan	Ajmer
174	Rajasthan	Bharatpur (m cl)
175	Rajasthan	Bikaner
176	Rajasthan	Jaipur Greater
177	Rajasthan	Jaipur heritage
178	Rajasthan	Jodhpur North
179	Rajasthan	Jodhpur south
180	Rajasthan	Kota North
181	Rajasthan	Kota south
182	Rajasthan	Udaipur (m cl)
183	Sikkim	Gangtok
184	Sikkim	Namchi
185	Tamil Nadu	Avadi
186	Tamil Nadu	Chennai

187	Tamil Nadu	Coimbatore
188	Tamil Nadu	Dindigul
189	Tamil Nadu	Erode
190	Tamil Nadu	Hossur
191	Tamil Nadu	Madurai
192	Tamil Nadu	Nagarcoil
193	Tamil Nadu	Salem
194	Tamil Nadu	Thanjavur
195	Tamil Nadu	Thoothukudi corporation
196	Tamil Nadu	Tiruchirappalli
197	Tamil Nadu	Tirunelveli
198	Tamil Nadu	Tiruppur
199	Tamil Nadu	Vellore
200	Telangana	Greater Hyderabad Municipal
		Corporation
201	Telangana	Karimnagar
202	Telangana	Khammam
203	Telangana	Nizamabad
204	Telangana	Nizampet
205	Telangana	Ramagundam
206	Telangana	Warangal
207	Tripura	Agartala
208	Uttar Pradesh	Agra
209	Uttar Pradesh	Aligarh
210	Uttar Pradesh	Prayagraj (M Corp.) (G)
211	Uttar Pradesh	Ayodhya M.corp
212	Uttar Pradesh	Bareilly
213	Uttar Pradesh	Firozabad (m.corp.)
214	Uttar Pradesh	Ghaziabad
215	Uttar Pradesh	Gorakhpur
216	Uttar Pradesh	Jhansi
217	Uttar Pradesh	Kanpur
218	Uttar Pradesh	Lucknow
219	Uttar Pradesh	Mathura-vrindavan (nn)
220	Uttar Pradesh	Meerut
221	Uttar Pradesh	Moradabad
222	Uttar Pradesh	Rampur
223	Uttar Pradesh	Saharanpur
224	Uttar Pradesh	Shahjahanpur (npp)
225	Uttar Pradesh	Varanasi

226	Uttarakhand	Dehradun
227	Uttarakhand	Haldwani
228	Uttarakhand	Hardwar
229	Uttarakhand	Kashipur
230	Uttarakhand	Kotdwara
231	Uttarakhand	Rishikesh
232	Uttarakhand	Roorkee (nn)
233	Uttarakhand	Rudrapur
234	West Bengal	Asansol
235	West Bengal	Bidhannagar
236	West Bengal	Chandannagar MC
237	West Bengal	Durgapur
238	West Bengal	Haldia
239	West Bengal	Howrah MC
240	West Bengal	Kolkata MC
241	West Bengal	New Town
242	West Bengal	Siliguri
243	Uttar Pradesh	Noida
244	Jharkhand	Jamshedpur
245	Odisha	Puri
246	Odisha	Balaosre

Annexure - III

Presentations

First

LAUNCH MEETING

19 November, 2020





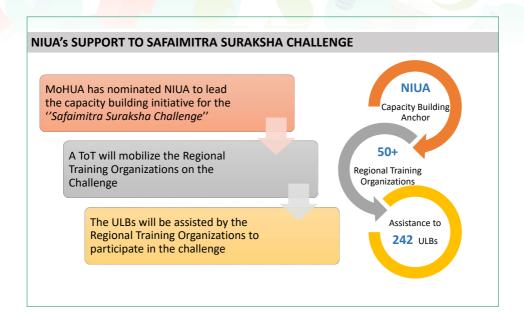


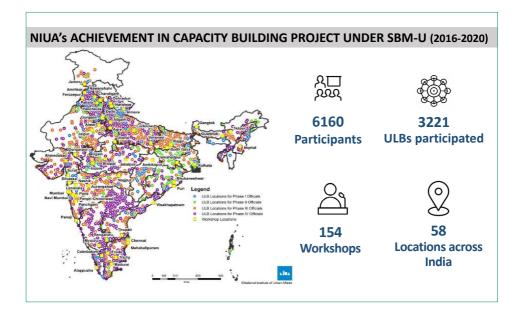




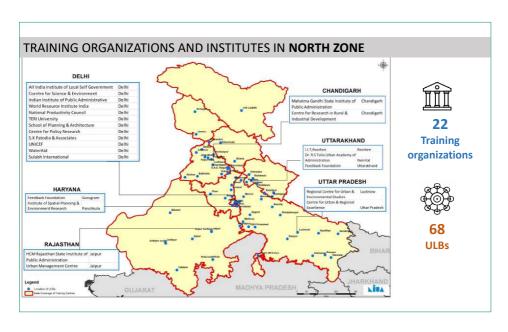


ZONE WISE MAPPING OF ORGANIZATIONS AND INSTITUTES
FOR
TECHNICAL ASSISTANCE















Thank You

National Institute of Urban Affairs
1st and 2nd Floor, Core 4B, India Habitat Centre,
Lodhi Road, New Delhi, Delhi 110003
Contact number - 011-2464 3284
email: director@niua.org, hvaidya@niua.org, niua-sbm@niua.org

Second

ORIENTATION MEETING

04 December, 2020









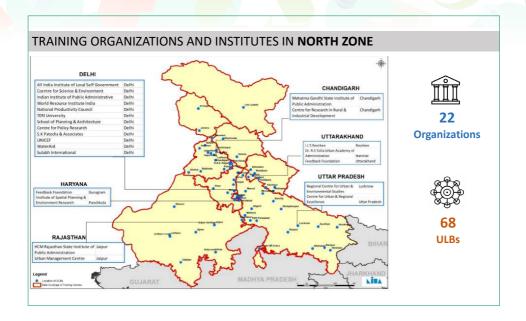


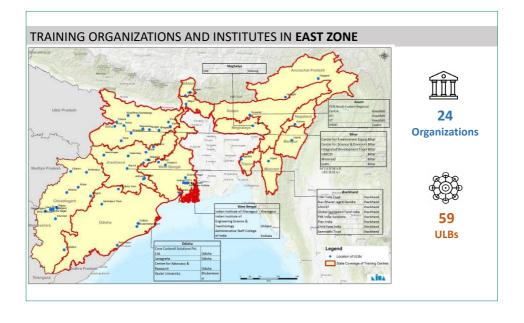


MAPPING OF ORGANIZATIONS FOR TECHNICAL ASSISTANCE TO STATES AND ULBS

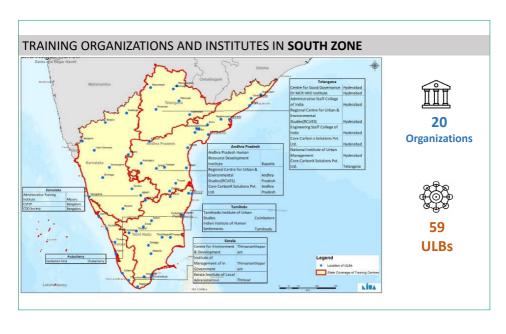
NIUA'S SUPPORT TO SAFAIMITRA SURAKSHA CHALLENGE MoHUA has nominated NIUA to anchor **NIUA** the capacity building initiative for the Anchor "Safaimitra Suraksha Challenge" 70+ An orientation meeting to mobilize Partner partner organizations for the Challenge organizations Assistance to The States and ULBs will be assisted by **242 ULBs** partner organizations to participate in the challenge across India











ACTIVITY PLAN

Activity	Tentative dates
Orientation meeting	4-Dec-20
Coordination meeting for cities and agencies - North Zone	15-Dec-20
Coordination meeting for cities and agencies - West Zone	16-Dec-20
Coordination meeting for cities and agencies - South Zone	17-Dec-20
Coordination meeting for cities and agencies - East Zone	18-Dec-20
Submission of activity plan to NIUA from the organizations in consultation with cities	30-Dec-20
1 st Monthly coordination meeting with organizations	19-Jan-20
2 nd Monthly coordination meeting with organizations	9-Feb-20
3 rd Monthly coordination meeting with organizations	9-Mar-20
4 th Monthly coordination meeting with organizations	9-Apr-20



Third

COLLAB MEET FOR CITIES AND PARTNERS 28 December, 2020





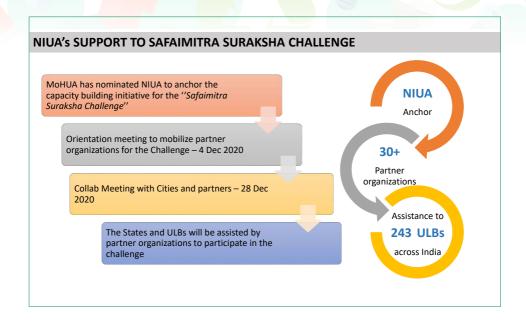




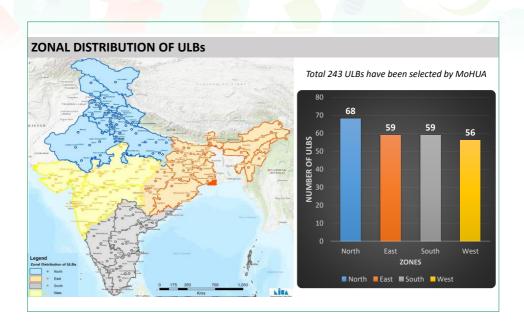




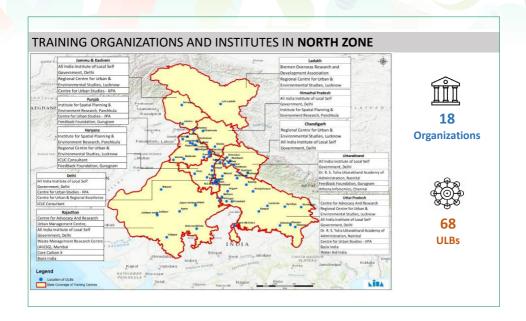
COLLAB MEETING FOR SAFAIMITRA SURAKSHA CHALLENGE 28 December 2020



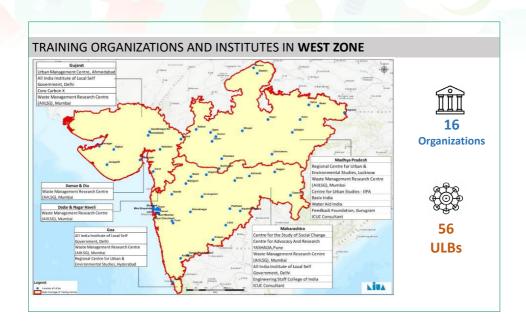
ZONAL DISTRIBUTION OF STATES/UTS 35 States and UTs are involved in the 13 challenge Zone Chandigarh **NUMBER OF STATES/UTS** Punjab 9 Delhi Rajasthan Uttar Pradesh North Haryana Himachal Pradesh Uttarakhand Jammu & Kashmir Leh Arunachal Pradesh Mizoram Assam Nagaland Rihar Odisha Chattisgarh Sikkim Jharkhand Tripura Manipur West Bengal Meghalaya Andaman & Nicobar Island Puducherry Andhra Pradesh Tamil Nadu South Karnataka Telangana Kerala **ZONES** Dadar & Nagar Haveli Gujarat Madhya Pradesh Daman & Diu West ■ North ■ East ■ South ■ West Maharashtra

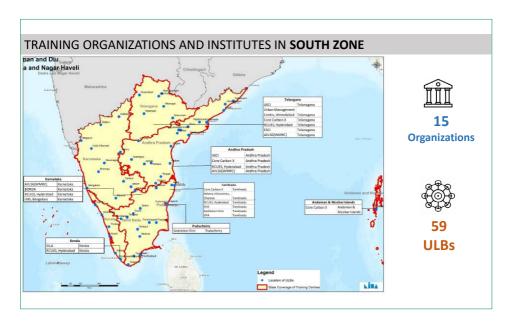




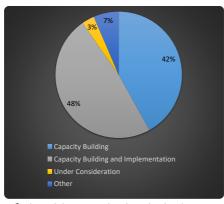








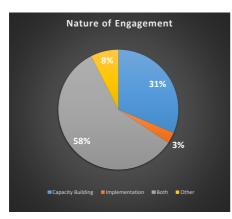
ENGAGEMENT OFFERED BY ORGANISATIONS



* Others include IEC, Research Studies and GIS based MIS

- 31 Organisations have shown interest to support the cities in this journey.
- The potential nature of engagement varies from capacity building, implementation and execution.
- Other kinds of engagements include Research, GIS Mapping, etc.
- Organisations and cities will further plan the nature of engagement

ANALYSIS OF CITY NEEDS ASSESSMENT (As Conveyed By Cities)



* Total number of response from cities - 67

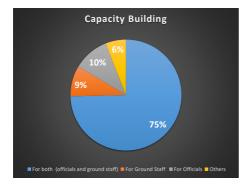
Others include -

- Infrastructure development & enhancement of existing system.
- Financial assistance for procurement of mechanized cleaning equipment/vehicles and PPE Kits
- Financial assistance for construction of Sewer network in the ULB.
- · Equipment for sewer cleaning.



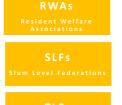


ANALYSIS OF CITY'S CAPACITY BUILDING NEEDS (As Conveyed By Cities)



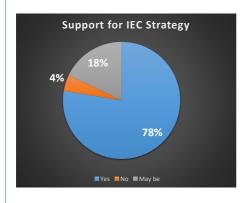
Others include training for -

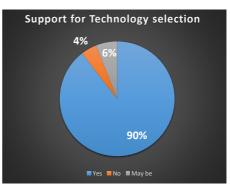




* Total number of response from cities – 67

Analysis of city capacity building needs (as conveyed by cities)





^{*} Total number of response from cities – 67

FAQ's from Cities

- 1. What are the activities and/or components of this challenge?
- 2. What are the steps that need to be taken by ULB to participate in this challenge?
- 3. Who will support them in coming up with an action plan?
- 4. What kind of support can ULBs avail from MoHUA, NIUA, Organisations, and other agencies (Financial, Technical, Capacity Building, other)?

Next Steps...

Activity	Tentative dates
Orientation meeting (completed)	4-Dec-2020
Collab meet for cities and organizations	28-Dec-2020
Submission of activity plan to NIUA from organizations in consultation with cities	05 Jan-2021
Coordination meetings (Planning, updates and experience sharing)	15 - Jan-2021
	10 –Feb -2021
	10 -Mar-2021
	10 – Apr- 2021









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 1st 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

- 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
- The police can subsequently arrest the accused without warrant and the accused will be required to approach a Court for bail.
- 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

- 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
- 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



Important Timelines

• Launch of Challenge : 19th November 2020

• Preparatory period : 19th Nov to 31st March 2021

• Monthly Progress Evaluation : February, March and April 2021

IEC Activities update on portal : January 2021 onwards
 Application by Cities : 2nd - 30th April 2021

• Documents to be uploaded : 20th April 2021

• Evaluation : 1st May 2021 – 30th June 2021

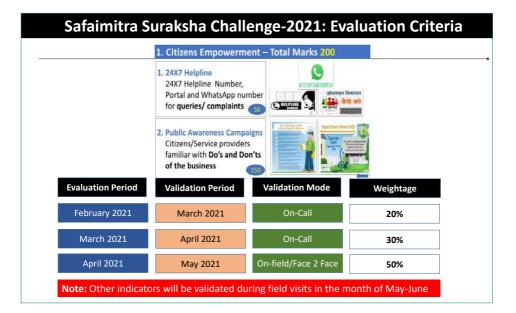
• Results : 15th August 2021

Safaimitra Suraksha Challenge-2021 (SSC-2021)

- Monthly Progress to be updated mandatorily by 5th day on SBM portal
 - February 2021 progress to be updated by 5th March 2021
 - March 2021 progress to be updated by 5th April 2021
 - April 2021 progress to be updated by 25th 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 20th 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









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 **Eco-System Parameters: 300 Marks** 1. Periodic preventive Marks 1. Citizen's Empowerment Marks 100 • 24X7 Helpline maintenance 200 **Public Awareness Campaigns** 2. Sustainable O&M Marks 2. Mechanised Cleaning: Men & Machine 50 Marks 3. Treatment Capacity Equipment & Infrastructure 400 Marks 4. Adoption of Innovative Workforce 50 **Approach** Marks 3. Mechanised Cleaning: Soft Measures 5. Standardization of 50 Marks · Capacity Building Marks 100 **Empowerment of Safaimitra** Septic Tank 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



2. Public Awareness Campaigns Citizens/Service providers familiar with Do's and Don'ts of the business



2. Mechanised Cleaning: Men & Machine - Marks 400

1. Equipment & Infrastructure (as per CPHEEO norms)

Basic Maintenance Machines

Special Equipment PPE & Safety Gears

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



Treatment Capacity of FSTP/STP & Actual Treatment – Marks 50

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



What % of faecal sludge/sewage is actually treated



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 bylaws



% of Septic tanks in compliance with **IS 2470** Code



Thank You

Safaimitra Suraksha Challenge-November, 2020- December, 2021

Alm-In keeping with the spirit and letter of the low-Prohibition of Employment as Manual Scavengers and their Rehabilitation Act 2013- to enforce/comply with the ban on hazardous cleaning of sewer/septic tanks by ensuring that the city government and urban local bodies and citizen adopt the practice of mechanized cleaning of sewer and septic tanks



Initiative of Bhubaneswar Municipal Corporation (BMC):

- Identification of all informal sanitary workers involved in cleaning sewer lines and septic tanks/single pits (slums) with the support of Centre for Advocacy and Research (CFAR)
- Integration of these informal groups into formal Imparting Training on Standard Operating Procedures (SOP) on cleaning of sewers and septic tanks
- Ensuring mechanical cleaning of sewers and septic tanks/oits
- Equipped with cleaning tools, protective gears and safety devices

Training Booklet on Standard Operating Procedure for Cleaning Sewers and Septic Tanks developed by CPHEEO will be used to findlize the training module for samply workers and thereafter train them starting from master trainers to all including all their employers, supervisors and community facilitators





Ensuring all procedures laid for safely managed cleaning of sewer lines and septic tanks are regulated. This will be
achieved by educating all concerned about dos and don'ts and ranking the performance Word wise. Every month
one or more Words declared as Word of the Month

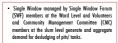


 BMC will also dovetail the sofaimitra suraksha challenge with ongoing process of implementing mechanized deaning of septic tanks and pits in 437 slums of Bhubaneswar





- Establishment of Single Window mechanism managed by women, men and transgender across 41 Wards with support of CFAR North Zone-20 Wards
- South East -9 Wards South West-12 Wards



- BMC in coordination with SWF, volunteers and CMC streamlined the service by training the desludge operators, volunteers, SWF and CMC members.
- On World Toilet Day, 19 November, 2020 the small cesspool vehicles was flagged of and cost fixed at Rs. 497.





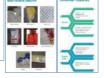
IEC and MuSafaiwala/Mass Rally/Awareness campaigns are conducted for public awareness and to strengthen community and



citizen engagement across the 67 Wards of the city



 For effective awareness and communication among citizens in the city communication materials are developed (dos and don'ts as stipulated in the training manual on Cleaning of Sewer lines and Septic tanks) with support of CFAR.





- Strengthen legal literacy and respect for the law- PEMSRA, 2013
- Create from Master Trainers lead communicator to sensitize all stakeholders using all
 platforms especially mass and social media Become role models and inspiration for other
 workers
- Take the campaign to resident welfare associations, market associations, schools and colleges and raise awareness
- · Build a movement of Friends of Sanitary Workers

Fourth

COORDINATION MEET-I FOR CITIES AND PARTNERS 15 January, 2021









Punjab Water Supply and Sewerage Board

INITIATIVE TAKEN BY PWSSB TO STOP MANUAL SCAVENGING

An innovative completely In-house Project





Prohibition of Employment as Manual Scavengers and their Rehabilitation Bill,2013





Need for Low Cost Mechanization

- •High Capital cost of market available solutions
- •High Operation Cost of existing solutions
- •Financial burden on daily usage on ULB (just like a white elephant)
- •Due to high operation cost & high repair cost being used as accidental maintenance only
- •Huge size constraints & not designed as per local sight conditions

3

Benefits of Preventive maintenance

- •More than 80% of sewerage network in a town comprises branch sewer (upto 12" dia)
- •If branch sewer and machine holes on it cleaned once a year main sewer will never require cleaning.
- •Preventive maintenance reduces accidental maintenance and rehabilitation cost
- •Overall preventive cost = 1/10th of rehabilitation cost in a year
- •Preventive maintenance improves functionality of sewerage system

4



PUNJAB WATER SUPPLY AND SEWERAGE BOARD

Uniform implemented in Deptt (now uniform after finalization from center Govt will be implemented

Uniform / Protective gears given to Sewermen





- Given to each sewermen by Deptt for
- wearing while working in field.
- ·Safety helmet
- •Protective eye wear
- Safety mask
- Night Reflector Stripe
- ·Violet single piece Dangri/Uniform
- Hand Gloves
- •Gum Boots
- •Approx cost Rs 650/- + taxes.

Manual manhole mechanical desilting winch







Approx Cost 2000/- Rs



Moto Mouse Jetter

Trolly Mounted Sewer Jetting cum Suction Machine



- Compact and can be pulled even by a motorcycle and manual means
- Easy operation no skilled labour required
- Can operate in narrow lanes where normal machine can't
- Negligible fuel consumption
- Running cost even more less than even bamboo Roding
- Less capital cost with minimum repair cost

Available on GEM Portal

Approx Cost 350000/- Rs



MOTO MOUSE JETTER



ਮੁੱਖ ਕਾਰਜਕਾਰੀ ਅਫ਼ਸਰ ਅਜੋਏ ਸ਼ਰਮਾ ਵਲੋਂ ਜੈਟਿੰਗ ਮਸ਼ੀਨ ਦਾ ਉਦਘਾਟਨ





TROLLY FRAME PULLABLE MANUALLY/ MOTOR CYCLE

मरुय कार्यकारी अधिकारी द्वारा जैटिंग मशीन का उदघाटन





Moto Mouse Jetter







Conventional Jetting machine

10



PUNJAB WATER SUPPLY AND SEWERAGE BOARD

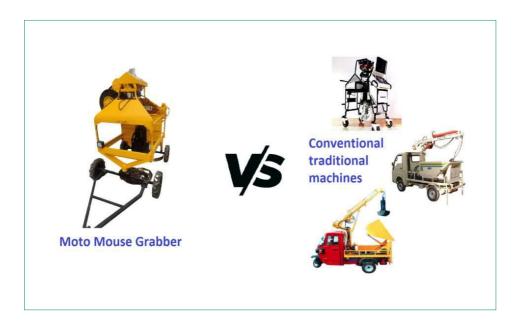
Manpower required Skilled

Conventional jetting machine 1 Cost of Machine 25,00-30,00 Lacs 3,50 Lac 3,50 Lac 3,50 Lac 2,50 pare for repair 3 Repair cost of machine 4 Efficiency in deaning 5 Machine 2,500-30,00 Lacs 5 Machine 2,500-30,00 Lacs 5 Machine 2,500-30,00 Lacs 6 Machine 2,500-30,00 Lacs 7 Machine 2,500-30,00 Lacs 7 Machine 2,500-30,00 Lacs 8 Machine 2,500-30,00

Comparision of conventional jetting machine with Moto Mouse Jetter

Non skilled or semi skilled







Comparision of existing desilting machine with Moto Mouse Grabber Robotic Desilting machine Description Normal Desilting Machine Moto Mouse Grabber Cost of Machine 10.00 Lacs 40.00 Lacs Spare for repair Complex spareparts due vehicle repair machine Less effective due to veticle Moderate effective due to lateral quick and more effective due to side Efficiency in cleaning grabbing only 300-400 Rs per Hour movements 1000 Rs approx per hour Running O&M Cost 50 Rs per hour Manpower required Non skilled or semi skilled Gas Sensor, Camera Safety devices Gas detection sensor, 360 degree No provision



ECO Desilter

https://www.youtube.com/watch?v=krRZOL_OdBI

E-Auto Mounted Machinehole Desilting Machine



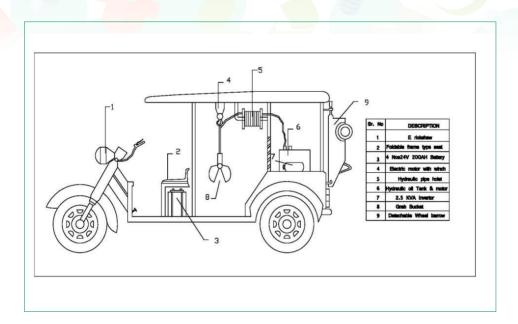
Available on GEM Portal

Key Features

camera, GPS

- Compact and can be pulled by a E-Rikshaw does not require any special driver.
- · Easy operation no skilled labour required
- Can operate in narrow lanes where normal machine can't go
- · No fuel required, pollution free, noise free
- · Negligible Running cost in comparison to manual cleaning
- Less capital cost with minimum repair cost

Approx Cost 475000/- Rs



	Comp	arision of existing	desilting machine with I	Eco Desilter
		Normal Desilting Machine	Robotic Desilting machine	Eco Desilter
S No	Description			
1	Cost of Machine	10.00 Lacs	40.00 Lacs	4.00 Lac approx
2	Spare for repair	Complex spareparts due to vehicle repair	imported and complex electronic parts	simple & easily available
3	Repair cost of machine	Costly	Very costly	Economical
4	Efficiency in cleaning	Less effective due to verticle grabbing only, no side cleaning facility (slow cleaning rate)	Moderate effective due to lateral movements inside a manhole (slow cleaning rate due to complex mechanism)	Quick and more effective due to lateral cleaning with hydraulic side arm (fast cleaning rate)
5	Running O&M Cost	300-400 Rs per Hour	1000 Rs approx per hour	15-20 Rs per hour
6	Manpower required	Semi Skilled	Skilled	Non skilled & even special driver not required
7	Safety devices	No provision	Gas Serisor, Camera	Gas detection sensor, 360 degree camera, GPS

Detail of Low Cost sewer cleaning equipments on GEM Portal by various fabricators in Punjab State											
ir No	Type of Machine	Product id	Gem Catelog ID	Product name	Category	Model	Provider Name	MRP	Offer price	Photo of Product	Gem Link
1	Trolly Mounted	5767740- 8573386504	5116877- 1108971326-cat	Modern Jetting cum Suction Machine	Mini Jetting Machine	Mini Jetting cum Suction Mathine	Modern Foundry	420000	370000		https://mkp.gem.gov.in/mini-jetting- machine/modern-jetting-cum-suction-machine/p- 5116877-1108971326-cst.html#variant_id=5116877- 1108971326
2		1206038- 92852261309	5116877- 8905952987-cat	Bharat sewerage jetting cum suction machine	Mini Jetting Machine	trolley mounted jetting cum suction machine	Bharat Traders	450000	390000	4	https://mkp.gem.gov.in/minl-jetting-machine/bhara sewer.age-jetting-cum-suction-machine/p-5116877- 8905952987-cat.html#variant_id=5116877- 8905952987
3		5767740- 81770084535	5116877- 76003414389- cat	Modern Machinehole desilter	Trolley Mounted Manhole Cleaning Machine	Trolley mounted Machinehole desilter	Modern Foundry	350000	310000		https://mkp.gem.gov.in/trolley-mounted-manhole- cleaning-machine/modern-machinehole-desilter/p- 5116877-76003414389-cat.html#variant_id=511687 76003414389
4	E Auto Mounted Desilting machine	5767740- 87232260109	5116877- 30526787914- cat	Modern E auto machinehole desilting machine	Desitting Machine	Eauto mounted desilting machine	Modern Foundry	550000	482000	(Almy	https://mkp.gem.gov.in/desilting-machine/modern- auto-machinehole-desilting-machine/p-5116877- 30526787914-cat.html#variant.id=5116877- 30526787914
5		5767740- 18840968030	5116877- 97603688371- cat	Modern Jetting cum Suction Machine	Mini Jetting Machine	V1.0	Modern Foundry	380000	330000		https://mkp.gem.gov.in/mini-jetting- machine/modern-mini-jetting-machine/p-5116877- 97603688371-cat.html#variant_id=5116877- 97603688371
6	Trolly Mounted mini jetting machine	1206038- 7402550742	5116877- 53606320172- cat	Bharat sewer jetting machine	Mini Jetting Machine	Trolley mounted sewer jetting machine	Bharat Traders	395000	320000	1	https://mkp.gem.gov.in/mini-jetting-machine/bhara sewer-jetting-machine/p-5116877-53606320172- cat.html#variant_id=5116877-53606320172
7		3478210- 96738648532	5116877- 90139674344- cat	Mini sewer cleaning jetting machine	Mini Jetting Machine	Trolley type sewer cleaning high pressure jetting Machine	Traders Modern	390000	320000	THE REAL PROPERTY.	https://mkp.gem.gov.in/mini-jetting-machine/mini- sewer-cleaning-jetting-machine/p-5116877- 90139674344-cat.html#variant_id=5116877- 90139674344

Sr No	Description	Cost (In Rs.)				Cost(In Rs.)
1	Cost of jetting cum Suction Machine	350000		T	Cost of E-Rikshaw mounted Manhole desilter	450000
2	Subsidy amount	175000		r		200000
		Loan amount co	onsi	der	ing 4% interest amount	
3	Period of return of loan	5 years			Period of return of loan	5 years
4	Monthly installment	3500	П		Monthly installment	5000
5	Considering monthly repair and maintenance cost of machine lumpsum	2500			Considering Annual repair and maintenance cost of machine lumpsum	5000
6	Consumable diesel / electricity per month	11500			Considering consumable hydraulic oil / electricity per month	5000
7	Monthly salary of Safaimitra	20000			Monthly salary of Safaimitra	20000
8	PPE Kit and safety equipments	1000			PPE Kit and safety equipments	1000
9	Provision of accidental insurance, equipment insurance, medical insurance, mobile & first Aid & other consumables	1200			Provision of accidental insurance, equipment insurance, medical insurance, mobile & first Aid & other consumables	1200
	Total Monthly Cost (Rs.)	39700	П	y	Total Monthly Cost (Rs.)	37200

Total Monthly cost Rs 76900/- (Say 77000/-) for using jetting cum Suction Machine& E-Riskhaw mounted manhole desilter collectively

Calculations for category A :- Manhole Depth (≤ 7 ft)						
Nos of manholes cleaned in a day	6	manholes				
Cleaning of Branch reach	6	Nos				
Nos of working days in a month	22	days				
Manholes cleaned in month	132	Nos				
Total Branch sewer cleaned in month	3.30	Km				
Total Expenditure one manhole and one reach of sewer cleaned	600.00 20	GST extra on production of receipt				

Calculations for category B:- Manhole Depth (7-10 ft)							
Nos of manholes cleaned in a day		5	manholes				
Cleaning of Branch reach		5	Nos				
Nos of working days in a month		22	days				
Manholes cleaned in month		110	Nos				
Total Branch sewer cleaned in month		2.75	Km				
Total Expenditure one manhole and one reach of sewer cleaned	21	700.00	GST extra on production of receipt				

Calculations for category C:- Manhole Depth (≥10 ft)					
Nos of manholes cleaned in a day	4	manholes			
Cleaning of Branch reach	4	Nos			
Nos of working days in a month	22	days			
Manholes cleaned in month	88	Nos			
Total Branch sewer cleaned in month	2.20	Km			
Total Expenditure one manhole and one reach of sewer cleaned	900.00	GST extra on production of receipt			

22

Note – 5% annual increase on basic rate shall be considered till 5 years period.

Thanks

qc.pwssb@gmail.com, eeqc.pwssb@punjab.gov.in

23







Government e-marketplace

Procurement Cycle





Efficient • Transparent • Inclusive









- Learning Objective 1: How to Login as organisation/ Office and users on GeM
 - Two Stages
 - Step-1: Login as Organisation/Office
 - Step-2: Login as Secondary Users
- Learning Objective 2: How to procure Goods & Services on GeM







Important Aspects of while procuring on GeM portal

- Parties in GeM
 - √ Buyer
 - > Who can buy
 - >How to register to buy
 - ➤ How to buy
 - √ Seller
 - > Who can sell
 - > How to register to sell
 - ✓ DGS&D
 - > Role and responsibilities
- Each has its predefined role and responsibilities



Steps for Login as Organisation/Office/HOD





- Step1: Login to https://gem.gov.in
- Step2: Click on Login/Register Webpage
- Step3: Fill the required login credentials and Click Login











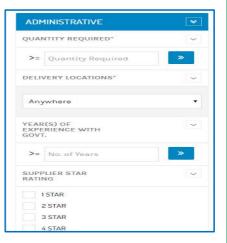


Administrative Filter





- 1.Put the administrative filter
- 2. Quantity required
- 3. Delivery Location
- 4. Year of experience with government
- 5. Supplier Rating



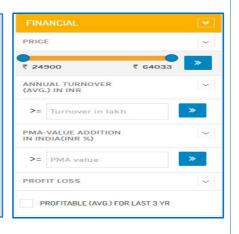


Financial Filter





- 1. Put the financial filter
- 2. Product amount range
- 3. Annual turnover of the supplier
- 4. PMA-Value addition
- 5. Profit & Loss of supplier





Product Description





Put the product technical specification as per requirement of buyer.

- · As brand
- · As model
- Processor etc





Important Note





 All filters applied by the buyer at the selecting product always remain on GeM and it may see by the HOD means the buyer have adequate justification as per requisite quality.







The Purchase Process – 141 A

- If the total purchase amount upto Rs. 50,000,
- If the total purchase amount above Rs. 50,000









- 1. When the purchase amount is Less than Rs 50, 000:
- There is no need of doing comparison.
- Buyer can select any product as per their specifications.
- 2. When the purchase amount is more than Rs 50, 000:
- It is mandatory to do comparison of the products first.
- Buyer need to select the L1 product.
- ..\GeM _ Market Comparison Sheet.pdf



Comparison Sheet





Specifications	Product 1	Product 2	Product 3		
	hp notchook pavillion	HP-12 per J	NIFH L2Laptop		
Sellers	1 metter(a)	(Seller(a)	1 Seller(a)		
Technical Specificati	ons				
MRP/Unit	₹ 99,097.00	₹ 26,000.00	₹ 20,000.00		
Unit Price	₹ 92,000.00	₹ 21,600.00	₹10,060.00		
Total Price	₹ 82,000,00 x 10 = ₹ 820,000.00	₹ 21,880,00 X 10 = ₹ 218,800,00	₹18,080,00 × 10 - ₹180,800,00		
Brand	hp	we	No. 6 M.		
Model	15441664	TR.	with the second		
Processor Malko	is soosu schoen	tesal	insel		
Precessor 2.05 hs 5005u Configuration		180 Guz, 2 MB Cache, 4 Cores	180 Guz, 2 MB Ceche, 6 Cores		
Type Of Operating Free Dea System		Militaria	Windows		
Warranty Cler at	-1	2	3		
Display Size Undid	18-8	71-0	ne.		
Display Resolution	1244 × 765 Pinel	ND - 1366 X 768	ND -1366 X 768		
Hard Disk Size (88)	1000	220	***		
RAM Sizo USBI	•	=	=		
Expandable Ram (00)		(* 2.5			
Type Of HOD		BATA	BATA		
Processor Name		Pentium Nario	Pentium Natio		
Windless Connectivity		BOET B/g/n (bingle Amenna) - BT a.d	BOET B/g/n (Single Antenna) - BT oc		
Battery		a Celli	a Celli		
Battery Warranty Diesel		3	7		
RAM Speed IMHLI		1600	1600		
Type Of RAM		0003	0063		







Purchase Options

- 1. Direct Purchase
- 2. Bidding
- 3. Reverse Auction



Direct Purchase





For the purchases in the above condition:

- Go on product of screen and select product at top of right for comparison of products maximum upto four products.
- Select the product(s).
- •If the amount is less than 50, 000 then buyer can go For any product.
- Add to cart.







BUYER

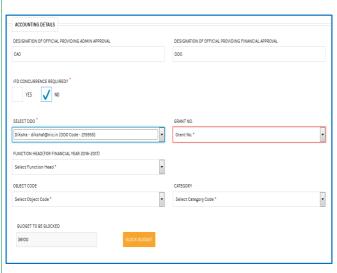
Direct Purchase





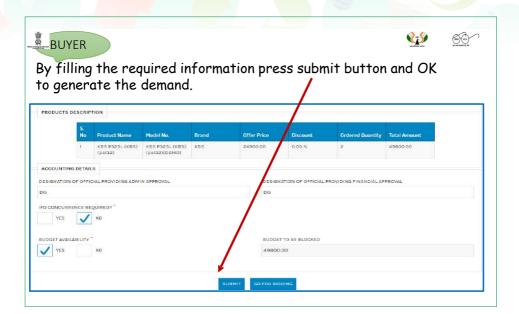
- The total purchase price upto Rs. 50, 000 buyer may go for direct purchase by clicking direct purchase button.
- Demand generation page will be displayed on screen.
- Fill the required details and upload Financial Approval.

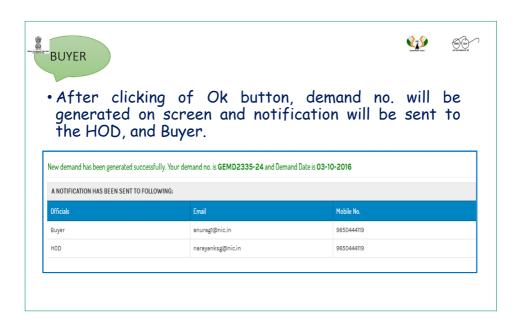




BUYER

- Select DDO along with Code
- · Fill Grant No.
- Select Function Head
- Select Object Code
- Click On Block Budget





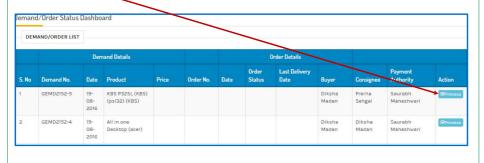


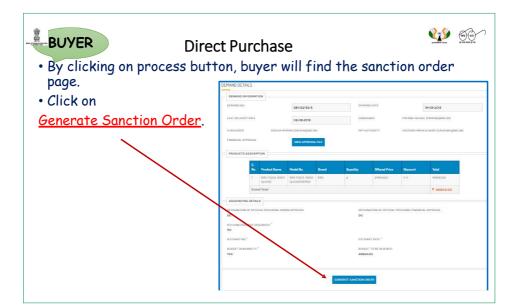
Direct Purchase

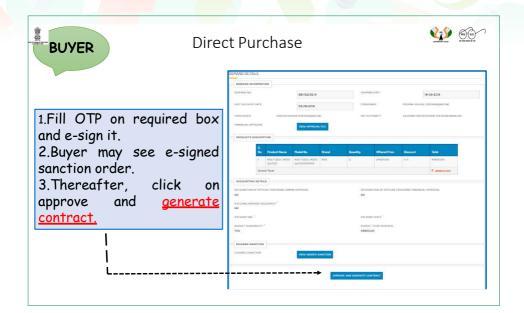




- Go to main page and click on "manage product" menu and click on demand/order list.
- Buyer will see different demand generated and click on process button.













- These documents duly signed digitally (e-sign) by the Buyer will be made available online to the concerned DDO, PAO and Seller/Supplier.
- The DDO and PAO shall have access to the Contract Agreement /Supply Order/Purchase Order online In order to ensure that the Bill is generated at the stage of payment in accordance with the contractual provisions.

An **electronic signature**, or e-signature, refers to data in electronic form, which is logically associated with other data in electronic form and which is used by the signatory to sign.







Direct Purchase

- After generating the contract, the seller/supplier will dispatch the along with the issue of online invoice on Gem portal.
- A invoice will be online available to the buyer and DDO/PAO regarding invoice cum bill.
- Then GeM portal will send a SMS/ email alert to the Buyer, on submission of Invoice.



Direct Purchase





- After intimation of invoice, consignee needs to login.
- The Buyer/consignee receives the Goods/Services and issues an online Provisional Receipt Certificate (PRC), within 48 hours, ...\PRC.pdf
- It contains the details regarding:-
 - Quantity received
 - Date of receiving of consignment.



Provisional Receipt Certificate (PRC)











CONSIGNEE





 After verification Including assessment of quality and quantity, the Consignee will Issue on-line digitally signed Consignee's Receipt & Acceptance Certificate (CRAC) for that stage within 10 days of date of issue of PRC.

..\CRAC.pdf

- The CRAC would clearly indicate:
- the Order quantity
- · rejected quantity (if any, with reasons for rejection including shortages/damaged /unaccepted quality)
- · quantity accepted and cleared for payment



Consignment Receipt and Acceptance (CRAC)











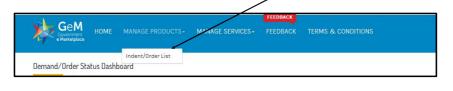
 Notification regarding receiving of supplies will be sent to buyer, consignee, HOD and Supplier







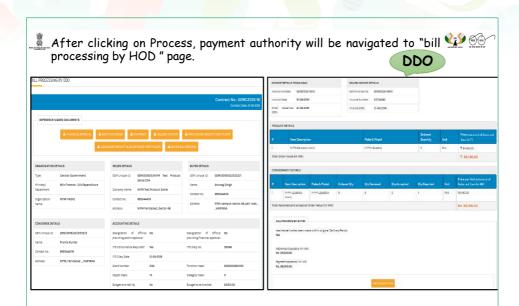
- After issuing PRC and CRAC, the information regarding receipt and acceptance of goods has been sent to supplier on GeM Portal.
- Now, DDO/PAO will login to process payment.
- Login as PAO/DDO, go to manage products at the top.
- Under Manage Products select Indent/Order list

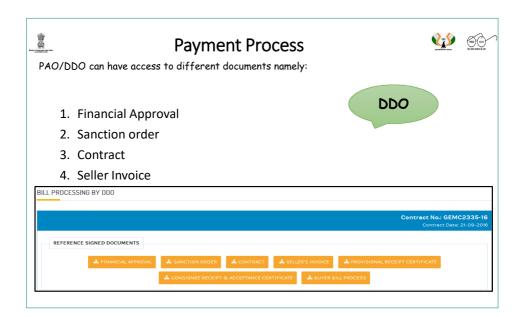


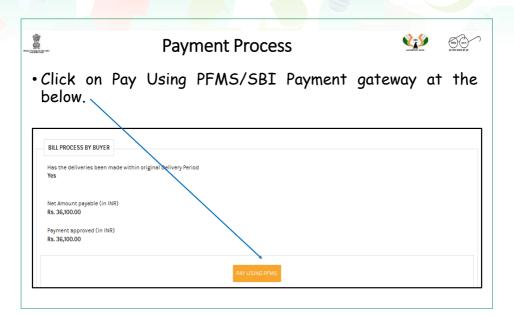
- After selecting Indent/order list PAO/DDO will navigate to the demand/order list.
- The latest demand generated will be displayed at the top.
- · Under the column Action, select Process

DDO















If the total purchase amount above Rs 50,000







Bidding and Reverse Auction







- Bidding:- Bidding is an offer (often competitive) to set a price by an individual or business for a product or service or a demand that something be done. Bidding is used to determine the cost or value of something.
- Reverse Auction: A reverse auction is a type of <u>auction</u> in which the roles of buyer and seller are reversed. In a reverse auction, the sellers compete to obtain business from the buyer and prices will typically decrease as the sellers underbid each other.







Bidding



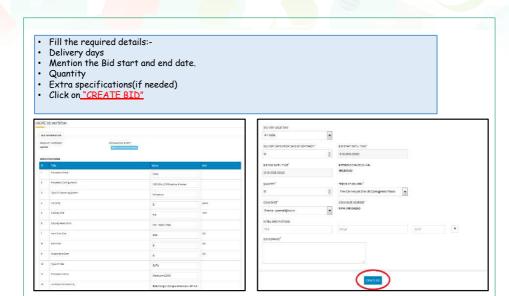
Bidding





- If the buyer wants to participate in Bidding, then buyer needs to select the L1 product and "add to cart" by clicking on add to cart button.
- After adding the product to the cart and selecting to purchase, the buyer will have three options: Bidding, Reverse Auction and Direct Purchase. Select "BIDDING".







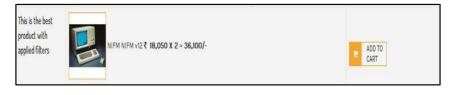
If the total purchase amount above Rs 50.000





For the purchases in the above condition:

- Go on product of screen and select product at top right for comparison of products maximum upto four products.
- Press compare button which shows on screen and OK.
- Buyer will find a comparison sheet.
- At the end of the comparison sheet, <u>GeM portal will display the L1 to purchase</u> amongst all the available products on GeM portal.





If the total purchase amount above Rs 50,000





- · And the same may "add to cart" by clicking on add to cart button.
- · Go to cart and select the product which need to be purchased.
- The purchase price above Rs. 50, 000 then, buyer has three





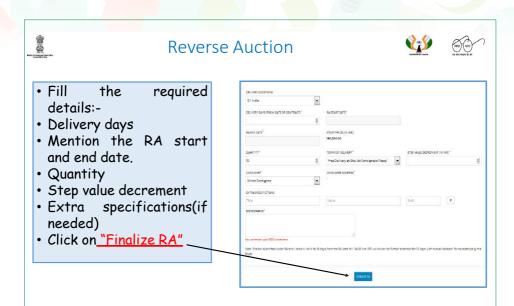
If the total purchase amount above Rs 50,000 Reverse Auction

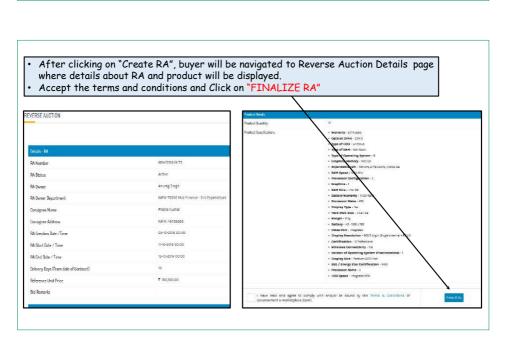




- the Select products to purchase.
- GeM portal will suggest the L1 product.
- Add to cart
- · After selecting the product in the cart, GeM will give three options: Reverse Auction. Bidding, Direct Purchase
- Click on Reverse Auction button.

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Thank You



CORPORATE OFFICE

84, M-Block Commercial Complex, Greater Kailash Part-II, New Delhi - 110048 (INDIA) Tel. +91-11-2921 2101, 2921 4007, Fax: +91-11-2921 6856

OUR BRANCHES

E-mail: tps@tpsmfg.com, Website: www.tpsmfg.com

INTRODUCTION



We are pleased to introduce our organization as one of the leading Indian Engineering Equipment Manufacturer. We are manufacturing a wide range of equipment required for Modernization and Mechanization of Solid Waste Management activities, Sewer line/Storm Water Drain cleaning and Maintenance and Mechanized Sweeping of Roads by Municipalities and Public

We also manufacture a wide range of equipment's for Industrial Sectors covering Cement Plants, Steel Plants, Mines, Metallurgical plants like Aluminum, Copper and Ports and harbors. You can review our Product Profile on our website www.tpsmfg.com.

Our organization is working with all the Municipal Corporations, Water Supply and Sewerage Board and various other bodies covered under the States Urban Development Ministries all over India. Our organization has a strength of about 650 Personnel. We are also executing large projects for these clients all over India and abroad. We are an organization with an excellent track record and reputation of more than 30 years.

TPS Infrastructure Limited has many firsts to its name and is synonymous with credible achievements in the above. In order to promote proper marketing of the products manufactured by the company and provide an efficient after sales service to various customers, the company has Marketing / Service offices all over India.

The Company has its manufacturing plants at Bhiwadi (Rajasthan).

PRODUCT RANGE



MUNICIPAL APPLICATION

LIQUID WASTE MANAGEMENT:-

- · SEWER SUCTION MACHINE (CESSPIT EMPTIER)
- SEWER JETTING MACHINES
- SEWER SUCTION CUM JETTING MACHINES
- DE-SILTING MACHINES (SUPER SUCKER TYPE) WITH DUMP TANK FOR DE-SILTING AND CLEANING OF MAIN SEWER LINES
- · MINI SEWER SUCTION MACHINES WITH DUMP TANK
- MULTI-PURPOSE SEWER CLEANING MACHINES
- SEWER SUCTION CUM JETTING MACHINE WITH WATER RECYCLING FACILITY

SOLID WASTE MANAGEMENT:-

- TRUCK MOUNTED AUTOMATIC AND SEMI-AUTOMATIC REFUSE COMPACTOR VEHICLES
- PORTABLE REFUSE COMPACTOR WITH HOOK LOADERS
- SOLID WASTE TRANSFER STATIONS EQUIPMENT AND HOOK LOADERS
- · AUTO TIPPER & BINS

ROAD SWEEPERS:-

- TRUCK MOUNTED ROAD SWEEPING MACHINES
- RIDE-ON ROAD SWEEPING MACHINES
- SELF-PROPELLED ROAD SWEEPING MACHINES

ADVANTAGES OF MECHANIZED CLEANING OF LIQUID WASTE



- > QUICK SOLUTION TO SEWER PROBLEMS LIKE SEWER OVERFLOW, SEWER BLOCKAGES ETC. TO ENSURE SMOOTH FLOW OF SEWAGE
- > ELIMINATES MANUAL SCAVENGING
- > ELIMINATES THE RISK TO HUMAN LIFE BY ELIMINATING ENTRANCE OF HUMAN IN SEWER MANHOLE/SEPTIC TANKS
- DESILTING OF UNDERGROUND SEWER LINE TO INCREASE/RESTORE THE FLOW CAPACITY OF SEWER SYSTEM WITHOUT ANY HUMAN ENTRANCE.
- > REQUIRED LESS MANPOWER
- > EASE OF WORK
- > SAVES TIME







TPS RANGE OF PRODUCTS FOR SEWERLINE CLEANING



- SEWER SUCTION MACHINE (CESSPIT EMPTIER)
- SEWER JETTING MACHINES
- SEWER SUCTION CUM JETTING MACHINES
- DE-SILTING MACHINES (SUPER SUCKER TYPE) WITH DUMP TANK FOR DE-SILTING AND CLEANING OF MAIN SEWER LINES
- MINI SEWER SUCTION MACHINES WITH DUMP TANK
- MULTI-PURPOSE SEWER CLEANING MACHINES
- SEWER SUCTION CUM JETTING MACHINE WITH WATER RECYCLING FACILITY

SEWER SUCTION MACHINE (CESSPIT EMPTIER)



The Machine is suitable for Suctioning silt/slurry from sewer manhole/cesspit septic tank etc. by Vacuum Suction System and discharging the collected sludge by blowback facility/hydraulic tipping of the tank. Based on customer requirement for Tank capacity the capacity varies from 700 ~ 8000 liters suitable to be mounted on Truck Chassis ranging from 2.5~ 16 Ton GVW Truck Chassis.





SEWER SUCTION MACHINE (CESSPIT EMPTIER)



TRUCK CHASSIS MOUNTED SEWER SUCTION MACHINE (CESSPIT EMPTIER)					
Tank Capacity	700	2000 Liters	3000 Liters	5000 Liters	8000 Liters
Truck Chassis	2.5 T GVW	4.9 T GVW	7 T GVW	11~12 T GVW	16 T GVW
Vacuum Pump	310 Cum/Hr.	318 Cum/Hr.	432 Cum/Hr.	540 Cum/Hr.	660 Cum/Hr.
Suction Hose	3 inch Dia. (3 Nos. X 5 Mtrs.	3 inch Dia. (3 Nos. X 5 Mtrs.	3 inch Dia. (3 Nos. X 5 Mtrs.	4 inch Dia. (3 Nos. X 5 Mtrs.	4 inch Dia. (3 Nos. X 5 Mtrs.
Hydraulic Tipping	Not Applicable	Not Applicable	Not Applicable	Provided	Provided

SEWER JETTING MACHINE



The High Pressure Jetting Machine is suitable for Dislodging and removing obstruction and blockages from Sewer line by High Pressure Water Jetting System. Based on customer requirement for Tank capacity, the capacity varies from 1000 \sim 8000 liters suitable to be mounted on Truck Chassis ranging from 2.5 \sim 16 Ton GVW Truck Chassis.





SEWER JETTING MACHINE



TRUCK CHASSIS MOUNTED SEWER JETTING MACHINE					
Tank Capacity	1000 Liters	2000 Liters	3000 Liters	5000 Liters	8000 Liters
Truck Chassis	2.5 T GVW	4.9 T GVW	7 T GVW	11~12 T GVW	16 T GVW
Jetting Pump	70 LPM 130 Bar	70 LPM 130 Bar	153 LPM 130 Bar	220 LPM 138 Bar	260 LPM 150 Bar
Jetting Hose	12 mm Dia. 30 meters	19 mm Dia. 60 meters	19 mm Dia. 60 meters	25 mm Dia. 60 meters	25 mm Dia. 120 meters

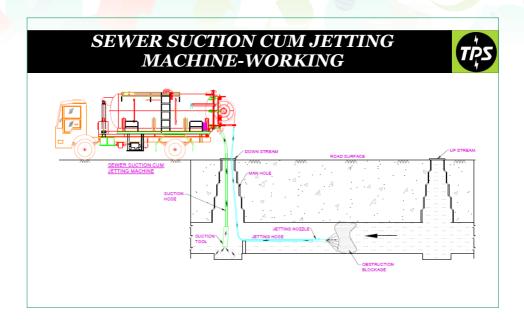
SEWER SUCTION CUM JETTING MACHINE



The combined High Pressure Jetting and Sewer Suction Machine is suitable for Dislodging and removing obstruction and blockages from Sewer line by High Pressure Water Jetting System and suctioning the sludge/slurry from sewer manhole, gulley pit, septic tank etc. by Vacuum Suction System and discharge the collected sludge by hydraulic tipping of the container or by blowback arrangement. Based on customer requirement for Tank capacity the capacity varies from $4000 \sim 12000$ liters suitable to be mounted on Truck Chassis ranging from $9 \sim 18.5$ Ton GVW Truck Chassis.







TRUCK MOUNTED SUCTION CUM JETTING MACHINE						
Tank Capacity	4000 Liters (2000 liters for Sludge + 2000 liters for water)	6000 Liters (3000 liters for Sludge + 3000 liters for water)	8000 Liters (5000 liters for Sludge + 3000 liters for water)	10000 Liters (6000 liters for Sludge + 4000 liters for water)		
Truck Chassis	9 T GVW	11 T GVW	16 T GVW	18.5 T GVW		
Hydraulic Tipping	Not Available	Not Available	Provided	Provided		
Vacuum Pump	318 Cum/Hr.	540 Cum/Hr.	660 Cum/Hr.	660 Cum/Hr.		
Suction Hose	3 inch Dia. (3 Nos. X 5 Mtrs.	3 inch Dia. (3 Nos. X 5 Mtrs.	4 inch Dia. (3 Nos. X 5 Mtrs.	4 inch Dia. (3 Nos. X Mtrs.		
Jetting Pump	70 LPM 130 Bar	153 LPM 130 Bar/220 138 Bar	260 LPM 150 Bar	260 LPM 150 Bar		
Jetting Hose	19 mm Dia. 60 meters	19 mm Dia. 60 meters/25 mm Dia. 60 Meters	25 mm Dia. 120 meters	25 mm Dia. 120 meters		
Hose Reel Drive	Hydraulic Motor	Hydraulic Motor	Hydraulic Motor	Hydraulic Motor		

SUPER SUCKER (DE-SILTING) MACHINE WITH DUMP TANK





The Heavy Duty Truck Mounted Vacuum Loader with High Pressure Jetting System is suitable for dislodging the Silt/Sludge settled in the trunk sewer lines and for suctioning the free flowing sludge and slurry for De-silting the trunk Sewer Pipelines. This machine operates in conjunction with Truck Mounted Cyclonic Sludge/Silt Container/Dump Tank.

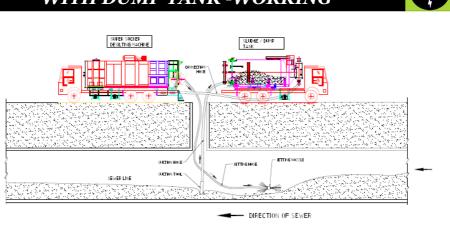
Capacity Variants

- Super Sucker mounted on 16T GVW Truck Chassis with Dump Tank 11T Chassis.
- Super mounted on 28 T GVW Truck Chassis with Dump Tank 16-18.5T Chassis.



SUPER SUCKER (DE-SILTING) MACHINE WITH DUMP TANK -WORKING





SUPER SUCKER (DE-SILTING) MACHINE WITH DUMP TANK



SUPER SUCKER (DE-SILTING) MACHINE WITH DUMP TANK

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 Truck Chassis
 18.5 T GVW
 28 T GVW

 Auxiliary Engine
 150 HP
 220 HP

Vacuum Pump 2800 Cum/Hr. (FAD) 5000 Cum/Hr. (FAD)

Suction Hose 5 inch Dia. (2 Nos. X 7.5 Mtrs.) 6 inch Dia. (2 Nos. X 7.5 Mtrs.)

 Water Tank
 4000 liters
 7000 liters

 Jetting Pump
 260 LPM 150 Bar
 390 LPM 150 Bar

Jetting Hose 25 mm Dia. 120 meters 32 mm Dia. 120 meters

SLUDGE/DUMP TANK UNIT

Tank Capacity 6000 liters 12000 liters

Truck Chassis 11 T GVW 18.5 T GVW

Hydraulic Tipping Provided Provided

Lateral Cleaning System Pump - 20 LPM 100 Bar with Washing Pump - 20 LPM 100 Bar with Washing Gun

Gun with hose. with hose.

MINI SEWER SUCTION MACHINE WITH DUMP TANK



The equipment consists of a split shaft PTO driven Vacuum Pump with accessories having a sludge tank capacity of 1000 Ltrs. mounted on Light Commercial Vehicle Chassis 2200–3000 Kgs. GVW for suctioning of sludge/slurry from cesspits. The Vacuum Pump driven from Vehicle engine through a split shaft PTO.





MULTI-PURPOSE SEWER CLEANING MACHINES



cleaning small sewer line upto 450 mm dia. with the help of high pressure jetting. The machine is provided with a hydraulically operated Grab Bucket for cleaning sewer manhole. The equipment is also provided with a Rodding machine capable of removing obstructions in the sewerline. The machine is mounted on Truck Chassis





Grab Bucket Desilting machine



Rodding machine

SUCTION CUM JETTING MACHINE WITH RECYCLING FACILITY FOR JETTING



TPS Recycler machine is designed for cleaning and maintenance of Sewer Pipelines. The equipment is a combination of suction machine and the Jetting Machine with Sewer Water filtration and Recycling facility







SEWER SUCTION CUM JETTING MACHINE WITH RECYCLING FACILITY FOR JETTING



TRUCK MOUNTED SEWER SUCTION CUM JETTING MACHINE WITH RECYCLING FACILITY FOR JETTING

	JETTING	
Tank Capacity	8000 liters (5000 liters for Sludge + 2000 liters for Recycled water+1000 liters for fresh water)	`
Truck Chassis	18.5 T GVW	28 T GVW
Vacuum Pump	3000 Cum/Hr. (FAD)	5000 Cum/Hr. (FAD)
Suction Hose	5 inch Dia.	6 inch Dia.
Combined Suction and Jetting Boom/Derrick Arm	Derrick Arm	Combined Suction and Jetting Boom
Jetting Pump	240 LPM 150 Bar	390 LPM 150 Bar
Jetting Hose	25 mm Dia. 120 meters	32 mm Dia. 120 meters
Hydraulic Tipping	Available	Available
Water Recycling Facility	Provided	Provided

SALIENT FEATURES OF TPS RECYCLER MACHINE





COMBINED SUCTION-CUM-JETTING BOOM

- Hydraulically swing able by 180° around the rear of the truck and forward telescopic movement by 1200mm
- Allows for quick and easy setup at manholes even in awkward positions
- The high pressure hose reel is also installed on the suction-hose-boom
- ◆The Suction and high-pressure hose can be lowered in tandem into the sewer shaft
- Visual and audible warning in cab when boom not in travelling position.

TPS RANGE - SOLID WASTE MANAGEMENT



TPS RANGE OF EQUIPMENTS FOR SOLID WASTE MANAGEMENT

TPS RANGE - SOLID WASTE MANAGEMENT - TRUCK MOUNTED REFUSE COMPACTOR VEHICLES











TPS RANGE - SOLID WASTE MANAGEMENT-PORTABLE COMPACTOR STATION















TPS RANGE - SOLID WASTE MANAGEMENT - STATIC COMPACTOR WITH HYDRAULIC LOADING BUCKET









TPS RANGE - SOLID WASTE MANAGEMENT - STATIC COMPACTOR WITH TOP LOADING HOPPER





Waste Transfer Station is designed to receive garbage from Primary Collection Vehicles (Auto Tippers, Truck Tippers, Refuse Compactors, Dumper Placers etc.) compaction and transportation to the Processing Plant/Dumping Ground.



TPS RANGE - ROAD SWEEPING MACHINE



TPS RANGE OF EQUIPMENTS FOR MECHANIZED CLEANING OF ROAD/RUNWAY

TPS RANGE - ROAD SWEEPING MACHINE





RIDE-ON TYPE ROAD SWEEPING MACHINE



SELF-PROPELLED TYPE ROAD SWEEPING MACHINE

TPS RANGE - ROAD SWEEPING MACHINE





TRUCK MOUNTED ROAD SWEEPING MACHINE



LCV MOUNTED ROAD SWEEPING MACHINE



TRUCK MOUNTED RUNWAY SWEEPE

TPS MANUFACTURING PLANT IN BHIWADI







OUR QUALITY CERTIFICATES





Certification Partner Global

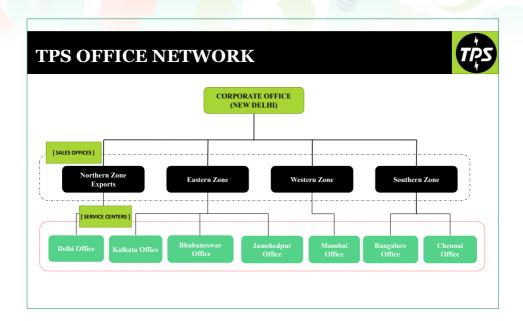
ISO 9001 : 2015 Quality Management System



ISC GLOBAL
ISO 14001 : 2015
Environmental
Management System



OHSAS 18001 : 2007 OHSAS Management System





THANK YOU









Experience Sharing

By

Centre for the Study of Social Change (CSSC), Mumbai

&

All India Institute of Local Self Government (AIILSG), Mumbai Waste Management & Research Centre, Mumbai 15th January 2021

Interface with Stakeholders Information Sharing about SMSC with Elected Members of Municipal Corporation of Greater Mumbai

















Information Sharing with Sr. Municipal Officials





Information Sharing with Sr. Municipal Officials









Workshop with SafaiMitras













Information Sharing with Sr. Municipal Officials









Workshops with Jr. Level Officials & Sanstha Members working on Sanitation at Community Level







Meeting with Communities









Measures of Health Hazards



Personal Protective Equipment (PPE)

- Mandatory to wear PPE to avoid any hazard while carrying out de-sludging services
- Wear PPE to avoid direct exposure to Faecal Sludge.
 Avoid unsafe working practice.
- Avoid smoking while carrying out desludging services.



Training Program

- Training program for desludging operators including emptier on health and safety measures.
- Training programme on use of PPE.
- •Training program on use of First-Aid.
- Provide medical insurance to the desludging operator including emptier etc.



munization of Health and Safety

- Desludging workers should be immunised for: (Tetanus, Hepatitis A &B and
- Diphtheria). First-Aid equipment.
- Emergency eye wash facilities. Emergency contact numbers.

IEC Material (for Awareness Building at Ward Level)







Display of Protective Measures near Muster Chowki







Contents of Orientation

- Working at Ground Level
- Safety & Protective Measures
- Health Care
- Man to Machine Transition
- Livelihood Opportunities

Awareness for Citizens

- Segregation of Waste as per SWM Rules 2016 & Plastic Wa
- Management Rules 2016
- Storage of Segregated Waste & its Collection
- No throwing in Nalla & Gutter



Road Map

- On-Field Training with SafaiMitras –Mumbai Corporation of Greater Mumbai
- · Webinars with Cities
- Orientation at Senior Level
- On Field Training with SafaiMitras at Ward Level in Cities in Maharashtra
- Preparation of Display Material(IEC)for Corporations
- Display of Safety Kit near Muster Chowki
- Experience Sharing amongst Corporations (online)
- Case Study Presentation



Fifth

COORDINATION AND EXPERIENCE SHARING MEETING-II 10 February, 2021







IT Interventions in Fecal Sludge and Septage Management

Swachha Andhra Corporation

Government of Andhra Pradesh



INDIVIDUAL HOUSEHOLD TOILETS



COMMUNITY & PUBLIC TOILETS







LIQUID WASTE MANAGEMENT

SOLID WASTE MANAGEMENT (TRANSPORTATION & PROCESSING)





Swachh Bharat Mission (URBAN) - Overview

Swachha Andhra Corporation is the nodal agency to implement the "Swachh Bharat Mission" Goals and Project Components in the Urban areas of the State.

Objectives:

- ☐ Elimination of Open Defecation, Maintenance of Hygiene & Cleanliness
- Eradication of Manual scavenging.
- ☐ Information, Education and Communication and Capacity Building activities
- Modern and Scientific Solid and Liquid Waste Management



Safaimitra Suraksha Challenge

To elevate lives of scavengers



Safaimitra: Any worker engaged in cleaning of septic tank/ sewer lines

It encourages cities to adopt Mechanized cleaning of Sewers and Septic Tanka as a standardized practice, and act as a Lighthouse for other smaller cities in this regard

Who are participating cities?

The National Challenge is open to all registered Municipal Corporations, Smart Cities and State/ UT capitals

Award Categories:

Population Categories	1 st Prize	2 nd Prize	3 rd Prize
> 10 lakhs	Rs. 12 Crores	Rs. 6 Crores	Rs. 3 Crores
3 – 10 lakhs	Rs. 10 Crores	Rs. 5 Crores	Rs. 2.5 Crores
up to 3 lakhs	Rs. 8 Crores	Rs. 4 Crores	Rs. 2 Crores

In this regard, a toolkit and evaluation criteria for the competition is launched on the occasion of World Toilet Day (19th November 2020).

Participating city should mandatorily have the following:

- RSA (Responsible Sanitary Authority) and SRU (Sanitary Response Unit)
- Should at least have a ODF+ certificate

• Ban on SUP (Single Use Plastic) MoHUA, Gol has nominated:

- MD, Punjab as Nodal officer for Low Cost Mechanization Solutions
- · MD, Andhra Pradesh as Nodal for IT Systems
 - · SSC Web and Mobile Portals for MIS
 - · Citizen Grievance and Service Modules
 - Mobile App
 - Web Application
 - Toll Free 14420





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

- 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



Fecal Sludge and Septage Management (FSSM)

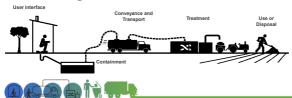
Faecal Sludge is the solid or settled contents of pit latrines and septic tanks, It comes from onsite sanitation system such as pit latrines, non-sewered public ablution blocks, septic tanks, aqua privies, and dry toilets."

Septage is the liquid and solid material that is pumped from a septic tank, cesspool, or such onsite treatment facility after it has accumulated over a period of time. It is the combination of scum, sludge and liquid that accumulates in septic tanks.

Desludging is the process of removing both the scum and the sludge layers from your primary septic tank. Desludging at regular intervals of **3 years** is important to

- Avoid blockage of sewer drains
 Avoid contamination of water sources
- Save environment and health

Understanding the Sanitation Service Chain





ODF++: A city or ward can be declared/certified as ODF++ if the practice of open defecation or urination is controlled by establishing and maintaining CT/ PT's along with safe and effective management of sewerage and septage / faecal sludge

Water+: A city or ward can be declared/certified as Water+ with the practice of safe and effective management of sewerage and septage / faecal sludge along with cost recovery mechanisms

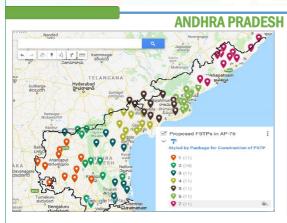




Gaps and issues in urban sanitation

- Access: Issues in access to toilets arise due to households having financial issues and space crunch for constructing individual toilets
- Septage collection and conveyance: Regular cleaning of septic tanks through a systematic extraction and collection procedure is essential to check environmental pollution.
 - · Illegal Manual scavenging
 - · No / Limited access to tanks
 - · Lack of infrastructure, and a regulated schedule for cleaning
 - · Lack of formal private players
- Treatment and Disposal: Typically, most small-medium towns and cities lack adequate centralized/ decentralized facilities and designated sites for sewage and for septage treatment and disposal.
- Poor Awareness: Faecal Sludge and septage management has been accorded low priority and there is poor awareness
 about its inherent linkages with public health
- Fragmented Institutional Roles and Responsibilities: There are considerable gaps and overlaps in institutional roles and responsibilities at the national, state, and city levels.
- Lack of an Integrated City-wide Approach: Faecal Sludge and septage management investments are currently planned in a piece-meal manner and do not take into account the full cycle of safe confinement, treatment and safe disposal.
- Limited Technology Choices: Technologies have been focussed and the disposal techniques are not environmental friendly no cost-effective, and sustainable investments for safe management and disposal has been thought off on a large scale.





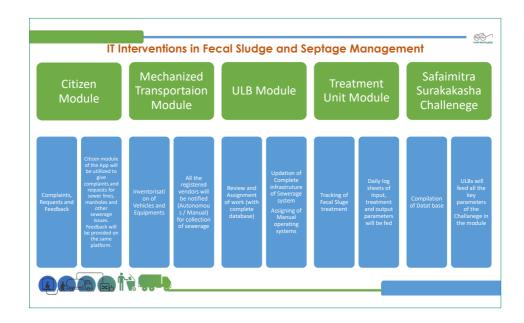


About A.P

- Total number of ULBs 110
- AMRUT cities =32 (Proposed STPs with cotreatment)
- Non AMRUT cities with stand alone FSTPs =77 + 1 with STP

Our Approach

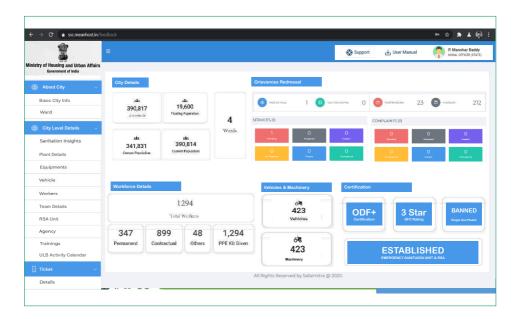
- Co- treatment in AMRUT towns where STPs are currently developed
- Standalone FSTPs in non-Amrut towns
- Rural urban integration
- 76 ULBs in AP organized into 7 clusters for increasing bankability and for promoting PPP HAM model
- Clustering based on geographical proximity to ensure operational effectiveness
- FSSM quality lab part of each cluster
- Third Party Agency for Quality Control and Quality Assurance of the FSTPs

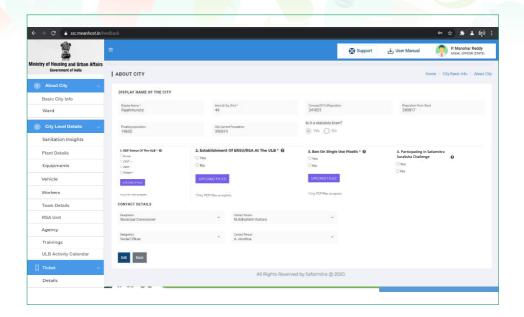


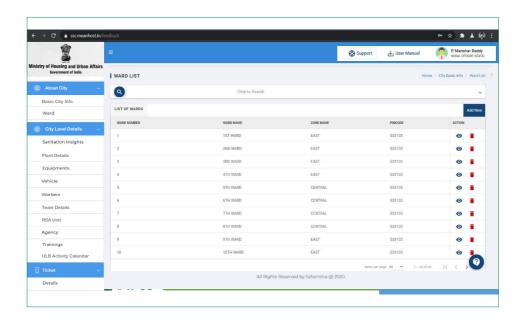
									<u>66</u>
Region Name	District Name	ULB Name	Type	ULB Code	SSC Category	User Designation	User ID	Password	Remarks
Visakhapatnam Visakhapatna		Greater Visakhapatnam	Greater Municipal Corporation	802947	Category A	Head of the Department	commissioner@802947	<u>802947@2021</u>	
Visakhapatnam	Visakhapatnam	Greater Visakhapatnam	Greater Municipal Corporation	802947	Category A	Nodal Officer	nodal@802947	802947@gvmc	
Visakhapatnam	Visakhapatnam	Greater Visakhapatnam	Greater Municipal Corporation	802947	Category A	Supervisor	supervisor@802947	802947@2021	
Visakhapatnam	Visakhapatnam	Greater Visakhapatnam	Greater Municipal Corporation	802947	Category A	On-site Officer	phw0001@802947	phw0001@gvmc	Rest to be created by the supervisor
Visakhapatnam	Visakhapatnam	Greater Visakhapatnam	Greater Municipal Corporation	802947	Category A	ERSU	ersu.01@802947	ersu.802947@01	Rest to be created by the supervisor
Rajamundry	Krishna	Vijayawada	Municipal Corporation	802969	Category A	Head of the Department	commissioner@802969	802969@2021	
Rajamundry	Krishna	Vijayawada	Municipal Corporation	802969	Category A	Nodal Officer	nodal@802969	802969@vmc	
Rajamundry	Krishna	Vijayawada	Municipal Corporation	802969	Category A	Supervisor	supervisor@802969	802969@2021	
Rajamundry	Krishna	Vijayawada	Municipal Corporation	802969	Category A	On-site Officer	phw0001@802969	phw0001@vmc	Rest to be created by the supervisor
Rajamundry	Krishna	Vijayawada	Municipal Corporation	802969	Category A	ERSU	ersu.01@802969	ersu.802969@01	Rest to be created by the supervisor

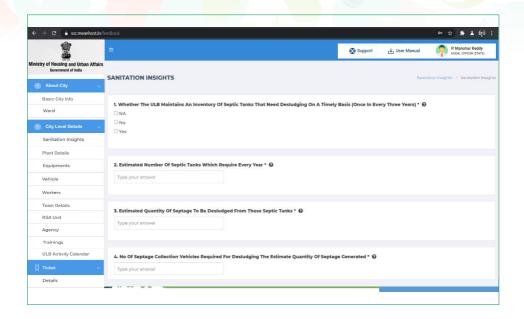
Master	Sub-Master (Tabs	Head of the Department		Nod	Nodal Officer		Supervisor		On-site Officer		ERSU		Call Centre	
(Left Tabs)	drop downs)	Screen		Screen		Screen		Screen		Screen		Screen		
(Lett Tabs)	arop aowns)	Visibility	Access Role	Visibility	Access Role	Visibility	Access Role	Visibility	Access Role	Visibility	Access Role	Visibility	Access F	
			View only	Yes	View only	Yes	View only	No	NA	No	NA	Yes	View only	
bout City	Basic City Info		View and Approve		Edit	Yes	View only	Yes	View only	Yes	View only		View only	
ADOUL City	Ward Details	Yes	View and Approve	Yes	Edit				View only	Yes	View only		View only	
	Sanitation Insights	Yes	View and Approve		Edit								NA	
	Plant Details	Yes	View and Approve	Yes		No		No	NA				NA	
	Equipments	Yes	View and Approve		Edit	Yes		Yes	View only	Yes			NA	
	Vehicles	Yes	View and Approve		Edit	Yes		Yes	View only	Yes			NA	
ity Level	Workers	Yes	View and Approve	Yes	Approve Only	Yes		No		No			NA	
	Team Details	Yes	View and Approve	Yes	Approve Only	Yes	Edit	No	NA	No	NA	No	NA	
	Responsible Sanitation													
	Authoriy	Yes	View and Approve		Edit	Yes		No		No			NA	
	Trainings		View and Approve		Edit	Yes		No					NA	
	ULB Activity Calender		View and Approve		Edit	Yes			NA				NA	
	Details	Yes	View only	Yes	View only		Approve Only		Edit				NA	
ionot	Status	Yes	View only	Yes	View only	Yes			Edit	Yes			NA	
Safaimitra Suraksha Challenge	Performance		View only		Edit	No		No		No			NA	
		Yes	View and Approve			No							NA	
		Yes	View and Approve			No		No					NA	
	Survey Report	Yes	View only	Yes		No		No		No			NA	
	Alerts	Yes	View only	Yes		No							NA	
	Info	Yes	View only	Yes		No		No		No			NA	
lser	User List	Yes	View only			No		No		No			NA	
dministration			View only	Yes		No		No		No			NA	
Brievance Cell		No	NA	No	NA	No	NA	No	NA	No	NA	Yes	Edit	

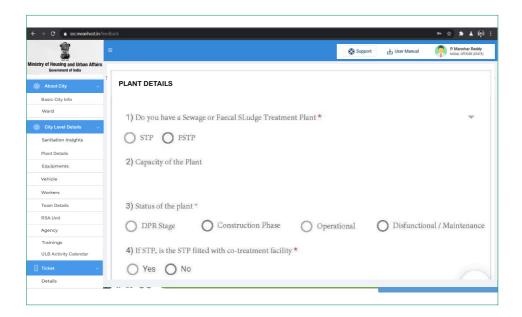


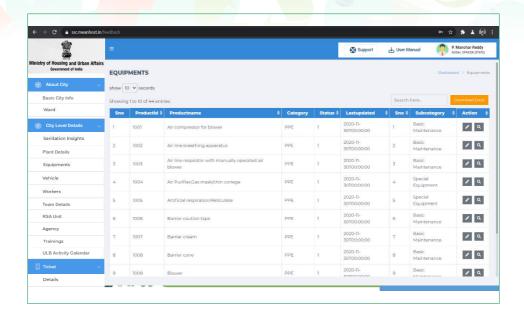


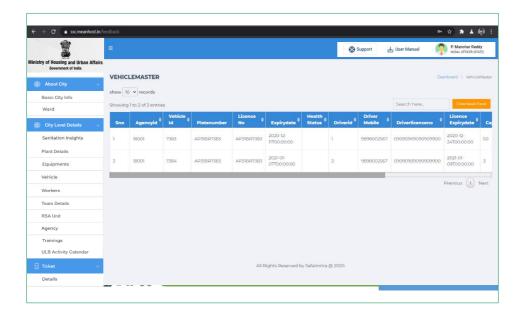


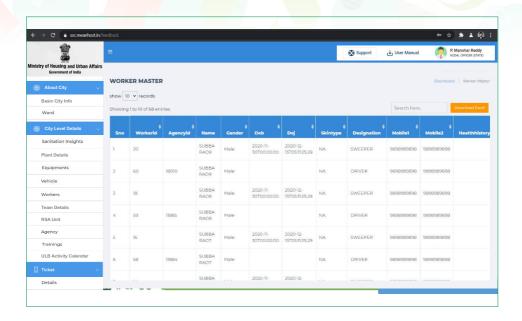


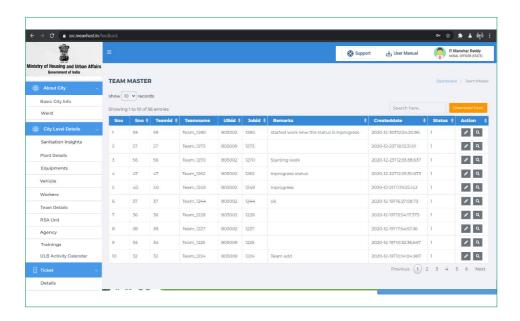


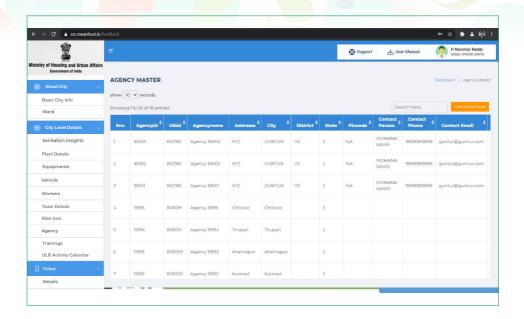


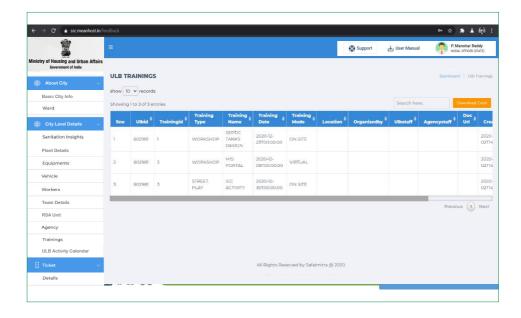


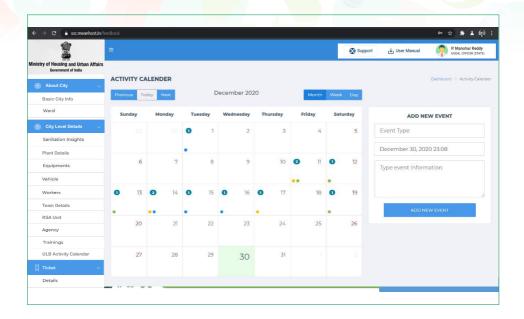


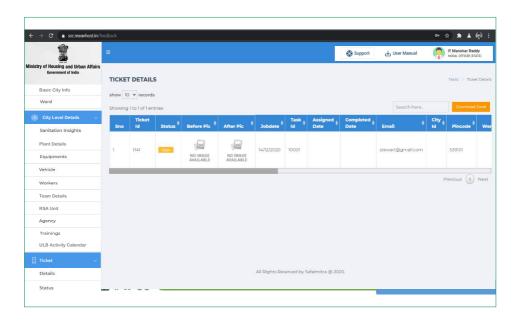


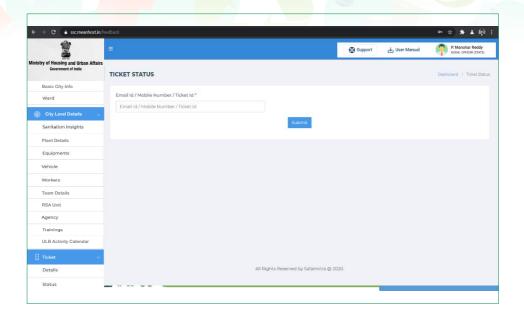


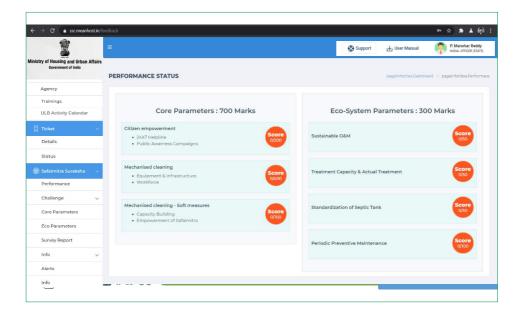


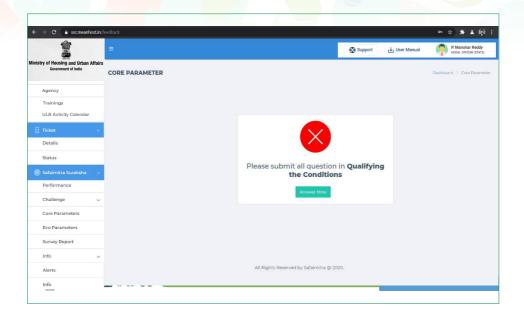


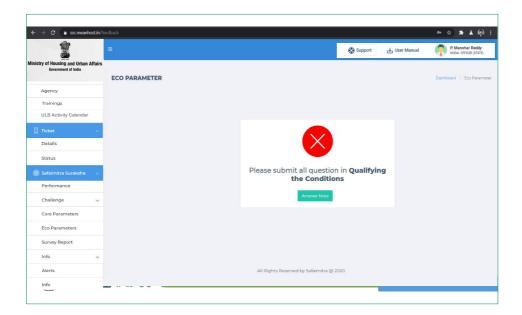


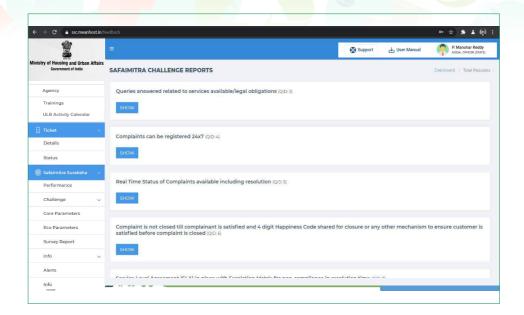


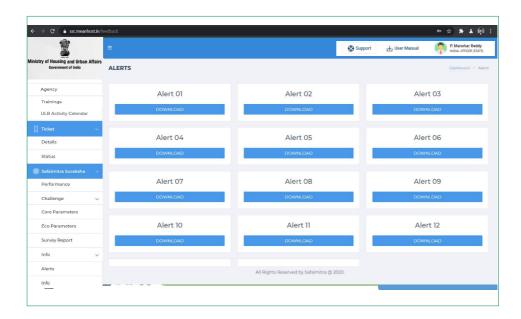


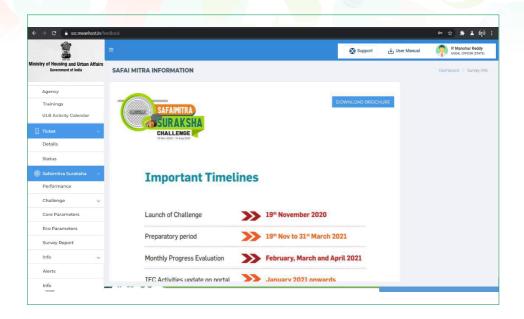


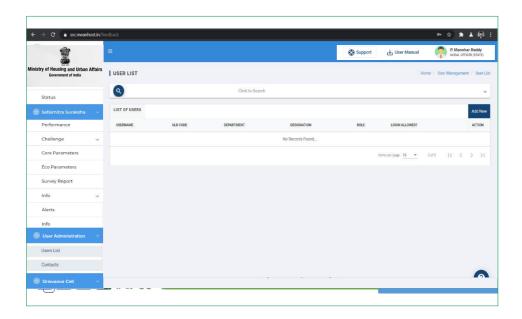


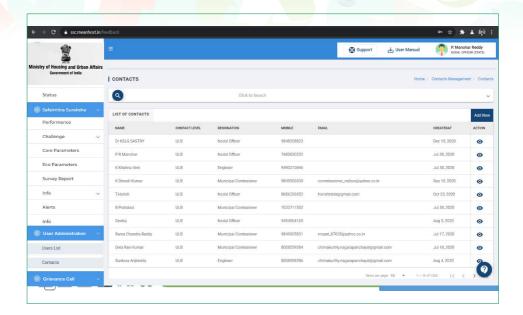


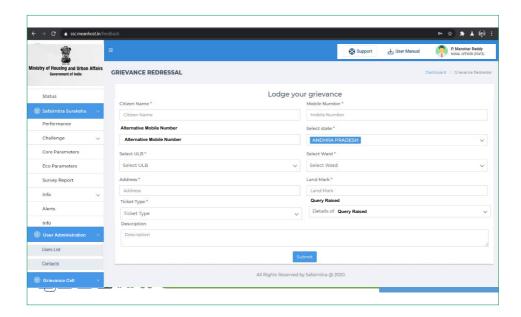


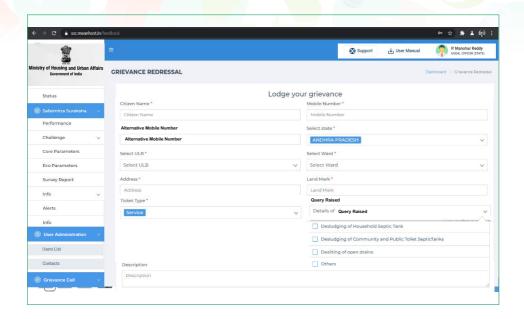


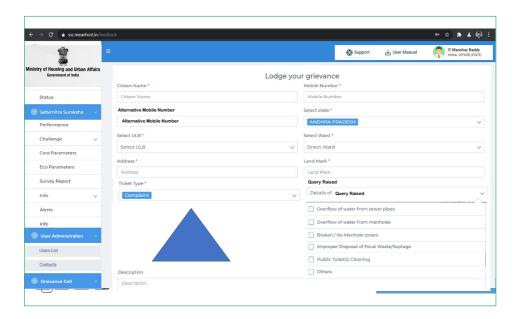




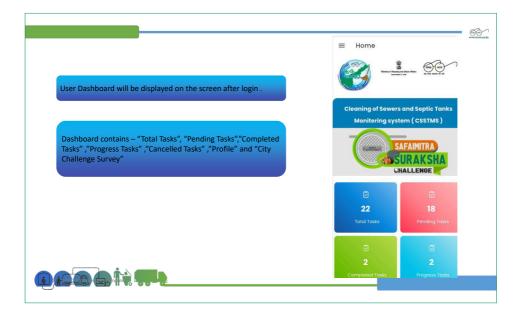










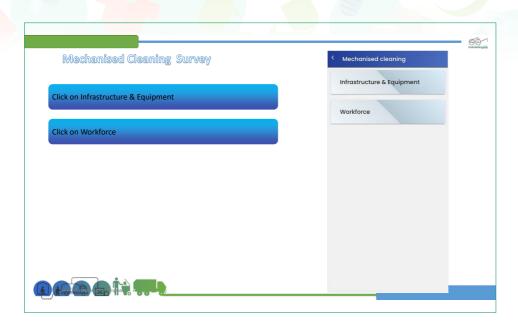












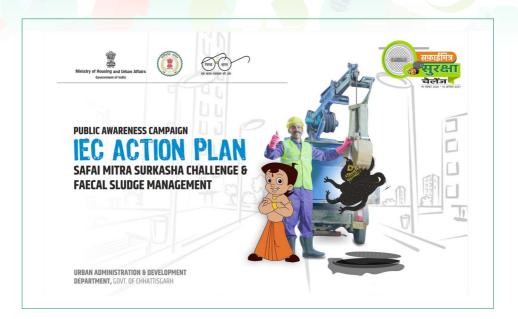












Sanitation in Urban Chhattisgarh

- Chhattisgarh is the only State in the country with ODF++ Certification.
- Chhattisgarh becomes the fastest moving state towards attaining the status of ODF++ with all 166 ULBs certified with ODF++ in year 2020 and 112 ULBs were certified with ODF++ status in year 2019 which counts to be 75% of the total certified ULBs across PAN India in the year 2019. As an early mover the first FSTP in Chhattisgarh was operational since Dec'16 and now every ULB in C.G. has its own scientific disposal of Faecal Matter.



Designating Safaimitra as "Captain Clean"

Along frequent and proper measures with infrastructure creation for mechanized cleaning and
capacity building, Chhattisgarh has also taken measures in creating citizen awareness uplifting social
status of Safaimitra's. Since 2016 Chhattisgarh Government undertook massive communication
campaign with Chhota Bheem as mascot to eliminate the existing taboo associated with cleaning and
waste handling by inducing a sense of pride in being called as Captain Clean.





LAUNCH OF IEC BOOKLET

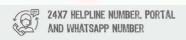
- Leading the way in IEC of Safaimitra Suraksha Challenge and Faecal Sludge Management Chhattisgarh government is launching booklet with more pragmatic activities for easy mode of campaign execution by Urban Local Bodies. Through booklet the duties of citizens have been mentioned in an innovative way which aims at preventing hazardous cleaning of sewers/septic tanks, and promote mechanised cleaning. An effort has also been made to provide citizens with information related to their duties of periodic septic tank and sewer cleaning.
- Mix of three communication channels are adopted
 - a.) Mass Communication
 - b.) Mid Communication
 - c.) Inter-personal Communication



IEC Activities

- 24x7 Helpline number, Portal and WhatsApp Number
- Focussed Group Discussions in Vulnerable Areas
- · Training of Safaimitras
- · IEC Video and Jingles
- · Ads in Railway Station
- · Ads in Airport
- · Ads in Theatres
- · Ads in Regional Television Channels
- · Ads in FM's
- · Ads in Newspapers
- · Ads in Magazines
- Munadi
- Tipper Branding

- · Train Handles
- · Sound System in Tippers
- · Social Media Creative
- · Comic Book Distribution
- Hoardings
- Posters
- · Posters for Service Providers
- Handbills
- Dustbin Stickers
- · Sticker in Shops
- Cess-Pool Truck Branding
- · Name Plate Stickers
- · Auto Rickshaw Panel Advertising
- · Pole Banners
- Street Play Script







no. Nidan 1100 is integrated with to findia's Helpline no. 14420 will be whatsapp Helpline Num



1.Identification of Safaimitras

2.Registration of Safaimitras to Health Schemes

3.PPE Kit Distribution

4.Training of Mechanized Cleaning

5. Awareness of 14420 and their legal rights

₹ TRAINING OF SAFAIMITRAS



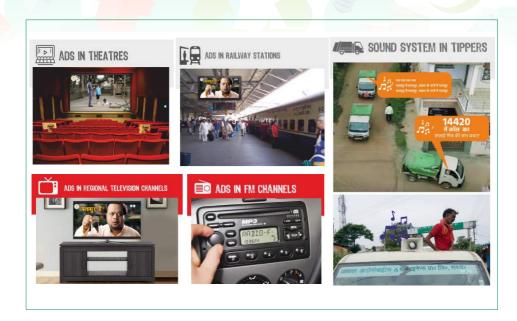
AND JINGLES



Uncle ke Paani main Malasur Video Spot Duration - 01:19 Min



Uncle Jail Kahan Hai!!! Video Spot|Duration- 01:42 Min

























Back





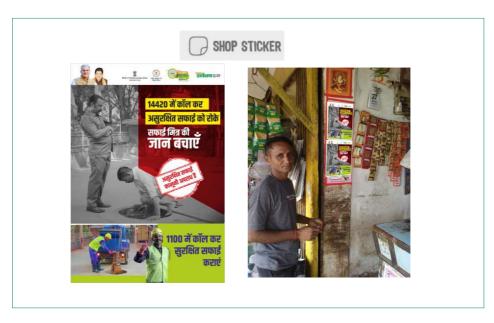






















NUKKAD NATAK SCRIPT

सबह का समय_एक कलाकार हपली बजा रहा है। साथी कलाकार घम घम कर गा रहे हैं...(हपली की आवाज...) सीवर सफाई सुरक्षा विना_जीवन का खतरे से मेल डालो ना जोखिम में जान किसी,हो जाएगी वरना जेट

एक पहिला: मुनी: भी मुनी: पल अंदर अ:..क्या देख रही है बाहर? मुनी: भरें भी:..बार नुकाड़ नाटक वाले आये हैं ...क्याईमिश के लिये बड़ी अच्छी अच्छी वालें बता रहे हैं... मुनी की मति: अच्छा चीव है लेकिन अब यू उपादा बातें ना बना...क्त अपने बाउजी को स्तान दे... मुनी: चीक है भी

तभी एक कलाकार जो कि ठेकेदार है, दरवाजा बजाने का अभिनय करता है...ठक ठक ठक...

ताता एक बस्ताकार मा कि वक्तात है, दरसाम समान का मानन व केवतार: औ मो कलूआ...भेर केना पर नहीं नात है क्या? कलूआ(मुत्री का पिता): - ये तो अपने ठेकेदार साइब की आयात्र है.. (कलूआ उठकर आता है..दरसामा सोलने का अभिनय करता है)

कर्जुआ:- और अरे ठेकेदार साहब: ...आप...(हैं हैं हैं कर हंसते हुए)..आइए आइए । खताइए का सेवा करें आपकी: ठेकेदार:- क्वों कलुआ; भूल गए क्वा?..आज सीवर की सफाई करने जाना है...उसके बाद एक सैप्टिक टॅंक की सफाई का काम भी बाकी है..

क्टपुआ: जी साहब्यलेकिन आज तबियत थोड़ी सही नहीं रूप रही...(खुरूल खुरूल. खारने रूपता है) कैपेश्वार:- कुछ नहीं बस यूं ही रूप रहा होगा...एक बार काम पर रूप आओगे तो सही रूपने रूपेगा...अब चरते....देर पत करो... क्यानार: कुछ नहा बस यू हा लग रहा होगा...एक बार काम कल्आ:- (बुझे मन से)...ठीक है साहब,जैसा आप कहें... (तभी मूत्री वहां आती है) मूत्री:- लेकिन बाउजी!..इनकी मशीनें तो दिख नहीं रहीं कहीं?

केकेदार:- (चोंकते हुये)..पशीनें...कौन सी पशीनें?केसी मशीनें

अक्तार: (बाक्क पुर्ध)-(बाक्क हुंच)-(बाक्क से नायाराक्का सामार पुर्ची- सार्वी हिम्में से सार्वा होती हैं के सांस्कृती होते हैं. कतुआ:- सीवर सफाई के लिए मशीनें???..लेकिन बेटा हम तो खुद ही सीवर की सफाई करते हैं...तो मशीनों का क्या होगा? डेकेदार:- हुँह...सीवर सफाई के लिए मशीनें...ऐ कतुआ लगता है तुम्हारी विदिया पगला गयी है तभी तो ऐसी उन जुनूल वार्त कर रही है...

कर रही है... पुष्टी- पराम नहीं गए हैं बाबू बाहबा, सभी कर रहे हैं। अगर हमारे भोड़करें में कुछ मोन आप से और कहा रहे थे कि अब सीवर वा मेरिक टैंक की समझ किन स्वीत्री हाता है। बोना अगर किमी वालीक रे से काम स्वरापा को देन पर मुस्ताम हो सकता है... केरिकाट, अर्थी बाद बाहु बाहु बाहुवाटा, अगर क्षात्र कर करना पर भी तेन हो बाहु है, आ मेरिकाट कर का प्रमान होता होने बाता है आप के प्रमान की अपने का प्रमान की मेरिकाट केरिकाट केरिकाट

(तभी मुत्री की माँ इन यातों को सुनकर वहाँ आ जाती है)

भुगों भी भी- विल्डुब्ल सभी कह रही है हमारी मुझी..हमने भी सुनी थी इन होगों की बारों...मेर सम्बा नहता कह रहे थे वो लोग?... अरहाता... कुमी और तेतृत्व भी...?? मुझी की भी-.. सही थे कर वहीं है सरकार...टेश में इर साल हमारी सम्बद्धित सम्बद्ध करते समय अहरीतों नेस या सेहिंक टेक में हुओं से अपनी जिंदगी गैंसा देते हैं।

हुपन स जनना जिपना नवा पुरा है। तथा सफाई मित्र इंसान नहीं हैं?..वसा उनके परिवार नहीं हैं?... क्या सफाई मित्रों के जीवन का कोई मोल नहीं है?

थपा तथाज़ (त्रत्रा क आवन का काड़ माल नहा हार. मीयार के गरें और जहतिय पानी के संपर्क में आने से कितनी ही जानलेवा बीमारियां सफाई मित्रों को अपना शिवार बना लेती हैं। मुनी- रहुनी होण्यन प्राच्जी को दी देख लो, अवसर बीमार रहते हैं फिर भी अपने परिवार के लिए रोज ये सवदा गोल लेते हैं...लेकिन जब बस...अब सरकार ने ठम लिया है की अब असुरक्षित तरीके से सीवर या सेरिक टैंक की सफाई कानूनन अपराध

क्षाना केंक्वार- (उरते हुए),,भक्ता,,लेकिन फिर सफार्ड का क्यार मुची- ये भी बहुत ही आसान है। अब 1100 ये करेंस करके मशीनों द्वारा सीवर या सेविंक टैंग की सुरक्षित तरीके से सलाई करवा सकते हैं जिससे हो सफार्ड की सफार्ड और सफार्ड मित्र भी रहें सुरक्षित...

ठकवादः- 100??? मुन्तैः ही 1902.-सुरक्षित सम्बद्धं के लिए 1900 ये कॉल करें कर्युआ- और वाद में जो बड़ी अच्छी बात है। में हमेला सोचता थ कि किसी दिन में भी असबार की सबर बन मालंगा...उसके बाद मेरे परिवार का बचा होगा?..सैकिन अब सरकार ने बहुत अच्छा काम किया है स्ववर्ड मित्री के लिए..सैकिन मुत्री अगर विदर भी कोई. इन बातों को ना माने तो???

इन बाता का ना मान वारा?! पुनी- बाइजी अगर कोडे व्यक्ति असुरविद्धत दरीके से या बिना सुरक्षा उपकरणों के किसी सफाई मित्र की मान स्टबरे में डालता है तो अब आप अस्टिप पे बोला करके इसकी शिकायदा भी कर सकते हैं... ठेकेवार- 14420 पे शिकायत करने से क्या होगा?

मुत्री की माँ:- असुरक्षित तरीक़े से सफाई करकने पर दो साल तक की त्रेल या दो लाख रुपये का तुर्गांना हो सकता है ठेकेदार

साहत. ठेकेटार: क्या??? गरे वाप रे..कहरी भाई कल्युआ(हैं..हें..हें.हंसता है) इतनी जलदी क्या है काम पर जाने की..जूम रकते. में बोही देर में स्थापों में विचार मोटी सेंकर आता हूं...किस है ...(हे..हें..हें...) पिर साते साथ करते हैं...तो याद राजिये क्याफी मिलों की सुरक्षा मीर सुरक्षित जाकि के सम्बन्ध के लिए कॉन करें 100 पे.

ना हो सफाई सुरक्षा बिना.

तो ना हो सजा...ना ही जुर्माना..

द्धपणी वाले फिर से दंधणी बतावे हुए चक्कर लगा लगाकर गाने लगते हें.... सीवर सफाई मुरक्षा विना..जीवन का खतरे से मैल... डालो ना जोखिम में जान किसी की..हो जाएगी वरना जेल..)





Thank You

अब की बारी स्वच्छ नमस्कार के साथ सुरक्षित नमस्कार की तैयारी



Tiruchirappalli City Corporation TamilNadu

Total marks: 700

Core Parameters

1	Citizen Empowerment	Current status	Support provided by IIHS					
а	24 X 7 Helpline	Active	Extending support for strengthening the existing system and subsequently popularising it					
b	Public awareness campaigns	Initiated	TCC is piloting Kakkaman campaign designed by IHHS .					
II	Mechanised Cleaning: Personnel & Machine							
а	Basic maintenance of machines	Jet trucks, suckers, gulpers etc. are available. Further procurement is being planned.	DSOs were oriented with portable blockage removal tool for septic tanks and sewer					
b	PPE & safety gears	Basic PPEs and safety gears have been provided to Safaimitra. Safety gears that are required for emergency entries are yet to be in place.	Extending support for selecting appropriate PPE for DSOs working with TCC					
С	Workforce as per CPHEEO norms	In place						
Ш	Mechanised Cleaning: Soft	Measure						
а	Capacity Building		Trainings on government norms, proper disposal, safety procedures and first aid are in progress					
b	Empowerment of Safaimitra	bott loans are being provided to Safaimitra	Vocational Skill training are provided to safaimitra/ their family members. Support was extended for informal Safaimitra towards business plan development.					
TN	TN US SP							

Total marks: 300

Eco - System	Parameters
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_=	Leo - System r diameters						
1	Periodic Preventive Maintenance	Current status	Support provided by IIHS				
а	Scheduled desludging of septic tanks & sewer manholes	Periodic desludging of CT/PT is being practiced. Scheduled desludging of households is not practiced. However, there is provision for services at subsidised rate	Assessment of containment structure of all CT/PTs connected to onsite system Development of periodic desludging schedule. Handholding and monitoring support towards operationalising periodic desludging				
b	All Critical hot -spots mapped	The city runs efficient Co-treatment facilities.	Geo-spatial mapping of all potential hotspots is being planned.				
с	Sanitation Coverage % and geo- tagging	UGSS mapping has been completed. Geo tagging of septic tanks to be initiated.					
Ш	Sustainable O&M						
а	Revenue collection and record keeping	To be strengthened.	App has been prepared to streamline record keeping, tipping fee collection and O&M process at decanting station.				
Ш	Treatment Capacity & Actu	ual Treatment					
а	Collection and treatment	The City has two WSPs. Repair and maintenance works are being undertaken. Additional treatment plant is also in the pipeline.	WSP improvement plan along with estimates have been shared with TCC				
IV	Innovations						
a	bevelopment/implementation	Different technologies like DEWATS, shallow sewer	DRDO, Tiger Worm based technologies are being				

Eco - System Parameters

v	Periodic Preventive Maintenance	Current status	Support provided by IIHS
а	Incorporation into building	Computerized approval system in place . However the existing system only scrutinise whether area has been earmarked for septic tank or not .	Model septic tank has been constructed at DRDA sanitation park to popularise the concept & dimension among the citizens. Facilitation of amendment of TNCDBR Rule 2019 with incorporation with different standardisation

TN US SP

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		IIIaiir	t you	
TN US SP				

JALODBUSTTM

- Eradicating 'Manual Scavenging'

Mechanizing Faecal Sludge Management for Dignified Livelihoods

Rakesh Kasba

Cherries Engineering and Innovation India Pvt. Ltd., Bengaluru





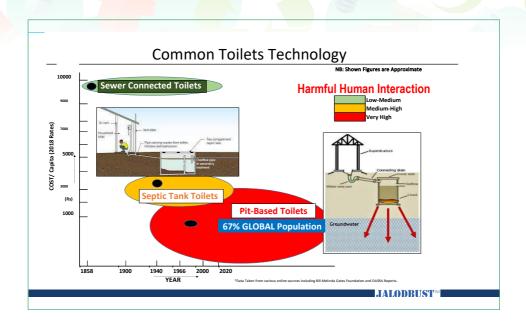
JALOBRUST

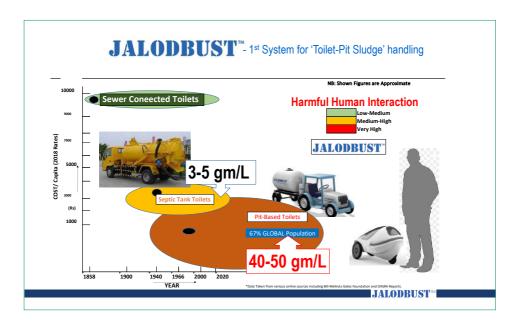
You made my Decision - 2018

Manual Scavenging, not only damages the society,
- it also kills!



LIALODRUST



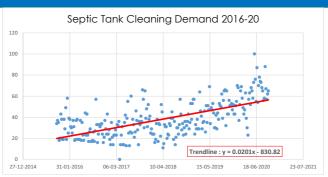


JALODBUST** - Arrived Just in Time

10 Crore on-site sanitation toilets built in last 6 years need emptying, demand rising critically

~3 fold rise in Septic tank cleaning demand in 5 years

Google trends in Indian market show search for 'SEPTIC TANK CLEANING'



JALODBUST™

JALODBUS™ Sanitation Service while preserving human values

- Creating Livelihoods in sanitation with safety, dignity and earnings

the SIGHT, SMELL and SPLASH free Fecal Sludge Handling For

Eradicating Manual Scavenging

Livelihoods Mechanization De-Centralization Equality Covid - 19

Dignity, Safety, Technical work, Entrepreneurship Breaks Community Well Earning Self-respect In Sanitation Distinction Isolation

Patent Applied (after Indian and International Search)
Application No.: 201841041735, Date: 05/Nov/2018
Entered in WIPO Gazette in July 2020

CONFORMING and STANDARDIZED

SUPPORTS SDG-6.2 and benefits SDG-8, SDG-10 and SDG-3 CONFORMS to Indian Manual Scavenging Act 2013* STANDARDIZED to IS:302 Part-I, Class-III Appliance for Safety CONFORMS to Govt. of India ODF++ Program (2019-2029)

JALODBUST™

The TEAM - with Experience, Commitment and Vigour



(Co-Founder)

PRODUCT & STRATEGY

Rakesh holds BE in Civil with 28+ years in Sediment, Sludge and Mydro handling and Study in Hydro Power Construction and River Engineering. He has worked for 21 years in Govt., 8 years in Industry and 3+ years as a Hardware-led Social Entrepreneur.

He has applied for 5 patents so far



ERIKA KASBA (Co-Founder)

(Co-Founder) HR & COMPANY AFFAIRS

Erika is an Advocate with BA;LLB(Hons.) from Christ's, She has a keen inclination towards Human values. She works part-time as she has joined XLRI-J in PGD-HR in year 2020.



RANJAN KAR

OUTREACH & BD

Ranjan is M.Tech in Electronics with MBA (HR). With 20 years in Govt. and 9 years in Pvt. Sector, he holds extensive experience in Business Development and CSR.

He leads an NGO and is likely to join as we progresses into Complex Business deals and PR



PARTH (Marketing Intern)

A final year Student of BBA, he has meritorious exposure in marketing as an intern with some prominent start-upe. He was awarded certificate of merit as an All India best Marketing Intern by founder Mr Kunal Shah. Parth is a public speaker with triple diamond in Toast Masters International.

He is likely to join on completion of his BBA.

SUPPORT ORGANISATIONS









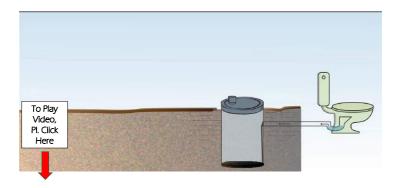




IALOBBUST

$\textbf{JALODBUST}^{\text{\tiny{IM}}} \text{Removing Fecal sludge not only liquid septage}$

- Pit emptying going Critical, after building 10 Crore toilets in last 6 years



JALODBUST™

$\textbf{JALODBUST}^{\text{\tiny{TM}}} \text{ - The Laboratory/ Field Evidence}$



LIALODRUST

PRODUCT/SOLUTION READINESS LEVEL

(Piloting and feedback)



JALODBUST[®]

Trials of SaniPreneur Livelihood Model



JALODRUST

Novelty offered by JALODBUST™

JALODBUST™ for

Safe, Dignified and True Mechanization



Existing Portable Mechanized Systems









■JALODBUST™

One-Man Machine* with Man-isolation to end 'Manual Scavenging'

JALODBUST™ for

Safe, Dignified and True Mechanization



- * 'No tap at back' tanker design for Complete Mechanized Faecal Sludge Loading-Unloadin
- * Based on JALODBUST™ patent (pending) technology

Mechanized Systems at Present







LIALODRIIST





WINNER Top-3 WildCard MISFITS & WINNER Top-30 South Asia MISFITS

20 noers, SOCIAL alphov 1-Year E-j-R Fellowship, FISE, Bengalaru, NDIA



Boss in Category Award.

General Control of the Con







GLOBAL MEDIA ACCOLADES





tells us about JALODBUST



JALODBUST invited for inclusion in International database of Indian WASH Innovations and likely promotion by UNDP*

JALODBUST™

OUR GLOBAL PARTNERS

Prof. Amitabha Bandopadhayay, PhD; IITK, has kindly consented to incubate Mr Rakesh Kasba, founder and innovator of JALODBUST™ system at bio-Incubator of SIIC, IITK subject to signing of MoU and other conditions.

American Society of Mechanical Engineers, USA - Engineering Mentors & Promoters

HelloScience.io, Denmark - Collaborative Incubation and Global Promotion

TogetherInAction.org, Australia - Fund raising collaboration and Promoter

CatapultDesign, USA - JALODBUST™ Pride Design support

AIC-DSU Innovation Foundation, Bengaluru - Technical Business Incubation

Dayanand Sagar University, Bengaluru – MOU underway for R&D Collaboration

SwachaEcoSolutions.com, Bengaluru, India – MOU underway for Field implementation

SOCIAL ALPHA, Bengaluru, India - Business Mentoring, seed Support and Regd. Office

















JALODRIIST^{IM}

Market Landscape and Revenue Sources

2.0 MILLION MANUAL SCAVENGERS

1.0 BILLION LEACH PITS / SEPTIC TANKS

5.0 \$ BILLION/ YEAR SERVICE

JALODBUST SOLUTION:

MECHANIZATION: LIBERATE THE SANITATION WORKER

LIVELIHOOD: DECENTRALIZED SANI-ENTERPRISI

CIRCULAR ECONOMY: 5 LAKH TONS OF SOIL NUTRIENTS/ YEAR

SANITATION ENTREPRENEUR: CREATING LIVELIHOODS

INSTITUTIONAL BUYERS: MUNICIPALITIES & RURAL SANITATION

GLOBAL SOCIETIES: DEVELOPING GEOGRAPHIES

REVENUE SOURCES

MANUFACTURE & LICENSING,
INSTITUTIONAL SALES & FRANCHISE
NEW DEVEL OPMENT AND R&D

JALODBUST™

Value Proposition of JALODBUST™ Sani-Preneur

One-man owned & Operated Mechanized Sanitation System for Decentralized Sanitation Entrepreneur Model

Monthly net Income* Rs 26,132 (Rs 34,465 with manure) for the Sanitation Entrepreneur Based on 10 Yrs @ 4% p.a Financing availability (NSKFDC, GoI Sanitation Equipment Financing Model)

JALODBUST Sani-Preneur (With Diesel/ Electric mobility)

Based on Community/ Village of 2000 families

Emptying Leach pit once every 2 years (Average),

Cost per person/ month = Rs 5.00 (Family of 5 persons, emptying once in 2 years)

Monthly Maintenance, Fuel etc. 1.5 % of Cost

Net Monthly Income by SaniPreneur

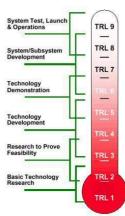
- = Rs 50,000 (1000 cleanings/ year @600 each)*
 = Rs 8,333 (1000 cleanings/ year @100 each)*



JALODBUST

Technology Readiness Level of **JALODBUST™**

Sr.	Technology Maturity	Yes/ No
1.	Understanding of the Basic Technology	YES
2.	Study of Available Solutions	YES
3.	New Innovation/ Novelty	YES
4.	Laboratory Testing	YES
5.	Proof Of Concept Machine	YES
6.	Field Trials with Feedback from end user	YES
7.	Improvement by feedback	YES
8.	Technology ready for MVP (Min. Viable Product)	YES
	HENCE , TRL (Present)	8



JALODBUSTM

www.jalodbust.com

info@jalodbust.com

THANK YOU!

ALODBUST™ technology for Sight, Smell and Splash free 'Flush to Farm' Mechanization

Rakesh Kasba, Founder (9480094320)

Erika, Co-founder

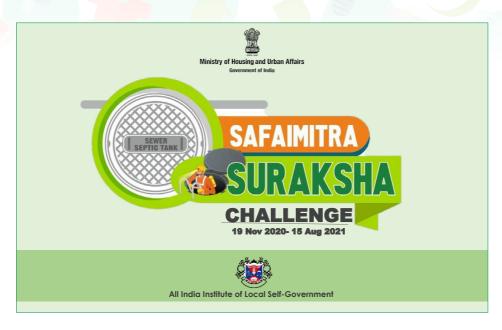
Ranjan Kar, Co-Founder (9515112024)

:rakesh@jalodbust.com :erika@jalodbust.com

:ranjan@jalodbust.com



JALODBUST^{IM}





MANDATES

UNIVERSAL DECLARATION OF **HUMAN RIGHTS:**

CONSTITUTION OF INDIA: FUNDAMENTAL RIGHTS

Article 03: Everyone has the right to life, liberty and the security of person

Article 21: Right to Life with Dignity.

Directive Principles:

Article 27: Everyone has the right to share in scientific advancement and its benefits

Article 42: Make provision for just and humane conditions of work.

Article 46: Promote the welfare of weaker section of society

The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act. 2013



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EVOLUTION IN ACTS

THE EMPLOYMENT OF MANUAL SCAVENGERS AND CONSTRUCTION OF **DRY LATRINES** (PROHIBITION) ACT, 1993

NATIONAL COMMISSION FOR SAFAI KARMCHARIS **ACT 1993**

THE PROHIBITION OF EMPLOYMENT AS MANUAL SCAVENGERS AND THEIR

- water-seal latrines and
- prevention of construction of dry İatrines were not stringent enough to eliminate this practice
- for abolishing manual scavenaina
- · Considered as an offence
- a National Commission for Safai Karamcharis
- for conversion of dry latrines into An Act to constitute To eliminate manual scavenging
 - Mechanised cleaning
 - Mandatory use of Safety gears and PPE while carrying out any hazardous
 - Provisions for penalty
 - · Considered as an offence

Despite the legal Act in place and several directions from Hon. Supreme Court – inadequate implement the act on ground.

In this background - the "Safaimitra suraksha challenge" is initiated.

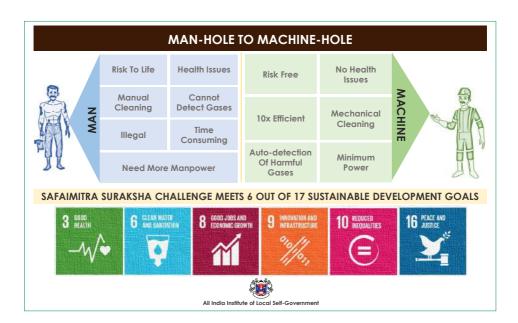


SAFAIMITRA SURAKSHA CHALLENGE - INTRODUCTION

Launched on 19th November 2020

- 243 Cities across the country came together to take a pledge to mechanize all sewer and septic tank cleaning operations by 30th April 2021.
- No person needs to enter a sewer or septic tank
- Promotes mechanized cleaning
- Eradicate manual scavenging through this challenge
- · No life of any sewer or septic tank cleaner is ever lost again
- · Address the issue of 'hazardous' cleaning





EXPECTED OUTCOMES

- 100 % Prohibition on Manual Scavenging and Safaimitra involved in mechanized cleaning
- Informal workers involved in sanitation activities are identified and involved in the formal process.
- Team of Safai Commandos- Well trained Safaimitra involved in desludging activities
- Distribution and mandatory use of PPE and safety gears by all frontline workers involved in cleaning activities
- All Safaimitra are empowered and linked to the schemes
- Reporting of an offence by the public through established Toll free number call center



Swachhata Udyami Yojana (SUY)

- · NSKFDC under its Swachhta Udyami Yojana (SUY) provides financial assistance for procurement and operation of sanitation related equipments/vehicles with a view to promote mechanised cleaning.
- · The purpose of the SUY scheme is to prevent manual hazardous cleaning and to promote mechanised cleaning.
- Two broad implementation models of SUY are as under:



 Loans upto Rs. 50 Lakhs for mechanised cleaning equipments through channelizing agencies

- 4% rate of interest with upto 10 years repayment period 1% interest rebate for women and 0.5% for timely repayment
- For Urban Local Bodies (ULBs)



- · 4% rate of interest with 1% rebate for timely repayment
- Repayment period of up to 10 years
- AIILSG is empanelled for providing support to all the ULBs in the State of Bihar, Jharkhand, Telangana and Andhra Pradesh.



Support of AIILSG under SUY

This is the initiation step for

ULB willing to provide assured work contract to the beneficiary from the target group and nominate some Safai Karamcharis for the said work AllLSG would assist the Beneficiaries to understand the nuances of the Project

Nominating beneficiaries from the target group by the ULBs . Beneficiary will submit proposal for sanction and release of funds to Channel Agency (CA) of NSKFDC

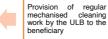
AIILSG would assist the beneficiaries to receive Loan

Sanction and release of funds by NSKFDC based on proposal received from the CA



Regular payment of EMI by the Beneficiary/ULB to the CA and by CA to NSKFDC

Help the ULB and the Beneficiries to achive individual Goals.



This step is important for financial stability of the project



Handholding Support f



All India Institute of Local Self-Government

ACTIVITIES DONE UNDER SAFAIMITRA SURAKSHA CHALLENGE 'FOR DHULE MUNICIPAL CORPORATION'



Call center established Helpline 14420 activated



Training for Safaimitra conducted (11th &12th Jan. 2021)



Procured bandicoot robot to clean underground sewerage

Recently Dhule Municipal Corporation got 69th National level Skoch award for the project

Project Name: Eradication of Manual Scavenging using Robotic Scavenger Machine (Bandicoot)

(A CSR initiative from BPCL)







ACTIVITIES DONE UNDER SAFAIMITRA SURAKSHA CHALLENGE 'FOR DHULE MUNICIPAL CORPORATION'

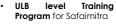


Messaging on Promotion of Safaimitra Suraksha Challenge



Capacity Building Calendar for 1st Batch of 52 participants.

Capacity Building **Program** of Desludging Operators.





Activation of Toll Free No. and **Establishment** of SRU under process



Certificates for recognition of Best performing worker Empowerment Safaimitra to adopt Mechanised Cleaning Safaimitra covered

under different health insurance schemes.

Assessment of Workforce, Equipment & Infrastructure (as per CPHEEO norms) is ongoing



All India Institute of Local Self-Government

ACTIVITIES PLANNED UNDER SAFAIMITRA SURAKSHA CHALLENGE 'FOR DHULE MUNICIPAL CORPORATION'









Housing loan Mela for Safaimitra

Heath checkup of all Safaimitra Distribution of PPE kit In the Municipal Corporation

to all Safaimitra

Apart from this, the Municipal Corporation is planning to procure new machineries to clean underground sewerage



ACTIVITIES PLANNED UNDER SAFAIMITRA SURAKSHA CHALLENGE 'FOR AMHEDNAGAR MUNICIPAL CORPORATION'









Housing loan Mela for Safaimitra

Heath checkup of all Safaimitra In the **Municipal Corporation**

Distribution of PPE kit to all Safaimitra





Training for Safaimitra to be conducted

Citizen Awareness on this critical issue

Apart from this, the Municipal Corporation is planning to procure new machineries to clean underground sewerage



All India Institute of Local Self-Government

ACTIVITIES PLANNED UNDER SAFAIMITRA SURAKSHA CHALLENGE

ACTIVITIES PLANNED FOR CHANDRAPUR MUNICIPAL **CORPORATION**

CITIZEN'S EMPOWERMENT THROUGH:

- 24x7 Helpline Number
- Conduct Public Awareness Campaigns during the period

PROMOTE MECHANIZED CLEANING:

- Ensure availability and help procure Mechanized Cleaning Vehicles and Equipment
- Requisite Resources along with PPE kit and Safety Gears

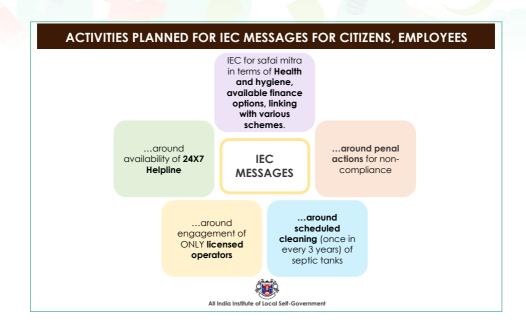
SOFT MEASURES FOR MECHANIZED CLEANING:

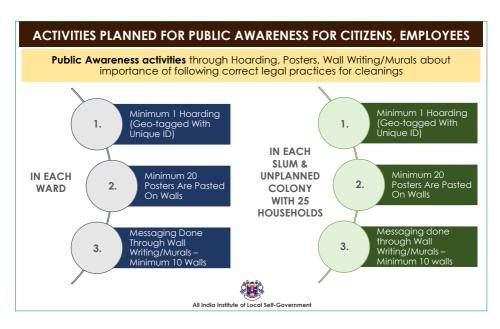
- Capacity Building Delsudging Operators (inhouse)
- Continuous Empowerment of Safaimitra

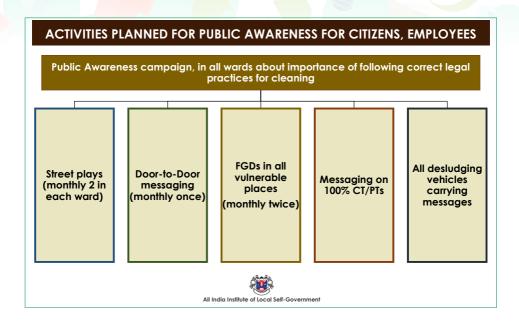
ECO-SYSTEM ENABLERS:

- periodic Continue the maintenance of Septic Tanks
- of Inspection the Standardize Septic Tanks and its mapping









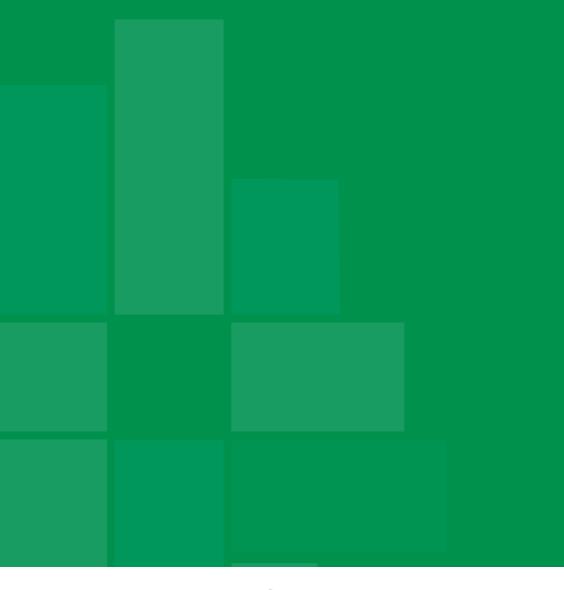
ACTIVITIES PLANNED FOR CAPACITY BUILDING OF SAFAIMITRAS EMPOWERMENT THROUGH REHABILITATION Capacity Building 100% informal Minimum 20% of Training Of Safaimitras Safaimitras, linked informal Safaimitras with at least 3 social are integrated with welfare schemes and private de-sludging given ration cards operators A. on safety measures and lead norms to be followed. Linking with **Entrepreneurship** 100% children of **Opportunities** Safaimitras to B. mechanized cleaning through be enrolled in convergence / soft schools loans / NSKFDC or any other scheme All India Institute of Local Self-Government

LEARNINGS AND WAY FORWARD FOR AILLSG TEAM

- Safai Karmachari as well as citizens are aware about the importance of this critical issue
- This challenge is bringing a change in life of Safamimitra and their families through
- ✓ Compulsory Use of PPE
- ✓ Regular health Checkup
- ✓ Making finance available for education, home etc.
- Considered as caste oriented work in India, this challenge will definitely change the scenario
- The new terminology for 'Man-hole' is 'Machine-hole'
- More emphasis needs to be given on the Public Awareness
- Availability of the Infrastructure and equipment, Capacity building are the key challenges.









National Institute of Urban Affairs

1st Floor, Core 4B, India Habitat Centre, Lodhi Road, New Delhi - 110003 Phone: 011-24617517, 24617543, 24617595, Fax: 011-24617513 E-mail: niua@niua.org • Website: www.niua.org