Workshop on

शहरव्यापी सर्वसमावेशक स्वच्छता (Citywide Inclusive Sanitation)

Conducted by Pune, Nagpur, Amravati and Nashik Divisional Commissioner Office (Municipal Council Dept)

May to October 2023







Agenda for the workshop

1. Introduction

- 2. Session on Shaharvyapi Sarva Samaveshak Swachhata aspects
- 3. Review of cities for FSSM and other sanitation aspects
- 4. Preparation of Road Map for implementing Shaharvyapi Sarva Samaveshak Swachhata

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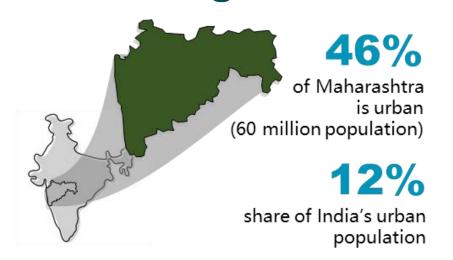
- 3. Review of cities for FSSM and other sanitation aspects
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Introduction session

1. Welcome note

2. Introduction to session

Maharashtra - high urban population, strong local governments and moving towards empowering women





CENTRE

14% of India's **GDP**

of India

FINANCIAL

14 cities

Million + population -Highest in all states

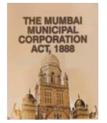
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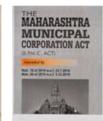
M.Councils (25k-300k population)



128

Nagar Panchayat (10k-25k population)





STRONG LOCAL

GOVERNMENTS

Average per-capita own revenue in

Municipalities – 3X of India average

through effective devolution



THE CITY OF NAGPUR CORPORATION ACT, 1948

24% in slums

EMPOWERING WOMEN

50% reservation in local government elected positions

30% reservation in local government executive wing



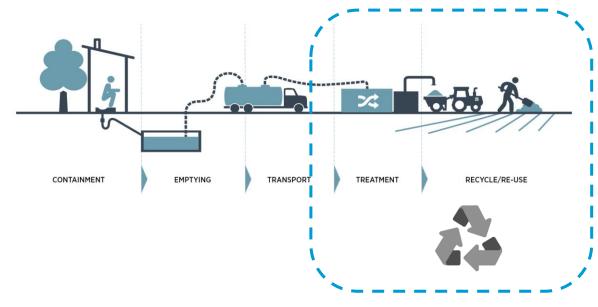
Focus of Government towards FSSM

2014 - Launch of SBM 1.0

- Eliminate open defecation
- Conversion of insanitary toilets to pour flush toilets
- Eradication of manual scavenging

By 2019 urban India was declared ODF

2021 - Launch of SBM 2.0



SBM's second phase launched in 2021 focuses on safe conveyance and treatment of used water management and faecal waste management

SMM 2.0 GR launched by GoM on 15th July 2022

Commitment to शहरव्यापी सर्वसमावेशक स्वच्छता in SMM 2.0 mission guidelines and leadership speech



8. Achieving City Wide Inclusive Sanitation and Safai Mitra Surakshit Sheher through convergence with the scheme/programme as well with the interdepartment coordination.

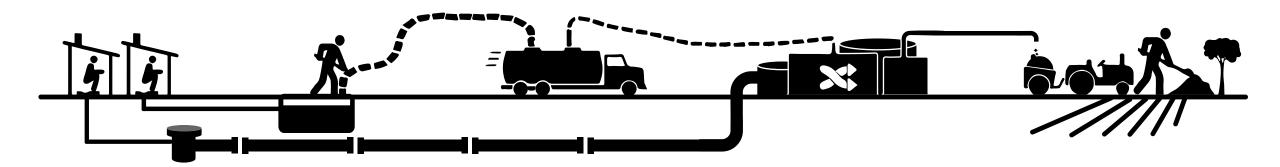


अभियान कालावधी ऑक्टोबर २०२१ ते ऑक्टोबर २०२६

संकल्प स्वच्छतेचा

- 🌞 १. घरगुती/कुटुंब स्तरावर कचऱ्याचे विलगीकरण
- 🌞 २. १००% घरोघरी घनकचरा संकलन
- 🌟 ३. १००% कचन्याचे शास्त्रशुद्ध पद्धतीने व्यवस्थापन व लॅंडफिलींग
- 🔆 ४. जुन्या साठलेल्या कचन्यावर प्रक्रिया आणि त्या ठिकाणाचे हरित क्षेत्रामध्ये रूपांतर
- ५. निर्धारित वेळापत्रकानुसार मैला व्यवस्थापन तसेच वापरलेल्या पाण्याची विल्हेवाट लावण्या करिता १००% सुरक्षित संकलन, वहन, आणि प्रक्रिया करणे
- 🌟 ६, वैयक्तिक घरगुती शौचालय
- 🌟 ७. आकांक्षीत सार्वजनिक शौचातये
 - 🔆 ८. आंतरविभागीय अभिसरण उपक्रमाद्वारे शहरव्यापी सर्वसमावेश स्वच्छता आणि सफाई मित्र सुरक्षित शहर बनवणे

What is Shaharvyapi Sarva Samaveshak Swachhata?



Access to toilets

Universal coverage of individual household toilets for all

Collection systems

Septic tanks constructed as per standards Conveyance

Scheduled desludging is implemented in cities dependent on onsite systems

Treatment

FSTPs and STP are fully operational and monitored

Disposal / Reuse

Used water and byproducts are completely reused

Women are formally engaged in municipal service delivery and take leadership

Sanitation infrastructure and service is designed and maintained from a gender lens

Safety of sanitation workers is ensured

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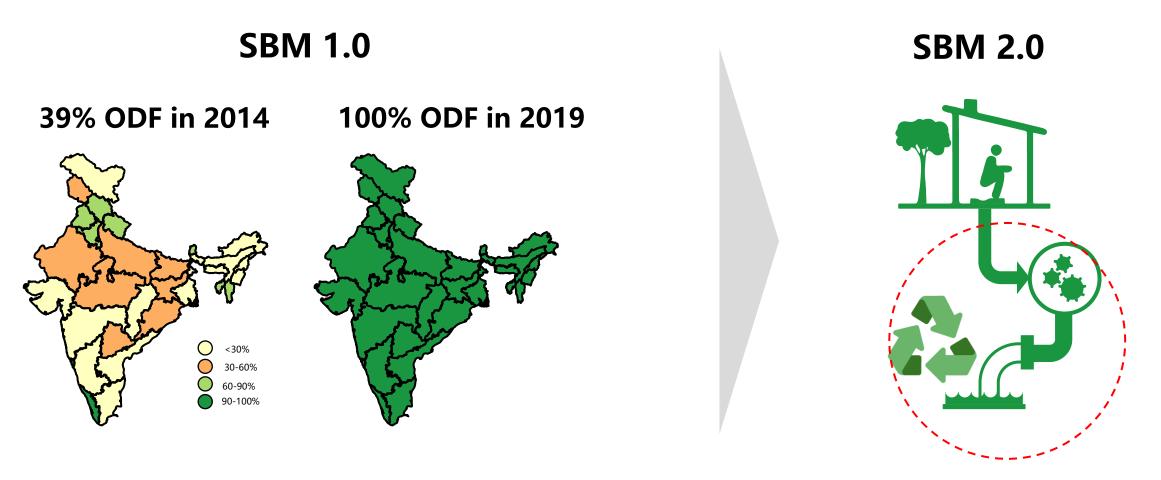
Thematic Sessions on शहरव्यापी सर्वसमावेशक स्वच्छता

- 1. Faecal Sludge and Septage Management (FSSM)
- 2. Gender Inclusivity in WASH
- 3. Safety of Sanitation Workers
- 4. Municipal Strengthening

Thematic Sessions on शहरव्यापी सर्वसमावेशक स्वच्छता

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Swachh Bharat Mission has successfully made the country Open Defecation Free

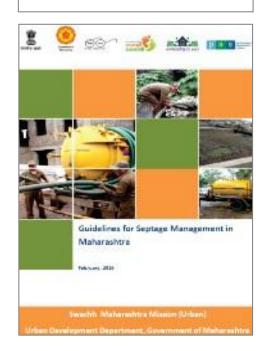


SBM's second phase focuses on safe conveyance and treatment of used water management and faecal waste management and faecal waste

Focus on Fecal Sludge and Septage Management (FSSM) by Government of Maharashtra: Need of FSSM

- Post declaration of ODF sustainability charter in 2017,
 Government of Maharashtra initiated developing statewide strategy on faecal waste management and treatment i.e., moving towards ODF++ cities.
- Guidelines for ULBs to implement FSSM plans have been rolled out by the state through various materials/books.
- Maharashtra Government has issued various Government Resolutions:
 - > To move towards ODF+/++
 - > To utilize Incentive grant and 14th FC
 - Funds for sanitation/ODF+/++ activities
 - Co-treatment of FS at own/nearby STP
 - Build individual FSTPs

अंतर्गत शहरांनी हागणदारी मुक्तीया दर्जा शाश्चतरित्या टिकविण्याबाबत नगर विकास विभाग शासन परिपत्रक क्रमांक: स्थमअ-२०१७/प्र.क.३१/नवि-३४ ल्हीद भगतसिंग चौक, मादाम कामा मार्ग भंपालाय, मोवर्ड - ४०० ०३२ केंद्र शासनाच्या "स्वतात्र मारल अभियान (नागरी)" च्या प्रतीवर दिनांक १५ में, २०१५ च्या शासन निर्णयान्तवे राज्यामध्ये "स्वन्छ महाराष्ट्र अभियान (नागरी)" भी अंगलबजावणी सुरू झाली आहे. या अधियांनांतर्गत शहरे "हारणवारी मुक्त" करणे व घनकन्तरा व्यवस्थापनांतर्गत "स्वच्छ" करणे या दोन प्रमुख **ODF,ODF+** वा अभियानांतर्गत शहरांनधील ज्या कुटुंबांकढे शीधालयाची सुविधा उपलब्ध नसल्याने जी कुटुंबे उभडमावर जीवास जातात, जजा कुटुंबांना वैयक्तीक घरमूती जीवालय (१४४६) अथवा सामुदाबीक शीनालयाची (CT) सुविधा उपलब्ध करून बेवून शहरे हायणवारी मुक्त करण्यात येत आहेत. राज्यातील सार्वजनिक शौधालय पापरणाऱ्या कुटुंबांबी संख्या (२१%) देशपातळीवरील सार्वजनिक शीचालय वापरणाऱ्या कृटुंबांच्या संस्त्रोच्या सरासरीपेक्षा जास्त आहे. या अभियानातंगेत शहरे हागणदारी मुक्त guean-ing gravian) सकत अवस्था दर्जा आस्त रिच्या विकतिप्रधासाती (CDF Sustamation) जास्तीय जारत कुटुंबांना वैयक्तिक घरगृती शीचालयाची सुविधा उपलब्ध करून देणे आवश्यक आहे. तसेच शहरांमध्ये बांधण्यात आलेल्या शीचालयांच्या बोप्टीक टेंक मधील मैला व्यवस्थापन करणे आवश्यक आहे. हागणवारी मुक्त शहर (ODF) व ODF+ तसेच ODF++ शहरांचे निकथ पुढील प्रमाणे आहेत.:-0 दिवशाच्या कठल्याही वेकेस प्रत्येक कटुंबास, संस्थेस व इतर शहरातील सर्व शीचालये सुरक्षित शहराच्या कुतल्याच भागात सर्व प्रकारच्या मालमतांना मैला संकलन व विलोबाट प्रभालीस शीचारा बसल्याचे आढळन न (स्वताची अच्चया गट शीचालये / येमें, तसेच शहरामध्ये कुठेही सार्वजनिक शीचालये) fried them yamens



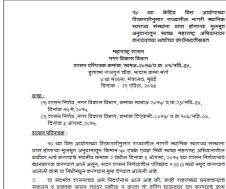
R on use of 14th FC & Incentive Funds

DOF

Step

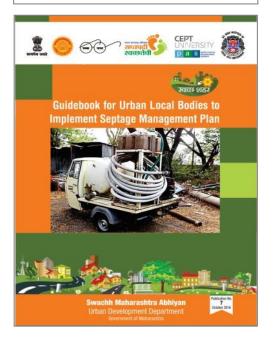
2

Step



कंत्राटीपध्दतीने (Outsource) करण्यासाठी १४ व्या वित्त आयोगाचा निधीचा वापर करण्यात येत

आहे. तसेच. काही शहरांमधील घनकच-याचे संकलन व वाहतुक करण्यासाठी वाहने खरेदी



Systematic two-pronged FSM strategy developed for urban Maharashtra

Co-treatment at own/near by STPs

Category A cities: ULBs with STPs

Category B cities: Co-treatment at nearby STPs

Co-treatment at own STP and accept FS from nearby cities

Functional/proposed/under construction STPs

35 ULBs

Co-treatment at nearby STPs within 20 km

Co-treat at nearby STPs

36 ULBs

71 ULBs

Independent FSTP

Category C cities: Independent FSTPs

Remaining ULBs will treat septage at FSTPs

Independent FSTP

311 ULBs

311 ULBs

UDD decided to set up independent FSTPs in all the remaining 300+ULBs

- UDD decided to set up the independent FSTPs in all remaining 311 ULBs which are entirely dependent on onsite sanitation systems and where there are no plans for sewerage project in near future.
- All the ULBs that are **dependent on on-site** sanitation system have been identified for **setting** up the independent FSTPs in Urban Maharashtra.
- This GR also indicates that the FSTP shall have to co-locate with the existing solid waste management (SWM) site.
- ULBs should plan for O & M of FSTP.
- Funds should be utilized from 14th finance.

स्वच्छ महाराष्ट्र अभियान (नागरी) अंतर्गत राज्यातील नागरी स्थानिक स्वराज्य संस्थांकडील शौवालयांच्या सेन्टीक टॅंक मधील मैल्याचे सुरक्षित, नियमित व्यवस्थापन करून व त्यावर प्रकीया करण्यासाठी मैला प्रक्रीया केंद्र (FSTP) बंबण्यास प्रशासकीय मान्यता देण्याबाबत.

महाराष्ट्र शासन नगर विकास विभाग शासन निर्णय क्रमांक : स्वमन्य-२०५१/प्र.क. १२२४/निवे ३४ हुतासा राजगुरु चौक, मादाम कामा मार्ग ॥ ४ था मजला, मंत्रालय, मुंबई ४०००३२ दिनांक : ८ नोक्टेबर, २०९९

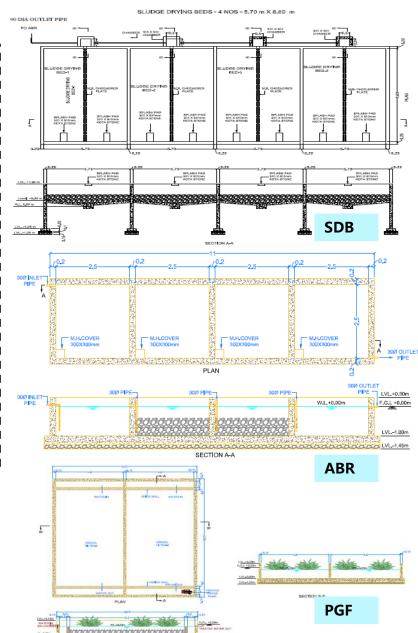
पदा •

ज्ञासन निर्णय, नगर विकास विभाग, क्रमांक रवमाअ २०१५/प्र.क. २३/निव ३४ दि. १५,०५,२०९५
 ज्ञासन परिपत्रक, नगर विकास विभाग, क्रमांक रवमाअ २०१७/प्र.क. ३५/निव.३४, दिनांक १७ मार्च, २०
 ज्ञासन परिपत्रक, नगर विकास विभाग, क्रमांक रवमाअ २०१७/प्र.क. २६३/निव.३४, दि. ३० डिसेंबर, २०
 ज्ञासन निर्णय, नगर विकास विभाग, क्रमांक रवमाअ २०१७/प्र.क. २६३/निव.३४, दि. २५ डिसेंबर, २०

प्रस्तावना

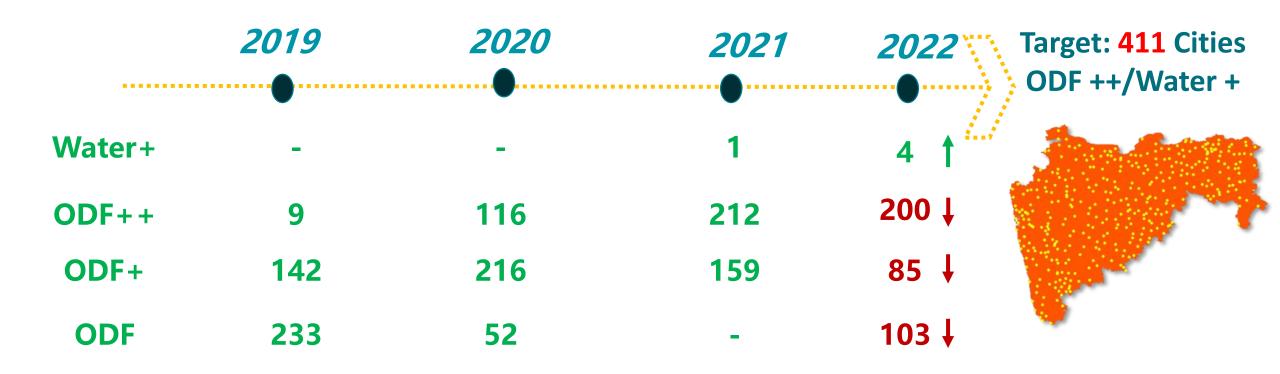
केंद्र शासनाच्या स्वच्छ भारत अभियानाच्या धर्तीवर संदर्भीय क्रमांक १ येथील शासन निर्णयान्वये राज्यामध्ये स्वच्छ महाराष्ट्र अभियानाची अंमलबजावणी सुरू आहे. या अभियानांतर्गत शहरांमधील ज्या कुटुंबांकड़े शौचालयाची सुविधा नाही अशा कुटुंबियांना वैयक्तिक अथवा सामुदायीक शौचालयाची सुविधा उपलब्ध करून देवून शहरे "शाणदापी मुक्त" करणे, तसेच, धनकचरा व्यवस्थापन नियम, २०१६ नुसार शहरातील धनकचरा व्यवस्थापन करून शहरे "स्वच्छ" करणे या दोन प्रमुख बार्बीचा समावेश आहे.

- त्यानुसार, या अभियानांतर्गत राज्यातील ज्या कुटुंबाकड़े शौचालयाची सुविधा उपलब्ध नाही अशा कुटुंबांना शौचालयाची सुविधा उपलब्ध करून देवून राज्याचा संपूर्ण नागरी भाग हा दिनांक १ ऑक्टोबर, २०१७ रोजी हागणदारी मुक्त घोषीत करण्यात आला आहे.
- ३. राज्यातील सर्व शहरे हागणदारी मुक्त झाल्यानंतर, या शहरांमधील हागणदारी मुक्तीचे सातत्य राखण्यासाठी व शहरातील नागरीकांना शौचालयांच्या चांगल्या सुविधा उपलब्ध होण्याच्या दृष्टिने ही शहरे *अंडीएफ+* करण्यात येत आहेत. यापढे, राज्यातील नागरीकांना शौचालयांच्या चांगल्या सुविधांसह



These efforts helped to achieve the ODF++ status but slippage in 2022 due to poor O&M of community toilets and lack of monitoring for FSSM...

Urban Maharashtra declared ODF on 2nd October 2017.



Nagpur Division – In the year 2022, the division has 29 ODF++ cities and 27 ODF+ cities

FSTP Status of Maharashtra: Good practices, challenges

FSTP OPERATIONAL - TIMELINE OF NAGPUR DIVISION



8 FSTPs Operational in Nashik Division





Sironcha







Bramahpuri





Brahmapuri



Nov. 2019

GR Published Sanctionin g 311 FSTPs in Maharasht



Mar. 2020



Khapa

Jul. 2020

15 FSTPs Operational in Nashik Division



Nov. 2020



Hinganghat

Feb 2021

29 FSTPs Operational in Nashik Division



Jul.. 2022



Mul





CURRENT STATUS FSTPS IN NAGPUR DIVISION

| Total FSTPs | Operational FSTPs | Function al FSTPs | Non- Functional FSTPs | Civil work completed but not operational | Under Construction | Bidding tendering | Land issues |
|----------------|----------------------|----------------------|---|---|-----------------------|----------------------|--|
| 59 | 42 | 37 | 04 | 02 | 00 | 05 | 12 |
| | - | · | Sindi Sadak- Arjuni Sindewahi Savner | 1. Kuhi 2. Lakhand ur | - | • | Arjuni Ashthi Bhiwapur Gadchandur Jiwati Kamtee Korpana Kurkheda Mulchera Pombhurna Salekasa Samudrapur |

42 FSTPs = 341 KLD

is the available capacity of **Septage** that **Nagpur Division** can treat **every** day!



Highlighting key aspects which are keeping the FSTPs operational

Parameters considered to Check good FSTPs -

- Constructed and maintained FSTP site properly.
- Regular emptying of desludging vehicle at FSTP.
- Landscaping is developed at site.
- Reuse of treated water and dried sludge.
- Logbooks of FSTP should be maintained regularly.
- Infrastructure availability.

| Division Name | Total no. of operational FSTPs | Name of good FSTPs | | |
|---------------|--------------------------------|---|--|--|
| Amravati | 35 | Shendurjana Ghat, Chikhaldara, Chandur Railway, Ner and Warud etc. | | |
| Aurangabad | 53 | Sillod, Manvat, Partur, Udgir | | |
| Nagpur | 42 | Bhadravati, Narkhed, Hinganghat, Khapa, Mul, Bramhpuri, Armori etc. | | |
| Nasik | 39 | Deolali Pravara, Parola, Bhadgaon, Chopda, Erandol, Dondaicha etc. | | |
| Konkan | 20 | Karjat, Pen, Alibagh, Rajapur, Sawantawadi, Mhasada etc. | | |
| Pune | 33 | Malkapur_k, Dahiwadi, Bhor, etc. | | |
| Total | 222 | | | |

















Highlighting key aspects which are keeping the FSTPs operational





























How these ULBs have managed to keep FSTPs functional and well maintained?

- Officials are very pro-active.
- Political wing is so supportive in some cities.
- Human resource is available for FSTP maintenance.
- Some ULBs involved SWM private contractor to carried out FSTPs O & M.
- Location of FSTP is close from city area in some cities so monitong is essay for ULBs.
- Contract signed with private contractors.
- It is mandatory for ODF++ certification.
- Demand is high in the city.
- Good access to FSTP site.
- Other infrastructure is already available with ULB like desludging vehicle, compost plant etc.

Reasons for Good FSTPs

Maintained by private operator –

- **Bhor** FSTP is maintained by private operator (Sujal Ecotech).
- Council does the robust monitoring and review of the maintenance activities







Maintained by ULB + SWM contractor -

- Shendurjana Ghat FSTP is maintained by ULB itself.
- 1 ULB person is appointed at site to monitor the O& M of FSTP.
- The council has instructed SWM contractor to manage FSTP site as well.









Reasons for Good FSTPs

Infrastructure availability-

- Adequate infrastructure availability leads to effective operations.
- Fulfill the demand
- Support in emergencies.
- Revenue generation through selling of treated water and dried sludge.
- Helps in treating output products.

Accessibility to FSTP site-



Shendurjana Ghat Amravati





- All weather connectivity leads to regular operations
- Easy to provide other important services

Incentives in desludging charges-

- Incentives or Free service helps in creating mode of public awareness
- Increase the demand
- Effective and speedy implementation

Sillod ULB circulated notifications about free service in city for 2-3 months to make FSTP operational and to aware public about FSSM as well as FSTP



Glimpses of good FSTPs across Maharashtra

Amravati -

SDB



ABR



PGF



Nagpur -







Nashik -









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Glimpses Of Good FSTPs Across Maharashtra

SDB











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PGF

















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Green House Solar Dryer

15-18 Day Approx Drying Time

Non – operational Issues FSTPs – ON SITE ISSUES AND SOLUTIONS

1.Security Issues

- EC unit and Pumping Motors getting stolen.
- No Proper Compounding or Fencing provided

Due to certain reasons ULBs hesitate to keep important equipments on site.

Issues Observed in ULBs - Tirora, Goregaon, Chamorshi, Murud Janjira, Phaltan, Amalner)

2. Incorrect Construction of FSTP Components

Improper and Incorrect Construction of FSTP Components.

(Ex:-. Bed level of SDB is high and with available vehicle ULB is unable to empty sludge in Component) Issue Observed in Ashti ,Palghar

3. Opposition

Neighbouring Residents are opposing for Operation of FSTP scaring of smell and spread of Diseases if sludge emptied in SDB.

Issue Observed in Tuljapur, Kaij, Lonand, Pathardi

4. Access

Due to no proper construction and maintenance of Roads, Desludging Truck face problem while approaching towards FSTP site.

Issue Observed in Chamorshi, Bhum, Kundalwadi, Patan

5. Weather Conditions

In Unavoidable Weather conditions and natural Disasters (Rain and cyclone) Septic tanks could not be emptied due to no demands and operational issues because of non availability of sheds and proper access road to FSTP. Issues Observed in Tumsar, Malwan

6. Resource not available

Electricity is not available on FSTP site, so unable to operate Pumping motors and EC unit.

Pimpalgaon K Maharashtra Longitude 77.756922 77*4524* E



1. Security Solution

- ULBs need to deploy supervisor at FSTP site or need to construct proper fencing and store room can hire person through some agency as well.

2. Capacity Building

Need to spread awareness in ULBs through workshops, sharing of drawings, explaining drawing to ULB officials and videos and live tour of model FSTPs Division wise

3.Awareness

- Awareness in ULBs Residents through presentations, meetings and workshops, sharing of Banners ,Flyers and interesting wall Arts

4. Access

- A proper Pakka road shall be mandatory to be constructed to approach FSTP site ,so desludging vehicle would not face problem in an weather conditions specially in Rainy Days.

5. Weather Conditions

 To avoid Water in Rainy season ,above FSTP components elevated shades can be constructed to receive immense sunlight and avoid rain water

6. Temporary Solutions

 Use of Generator for pumping motors and instead of ECU Bleaching powder can be utilised to avoid non operational conditions and keep FSTP running,







All the Issues faced by the ULBs based on the discussion with ULBs and photographic evidences

Issues faced by ULBs – During operations of FSTPs :-

Desludging Vehicle related issues

1. No truck Available

- Most of the ULBs don't have desludging vehicles as they have shortage of funds or in some ULBs truck procurement is in process.
- Issues observed in Observed in Sindi, Shelu, Goregaon, Roha Ashtami

2. Maintenance Issues

 In some ULBs desludging vehicles are not functional due to maintenance issue with no or less manpower. Many ULBs having only 1 vehicle, So no alternative is available in such a scenario.
 Issue Observed in Murtizapur

3. Fund not available

Due to shortage of funding, ULB is facing problem with fuel cost and maintenance cost ,due to which they are unable to take regular demands

Issue Observed in Mokhada

4. Request not fulfilled

ULBs with no truck, request other ULBs truck to empty septic tanks in their city but they face
problems with not fulfilling the request or sending truck to neighbouring truck lately resulting in less
demands fulfilling.

Solutions

1. Truck Availability

Explore PPP or PSP model for trucks. Need to purchase new vehicles under SBM 2.0 and manage by either private sector or involve SHGs and NGOs.

2. Explore Private operators

Need to explore private operators through service contracts

3. Financing options

 ULB may fund through indirect cost recovery either through toilet tax, sanitation tax, existing user charges or through property tax.

5.Record and agreement-

- ULBs should sign agreement for roles and work to be carried out from individual level and have monthly monitor over demands received and complaints resolved.
- Use SaniTrack or SaniTab





Issues faced by ULBs – During operation of FSTPs

Miscellaneous Issues

1.Less Demands

In some cities demand is very less so ULBs neglect the operation and maintenance of FSTP on regular basis. Issues Observed in Loha, Patoda, Uran Islampur, Palus, Amalner, Newasa, Yeola, Varangaon

2. No Human resource

- To carry out the FSTP related work there is no specific ULB staff, due to overload of work they neglect the fstp activities which lead to Lack proper work .**Issues Observed in Mokhada**, **Deola**

3. High Charges

 Desludging charges are high in many cities so resulting in less demands. Issue observed in Mokhada

4. Awareness Issues

- People are less aware that they have to empty septic tanks within 3 years.

5. No regular O&M

- O & M of FSTP is mostly carried out in the time of ODF assessments only

6. Payment issues

 Contractor will stop construction if Bills are not cleared from ULB side due to which repairing or work is kept incomplete

7. Access Road Issues

Access road is blocked due to dumped solid waste. Issues Observed in Chikhli and Palghar





Solutions

1. Fewer Demands

Need to aware citizens through banners, posters, workshops and video clips to increase awareness amongst citizens to come with regular and more Demands

2. Involving SHGs and NGOs

 If ULBs Self Help Groups and NGOs are involved in carrying FSTP works and related work it could work smoothly and help in empowerment

3. Indirect cost recovery

- Stop user charge based model while providing service instead use indirect tax/ charges

4. Awareness Issues

- People are less aware of emptying septic tanks within 3 years, on ward level through administrative body citizens can be made aware of .Sludge treatment and schedule desludging

5. Regular O&M

- O&M of FSTP should be carried out weekly ,monthly to ensure proper and regular working of FSTP

6. Payment issues

- Bills clearing should be ensured from ULB level, with contractor, and their has to be clarity on roles and work to be carried out in given period of duration.

7. Access Road Issues

- Clearing of SWM site and have specified Approach for emptying trucks in SDB component.





Scheduled Desludging: Need and Importance

Need for moving towards scheduled desludging





- Currently, cleaning cycle greater than 8-10 years against CPHEEO recommended cycle of 2-3 years
- Not emptying for long durations leads to **reduced efficiency** of septic tanks
 - Sludge hardens at bottom and is difficult to remove.
 - Effluent quality degrades.
 - Increased chances of manual scavenging
- Tendency to build oversized septic tanks to avoid frequent emptying

What is scheduled desludging service?

Current practice of septic tank owners is to call desludging operators only when tanks **overflow**. Sometimes owners construct **oversized tanks** to avoid emptying altogether

Under a scheduled desludging service...

All septic tanks in the city are visited... once during a fixed cycle and... mandatory desludging is done... according to a predetermined schedule... by one or more licensed service providers... Who are paid through annuity payment backed by ULB revenues who delivers sludge safely to a designated disposal site for treatment and reuse

GoM committed to scale up Scheduled desludging and CWIS

Mandate: As per GoM circular dated 30th November 2022 on Scheduled Desludging of Faecal sludge from septic tank and carrying out O&M and repair of FSTP. ULBs have to empty out the septic tank in the city once in 3 years.

Finance:

- Fund is admissible as per CSAP under SBM (U) 2.0 for purchasing necessary equipment for desludging vehicle/vacuum emptier etc.
- Public Private Partnership (PPP) should explore
- ULB funds/Sanitation tax to be used for operations of scheduled desludging.

A special sanitary tax upon Pvt. Latrines, premises or compounds cleaned by Municipal agency. **Sec. 108 (d) – Municipal Council Act 1965**

State GR for Scheduled Desludging Implementation in ULBs and steps to follow for FSTP O & M

सेप्टीक टॅंकमधील मैला उपसा निर्धारित वेळापत्रकानुसार (Sched. Desludging) आणि मैला प्रक्रिया प्रकल्पाची देखभाल व दुरुस्ती (FSTP O&M) करणेबाबत.

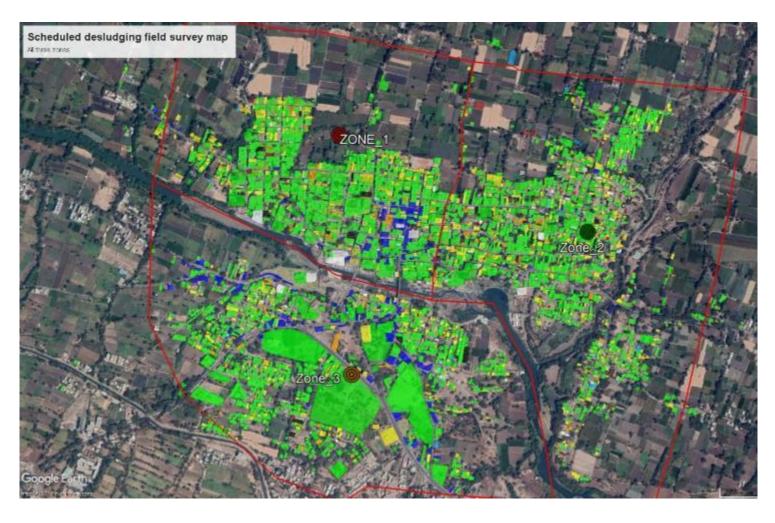
महाराष्ट्र शासन नगर विकास विभाग स्वच्छ महाराष्ट्र अभियान संचालनालय परिपत्रक क. राअस./मैला व्यवस्थापन नरीमन पॉईट, मुंबई ४०००२९/१९३९/२०२२ दिनांक:- ३० नोव्हेंबर, २०२२

> सेप्टीक टॅंक व मलजल वाहिन्यांची स्वच्छता संपूर्णपणे यांत्रिकी पद्धतीने करण्याबाबत मार्गदर्शक सूचना.

महाराष्ट्र शासन नगर विकास विभाग शासन परिपत्रक क्रमांक:-स्वमअ-२०२२/प्र.क्र.१७८/नवि-३४ हुतात्मा राजगुरू चौक, मादाम कामा मार्ग मंत्रालय, मुंबई- ४०००३२. दिनांक- १९ डिसेंबर, २०२२

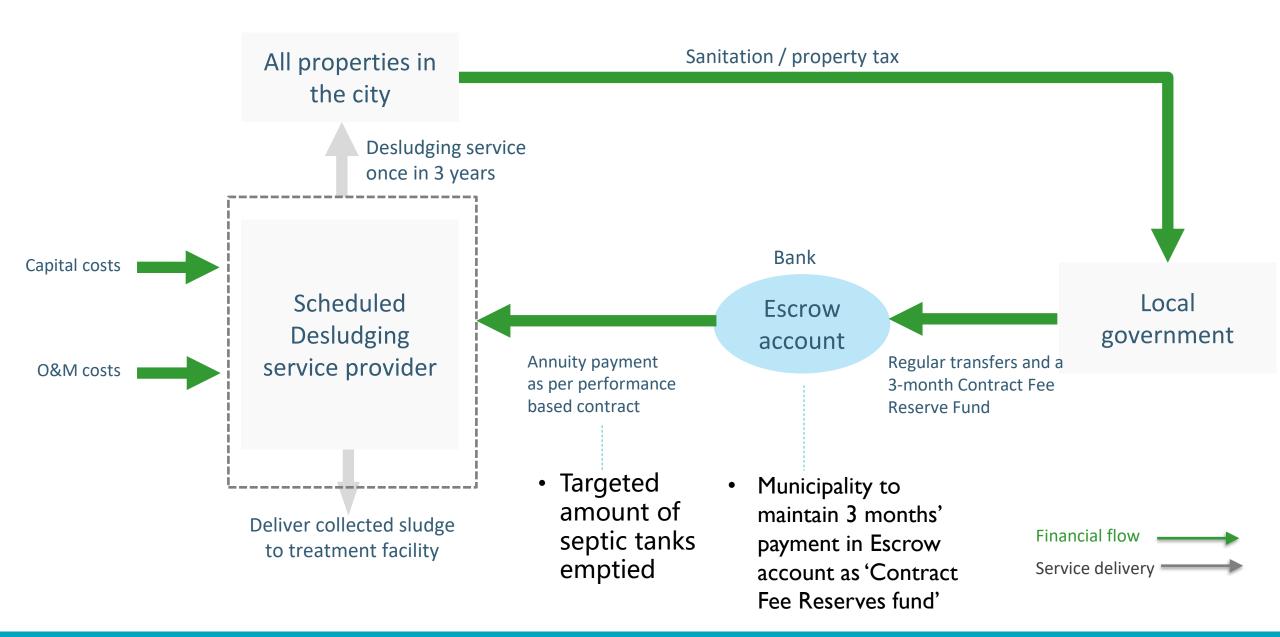
Mechanization of Sanitation related activities

Pune division is pioneer in India demonstrating Citywide FSSM as a "public service" – A case of Wai from Pune division Wai has initiated the 2nd round of scheduled desludging service . . .



- Successful completion of first 3-Year
 Scheduled desludging cycle covering the entire city
- Total of 3600+ septic tanks serviced
- Total Properties covered: 6800+
- Operations fully Mechanized Scheduled and monitored through SaniTab /
 SaniTrack
- Private contract Rs. 800 per septic tank
- Financed by Sanitation tax (partly) +Property tax (partly)

Performance linked annuity model (PLAM) for financing . . .



Performance monitoring linked to payments . . .

Paper based monitoring systems



LG's copy



Property owner's copy



Private

operator's copy

Treatment plant's copy



Monitoring through paper based forms.

Four forms will be used and be provided to each stakeholder involved in the service

Online monitoring systems

SaniTab

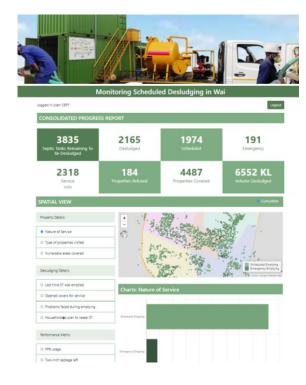


SaniTrack









"Real time" monitoring
No need to process data
for results

Easy to Operate, Reduce paper work, Minimize human error Photo stamping, Geo stamping, Signatures

Impacts of scheduled desludging on environment

Improved performance of septic tanks after desludging resulting in improved drain water quality flowing into river



Reduction in Nitrogen, Total Suspended solids and Organic loads



50-60% decrease in the value of TSS and BOD load in de-sludged areas



Improvement in quality of river water and ground water





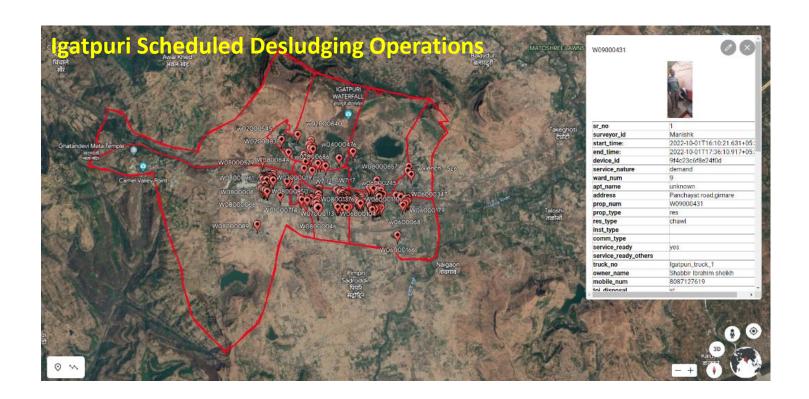




Source: https://journals.sagepub.com/doi/full/10.1177/23998083221078596#:~:text=One%20of%20the%20major%20aims,been%20desludged%20for%20many%20years

Scheduled desludging being scaled up in other cities of Maharashtra

- Igatpuri, Satara, Kolhapur, Chandrapur Initiated scheduled desludging.
- Pune (newly added areas) and Sangli also initiated work on scheduled desludging
- Promoting engagement of SHG groups and / or Private service provider for mechanized desludging services



How do I plan for a scheduled desludging service in my city?



1. Understanding Sanitation coverage and Database



2. Scheduling and infrastructure assessments



3. Financial assessments and tariff calculations



4. Identify the model for service provision



5. City council resolution for Institutionalization



6. Develop
Balanced
Performance
based Contract



7. Devise the Financing Model



8. Performance monitoring linked to Payments



9. Awareness activities for implementation of services

Scheduling and infrastructure assessments . . .

Decide the desludging cycle (3-5 years as per size of septic tanks)

Number of zones – based on Property tax ward, administrative ward

Number of septic tanks to be emptied daily

Number of trucks required (Nos.) – Big / Small

Human resource requirement

Volume of septage to be treated (cum/day)

Divide the city into zones and prepare a yearly plan



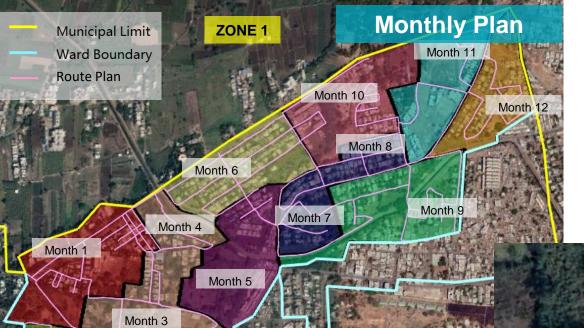
| 1 | Year | Zone | Septic tanks to be cleaned annually (no) | Days required |
|---|--------|-------------------|---|------------------|
| | Year 1 | Zone 1 | 1889 | 201 |
| | | Zone 2 | 947 | 101 |
| | | Total | 2836 | 302 |
| | | Zone 2 | 1262 | 135 |
| | Year 2 | ear 2 Zone 3 1582 | 169 | |
| - | | Total | 2844 | 303 |
| | Year 3 | Zone 3 | 2762 | 294 |
| | rear 3 | Total | 2762 | 294 |

Septic tank cleaning cycle of 3 years

- □ To maintain a cycle of 3 years, roughly 2800 septic tanks need to be cleaned annually
- ☐ Each vehicle needs to make 4 to 5 trips daily
- □ Roughly 300 Working Days are required
- To clean 2800 septic tanks, 2-3 nos of suction emptier trucks of 5000 capacity would be required

2-3 trucks of 5000 litre capacity are required for cleaning HHs and non-residential septic tanks

Based on the above calculation, city also need to assess the augmentations required in terms of truck and treatment infrastructure

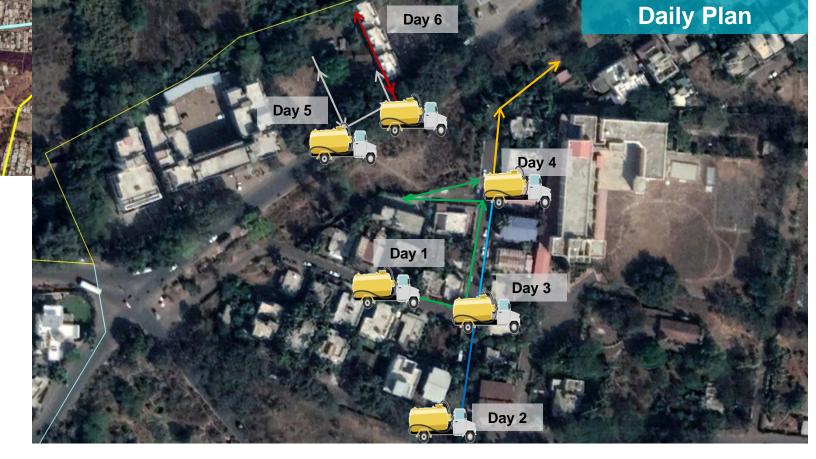


Month 2

Weekly Plan

Week 1

Route Planning

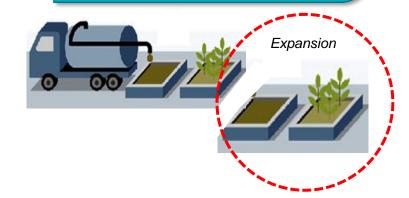


Treatment infrastructure . . .

Based on number of septic tanks to be desludged daily and estimated volume.

Plan for treatment infrastructure

New FSTP or Expansion of existing FSTP



Co treatment with own city STP or Nearby city STP



Financial assessments and tariff calculations . . .

Identify the model for financing the operations:

- Calculate the O&M cost for provision of the service
 - Fuel cost
 - Repair and maintenance cost
 - Salaries of human resource etc.

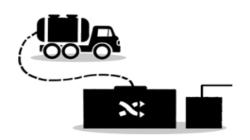


Based upon who will be providing the service

Calculate the tax value

- Sanitation tax per property (Differential / Flat tax)
- Levy it as a % of property tax to make it equitable







Identify the model for service provision..

- ULB Model: Capex of trucks and Opex by ULB
- PPP Model: Capex of trucks and Opex by private operator
- Private Sector Participation (PSP) model: Capex of trucks by ULB and Opex by private operator
- Integrated scheduled desludging and FSTP O&M model: PPP / PSP
- Involving SHGs in desludging activities: PPP / PSP

| INTRODUCTION | | | | | | |
|---|--|----------------------------|--|--|--|--|
| About the model | | Structure of the model | | | | |
| This model is developed to identify financing investments for implementing FSSM through various approaches and business models. This model helps to identify investment requirement according to five different business models for conveyance of septage. These business model calculations are based on the inputs provided about population of city, number of septit canks, service provider, etc. | | Model selection | Selection of the type of desludging model selected | | | |
| | | Infrastructure Requirement | This sheet include the basic inputs required to run the model. Key inputs include: demographic details, city profile, type of facilities available. These inputs would generate the infrastructure requirements for the city. | | | |
| Business models for selection | | Cost Requirement | The sheet generates the cost that would be incurrend as per the infrastructure requirements for the city. This sheet requires basic inputs to run the model. | | | |
| Following business model calculations are available: 8M 1: PPP for scheduled desludging, Sanitation Tax 8M 2: PPP for on demand desludging using user charge 8M 3: PSP for scheduled desludging, Sanitation Tax 8M 4: PSP for on demand desludging using user charge 8M 4: PSP for on demand desludging using user charge 8M 5: FUll government run model with sanitation tax | | Financing Infrastructure | The sheet provides the financial feasibility of various scenarios depending on the contract type and method of cost recovery as per inputs | | | |







Excel based tool for Business models

City council resolution for institutionalization . . .

A city level resolution is an expression of opinion or intention of the local body to:

- Undertake FSSM activities
- Confirm the financial model
- Confirm the service provision model
- Land allocation for FSTP etc.

The city level resolution for provision of service is important for sustaining it in the long run.

बार्ड नगरपरिषद सर्वसाधारण सभा ठराव क्रमांक ४ दिनांक १८-०४-२०१५ टराव क्रमांक ४

विषय - मैला व्यवस्थापन आराखडा तयार करून त्याची अमलबजावणी करणे आणि हडको कार्यालयाकडे निधी मंज्रोसाठी प्रस्ताव सादर करणे बाबत निर्णय घेणे.

ठराव - २०११च्या जनगणनेनुधार ३,००० बृद्धांपैकी ५,१४५ बृद्धांकते वैगक्तिक शौचालये अग्रुत त्यातील ४,४२५ बृद्धांची शीकालये ही सेप्टिक टॅक्सना जोडलेली आहेत. वार्ड नगरपाणिकेने केलेल्या विश्वेषणावरम्यान असे लक्षात काले की, वर्डब स्तरावरीत बहुगंक्य सेप्टिक टॅक्स हे आयएस नियमावती आणि शीपीएकईईओ माहितीपुरितका गांनी सृषित केलेल्या आराखडा निवर्शनुसार नाहीत, बहुसंबव सेप्टिक टैक्स है सोड्या आकाराचे होते ज्यायुक्ते ने एसतर ८-१ » वर्ष कालावधीयेका अधिक काळाने तरी स्वच्य येले जात आहेत किया ते कार्रिय स्वच्या केलेले नाहीत. यामुळे सेप्टिक टॅक्समध्ये यून पदार्थ जमा होतात आणि सेप्टिक टॅबराची प्रक्रिया नार्यक्रमता / श्रमता कमी होते. जना गेप्टिम टॅबरामधुन येणा-या शोडपाण्यात बीजोडीचे प्रमाण अधिक जमते ज्यामुळे बाच्या संपर्धात येणा-या व्यक्तीच्या जारोम्यावर त्याचा परिणाम होऊ शकतो, तसेच, जशा प्रक्रिया न केमेच्या मैलापाण्याची रस्त्याच्या कडेच्या सटारोमार्पेत कृष्णा नदीत घाटोद्वारे चेट विन्हेबाटही लावली जाते.

सम्बन्धितीत, नगरपालिया ही कुटुंबांना सेप्टिक हैंका स्वन्ध्य करण्याची सेवा र. १००० प्रती ग्रेप इतक्या शुरुवासाने मागर्गीनगार प्रत्यिते अणि त्यातील ग्रैत्थाची प्रक्रिया न करताच पनकवरा अमा करण्याच्या ठिवाणी (इस्पिग माईटवर) त्याची विष्हेंबाट साक्त्री आते. पर्यावरण तरोच मनुष्य / प्राणी बांच्या आरोग्यावर याचे परिषाम होतील, सेप्टिब टॅक्सची अधिक नियमित स्वच्छता वरण्यास सहाच्य करण्यासाठी आणि प्रक्रिया न वेलेला मेला तथाच टाकणे टाळण्यासाठी नियमित सेप्टिक टेक स्त्रच्या करण्याच्या रोवेची तरीच यैत्राप्रक्रिया प्रकल्याची योजना आधणे आपरयक आहे. नागरी विकास संवालयाच्या तवीन गैला व्यवस्थापनविषयक संस्थासार समितीने जिकारस केली जाड़े की, सेव्हिट टेक्स दर तीम क्योंच्या बालावश्रीने स्वच्छ केले पाहिनेत, त्या मैलावर प्रक्रिया नेली गेली पाहिने व सग त्याचा पुनर्वापर नेला गेला पाहिने. हे करण्याचे पायदे स्हणके - अधिक बालावधीनंतर सेप्टिक टॅक्स स्वच्या करण्याच्या चडामुळे मेप्टिक टॅक्सची प्रक्रिया कार्यध्यमता/ क्षमता खालावत जाणार लाही, योजनायद्ध रिजीने सेप्टिक टॅक्स स्वण्ड केने जातील, संप्टिक टॅक्स स्वण्ड करण्यातून निश्चित सहसूनाचा ओप सुरू होईल आणि प्रक्रिया केलेल्या मैलाची विक्री करता येईल. स्तुणून नगरपालिकेले वाईशाडी तथींगीण मैला व्यवस्थापन योजवा कार्यान्त्रित करणे

या कराबानुसार असा निर्मय प्रेणेत येत आहे की. सेप्टिक हेक्त प्रोजनाबद्ध रिजीने नियमित्रपर्य स्वच्छ करण्याची तेवा (रविण्याचा आणि सच्छे नंबर २३८ (अना) / २५९ (नवीन) येथील यमककरा हाकण्याच्या ठिकाणी (डर्मिंग साईटकर) मैपापक्रिया मुनिया/ प्रकार उचारण्याचा निर्णय नगरपाणिकेने देतना आहे. हेप्टिब टॅंब्स स्वच्छ करण्याची रोवा प्रतिने (८७ येणे व चालविणे) व मैलाप्रक्रिया प्रकार चालविणे हे बाजगी संस्थे/ संस्थामार्फत केले जाईल. मैला व्यवस्थापानामध्ये खाजगी संस्थाचा हा सहसाय बायम/ टिकवुन डेकरपासाठी, सालमला/ मिळकतींकर कर लावणेत याय. तसेच सर्व प्राप्तमला घारकाँनी तथरपाणिकेले इरधून विलेल्या केळापचनाप्रमाणे त्यांचे सेप्टिन टॅक्स तील वर्षांकुन एकदा स्वच्छ करान पेणे बंधननारक राहील. सेप्टिक टैक्स नियमितपणे स्थब्द करून पेण्यासाठी त्यांना झाकण उच्चता पेणाच्या त्यासकेव्यांची (manholea) तरत्व करून पेण्याची व वाहनोसाठी योग्य अमा गोहोच रस्ता देवण्याची जवाबदारी माजवता धारवाची राहील "Onsite Sanitation" व्यवस्था रावविण्यामाठी नवीन नियमावणी व bye-laws वनविण्यात यावेत.

या ठरावानुसार असा निर्णय ग्रेप्टेन येत आहे की, खाजनी शंक्यांच्या सहयागानुन शंबींगीण ग्रेशा व्यवस्थापनाची पार्वपाती करण्यासाठी व त्याच्या यशस्त्री अंमलबजावणीसाठी वीस्य असे कर, नियमावली व जनादेश साथ करण्यास संबर्ध देण्यात येत आहे, तसेच शवर मैलाप्रक्रिया प्रकल्याचा 'सर्विश्तर प्रकल्य जाराखडा' करवून निधी प्रामीनाडी HUDCO या संस्थेयाहे साहर करण्याचेत्री या ठरवाद्वारे वेणेत येत आहे.

सूचक - माजी ब्युखा विज्ञानारा जावन सही xxx

अनुमोधक - माली निवेता विलिय वर्फ पूर्व सती XXX

unft xxx



Some of the challenges faced by cities for implementing FSSM services

| Challenges | Possible Solutions |
|--|---|
| Lack of funds for meeting operational cost of scheduled desludging | Cities to utilize existing heads like toilet tax, user charges and increase the rate or levy sanitation tax to improve own revenues Desludging charges to be collected in phases/installment e.g. Chandrapur |
| Lack of finance for procurement of desludging vehicles | ULB will get vehicle from SBM 2.0 fundsPrivate sector engagement |
| Lack of demand from households | Need to implement SD. Awareness generation around importance of SD amongst the households |
| Augmentation of FSTP to implement SD | Focus on achieving 100% utilization of FSTP |
| Limited human resource for operation and maintenance of the FSTP | Need to explore involvement of SHGs for O & M of FSTPs. |

SBM 2.0: Moving towards Water+ cities

Target 1: Achieving 100% IHHT coverage

Target 2: Ensure 100% safe collection and treatment of feacal waste and used water



Individual Household Latrine

- All households should have IHHL including new migrated HHs, HHs with previous access to community toilets (CT), HHs with insanitary latrines
- Tenure security issues are to be de-linked from benefits.
- IHHL to be built in tandem with municipal water supply connection
- Toilet application to be made on UMANG App or SBM Urban website
- Aadhar Seeding
- CTs to be provided in case of land constraints areas only with seats earmarked for selected families to increase the sense of ownership

Steps for IHHL requirement identifications

Selection of Beneficiary Household shall be as per following guiding principles:

- New independent households
- All new households who might have migrated to urban areas
- All households with previous access to community toilets
- All households with insanitary latrines
- ULBs to conduct gap analysis to assess Households without an individual household toilet at home including finding the reasons for not having toilets at home – Timeline 1 month
- ULBs to start initiating demand mobilization for new IHHL under SBM 2.0
- Family received fund in any earlier scheme would not be eligible to receive funds for toilets again

Problems in constructing IHHL



Space constraints (IHHL/containment)



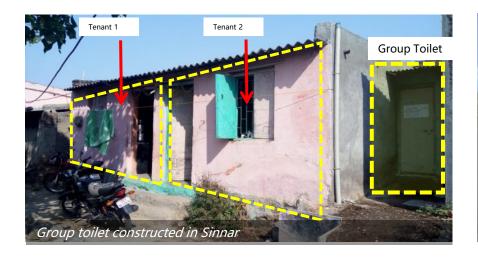
Financial constraint

Lack of funds/credit



Infrastructural constraints

 inability to get a sewerage connection especially in dense settlements, or lack of water supply





Alternate solutions for IHHL

One home one toilet in slums – Pune

Group toilets

Community toilet seat: Lock and key mechanism

Community septic tank



Case Kanjurmarg slum where toilet block is shared by group of households by key-lock system

A Group Toilet model and shared septic tank model to address lack of space for construction of individual household toilets

Community toilet convert to lock and key model at Gadhinglaj Municipal Council (GMC)

Community septic tank by the Khopoli Municipal Council (KMC)

- To tackle the problems of space and funds, KMC developed an innovative solution to construct a group septic tank for a number of individual toilets in close vicinity.
- Group septic tank of appropriate size was designed to cater to 25-30 household toilets.









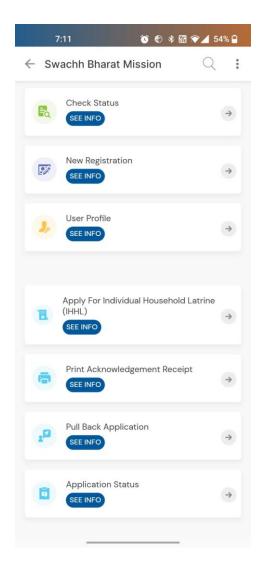






ULB level actions to simplify toilet application process

- As per SBM 2.0 guidelines and state GR, toilet application approval is delinked with land tenure.
- ULB should simplify toilet application procedure by relaxing need for land records. For this, ULB may prepare the NOC format and take undertaking that "This toilet approval/ toilet construction is not deemed legal or its occupant does not get any legal authorization due to the No Objection Certificate."
- ULB may pass the resolution that property owners must construct the toilet facilities for properties that are rented out. It may direct that owner should issue the NOC for tenants to get benefits of toilet construction under SBM 2.0
- ULB should appoint nodal officer for fast-track toilet application procedure



Community toilet and Public toilets, Public Urinals

ULBs should ensure that:

- Assessment of dependency on CTs. As per the current dependency, ULB should plan to convert CT seats into group toilets.
- Floating population dependent on **PTs has access** to one within a maximum distance of **500 metres**
- Every public place has at least one PT/ Urinal available within 500 metre distance, and that the facilities are kept clean, functional and open for public use.
- ULBs need to identify all possible Open Urination vulnerable points (yellow spots) ("OD/ OU hot spots") and
 make provisions for adequate numbers of PTs and Urinals at easily accessible distances, which in turn will lead
 to elimination of hotspots.

Steps that needs to be undertaken to receive 1st instalment under CTs/PTs

| Sr No | Particular | Responsible Authority | Current Status | Remarks | |
|-------|---|---|--|--|--|
| 1 | Adoption of SNA and PFMS | All ULBs now have functional SNA accounts | Achieved | | |
| 2 | RSA & CSAP Submission Also declaration from Municipal Commissioner/ EO of ULB that all existing CTs/ PTs & Urinals in the ULB are fully functional, with provision for water; | UD and ULB – Directives from UD has been circulated to set RSA at district level and ERSU at ULB level | All CSAPs have been approved by NARC RSA needs to be operationalse at ULB and District levels | | |
| 3 | Adoption of Public Financial Management System (PFMS) by all ULBs. | ULBs – All ULBs must have Operational PFMS account of them | Achieved | To get 1 st instalment which is 40% these need to be followed and | |
| 4 | Aligning property tax floor rates with market rates, with periodic revisions in line with GSDP, as recommended by 15th FC* | UD has rolled out circular regarding aligning property tax rate with market rates. | ULB now needs to take decision on their level to implement the same | | |
| 5 | ULBs to upload their latest progress data on the MIS portal. | ULBs must upload updated data in every month on MIS | Recurring activity | achieved | |
| 6 | SLTC approved & complete proposals for a city (based on gap analysis), along with O&M plans for at least 5 years for maintaining functionality of CT/ PT;. | ULB must prepare proposal including O & M plans for 5 years and submit it to SLTC for further approval. ULB must also add declaration regarding functionality of CT/PTs | ULBs must submit the proposal ASAP with 5 year O&M plan and land clearance | | |
| 7 | declaration from Municipal Commissioner/ EO of ULB that all existing CTs/ PTs & Urinals in the ULB are fully functional and encumbrance free land for construction of the CT/ PT complexes and Urinals. | ULB must submit declarations for existing CTs/PTs also they need to submit land availability document to state for construction of CT/PT | ULBs must submit the proposal ASAP | | |



Approach towards State City Sanitation Action Plan (CSAP)

Module 2: Used Water Management Statutory towns with <1 Lakh population

(368 ULBs)

Target: 100 percent safe collection, conveyance and treatment of used water and faecal waste

- Setting up Sewerage Treatment Plants (STPs)
- Interceptor and Diversion drains network plan as per the population and class of ULBs
- Sewerage/settled sewer/strengthening of municipal drainage network provision through state funding
- Scheduled desludging of septic tanks through mechanized vacuum trucks

State Approach for Sewerage network

- Less than 20k population Settled sewer/strengthening of municipal drains
- **20k to 50k** population Mixed approach (50% underground sewer & 50% settled sewer/ strengthening of municipal drains
- >50k population sewer network



Interceptor and diversion drains

UWM: Priority actions for ULBs to comply NGT 606/2018...

Cities with STPs

(With partial sewer network or 100% sewer network)

- Priority 1: Cities must ensure 100% utilization of existing installed capacity of STP
 - Focus on I&D and pumping station: Tapping used water from non-network areas and diverted to STP
 - Scheduled septic tank desludging in non-network areas
 - From sewerage network areas: Focus on property connections
- Priority 2: Augmentation of STP capacity in case existing STP operational capacity is less than volume of used water generated in the city

Cities without STPs

(With partial sewer network or no network)

- Priority 1/1: Cities must set up an STP to treat
 100% used water generated in the city
 - Finalise the land for setting up STP
 - DPR approval for STP with 5 year of O&M plan + solar based operations
 - Scheduled septic tank desludging in non-network areas
- Priority 1/2: Interceptor and diversion drain and pumping stations - All the open discharge points to tap and diverted the used water to proposed STP
- Priority 2: Network expansion, strengthening municipal drain, settled sewer network

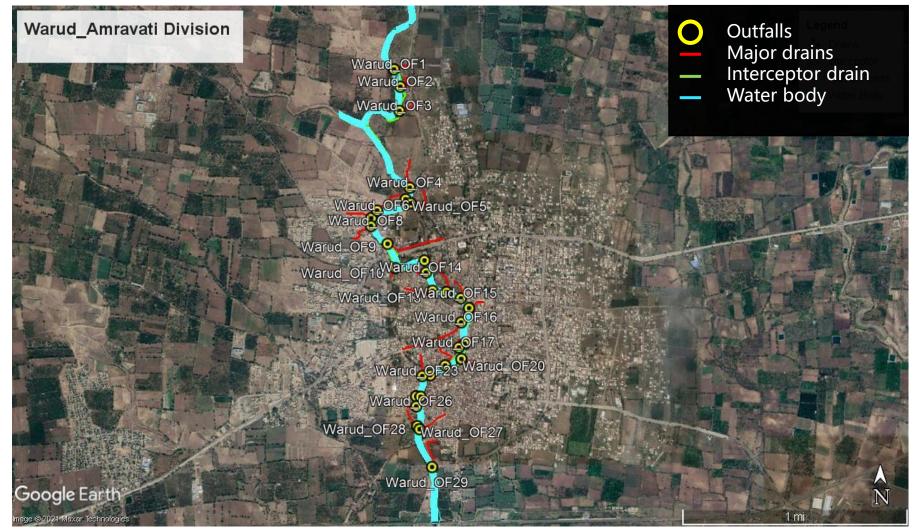
Small and medium towns have converted open drains to closed drains for safe conveyance



- Bhor Class C Pune Division ULB has 100 percent closed drains.
- Planned for an interceptor to trap the grey water from two major outfalls and lead to STP
- Type of water body where WW is disposed- River
- STP land identified in the DP map as shown
- Estimated length of interceptor drains- 2.1 Km



Warud - Class B - Amravati



Population- 52452

WW generated- 3.93 MLD

No. of outfalls- 29

Type of water body where WW is disposed- Nala.

ULB level actions for used water management

- Engagement of DPR consultants
- Assessment of existing used-water disposal mechanism in city
- Assessment and mapping of existing municipal drains, sewerage network areas, areas with septic tank with soak pits etc.
- Mapping of outfall areas in the city
- Measurement of actual volume of usedwater discharge in open environment from each outfalls
- Identification of suitable land for setting up STPs and intermediate pumping station to ensure that gravity flow can be maintained
- Scheduled desludging implementation actions
- New Road improvement projects/ RCC road projects must include network and property connections provision for usedwater management

Conveyance and Interception and Diversion Drains for usedwater management

Prepare citywide drainage network maps that cover the following aspects

A. Length and width of drain -

- a) Prepare a map in terms of availability of roadside drains and measure the total length of drainage network in the city.
- b) Classify darins based on width of drains (Drains <75 cm, drains >75 cm)

B. Status of drains –

- a) In terms of open or covered or closed drains or soak pits
- b) Availability of drain/trench/gutter on one side or both side of the road.

C. Condition of drains –

- a) In terms of broken/ruptured or good quality/functional drains
- b) Cleanliness- clean or unclean drains
- c) Cleaning frequency-daily or weekly or monthly or never cleaned
- d) Cleaning organization- private or ULB
- e) Method of cleaning- manual or mechanical.

Prepare citywide drainage network maps that cover the following aspects

D. Type of drains -

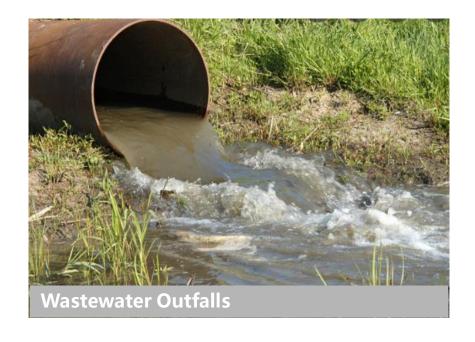
- a)In terms of shape of drains- rectangular or circular along with its measurements in terms of $I \times b \times h$ and diameter respectively
- b) type of construction-in situ or precast
- c) construction material- brick masonry or RCC or unlined

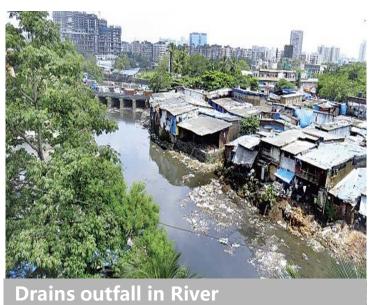
E. Flow direction -

- a) Identify and plot the direction of usedwater flows in drains and mark major usedwater outfalls.
- b) Map clogged and overflowing drains and identify the reasons for facing these issues.

Photographic documentation of citywide drainage network

- 1. Collect geo-referenced photographs of property level used water outfalls
- 2. Capture 360° photographs of all drain outfalls into river/land and Collect georeferenced photographs and videos of well functional and poorly functional drains of the city based on on-site observations.
- 3. Major drainage junctions in the city.







Covered Drains Cases in Maharashtra



Settled sewer network at Bhor



Covered Drain along the road
- Sinnar



Covered Drain along the road - Wai

- Settled sewer / covered drain related projects are funded through state level grants on Dalit Basti and Galichh Basti Improvement grant or Road improvement grants
- Many cities have taken up projects on covered piped drain or box covered drain or cover drain

For used water management: Focus should be on I&D and setting up STPs for small and medium towns under SBM 2.0

Usedwater Treatment and reuse

Encumbrance free land must be available with ULBs to avail the funds under SBM 2.0 and setting up an STP

Liquid waste treatment & Reuse

- There are four treatment technologies vetted and described by MJP in the District Schedule of Rates for treatment of liquid waste. These technologies are: -
- 1. Extended Aeration Process
- 2. Primary and secondary treatment-with digesters, sludge drying beds etc.
- 3. Moving Media Bio Reactor (MMBR) / FAB
- 4. Cyclic Activated Sludge Process (CASP)
- Recently MoHUA has also published Ready Reckoner which involved various technologies information. ULBs can refer that for selection of technologies

The treated used water may be used by ULB either for self-consumption, or reuse, for the following purposes:

- 1. Non-potable purposes like flushing toilets, gardening etc.
- 2. Agricultural purposes
- 3. Horticulture purposes
- 4. Industrial purposes
- 5. Municipal purposes like dust mitigation, road washing, construction activity, etc.

Efforts may be made to utilize as much used water as feasible, but not less than 20%.

Source: Maharashtra Jeevan Pradhikaran (DSRs)

Steps to be undertaken to receive 1st instalment under UWM

| Sr No | Particular | Responsible Authority | Current Status | Remarks | |
|---|--------------------------------|---|--|--|--|
| 1 | Adoption of SNA and PFMS | All ULBs now have functional SNA accounts | Achieved | | |
| 2 | RSA & CSAP Submission | UD and ULB – Directives from UD has been circulated to set RSA at district level and ERSU at ULB level | All CSAPs have been approved by NARC RSA needs to be operationalse at ULB and District levels | | |
| 3 | Encumbrances free land for STP | ULB – ULB must purchase land for construction of STPs after that only they will receive funds. ULBs should start procedure of purchasing land | ULB to identify the land | To get 1 st instalment which is 40% | |
| 4 | SLTC approved proposal | ULB must submit proposals to SLTC along with 5 year O&M plan | ULB must finalize DPR agencies ASAP | these need to be followed | |
| Annual progress plan of State/UT of ODF++ and Water+ cities | | | ULBs to achieve and sustain the ODF++ status and move towards Water+ | | |

Roadmap for achieving 100% sewage treatment by 2026 for ULBs having less than 1 lakh population

| Details | May-23 | Jun-23 | Jul-23 | Aug-23 | Sep-23 | Till Dec-23 | Roles |
|---|--------|--------|--------|--------|--------|----------------|-----------------------------|
| Identification of land for setting up STPs* | | | | | | | Chief Officer |
| Obtaining necessary approvals and procurement of land for setting up STPs ** | | | | | | | Ccons ultant |
| Selection of technical consultants for I&D and STP design | | | | | | | City/W S Engine er |
| Preparation of Detailed project report for I&D and STPs including technical sanction and administrative sanction. | | | | | | | Chief Officer |
| Float the tenders for I&D and setting up STPs and I&D | | | | | | | City/W S Engine er |
| Issuance of work order by ULBs for setting up STPs and I&D | | | | | | | Tender officer |

Thematic Sessions on शहरव्यापी सर्वसमावेशक स्वच्छता

- 1. Faecal Sludge and Septage Management (FSSM)
- 2. Gender Inclusivity in WASH
- 3. Safety of Sanitation Workers
- 4. Municipal Strengthening and Governance

Goals for achieving gender inclusivity for शहरव्यापी सर्वसमावेशक स्वच्छता



• Formal SHG engagement for municipal services



- Women have access to individual toilets
- CT/PT are constructed and maintained with a gender lens



• Women take leadership and are part of decision making

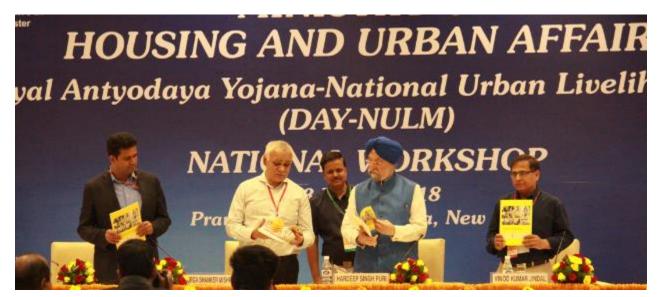
State approach towards gender inclusivity through NULM- SBM convergence

Background: Convergence Guidelines by MoHUA

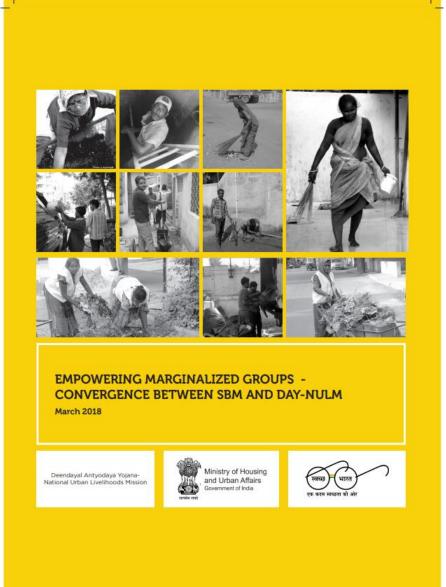
The Ministry of Housing and Urban Affairs (MoHUA) published the DAY-NULM and SBM convergence guidelines

"Empowering Marginalized Groups - Convergence Between SBM and DAY-NULM"- March 2018, for the implementation of the program.

The guideline outlines how infrastructure and operational structures specific to each of the two missions may be utilized to achieve dual objectives.

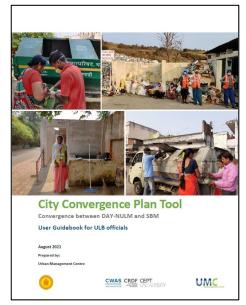


Source: MoHUA, Empowering Marginalized Groups - Convergence Between SBM and DAY- NULM, March 2018



Efforts initiate for SBM-NULM convergence in Maharashtra

- SBM-NULM convergence in Maharashtra is led under the **guidance of honourable Directorate of Municipal Administration,** Govt. of Maharashtra.
- Sector partners have been providing technical support to GoM for the convergence related initiatives **since 2020**.
- CWAS supported DMA to develop a state strategy for NULM-SBM convergence based on the consultation with 30 cities in Maharashtra.
- Formation of State working group to operationalisation of NULM-SBM convergence strategy for Maharashtra.





Key activities on SBM-NULM convergence strategy:

- 1. Circular / DO letter for ULBs: to encourage local governments to engage SHGs in various sanitation related activities Capacity building of SHGs: a) Focus on strengthening entrepreneur development capacity b) focus on skilling and technical knowledge base of SHGs
- 2. Developing resource materials on SHG engagement in sanitation space
- 3. Exploring CSR opportunities for SBM-NULM convergences

Case Example: Menstrual Hygiene Management at community and public toilets by formally engaging SHGs in Wai, Maharashtra

- Six SHGs with two members from each group are formally engaged for visiting the community/public toilets twice a day and proper functioning of the MHM machines.
- All the sanitary pads vending machines and incinerators have been procured through Gem portal from SBM funds
- SHGs were given formal training on tendering process, contract clause understanding, use of the MHM machines and on reporting system to ULB
- The frequency of refilling the pads at public toilets is within 2-3 days and at community toilets is within 4-5 days.
- The SHG members are receiving monthly payment from WMC and in addition they also earn from the money that is deposited in the vending machines.



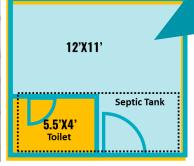


Case Example: Sanitation credit from banks though SHGs and aggregator support in Jalna

- There is some willingness to take a loan to build a toilet – but, SHGs and MFIs were the only options available for households.
- A demonstration project for household sanitation credit for individual toilets was implemented with support from CWAS, CEPT University.
- Sanitation loans were mobilized for 300 women by linking SHGs to scheduled commercial banks in Jalna through MAVIM and its Community Management Resource Centre (CMRC).

Active participation from local aggregators and trainers such has MAVIM is a key to linking households, SHGs and commercial banks.



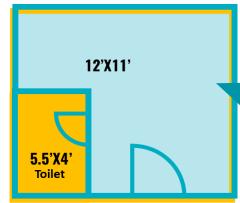


Living in a small house of only 12 sqm did not stop Suman from constructing a toilet cum bathroom in her one room house. Suman is a member of a self help group (SHG) through which she was able to borrow Rs 11,000 from ICICI bank and Rs 5500 as internal SHG loan for her toilet.









Reshma lives in a 2-room house of approx.

11 sq.mt area, but was determined to construct a toilet at her home. She accommodated the toilet inside the bedroom. She is a member of a SHG through which she was able to borrow Rs

11,000 from ICICI bank and Rs 5500 as a SHG internal loan to complete toilet construction.

Sarita, who is the president of an Area Level Federation in Jalna has completed construction of a toilet in her one room house of 12 sq.mt. She borrowed Rs 15,000 as internal loan from SHG.

Source: CWAS, CEPT University (2018) Retrieved from:

https://www.pas.org.in/Portal/document/ResourcesFiles/pdfs/Mobilizing%20sanitation%20credit%20through%20urban%20SHGs%20-%20A%20case%20of%20MAVIM.%20Maharashtra 12%20Dec%2018.pdf

SHG Engagement for WASH - Case of Sinnar

1) O&M of Urban Forest and garden by reusing the treated used water and sludge

- SMC engaged a local women' s SHG registered under NULM through a contract for reusing the treated used water for maintenance of the garden and the urban forest since January 2021.
- A tender for the same was drafted with simple eligibility criteria and contract terms.
- SMC provided the selected SHG necessary trainings to perform the work.

Scope of work of SHGs

- Cleaning the entire site and watering as needed.
- Cutting of grass and trimming of hedges, weeding and removal of dry branches, Application of insecticides and fertilizers etc.

Responsibilities of SMC

- Training and capacity building
- Provide access to water, toilet, soap etc.
- Provision of water tankers if required.









SHG Engagement for WASH - Case of Sinnar

2) O&M of Pilot Solar powered Greywater Treatment Plant (SGWTP) and the garden

- SMC has engaged a SHG through a contract for O&M of its pilot 60 KLD
 MBBR technology based SGWTP since January 2023.
- The selected SHG had some earlier experience of **working at the industries** in the MIDC area of Sinnar.
- The SHG was provided training through class room session and on-field demonstration.
- Their daily routine at the GWTP includes operating the water lifting pumps, monitoring the oil and grease levels in the chambers and cleaning it as required, monitoring the water pressures at each stage etc.
- The SHG members diligently monitors the operation of each unit as per the **SoP** and **maintains record** of the same in formats approved by SMC.
- SMC has **assigned their engineer** to monitor the operations of the plant on a weekly basis and to address the issues reported by the SHG members.







Goals for achieving gender inclusivity for शहरव्यापी सर्वसमावेशक स्वच्छता



- Women have access to individual toilets
- CT/PT are constructed and maintained with a gender lens

Solutions that can be take up to address the challenges

Group toilets in Gadhinglai , Maharashtra

Group toilets in Gadhinlaj

Challenges

For IHHT:

- 1. Tenure related issues for sanctioning applications
- 2. Lack of documentation
- 3. Space constraints
- 4. Lack of funds
- 5. Behavioural issues

For CT/PT

- 1. Theft and vandalism of MHM machines
- 2. Caretakers and supervisors not available
- 3. Lack of funds for procurement of MHM machines

Tenant 1 Group Toilet Group toilet constructed in Sinnar

Group toilet in Sinnar

Solutions

For IHHT:

- 1. Tenure security issues are to be **de-linked from benefits** as per SBM 2.0. Without land ownership the beneficiary **can avail IHHL subsidy** under SBM 2.0 provided that the tenant **does not claim ownership of the land**
- 2. Group toilets / assign CT seats to few HHs /group septic tank
- 3. Sanitation credit Toilet loans for IHHT
- 4. Awareness campaigns for demand generation

For CT/PT

- 1. Add clauses in private sector contract for O&M of MHM machines
- 2. Secure MHM machines in iron mesh drilled to wall
- 3. Formally engage SHGs for O&M of MHM machines
- 1. Utilize funds under the budget head of women and child development



CT/PT contract to ALF in Hingoli



MHM contract given in Wai

Goals for achieving gender inclusivity for शहरव्यापी सर्वसमावेशक स्वच्छता



Women take leadership and are part of decision making

Case Example: Orientation and capacity building of women elected representatives

Webinar for Women Elected Representatives (Presidents) for ULBs of Maharashtra





Nagpur Divisional workshop for newly elected women representatives for 34 ULBs

- Training workshop organized by Nagpur Division Commissionerate office with support from CWAS
- More than 185
 participants joined for this workshop representing 34
 ULBs
- Aspects of CWIS such as
 FSSM, SHG engagement,
 and communication skills
 were covered
- **Declaration** to implement CWIS in their cities also signed by the participants







Case example: Building capacities of women councilors to enables their participation in local governance for better decision making

- •Training and orientation workshop organized to build capacities for effective functioning and participation in local governance focusing on FSSM.
- •Field demonstrations to orient participants towards scheduled desludging and treatment operations.
- ■The workshop was a platform for interaction between sector experts and the councilors to build their capacity in improving their role as elected members of the council.









Request from councillors to do a training for men as well as women. Other cities have also shown interest to conduct such workshops

Thematic Sessions on शहरव्यापी सर्वसमावेशक स्वच्छता

- 1. Faecal Sludge and Septage Management (FSSM)
- 2. Gender Inclusivity in WASH
- 3. Safety of Sanitation Workers
- 4. Municipal Strengthening and Governance

Maharashtra State's mandate to ensure safety and protection of Sanworkers

Letter to ULBs to adopt standard uniform for Sanitation workers





Circular on Mechanization of Sanitation related activities to minimize any kind of contact with sewage/Faecal sludge

सेप्टीक टॅंक व मलजल वाहिन्यांची स्वच्छता संपूर्णपणे यांत्रिकी पद्धतीने करण्याबाबत मार्गदर्शक सचना.

महाराष्ट्र शासन नगर विकास विमाग शासन परिपत्रक क्रमांक-स्वासक-२०२२/प्र.कः १७८/नवि-३४ हुतात्मा राजपुक बांक, मादान कामा मार्ग मंत्रात्म, मुंबई-४००३२. दिनोक- १९ क्रिकेट, २०२२

ताचा-

- १) हाताने मैला उचलणाऱ्या सफाई कामगारांच्या नियक्तीस प्रतिबंध करणे व त्यांचे पुनर्वसन करणे अधिनियम, २०१३,
- २) शासन निर्णय क. बैठक-२०२०/प्र.क.४/नवि-३४, दि. ३० जानेवारी, २०२०.
- गृह निर्माण तथा नागरी कार्य मंत्रालय, भारत सरकार यांच्याद्वारे निर्गमित स्वच्छ भारत अमियान (नागरी) २.० च्या मार्गदर्शक सराना
- मा. सचिव, गृह निर्माण तथा शहरी कार्य मंत्रालय, भारत सरकार यांचे राज्याच्या मा. मुख्य सचिवांना अग्रेषित केलेले अ.शा. पत्रक १५/२२/ २०२०- SBM-I, दि. १७ फेबुवारी, २०२२.
- ५) शासन निर्णय, नगर विकास विभाग, क्र: स्वमअ-२०१७/प्र.क्र.७३/नवि-३४,दि.१५/७/२०२२
- ६) राज्य अभियान संचालनालय परिपत्रक क्र. राअस/मैला व्यवस्थापन/१९३९/२०२२, दि. ३० नोव्हेंबर, २०२२

शासन परिपत्रक :

केंद्र शासनाने दिनांक ६ क्षिसर २०१३ पासून हाताने मेला उचलणाऱ्या सफाई कामगाराच्या नियुक्तीस प्रतिबंध करणे व त्यांचे पुनर्शनन करणे अधिनियम, २०१३ लागू केला आहे. या अधिनियममुसार तसेच स्वच्छ भारत अभियान (मारगी २० मधीन मार्गवरांक सूचनानुसार सकाई कामगारांना कोणत्याही प्रकारे सेला हाताळगीन प्रतिबंध करणे य त्यांचे पुनर्शनन करणे अभियाद करण्यात आलं आहे. त्यांचु पुनर्शनन करणे अभियाद कार्रव्याताल संत्रांचे हुए मारग्रे स्वाचित स्वच्छता थात्रिक राज्यात कार्रव्याताल संत्रांचे हुए मारग्रे स्वच्छत व्याच्या अप्रवादात्रात्रा करावी लग्नणात्र आहे. तसेच, यावावत काम करणाऱ्या सकाई कामगारांना वर्ष प्रकारच्या सुख्या उपज्ञवात्रा करण्याच्या अपूर्णगांचे स्वच्छा भागत स्वच्छता व्याची सुनिक्षती करण्याच्या अपूर्णगां संत्रों करण्या समज्जन वाहिच्यांचे संपूर्णगां यात्रिकी नवच्छता करण्यावात्त त्रच्यातील सर्व नागरी स्थानिक स्वच्याच्या संत्रांचे सामज्जन वाहिच्यांचे संपूर्णगांचे यात्रिकी स्वच्यान सरमाच्या विचारायांचे होती.



SafaiMitra Suraksha Challenge

Under SSC, National Safai

Karamcharis Finance &

Development Corporation

(NSKFDC), Ministry of Social

Justice and Empowerment, have provided Safaimitras with various loans and schemes.



Criteria for declaring ULB, SATURATED under Safaimitra Suraksha challenge

| SATURATED | ADEQUATE | MINIMAL | INADEQUATE |
|-----------|--------------------------|--------------------------|-------------------------|
| | | | |
| 100% of | Manpower>80% | Manpower 50-80% | Manpower<50% |
| CPHEEO | Core equipment 50-80% | Core equipment 50-80% | Core equipment < 50% |
| standards | Special equipment- 1 set | Special equipment- 1 set | Special equipment-0 set |
| | Safety gear – 1 set | Safety gear – 1 set | Safety gear - 0 set |

Equipment status of Maharashtra

| Sr. no | Туре | Equipment |
|--------|----------------------------|-----------------------------------|
| 1 | | Hydrovac Sets |
| 2 | Core equipment | Grabbers/Desilting Machines |
| 3 | | Standard Septic Tank Vehicles |
| 1 | Special equipment | Sewer Inspection Camera Apparatus |
| 2 | | Hydro Jetting Machines |
| 3 | | Power Bucket Machines |
| 4 | | Power Rodding Apparatus |
| 5 | | Hydraulic Sewer Root Cutters |
| 1 | | Safety Tripod Set |
| 2 | | Nylon Rope Ladders |
| 3 | | Blower With Air Compressor |
| 4 | | Gas Monitors (4 Gases) |
| 5 | Safety gear | Breathing Apparatus |
| 6 | | Safety Body Harness Sets |
| 7 | | Airline Breathing Apparatus |
| 8 | | Full Body Wader Suit |
| For | On site Sanitation systems | Gan Masks |

Safaimitra Surakshit Sheher

Scoring Matrix for SS 2023

| Sr. No | Component | Sub components | Marks |
|--------|------------------------------------|--|-------|
| 1 | Core Parameters | Machines & Workforce | 160 |
| 2 | Eco-system Parameters | | |
| 3 | IEC | 24X7 Helpline (to seek information, register complaint and track resolution status) Public Awareness Campaigns | 40 |
| 4 | Capacity Building & Empowerment | Capacity Building (In-house/private trained desludging operators/staff – following CPHEEO Manual) • Empowerment of Safaimitra (Linkages with social welfare schemes along with developing entrepreneurship in this sector) | 85 |
| | | Total marks | 375 |

Marks Distribution for Equipment and PPE

| Sr. No | Equipment Requirement | If meeting norm Fully | If meeting above 50% norm | If <50% norm |
|--------|-----------------------------------|--------------------------|---------------------------|--------------|
| | Core E | quipment (55) | | |
| 1 | Hydrovac sets | 20 | Down to 10 | NIL |
| 2 | 2 Grabbers/desilting machines | | Down to 7.5 | NIL |
| 3 | Standard septic tank vehicles | 20 | Down to 10 | NIL |
| | Other E | quipment (25) | | |
| 1 | Sewer inspection camera apparatus | 5 | 2.5 | NIL |
| 2 | Hydro jetting machines | 5 | 2.5 | NIL |
| 3 | Power bucket machines | 5 | 2.5 | NIL |
| 4 | Power Rodding Apparatus | 5 | 2.5 | NIL |
| 5 | Hydraulic sewer root cutters | 5 | 2.5 | NIL |
| | Safe | ty Gear (20) | | |
| 1 | Safety tripod set | 1 | 0.5 | NIL |
| 2 | Nylon rope ladders | 1 | 0.5 | NIL |
| 3 | Blower with Air compressor | 2 | 1 | NIL |
| 4 | Gas monitors (4 Gases) | 3 | 1.5 | NIL |
| 5 | Breathing apparatus | 3 | 1.5 | NIL |
| 6 | Safety body harness sets | 1 | 0.5 | NIL |
| 7 | Airline breathing apparatus | 3 | 1.5 | NIL |
| 8 | Full body wader suit | 3 | 1.5 | NIL |
| 9 | Gas masks | 3 | 1.5 | NIL |
| | | PPE (10) | | |
| 1 | Reflecting jacket | 2 | 1 | NIL |
| 2 | Safety Helmets | 2 | 1 | NIL |
| 3 | Normal Face masks | 1 | 0.5 | NIL |
| 4 | Hand gloves (pair) | 1 | 0.5 | NIL |
| 5 | Safety Gumboots (Pair) | 1 | 0.5 | NIL |
| 6 | Safety Body clothing | 3 | 1.5 | NIL |

Safaimitra Surakshit Sheher - Emergency Response Sanitation Unit (ERSU)

3.2 Organogram State/UT Government **ERSU** PSSO SEP/pSEP

Composition of ERSU

- 1. Nominated Responsible Sanitation Authority (RSA)
- 2. Telephone Operators- to receive the emergency call as needed
- 3. Duty Supervisor May be in rotation from among Sanitary Inspector/ Jr Engineer (PHED) in the ULB
- **4. Sewer Entry Professionals-** Dedicated Teams of at least two trained persons. One SEP team to be maintained per 500 septic tanks/ 50 KM of Sewer length
 - I. Authorised Entrants- individuals who are authorized by the employer to enter a sewer or Septic tank
 - II. Attendent/ Top Man an individual stationed outside who monitors the authorized entrant and performs all attendant's duties assigned in the SOP for Sewer

Key observations from cities on PPE usage

1 Contracts do not include PPE related clauses

- There is scope for including specific PPE related clauses for workers employed by the private sector.
- Generally, there are no clauses for PPE provision as well as for usage.

2 Work specific PPE with adequate replacement not provided

- Workers who are provided PPE are not according to the activity they perform.
- Guidelines from govt specify the types of PPE that need to be used according to activity.
- Also for workers who have been provided PPE a replacement regime is generally absent

3 Systematic monitoring of PPE usage is absent

- It is observed that PPE usage is not monitored by the ULBs.
- This leads to very low usage among workers who have been provided

4 Trainings and awareness for usage of PPE is low

 Awareness among workers on health impacts of not using PPE is low, some of them do not feel the need to use PPE. Trainings on correct use and maintenance of the PPE has also not been conducted for most workers



Possible solutions to overcome the challenges

Funds for purchase of PPEs and machinery

Ensuring adequate availability appropriate PPE

Improving monitoring and replacement

Generating awareness about PPE

- ULBs should earmark the funds in the budget for purchase of PPEs.
- Funds received under 15th FC can be used.
- ULBs to get desludging vehicles under SBM 2.
- Loans under NSKFDC can be explored for purchase of machinery.
- PPE clauses as per nature of activity, gender and replacement periods to be drafted and included in all contracts of Sanitation Dept.
- Revision of PPE procurement tender notice and work order as per type of PPE based on activity
- ULBs to monitor PPE usage diligently using paper based systems or Apps such as SaniTab and document the observations
- Improve the replacement regime as per requirement from guidelines and suggestions from sanitation workers
- Fund allocation for conducting training and PPE procurement as per guidelines
- Training and orientation workshop on safety at workplace conducted for all sanitation workers
- Health camp and counselling sessions to be added as part of training
- Use of IEC materials for educating and encouraging sanitation workers on PPE usage and maintenance

Activities and mechanism to improve health and PPE usage

Formats and apps for PPE distribution, replacement and monitoring



| Helmet | Safety goggle | Nose Mask | Hand Gloves | Jacket | Safety Shoes | Gum- boots | Remark | Sign |
|--------|------------------|--------------|----------------|--------|-----------------|---------------|-----------------------|------|
| Date | Date | Date | Date | Date | Date | Date | PPE set given | Sign |
| | | | Date | | | | Hand gloves are torn. | Sign |
| | | | | | | | | |
| | | | | | | | | |

| | | | | | Usage of PPEs | | | | | |
|-----------|------|------------------|--------------------------------|----------------|---------------|------|--------|------------|-------------------|---------|
| Sr no. | Name | organis ation | Details of the task undertaken | Attenda nce | Helmet | Mask | Jacket | Handgloves | Gumboots/ boot | Uniform |
| | | | | | | | | | | |

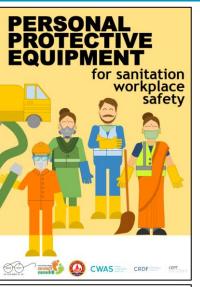
Health Camps



Training programs



IEC material on PPEs









Moving towards शहरव्यापी सर्वसमावेशक स्वच्छता while ensuring safety of sanitation workers

Goal: Achieving safety of sanitation workers through provision of mechanized sanitation services and ensuring PPE usage

Institutionalizing worker safety with the use of PPEs and mechanized cleaning equipments

- 1. Assessment of PPE requirement for all sanitation workers based on type of activity, gender
- 2. Model PPE procurement tenders based on type of activity, gender and replacement cycles according to type of PPE
- 3. Design and inclusion of PPE and mechanization related clauses in all labour contracts

Training and health camps

- 1. Orientation on importance of use of PPE and safe work practises on health and well being
- 2. Training and demonstration of usage of PPE
- 3. Training on monitoring of usage and replacement of PPE for sanitation supervisors
- 4. Felicitation of sanitation workers for encouragement

Thematic Sessions on शहरव्यापी सर्वसमावेशक स्वच्छता

- 1. Faecal Sludge and Septage Management (FSSM)
- 2. Gender Inclusivity in WASH
- 3. Safety of Sanitation Workers
- 4. Municipal Strengthening

Municipal Strengthening - Improving all levels of accountability . . .

Upward accountability: Council regularly submits various data required for, Service level benchmarks (SLBs), Swachh Bharat Mission (SBM) and Swachh Survekshan (SS) to the state and national government

Internal accountability: Billing / Payment dashboard, Adhava reporting system have been developed to be scale up in other cities of Maharashtra

Downward accountability: Complaint redressal system, Swachhta Mahotsav, Exposure visits for sector partners and ULB officials from Maharashtra and India









Initiatives that can be taken up for improvement towards CWIS

Municipal Strengthening

Budget Briefs

- 1. Excel based tool for preparing budget brief
- 2. Hands on training on use of the tool and preparing the budget brief

Adhava Dashboard

- 1. Support in preparing
 Adhava dashboard for sanitation department
- 2. Hands on training for staff of heath dept to use the Adhava dashboard

Billing- Payment Dashboard

- 1. Support in preparing billing-payment dashboard for sanitation department
- 2. Hands on training for staff of heath dept to use the billing and payment dashboard

Suggestions on use of Women and child development funds

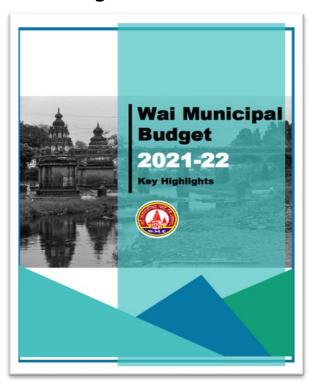
- 1. Assessment of previous years allocation and utilization pattern
- 2. Suggestions on use of the funds for CWIS related aspects focusing on gender inclusivity

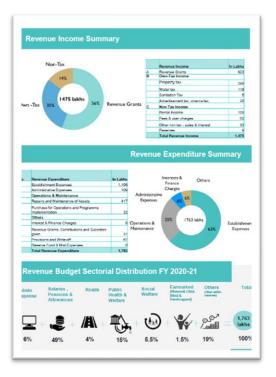
Increasing collection efficiency of property tax, WSS user charges

- Assessment of previous years of demand and collection tables for property tax
- 2. Recommendations on how to increase collection efficiency

Budget briefs to easily communicate the city budgets and for creating transparency which boosts local participation and citizen engagement

- A Budget Brief easily communicates the city budget which can be used for Councilors and the Citizens.
- Graphical representation to communicate numbers to enhance readability of the budget.
- Budget software to enable uniformity and digitization of municipal budgeting









'Adhava report' will brief the Chief officer about the monthly performance of different activities performed by the sanitation department . . .

Summary report for the **Chief Officer** on following activities:

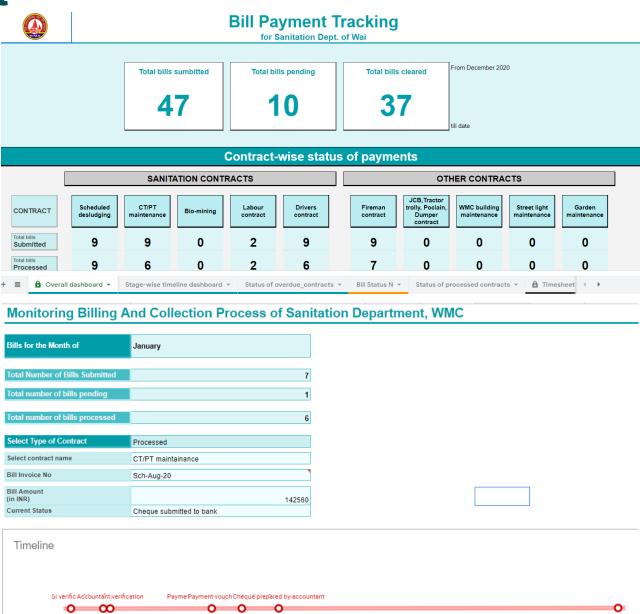
- Scheduled desludging of septic tanks of all properties
- Emptying of septic tanks of CTs/PTs
- **Treatment** of septage
- Solid waste management
- Drain cleaning
- Cleaning and maintenance of CTs and PTs etc.

| | Barrahli of large ski iki | -TA-ATd | | | |
|---|--|------------------|--|--|--|
| | Monthly report of key activities of sar June - 2021 | nitation departn | nent | | |
| | | | | | |
| 1 | Emptying of septic tanks of all properties | Unit | Details | | |
| | | No. | 36 | | |
| 1 | Total septic tanks actually cleaned | | | | |
| 2 | Total septage collected Observation of Mukadams during random | KLD | 98500 | | |
| 3 | visits | NA | No data available | | |
| 4 | Bill submitted for previous month and its status | NA | March month bill is in sanitation dept. (payment not done yet) April month bill not submitted yet. | | |
| 5 | No. of complaints received / redressed | No. | No complaints | | |
| 6 | Issues/comment | NA | Due to the lockdown work was stopped in May and June, from 15tl Only one truck is working | | |
| | | | • | | |
| 2 | Emptying of septic tanks of CTs/PTs | Unit | Details | | |
| 1 | Are septic tanks of all CTs/PTs cleaned in this month? | Yes/No | Yes | | |
| 2 | Total septic tanks cleaned this month | No. | 33 | | |
| 3 | Total septage collected | KLD | 188500 | | |
| 4 | No. of complaints received / redressed | No. | No complaint | | |
| 5 | Issues/comment | NA | No issue | | |
| | | | | | |
| 3 | Treatment of septage | Unit | Details | | |
| 1 | Total septage received at the station | KLD | 287000 | | |
| 2 | Total septage treated | KLD | 283823 | | |
| 3 | Total septage reused | Kg and lit | Wet septage - 24890 Kg Biochar - 41.93 Kg Treated water - 288907 lit All the biochar was mixed with wet septage and taken away by farmer All the water was reused by Tide team for their gardens | | |
| 4 | Total KW of solar power generated and consumed | ĸw | 2673 Units generated and 1108 units cumsumed | | |
| 5 | Issues/comment | NA | No comments/issues observed | | |
| | | | | | |
| 4 | Solid Waste Management (D to D Collection to Segregation) | Unit | Details | | |
| 1 | Total D-to-D waste collected | MT | 370.1 | | |
| 2 | Total waste segregated | мт | Wet waste-136.60, Dry waste-217.77, Mixed waste-15.07, Hazardous waste-0.66 | | |
| 3 | Total waste treated | мт | Wet waste (136.60 MT) is put in pits for composting Dry waste (217.77 MT) is further segregated in different categories an not sold yet. Mixed waste is dumped at the dumping ground | | |
| 4 | Total reused | MT | No data available | | |
| 5 | Bill submitted for previous month and its status | NA . | Bill not submitted | | |
| 6 | No. of complaints received / redressed | No. | | | |
| 7 | Issues/comment | NA. | No comments/issues observed | | |

Bill Payment Tracking System is a tool to monitor status of bill payment of sanitation department

5-Nov-20 2023:Nov-20

- The dashboard gives summary of submitted, processed and pending bills of all contracts of the sanitation department.
- User can view status of pending payments on any given date
- Overdue payments along with number of bills left for payment can be tracked.
- The dashboard also gives status of processed payments.
- One can identify status of each bill contractwise and month-wise through drop down checklist.



6-Jan-21 19-Jan-21 4-Feb-21

1-Jul-21

Agenda for the workshop

1. Introduction

- 2. Session on Shaharvyapi Sarva Samaveshak Swachhata aspects
- 3. Review of cities for FSSM and other sanitation aspects
- 4. Preparation of Road Map for implementing शहरव्यापी सर्वसमावेशक स्वच्छता

Goals for achieving शहरव्यापी सर्वसमावेशक स्वच्छता

- 1. Universal coverage of individual household toilets
- 2. Safe collection, conveyance, treatment, reuse and disposal of fecal sludge and Used water generated in the cities
- 3. Formally engaging SHGs for municipal service delivery
- 4. Constructing and maintaining CT/PT with a gender lens
- Achieving safety of sanitation workers through provision of mechanized sanitation services and ensuring PPE usage

Thank you

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