Workshop On
Making Cities ODF
&
Ensuring Sustainability

Prepared for
Sanitation Capacity Building Platform (SCBP) of National Institute of Urban Affairs (NIUA)

13-14th November, 2017
Venues & Avenues, Mumbai

CEPT University & RCUES-AIIILSG
Session 1: Systematic Approach by GoM to attain ODF Status
A city / ward can be notified/declared as ODF city / ODF ward if, at any point of the day, not a single person is found defecating in the open.
384 ULBs
90% are <100 thousand population

<table>
<thead>
<tr>
<th>KEY DETAILS</th>
<th>2001</th>
<th>2011</th>
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<tbody>
<tr>
<td>Area (Lakh sq. km)</td>
<td>3.08</td>
<td>3.77</td>
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<tr>
<td>Population (million)</td>
<td>96.86</td>
<td>112.27</td>
</tr>
<tr>
<td>% of urban to total state pop</td>
<td>42.43</td>
<td>45.23</td>
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Spread
- 6 Divisions
- 35 Districts
- 248 ULBs
- 252 ULBs

Classification of ULBs (2016)

<table>
<thead>
<tr>
<th>Classification of ULBs</th>
<th>No. of ULBs</th>
<th>Range of Population</th>
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<tbody>
<tr>
<td>STATE</td>
<td>384</td>
<td></td>
</tr>
<tr>
<td>M. Corporations</td>
<td>27</td>
<td>&gt;3,000,000</td>
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<tr>
<td>A Class M. Councils</td>
<td>12</td>
<td>&gt;1,000,000; &lt;3,000,000</td>
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<tr>
<td>B Class M. Councils</td>
<td>60</td>
<td>&gt;40,000; &lt;1,000,000</td>
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<tr>
<td>C Class M. Councils</td>
<td>155</td>
<td>&lt; 40,000</td>
</tr>
<tr>
<td>Nagar Panchayats</td>
<td>130</td>
<td>As Notified</td>
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</table>
Key facts for Maharashtra (Urban)

29% of urban HHs have no latrine facility within premises.

56% of urban HHs toilets have access to piped sewer system.

37% of HHs toilets have septic tanks.

21% of HHs depend on public toilets.

8% of HHs resort to OD.

64% of wastewater is untreated.
Key facts for Maharashtra (Urban)

Households resorting to open defecation: **8,32,672 (7.7%)**
Municipal Corporations: **3,12,411**
Municipal Councils: **5,20,261**

State Wise - Access to Toilets (Urban)

Source: Census of India 2011
Government of Maharashtra envisages “ODF Communities” moving towards “ODF+ and ODF+++ Communities” by addressing entire service chain of sanitation and not focusing only on number of toilets constructed
Launch of Swachh Maharashtra Mission

Impetus through Regional Workshops
under the leadership of Hon’ble Chief Minister, Maharashtra
MoU with CEPT University

CEPT University and AIILSG signed MoU with Government of Maharashtra for providing technical support in implementing Swachh Maharashtra Mission in Urban areas.

CMO Maharashtra @CMOMaharashtra · Oct 2
Some MoU's were signed for this cleanliness drive with CEPT university, Ahmedabad, All India Local Self Govt and Aquacraft.
#SwachhBharat

37 Retweets 63 Likes
Framework Introduced for ODF + and ODF ++ cities

**ODF**

**ODF+**

**ODF+++**
State’s Approach for Making Communities ODF & Clean

Mission led by the ULBs, facilitated by the State

- Focus not on construction alone - Make and sustain cities to be ODF.
- Move towards universal access to individual toilets and ensure usage.
- Ensure quality of construction of toilets as a strategy for sustainability.
- Move “beyond toilets” - Focus on faecal waste management and liquid waste management by addressing entire service chain of Sanitation.
State’s Support to Accelerate the Mission

**Financial**
1. State level subsidy of Rs. 8000/toilet
2. 50% of 14th FC funds for ‘Swachhata’
3. Additional Subsidy of Rs. 5000/toilet at ULB level
4. Incentive funds
5. Total Subsidy per Household = **INR 17000/-**

**Administrative**
1. NoC not required for toilets on Govt. land
2. BP/plan approval from ULBs not required
3. Beneficiaries encouraged to construct toilets on own
4. Issued operational guidelines for effective implementation of mission.

**Legislative**
1. Toilets mandatory for elected members
Declaration & Validation Strategy for ODF & Swachh Cities

1. **Self declaration by ULBs**

2. **Validation at Collector (District) Level**

3. **1st Validation by State Level Committee**
   - State sends the list of State Level Validated ODF cities to MoUD

4. **Validation by Third Party, GoI (MoHUA Protocol)**

5. **2nd Validation at State level by Third Party**
   - (1 year after the first validation)

**Incentive Scheme**
Rewards to ODF cities for moving towards ODF+
<table>
<thead>
<tr>
<th>Class</th>
<th>ODF Cities (Rs.)</th>
<th>Swachh Cities (Rs.)</th>
<th>Linked to Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Class</td>
<td>2 Cr.</td>
<td>2 Cr.</td>
<td>30% released on State Level Validation, if positive</td>
</tr>
<tr>
<td>B Class</td>
<td>1.5 Cr.</td>
<td>1.5 Cr.</td>
<td>30% released on 1&lt;sup&gt;st&lt;/sup&gt; MoHUA validation, if positive</td>
</tr>
<tr>
<td>C Class</td>
<td>1 Cr.</td>
<td>1 Cr.</td>
<td>40% released on 2&lt;sup&gt;nd&lt;/sup&gt; MoHUA validation after 6 months, if positive</td>
</tr>
</tbody>
</table>

Utilisation of funds for Sustainability and moving towards ODF+ and ODF++
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   • What are ‘ODF Cities’ in Maharashtra?
   • Situation prior to the Mission
   • Key challenges addressed

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   • Making Sustainable ODF Cities and Moving towards ODF+ and ODF++ Cities
   • 2nd October 2015 – The First Milestone
   • 31st January 2016 - The Second Milestone
   • Framework for Validation of ODF Cities
   • Financial Support to Local Governments

C. City Level Approach for Making Cities ODF ...... 12
   ✓ Planning
      • Identification of issues through surveys
      • Developing a city specific strategy
      • Formation of a city level “SBM Cell”
      • Developing an implementation mechanism
   ✓ Implementation
      • Generating awareness & advertising the scheme
      • Motivate households for toilet applications
      • Construction of toilets
      • Elimination of open defecation practices
   ✓ Innovative Financing for Toilets
      • ULB level subsidy
      • ‘Shahar Swachhata Kosh’
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Guidelines for Septage Management in Maharashtra

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Round 2, 3, 4... Workshops for Capacity Building

Sustaining cities ODF
Moving towards ODF+ and ODF++ Cities
Peer learning – ODF ULBs to share their experiences

Series of theme based workshops and review meetings with ULBs
Rigorous follow up at District, Division and State Level
Field Visits

Reviewing the condition of existing CTs - Phaltan MCI

IHHL constructed under SMM - Pune MC

Visit to OD spots - Bhor MCI

Reviewing performance of ULBs at district collector office - Satara

Field visits were conducted to review/monitor the implementation of mission by the ULBs
A Step towards making cities ODF+ and ODF++

Training to ODF Cities on Preparing and Implementing Septage Management Plans

- Trainings to ULBs / course on FSM for ULBs
- Options for funding – 14th FC, Incentive Funds, CSR
- Implementation on Pilot Basis on its way
- Cities committed to become ODF+/++
Government resolution (GR) on ODF+ by GoM

ODF sustainability

Moving cities towards ODF + and ODF++ by constructing more individual toilets and managing septage and WW

Directives to use 14th FC funds and Incentive grant for moving towards ODF + and ODF++
Launched four handbooks on 13th Oct. 2016

On ODF, Sustainability and Septage Management
Launched four handbooks on 1st Oct 2017

Journey of ODF Maharashtra

Swachh Maharashtra Mission, Urban
Urban Development Department, Government of Maharashtra
Maharashtra: A Pioneering State

1. Concept of “ODF Cities” - Focus not on construction alone

2. Subsidy of Rs. 17000/toilet through convergence of funds - highest amongst all states

   - GoI = 4000/-
   - GoM= 8000/-
   - 14th FC = 5000/-

3. 3-tier Validation linked to incentive funds, to be used towards sustainability

4. Focus on behaviour change – GR on “Good Morning Squad” in ULBs

5. Demand driven approach - beneficiaries encouraged to construct own toilets and emphasis on Quality of construction

6. Toilets mandatory for elected members

7. Launch “mission OD Watch”, for vigilant monitoring of likely OD spots

8. Move beyond toilets with safe and sustainable septage & wastewater management
Key Achievements and Milestones

- **19 CITIES ODF**: 2nd October 2015
- **52 CITIES ODF**: 31st January 2016
- **100 CITIES ODF**: 31st October 2016
- **Urban Maharashtra ODF**: 1st October 2017
- **302 CITIES ODF**: 18th August 2017
Urban Maharashtra is declared Open Defecation Free on 1st October 2017
Sustainability Charter Launched by the Chief Minister

Sustainability Charter

We are committed towards the vision of Swachh Bharat. We shall ensure ODF sustainability in Maharashtra by:

#1. Achieving universal access to Individual Household Level Latrines (IHHNL), which is a leading development priority.

#2. Ensuring adequate, clean and reliable access to public/community toilets across urban Maharashtra, wherever IHHNL are not possible.

#3. Ensuring ODF sustainability through effective participation of government, elected representatives, schools, donors, implementers, NGOs, SHGs, CBGs and the communities.

#4. Continuing and institutionalizing rigorous ODF validation and monitoring process through “OD Watch” and “ODF sustainability tracker”

#5. Auditing the performance of community/public toilet and encouraging development of ODF spots into usable public spaces.

#6. Recognizing and awarding sustained performance

#7. Moving towards ODF+/+++ by ensuring effective collection and adequate treatment of human fecal waste

Mr. Devendra Fadnavis
Chief Minister, Maharashtra

App for tracking sustainability
Coming soon . . .
Session 2: City level activities for attaining ODF status
Planning

1. Identification of issues through surveys
2. Developing a city specific strategy
3. Formation of a city level “SBM Cell”
4. Developing an implementation mechanism

Implementation

5. Generating awareness & advertising the scheme
6. Motivate households for toilet applications
7. Construction of toilets
8. Proper O & M of existing Community and Public toilets
9. Elimination of open defecation practices
1. Identification of issues through surveys

Household Level Surveys
- Identify households without toilets and those who defecate in the open
- Reasons of open defecation and non-availability of toilets like lack of space, lack of finance, unavailability of water etc

Surveys of Community, Public and Institutional Toilets
- Identify gaps in availability of facilities as well as to assess status of existing facilities.

Surveys of Open Defecation Spots
- Identify various OD spots in the city
- Assess reasons for defecating in open
- Reasons can be situation and location specific and vary city wise e.g.

Wai Municipal Council conducted an extensive smart survey on PDAs using an application "SANITAB" to include questions regarding availability of toilets, reasons for absence of toilets, willingness to construct toilets, issues in doing the same. It also covered questions on availability, access, designs and emptying mechanism of septic tanks in the city.
2. Develop a City Specific Strategy

Identify appropriate solutions for your city

- Geographical, cultural and economical set up varies from city to city
- Survey helps to identify city specific issues
- Solutions should respond the identified issues

Rs 5000 Subsidy extra for IHHL constructed on rocky terrain in Sinnar

- **Space Constraints:** Introduce innovative options of designs of toilets and septic tanks
- **Financial Constraints:** Make available options to fund the toilets
- **Land Tenure Issues:** Make the best use of GoM’s GR on granting permissions to toilets for all houses.
- **Behavioural Issues:** Engage NGOs/CBOs in awareness generation at household level
3. Form a City Level “SBM Cell”

Assign responsibilities and set targets

- Dedicated cell at ULB level
- Cell - the Mayor/President, M. Commissioner/Chief Officer, Engineers, Sanitary Inspectors and Accountant.
- Support from NGO’s, research institutions.
- SBM cell should act as a think tank, implementer as well as to monitor activities
- Assign specific responsibilities to members, which is to be monitored by head of the cell

- **Teams of staff formed in some councils like Akot with wards allocated to them for application processing**
- **Few Municipal councils in Maharashtra like Georai, Achalpur, Akot etc involved SHGs to mobilize applications**
4. Develop an Implementation Mechanism

- **Awareness and Advertising**
  - Develop awareness material: banners, posters, handouts, movies
  - Engage councils staff/NGOs/CBOs/citizens in awareness generation
  - City/community/household level meetings and other activities

- **Toilet Application process**
  - Assign responsibilities of toilet application process
  - Invite applications/Develop Recording System for Applications
  - Facilitate the process to expedite construction of toilets

- **Construction of Toilets**

- **Elimination/Monitoring OD Spots**
  - Form “OD Spot Monitoring Squad”
  - Prepare an action plan for eliminating OD spots
  - Take innovative actions to stop OD

- **Sustainability**
  - Focus on making communities ODF, than only constructing toilets
  - Ensure quality of construction of toilets and septic tanks
  - Continue efforts even after achieving the status of “ODF”

- **ODF +/- ODF+++ Cities**
  - For better health, prioritise “own toilets” than community toilets
  - Regular collection, conveyance and treatment of septage
  - Treatment of effluents from septic tanks and grey water
5. Generating Awareness & Advertising the Scheme

- Capacity building of ULB staff
- Engage communities
- Encourage students
- Involve elected representatives

<table>
<thead>
<tr>
<th>ULB Level</th>
<th>City Level</th>
<th>Community Level</th>
<th>Household Level</th>
</tr>
</thead>
</table>
| - Understand the Mission  
- Capacity Building of ULB Staff  
- Support from other resources in case of dearth of staff | - Create a Buzz  
- Announcements in auto/Rallies  
- Display banners/posters  
- Advertisements on cable channels/newspaper  
- Social media platform  
- Mobile applications  
- Activities in Schools and other institutions  
- Toilet and Lenders’ Fair | - Encourage Communities  
- Active participation and leadership of councilors  
- Group Discussions/Ward Meetings  
- Street plays/mobile games  
- Meetings with SHGs  
- Penalize/name and shame  
- Show influential movies | - Address households’ Queries  
- Discuss issues with households at the time of distribution of applications  
- Distribute handouts/pamphlets  
- One to one assistance by “SBM Cell” |
6. Application Process

Demand based approach
Try and generate demand for Individual Toilets

- Meeting with potential beneficiaries
- Active participation from councilors to mobilize applications
- Send Bulk SMS as a reminder to submit applications
- Daily/weekly targets for number of applications
- Timely review
- Monitoring System at local level for toilet applications
- Option to outsource the online uploading of applications

Certificates given to beneficiaries on construction of toilets to encourage other potential beneficiaries
7. Construction of Toilets

Toilets must be sustainable

- Focus on construction of ‘own toilets’ than ‘community toilets’
- Facilitate construction of own toilets
- Create enabling mechanism for households by making optimum use of guidelines and GR for delinking tenure issues with construction of toilets

**SBM Urban Guidelines**

Beneficiary households will be targeted under this scheme irrespective of whether they live in authorised / unauthorised colonies or notified / non-notified slums. Under SBM (Urban), tenure issues are to be de-linked with benefits
Design Guidelines for proper construction of toilets and septic tank

Shared with Applicants along with the work order
## Ensuring Good Quality of Septic tank Construction

### Dos

- Construct at least a two chambered septic tank
- Partition wall should be constructed at a distance of 2/3 the length from the inlet
- The 2 chambers should be interconnected above the sludge storage level by means of a pipe or square opening of diameter or side length not less than 75 cms
- The size of the tank should be as per Nagarpalika norms
- Always construct septic tank away from structure
- If space not available, construct toilet over septic tank such that all chambers are accessible
- Provide openable access covers to all chambers for inspection and desludging
- Where ground water level is low, always connect the septic tank to a soak pit

### Septic Tank approved size

### DON’Ts

- Do not construct a one chambered septic tank
- Do not construct a partition wall at an inappropriate distance
- Do not provide the interconnection at a level where the sludge or scum is formed
- Do not construct an oversized septic tank
- Do not construct toilet above septic tank
- Do not completely seal the septic tank from top
- Don’t construct soak pits near an underground drinking water source
- Don’t construct sealed septic tanks with no outlets
- Don’t connect septic tanks to drains

### Septic Tank

- Septic tanks should be constructed in materials such as brick, stone, concrete (cast in-situ) or be of pre-cast materials
- The base or floor should be cement concrete and sloped upwards to the outlet
- The floor and sides should be plastered with cement mortar to render the surfaces smooth

### DON’Ts

- Do not use a dug trench as septic tank
- Tank should not leak

### Septic Tank

- The inlet and outlet opening should be located at different levels
- The inlet and outlets openings should be below scum level and above sludge level
- Baffles or T junctions should be provided at inlet and outlet

### DON’Ts

- The inlet and outlet should not be located at such levels where the sludge of scum collects
- Inlet and outlet should not be at same level to prevent backflow or exit of solids

### Septic Tank

- Septic tank should be provided with ventilation pipes, the top being covered with mosquito proof wire mesh
- The height of the pipe should extend at least 2 m above the top of the highest building within a radius of 20 m

### DON’Ts

- Do not leave ventilation pipe unprotected from mosquitoes
- Do not keep the ventilation pipe too short
7. Construction of Toilets- Space Constraint?

**Group Toilet-**
A toilet constructed, used and maintained by 2 to 4 households. Eg. Mahad, Dahanu, Wai, Sinnar and many other cities

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Individual toilets</th>
<th>Group toilets</th>
<th>Community toilets</th>
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</thead>
<tbody>
<tr>
<td>Space efficiency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost effectiveness for household</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Level of cleanliness</td>
<td></td>
<td></td>
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<tr>
<td>Cost savings for the ULB</td>
<td></td>
<td></td>
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<tr>
<td>Ease of Access</td>
<td></td>
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<tr>
<td>Safety and User friendly</td>
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**Group Septic Tank-**
A common septic tank constructed for 50 HH level toilets in slum of Khopoli by Khopoli Municipal Council. Underground pipeline connecting toilets to septic tank is laid. Septic tank is emptied around once in a month by the council. This module is being replicated in Khopili at 9 more locations
7. Construction of Toilets - Community Toilets

- CTs should be opted for only where individual toilets are not possible at all.
- Provision of special seats for physically challenged persons, children and women.
- Safety of women should be prioritized - easy access, provision of lights / electricity inside and near the toilet blocks.
- Ensure facilities like water / storage tank, electricity, wash basins, dustbin for menstrual waste etc.
- CT and surroundings need to be maintained clean and well developed.
- Ratio of one toilet seat of a CT per 6 households is advised.

Well developed surroundings
Attractive Baby Toilets
Toilet Cleaning and Refurbishment on Mission mode
8. Proper O & M of existing Community and Public toilets

Based on assessment of gaps in CTs/PTs, carry out refurbishment of CTs/PTs and ensure proper O & M of these facilities either through ULB staff or through appropriate contracts.
9. Elimination of Open Defecation Practices

- Provide access to safe sanitation facilities
- OD spots in the city should be surveyed to assess reasons for open defecation
- Solutions should be identified to address location specific issues
- All open spaces in the city need to be maintained clean
- NGOs/ CBOs / volunteers / senior citizens / Swachhata Doots in cities should be effectively engaged in monitoring open spaces / monitoring the Pathak.

**Stakeholder Involvement**

**Monitoring of OD spots** - Map the facilities and problem areas and then monitor the spots

**Maintaining the Open Spaces**
9. Elimination of Open Defecation Practices

- Fines/ Penalties should be levied for defecating in the open once all sanitation facilities are in place
- Innovative initiatives to become ODF – Good morning Pathak, and community engagement for awareness generation etc.
- Develop Action Plan to prevent OD
- Ward meetings, engaging students, support from Police, citizen feedback
- Exhaustive toilet survey, if required

Display of videos

Citizen Feedback

Special consideration for Women toilets
Development of previous OD spots

Persistent Open Defecation spots were identified and developed for use by local population playground, auditorium, jogging track, open gym area, weekly market place – after ensuring that households access to toilets.
Innovative Financing Options

- Articulate demand for toilets by making available options for funding the toilets
- ULB level subsidy
- “Shahar Swachata Kosh”
- “Toilet Plans’ for SHGs
- Lenders Fair at City Level
- Assessment of financial resources for toilets
- Multiple subsidy in case of ‘group toilets’

### ULB Level Subsidy

- Cost of toilet: ~Rs. 30-35,000
- Corporation/Council: Central 4,000, State 8,000

### Assessment of financial resources for toilets

#### Income Groups
- Very poor / BPL
- Poor
- Other low income group
- Middle income group

#### Housing Type
- Informal housing
- Formal housing

### Lenders Fair at City Level
Reference Document: ODF Handbook of GoM...
Preparing for MoUD Protocol

1. Making City Profile

2. Documentation
   a. Declarations to be filled
   b. Data regarding the Mission – toilets built, awareness campaigns held
Preparing for MoUD Protocol

c. Mapping CT/PTs to check whether location is as per the protocol
d. Efforts to stop open defecation
   Good Morning Pathak
   Imposition of fine on Open Defecators and collection receipts of these fines
3. **Field visits to various spots.**

Identify the hotspots and focus on – Railway tracks, water bodies, open spaces, etc.
Preparing for MoUD Protocol

Prepare you mission story

a. Action plan

b. Infrastructure - Number of toilets built during last few years and complete coverage of the city to ensure open defecation free locations - availability of functional Community/Public toilets and IHHL

c. Campaigns for increasing awareness about Swachh Bharat Mission

d. Efforts to stop open defecation and encourage people to construct toilets (photographs expected) -
   a. Good Morning Pathak
   b. Imposition of fine on Open Defecators and collection receipts of these fines
   c. Police help, FIRs filed
Group discussion . . .

- What is the state level approach of Rajasthan to attain ODF status?

- What strategies have you undertaken at city level to attain ODF status?

- Which strategies have worked and what has not worked?

- What are the issues that you are facing to become ODF?
Session 3: Aspects for Sustaining ODF Status
What according to you is ODF Sustainability?
Why you think ODF Sustainability is important?
Objective

1. To channelize and improvise the efforts taken by ULBs to sustain ODF status
2. Facilitate targeted initiatives through a systematic approach which would ensure ODF sustainability

ODF Sustainability Guidelines
ODF Sustainability Guidelines

(A) Behavior Change & Community Mobilization
1. Permanent impact through demand based approach
2. Involving NGOs/CBOs/Ward Committees/Self Help Groups (SHGs) in implementation of mission
3. Regular monitoring of open spaces/undertaking activities to discourage open defecation
4. School sanitation and education

(B) Sustaining Access to Toilets for households, in schools and public places
5. Encouraging construction of own toilets
6. Sanitation credit/toilet loans to support construction of toilets at HH level
7. Ensuring good quality construction of toilets
8. Provision of public toilets at appropriate places
9. Regular maintenance of community and public toilets
10. Safe management of Septage and waste water

(C) Governance & Financing
11. Complaint redressal systems should be strengthened
12. Setting up “Shahar Swachhata Kosh”

ACTION POINTS

Maintain Database
- Inventory of Stakeholders (NGOs, CBOs, SHGs, Schools and Active Citizens)
- Pathak Register
- OD Spots Maintenance & Development Data Register
- Spatial inventory of OD spots
- Data base for Awareness Generation Activities

Involve Citizens
- Plan engagement of citizens: Awareness generation programs, pathaks, OD spot redevelopment etc
- Felicitate citizens at events, competitions
- Invite suggestions and feedback for various initiatives

Follow Ups & Sharing
- Conduct regular follow ups for initiatives for ODF sustainability
- Create Facebook Account, WhatsApp number, Toll Free number
- Regular knowledge sharing to other offices at local, district and state level
- Close monitoring and guidance from divisional commissioner, collectors and other officials
Behavior Change & Community Mobilization

1. Permanent Impact through demand based approach
   - Update IEC Material
   - Create a buzz

   Community Involvement for Awareness Generation

   Karmala: Banners placed at entry gates depicting that the city is ODF and action shall be taken against person defecating in open

   Karjat: Street Play organized in Karjat

Mowad: SHGs have been involved for awareness generation and GMPs

Karjat: Felicitation Program of Senior citizens for their contribution in sustaining ODF status of the city

2. Involving NGOs/ CBOs/ Ward Committees/ SHGs/ Volunteers for implementation
   - List probable stakeholders (NGOs, SHGs, CBOs etc)
   - Conduct meetings and decide on probable interventions
   - Constant follow ups and monitoring of their involvement
Behavior Change & Community Mobilization

3. Regular monitoring of open spaces / discourage OD
- Conduct Regular Good Morning and Evening Pathaks

Cleaning and Development of open spaces

Charge Fines for Open Defecation
- Malkapur: OD spot paved and community toilet constructed
- Tree Plantation on OD spots
- Maintaining OD Spots through Cleaning, Fencing and Paving

Vita: Banner depicting amount of fine that would be collected from Offenders
Gaghinlaj: Updated Banner depicting that the city is now ODF and not to defecate in open else fine shall be levied

4. School sanitation and education
- Ensure Adequate Coverage of Toilets in Schools
- Encouraging Use of Toilets in School and at Home
Good Practices – Awareness Generation & Stakeholder involvement

Kagal and Mowad - Banners updated after getting declared ODF. It also mentions that to sustain the ODF status is responsibility of the citizens

Mahabaleshwar - NGOs (Shashant Eco Solutions, Pune), Local News Channel, Celebrities (Adesh Bandekar), local advertising agency at Awareness Generation campaigns in Mahabaleshwar

Umred – Facebook page of Umred ULB. Activities conducted by the ULB have been posted on the page
Good Practices – Discouraging Open Defecation

Chiplun - OD spot converted to Dhobi Ghat

Sangamner - OD Spot converted to Garden with compound wall

Vita - Repeated offenders taken to police station during GMP to lodge FIR against them

Kagal - ‘Bhoomi Pujan’ of Construction site of Community Hall
Sustaining Access to Toilets: For HHs, Schools & Public places

5. Encouraging construction of own toilets
   
   Interventions to shift households dependent on community toilets to own toilets

   Explore Option of Group Toilets

   Efficient Processing of Applications

   Vita: Two ODF slums in Vita though infrastructure provision by the ULB

   Wai: Completed Group Toilet in Wai

Credit Pamphlets distributed in Wai

6. Sanitation credit / toilet loans to support construction of toilets at HH level

   Explore options for sanitation credit in the city for toilet construction

   Facilitate Toilet Loans/Sanitation credit to support construction of toilets at household level
Sustaining Access to Toilets: For HHs, Schools & Public places

7 Ensuring good quality construction of toilets
- Construction Quality Verification
- Awareness Generation programs targeted towards importance of quality of construction
- Training and Workshops for Contractors and Masons

Contractors training in Wai

8 Provision of public toilets at appropriate places
- Ensure Adequate Coverage of Functional Public Toilets
- Increase usage of public toilets through design interventions and retrofitting
- Ensure Availability of Functional Toilets for Special Focus Groups and Areas

Sangamner: Newly constructed community toilets
Sustaining Access to Toilets: For HHs, Schools & Public places

Regular maintenance of community and public toilets

9

Prepare Existing Inventory

Prepare Implementation Plan for O & M of Community, Public Toilets

Efficient Monitoring of Community and Public Toilets

State wide Campaign from 1st November to 31st December 2017
For Repair, O&M, and Beautification of Community and Public Toilets

Safe management of Septage and waste water

10

Prepare Plan for Septage Management


Biogas Plant at Dapoli
Good Practices – Encouraging Construction of Own Toilets

Wai - Meeting with SHGs conducted for exploring financing options for toilet construction

Wai - Toilet and Lender Fair organized

Wai - Completed Group Toilet

Mowad - Banners depicting ways to encourage people to use the toilet constructed.
Training of local contractors in Sinnar

For PROPER construction of TOILETs and SEPTIC TANKs

- At least one wall open to fresh air
- Window / ventilator (Not less than 0.3 m)
- Should not open into kitchen
- Do not slope floor into adjoining room
- Water seal
- Problems without water seal
- Toilet
- Bathroom

Images of a classroom session and a house under construction.
Governance and Financing

11. Complaint redressal systems should be strengthened

Plan and Implement a Complaint redressal system

Aware Generation Campaigns for Reporting Complaints through mobile app under Swachh Bharat Mission by Ministry of Urban Development, Government of India

12. Setting up “Shahar Swachhata Kosh”

Setup Sahar Swabhata Kosh Account and Committee

Wai - Plastic Bailing Machine purchased utilizing funds from Swachhta Kosh in Wai Municipal Council

Wai - Waste Shredder Machine Donated by Garware Wall ropes as part of CSR activities facilitated by Wai Municipal Council
Reference documents for attaining and sustaining ODF status . . .
Session 4: Attaining and Sustaining ODF status – A case of Sinnar and Wai
Background of Wai and Sinnar

**Sinnar**
Located in the Nashik district, with a population of ~65,000 that has more than doubled in size since 2001 mainly due to expansion of city boundaries and an industrial and manufacturing boom in nearby Nashik.

**Wai**
Located in the Satara district, 90 km away from Pune, with a population of ~36,000. Wai has grown slowly at 1% per year since 2001.
Key activities undertaken in preparation of CSP

- Assessment of Sanitation situation in cities across various sectors
- Development of sanitation options
- Analysis of city budgets
- Continuous stakeholder engagement
- Institutional Capacity assessment

Key outcome:
A City Sanitation plan through which Universal access to Sanitation is achieved and the option is financially viable for ULB
However, based on local priorities, the cities focused on two high potential solutions in the near-term.

**Areas for intervention**

1. **Own Toilets + Septic Tanks**
   Construction of own toilets, individual or shared by 2-4 households, along with attached septic tanks.

2. **Integrated fecal sludge management**
   Regular (in a 3-year cycle) collection and disposal of fecal waste from septic tanks, along with necessary refurbishment of septic tanks, construction of a treatment facility for septage and reuse of treated septage.
Access: ~65% coverage of individual toilets and high dependency on community toilets

Access to types of sanitation facility (Number of HH)

<table>
<thead>
<tr>
<th>Type</th>
<th>Wai</th>
<th>Sinnar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open defecation</td>
<td>7,580</td>
<td></td>
</tr>
<tr>
<td>Community toilets</td>
<td>13,112</td>
<td></td>
</tr>
<tr>
<td>Individual toilets</td>
<td>68%</td>
<td>63%</td>
</tr>
</tbody>
</table>

Access to community toilets

- WAI: ~30 blocks
- SNNAR: ~18 blocks

Source: Census of India 2011, City Sanitation Plan, PAS Project – CEPT University
Septage collection: Households in these towns depend largely on septic tanks

Method of collection of waste for all households (HH):

- Others: 5,145 (10%)
- Pit / latrines: 8,243 (12%)
- Septic tanks: 86%

Sample assessment of size of septic tanks connected to personal toilets (Number of toilets):

- As per standards:
  - Wai: 20 (5%)
  - Sinnar: 14 (7%)
- Oversized:
  - Wai: 70% (29%)
  - Sinnar: 64% (29%)

- Septic tanks are made with conventional 2-3 chambered baffled design
- A sample survey in Wai and Sinnar found that septic tanks connected to individual toilets are largely oversized and do not meet the standards prescribed in IS codes and CPHEEO manual
- As a result, they are cleaned infrequently, often only once in more than ~8-10 years
Consultation with ULBs → Ground Level Surveys → Case Specific Designs

Case specific design for group/shared toilets
Cities has **passed resolutions to implement the “own toilet scheme”**

Cities developed and implemented ‘Own toilet scheme’ much before **Swachh Bharat Mission was announced**
Aligned the Own toilet scheme with National and State Schemes

Swachh Bharat Mission
Subsidy: INR 4,000

Swachh Maharashtra Abhiyan
Subsidy: INR 8,000

Urban Local Body
Subsidy: INR 5,000 - 10,000

Total Subsidy
INR 17,000 - 22,000
Support in Stage Wise Implementation

Formation of Scheme Implementation Cell at ULB

Possible implementation mechanism for the scheme:
1. Delta Scheme Implementation Cell / "Open Toilet Scheme Cell"
2. Administration Staff (ULB and Component Persons)
3. Technical Staff (Engineer and PWD Cell)
4. Finance Staff

Stage 1: Dissemination of scheme

Implementation Stage 1 - Creating awareness and advertising the scheme:
1. Introduce and disseminate the scheme:
   - Ward level meetings headed by the councillors
   - Through newspapers
   - Advertisements at public places
   - Announcements

Stage 2: Application Process

Implementation Stage 2 - Application process:
1. Assess and shortlist applications:
   - ULB to collect comprehensive data in the given format and develop activity level data based on applications received
   - ULB to assess applications through deskew to categorize them based on their authenticity/validity
2. On-ground inspection of shortlisted applications:
   - ULB to inspect on ground possibility of construction of toilets with requisite stage as per given specifications standards
3. Study list of approved applications:
   - ULB to finalize list of approved applications based on deskew and actual inspection
4. Publish list of approved applications:
   - ULB to declare list of approved applications and display at ULB office and publish in the newspapers that it is displayed at the ULB office

Stage 3: On-ground Implementation

Implementation Stage 3 - Construction of toilets:
1. Result based partial subsidy
2. ULB can provide support in:
   - Providing funds to contractors
   - Developing MoUs
   - Monitoring
   - Internal support in the form of monitoring/verification agency will be required

Stage 4: Disbursement of Subsidy

Implementation Stage 3 - Disbursement of subsidy:
1. Proposed option for disbursement of funds
2. Amount of subsidy will be deposited only to the beneficiary's bank account
3. ULB to ensure that the construction is completed and a completion certificate is presented to SMC by the beneficiaries

PAS is providing support at all stages of the scheme.
Application Process - SBM

- Monitoring of Scheme
- Capacity Building of Wai and Sinnar staff

Managing records on hardcopy → Online processing of applications → Offline database at councils for monitoring the process

Fast Tracking of Application Process → Proper regulation of Subsidy Disbursement → Support in Recruiting staff under this scheme
Lack of Space / Water / Funds for construction of toilet, Non-functional community toilets were the main reasons highlighted for resorting to OD.
स्वच्छ सिन्हरे, स्वस्थ सिन्हरे
तुम्ही जेव्हा उघड्यावर शौचालय जाऊन पर्यावरण दूषित करता...
तेव्हा तुम्ही स्वतःचाच जीव धोक्यात टाकता !!!

ह्यांदारी थांबवा....
शौचालयाचा वापर करा!

स्वच्छ भारत अभियान आणि
स्वच्छ महाराष्ट्र अभियान: ₹१२,०००
नगरपरिषद: ₹५००० ते ₹१०,०००

अनुदान
शौचालय कर्ज
गट शौचालय

आजचं नगरपालिकेत यावावट चौकशी करा व अर्ज भरा !!

सिन्हरे नगरपरिषद, सिन्हरे
Various awareness activities were undertaken:

- Formation of Scheme Implementation Cell at ULB

- Announcements
- Banners displayed at key locations
- Movies and Jingles on scheme
- Videos played at large gatherings
- Forms distributed in Meetings
- SHG mela on World Toilet Day
- Advertisements in Newspaper
Activities carried out by Sinnar and Wai ULB under IEC

- Awareness Generation using eye-catching Banners
  - Banners has been placed at major potential locations in city and at the OD spots for spreading awareness regarding SBM toilet scheme.
  - Use of film actress, so that people can easily attracted towards posters.
  - Awareness generation during local festival in Wai
Meetings and Visits to crucial areas in the Sinnar

- CO has arranged monthly/weekly meetings with ULB staff which works under SBM.
- Weekly visits to crucial areas of city, where there are more HH’s defecating in open.
- Council members also arranged meetings in wards from which they have been elected.
Discussions and Providing solutions

- Meetings were held of ULB officials in SMC with people who have not ready to construct IHHL.

- With the help of CEPT team, ULB identified HH’s who are ready group toilet construction. Visited such HH’s and provided architectural solutions to them.
Providing architectural solutions to HH’s having problem of space for toilet construction

• With the help of CEPT team, Sinnar and Wai ULB has found out HH’s which have space problem for toilet construction.

• Suggested architectural solutions for such HH’s.
Toilet and Lender’s Fair in Sinnar and Wai

To make people aware of the various available options of constructing a toilet so that they select the one which is financially viable yet technologically sound as per their needs.

Stakeholders at the fair:
1. Sanitation technology providers
2. Sanitary ware suppliers
3. Financial Lending Institutions
4. Residents of Wai and Sinnar
5. ULB officials
Training of local contractors in cities ... 

For PROPER construction of TOILETts and SEPTIC TANKs
Activities Undertaken by Sinnar and Wai ULB for SBM

- **Good Morning Pathak**
  - For **Monitoring OD Spots** and to tell people that they should construct IIHL for their better future.
  
  - This activity has been carried out **daily** so that **rate** of people doing OD will get **decreased**.
  
  - Sinnar ULB has formed **5 teams** for **5 OD spots** in the city. Each team daily visited OD spot in the morning and submit their **report to CO**.

- **To discourage the HH practicing OD and encourage behavioral change,** WMC declared a **fine of Rs. 500 per person**
Activities Undertaken by Sinnar ULB for SBM

- Record of GM Pathak has been maintained.
- Repeat offenders will be penalized. They will taken to nearest police station and detained.

Addrs has been published in local news paper.
Sinnar ULB has rolled out O & M contract for Community Toilets in Sinnar.
Sinnar ULB has given contract of repairing of Community Toilets in Sinnar to local contractor.
Because of all these interventions...

**Sinnar** has been declared **ODF** on **22nd June, 2017**

**Wai** was declared **ODF** in **September 2016** & **Revalidated ODF** in **September 2017**
Sustain ODF status: Attain Universal access to Sanitation

Sinnar

- 95% HHs have access to individual toilets
- To provide universal access to individual toilets, additional 700 toilets need to be built
- INR 10,000 subsidy will be provided to these HHs

Wai

CHF’s involvement in Wai was sought to move the city towards ODF+ status and facilitate access to loans for those with financial constraints

- To provide universal access to Individual toilets, additional 800 toilets need to be built
- ~ 500 applications mobilized with help of CHF
- INR 22,000 subsidy will be provided to these HHs
Sustain ODF status: Development of OD spot

Sinnar

- Major OD spot (~10 acre) to be converted into public space
- Plan is to convert it into jogging track, open gym & garden
- Estimated cost is INR 50 lakhs

Wai

- 4 OD spots identified for development
- Form of development: Level the spot, plant trees, lay paving blocks, illuminate the spot, put benches and protect the area with fence
**Where we are:** Applications mobilized in Sinnar and Wai

### Sinnar (November 2017 status)

<table>
<thead>
<tr>
<th>State</th>
<th>District</th>
<th>ULB Name</th>
<th>Received</th>
<th>Verified</th>
<th>Approved</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maharashtra</td>
<td>Nashik</td>
<td>Sinnar (M CI)</td>
<td>2354</td>
<td>2049</td>
<td>2041</td>
<td>0</td>
</tr>
</tbody>
</table>

Commenced Toilets are not counted where Constructed Toilet Photos have been uploaded.

- Received: 2354
- Verified: 2049
- Approved: 2041
- Closed: 0

### Wai (November 2017 status)

<table>
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<th>State</th>
<th>District</th>
<th>ULB Name</th>
<th>Received</th>
<th>Verified</th>
<th>Approved</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maharashtra</td>
<td>Satara</td>
<td>Wai (M CI)</td>
<td>572</td>
<td>135</td>
<td>135</td>
<td>0</td>
</tr>
</tbody>
</table>

Commenced Toilets are not counted where Constructed Toilet Photos have been uploaded.

- Received: 572
- Verified: 135
- Approved: 135
- Closed: 0

- Rejected: 0
- Constructed: 123
- Commenced Toilets: 0
Exploring Financial options for Sanitation
**Explored different types of credit providers for financing toilets**

<table>
<thead>
<tr>
<th>A</th>
<th>Urban Cooperative Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sangamner Merchen Co-op. Bank</td>
</tr>
<tr>
<td>2</td>
<td>The Nashik Road Devlali Sahakari Bank</td>
</tr>
<tr>
<td>3</td>
<td>The Ojhar merchant co-operative bank limited</td>
</tr>
<tr>
<td>4</td>
<td>Shri Mahesh co-operative bank limited</td>
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</table>

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<th>B</th>
<th>Commercial Banks</th>
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<tr>
<td>1</td>
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<tr>
<td>2</td>
<td>Canara Bank</td>
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<td>3</td>
<td>IDFC</td>
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<tr>
<td>4</td>
<td>Andhra Bank</td>
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<td>5</td>
<td>IDBI</td>
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<tr>
<td>6</td>
<td>Yes Bank</td>
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<td>7</td>
<td>Bank of Maharashtra</td>
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<tr>
<td>8</td>
<td>State Bank of Hyderabad</td>
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<td>9</td>
<td>HDFC</td>
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<td>ICICI Bank</td>
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<th>C</th>
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<td>4</td>
<td>Thorle Bajirao Path Sanstha</td>
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<td>5</td>
<td>Vighnaharta Path Sanstha</td>
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<td>6</td>
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<td>Saibaba Grameen Bigarsheti Pathansha</td>
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<td>10</td>
<td>Adarsh Credit Cooperative Society Ltd</td>
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<td>11</td>
<td>Sant Santaji Nagari Pathansha</td>
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<td>12</td>
<td>Shiv Nagari Sahakari Path Sanstha</td>
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<td>Gangagiri Mahila Sahakari Path Sanstha</td>
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<td>Shri Devnadi Khore Grameen Bigarsheti Sahakari Sanstha, Sonambe</td>
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<td>Priyadarshini mahila nagari sahakari pathanstha</td>
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<thead>
<tr>
<th>E</th>
<th>Micro Finance Institutions</th>
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<tr>
<td>1</td>
<td>Ujjivan Financial Services, Nashik Grameen Koota</td>
</tr>
<tr>
<td>2</td>
<td>Asmitha Microfin Limited</td>
</tr>
<tr>
<td>3</td>
<td>Spandana Sphoorty Financial Limited</td>
</tr>
<tr>
<td>4</td>
<td>Suryoday Microfinance Pvt. Ltd.</td>
</tr>
<tr>
<td>5</td>
<td>SKS Microfinance</td>
</tr>
<tr>
<td>6</td>
<td>Grama Vidiyal</td>
</tr>
</tbody>
</table>

**Highlighted:**
- **Commercial Banks**
  - Amruta mahila sahakari pathansha
  - Jijamata mahila nagari sahakari pathansha
  - Yash nagari sahakari pathansha
  - Sidheswar gramin bigarsheti nagari sahakari pathansha
- **Urban Cooperative Banks**
  - Sangamner Merchen Co-op. Bank
  - The Nashik Road Devlali Sahakari Bank
  - The Ojhar merchant co-operative bank limited
  - Shri Mahesh co-operative bank limited
- **Credit Cooperative Societies**
  - Azad Path Sansta
  - Sant Sena Maharaj Path Sanstha
  - Kasturi Path Sanstha
  - Thorle Bajirao Path Sanstha
  - Vighnaharta Path Sanstha
  - Sri Renukamata Nagri Sahakari Pathansha
  - Mauli Gramin Bigarsheti Pathansha
  - Deendayal Nagari Sahakari Pathansha
  - Saibaba Grameen Bigarsheti Pathansha
  - Adarsh Credit Cooperative Society Ltd
  - Sant Santaji Nagari Pathansha
  - Shiv Nagari Sahakari Path Sanstha
  - Gangagiri Mahila Sahakari Path Sanstha
  - Shri Devnadi Khore Grameen Bigarsheti Sahakari Sanstha, Sonambe
  - Priyadarshini mahila nagari sahakari pathansha
  - Shri lekha nagari sahakari pathansha
  - Sinnar mahila pathansha
  - Sant Gorobakaka nagari sahakari pathansha
- **Housing Finance Institution**
  - GRUH
- **Other Credit Providers**
  - Chaitanya
  - Smart Finance
Undertook School Sanitation assessment and investment requirement which are being explored for crowdfunding and CSR

Public & Private Schools - Existing Status

12 Public Schools
- No of Girls: 1247
- No of Boys: 1479
- Toilets: 11
- Urinals: 47
- Teaching Staff: 79
- Non-Teaching Staff: 17
- Total Number of Students: 2726

14 Private Schools
- No of Girls: 3157
- No of Boys: 3406
- Toilets: 36
- Urinals: 75
- Teaching Staff: 228
- Non-Teaching Staff: 23
- Total Number of Students: 6563

Locations of Schools in Wai

Summary of Proposals
- INR 72 Lakhs for New Construction
- INR 18 Lakhs for Refurbishment of Existing Toilets
- Estimated Annual O&M Contract Value
  - Public: INR 17 Lakhs (44 Toilets + 38 Urinals)
  - Private: INR 55 Lakhs (103 Toilets + 192 Urinals)

Exploring New models of Operations & Maintenance for School Sanitation
Set up “City Swachhata Kosh” for funding sanitation activities

Capture funds from local donors and increase their participation

Some Key Highlights:

- A Committee from donors and ULB officials is formed, who will monitor utilization of funds
- Escrow account of the Swachhta Kosh account, so that fund are only used for specific purpose
- Quarterly report will be shared with all the donors on utilization for fund

Consultative and Transparent Process...
Session 5: Introduction to Faecal Sludge and Septage Management (FSSM) to making city ODF+
What is Faecal Sludge . . .

“Faecal sludge is the solid or settled contents of pit latrines and septic tanks.

Faecal sludge (FS) comes from onsite sanitation system such as pit latrines, non-sewered public ablution blocks, septic tanks, aqua privies, and dry toilets.”

"It 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.

Septage is the combination of scum, sludge, and liquid that accumulates in septic tanks."

1 truck of Faecal Sludge and Septage carelessly dumped = 5,000 people shitting in the open!

1 Gram of Faeces may contain:

- 100 parasites eggs
- 1000 Protozoa
- 1,000,000 Bacteria
- 10,000,000 Virus

Recognition to FSSM

- National Policy on FSSM by MoHUA, GoI
- National declaration on Septage Management by MoHUA, GoI
- One of the major thrust areas of AMRUT
- Primer on septage Management and Rapid Assessment tool for estimating budget requirements for FSSM
- Septage Management Advisory of Government of India provides references to CPHEEO guidelines, BIS standards, and other resources for preparing SMP / FSSM plan.
FSSM @ State Level
Concept of ODF, ODF+, ODF++ by GoM

ODF

- 100% of households have access to improved sanitation facilities

ODF+

- >80% of households have access to improved sanitation facilities
- <20% of households are dependent on CTs

ODF++

- 80% of households have access to individual toilets and rest dependent on CTs

Septage Management planning in cities
To support implementation of this framework, State has rolled out resolutions and technical guidelines for the same
Government resolution (GR) on ODF+ by GoM

- ODF sustainability
- Moving cities towards ODF+ and ODF++ by constructing more individual toilets and managing septage and WW
- Directives to use 14th FC funds and Incentive grant for moving towards ODF+ and ODF++
Guidelines for ULBs to implement FSM plans rolled out by GoM

Guidelines for Septage Management in Maharashtra
February, 2016

Guidebook for Urban Local Bodies to Implement Septage Management Plan

Swachh Maharashtra Mission (Urban)
Urban Development Department, Government of Maharashtra
Training of 100+ ULBs for FSSM

Training of 100+ ODF cities in Maharashtra for implementing Septage Management Plan and moving toward ODF + and ODF +++ concept
FSSM @ City Level
## Supporting towns to become ODF+

<table>
<thead>
<tr>
<th></th>
<th>Wai</th>
<th>Sinnar</th>
</tr>
</thead>
<tbody>
<tr>
<td>District</td>
<td>Satara</td>
<td>Nashik</td>
</tr>
<tr>
<td>Civic status</td>
<td>Nagar Parishad ‘C’ class</td>
<td>Nagar Parishad ‘B’ class</td>
</tr>
<tr>
<td>Total Area</td>
<td>3.64 sq km</td>
<td>51.4 sq km</td>
</tr>
<tr>
<td>Population</td>
<td>36025</td>
<td>65299</td>
</tr>
<tr>
<td>Households</td>
<td>7580</td>
<td>13112</td>
</tr>
<tr>
<td>Slum HHs</td>
<td>456 (6%)</td>
<td>837 (7%)</td>
</tr>
<tr>
<td>No of Wards</td>
<td>19 wards managed through 5 Prabhags</td>
<td>19 wards managed through 5 Prabhags</td>
</tr>
</tbody>
</table>

Wai is a tourist town, whereas Sinnar is more of an industrial hub.
Septage conveyance: Septic tanks are only cleaned once in more than ~8 to 10 years resulting in fecal matter being released into drains

Existing septage conveyance mechanism in Wai

ULB operated

5000 litre truck

• The truck is owned and operated by the ULB, that charges households ~INR 500 / trip in Sinnar, INR 1000 / trip in Wai

• There is no regulated schedule for cleaning, and households call the ULB when required, ~once in >8-10 years

• Only 1-4% of tanks are cleaned annually, far below the service standards of 33% recommended by the MoUD’s CPHEEO manual

• Due to infrequent cleaning, septage begins to solidify in tanks

Existing septage conveyance mechanism in Sinnar

ULB operated

3000 litre truck
Septage Disposal: Collected septage is disposed off at solid waste dump site...
Issues tackled to achieve End-to-end FSSM solution – Moving from **RED** to **GREEN**

### Current Situation
- **Access**
  - Pour flush toilets
  - Lack of universal access to improved toilets
  - Lack of adequate data base on toilets for properties

- **Collection**
  - Septic tanks
  - Septic tanks lack manhole covers
  - Septic tanks are not of standard size
  - No database on septic tanks for properties

- **Conveyance**
  - Suction emptier truck
  - Only 4% of septic tanks cleaned annually

- **Treatment**
  - No treatment facility
  - No facility for fecal sludge treatment

- **Disposal / Reuse**
  - Septage disposed off on dumping site without treatment

### Proposed Approach
- **Access**
  - Pour flush toilets
  - Converting unimproved toilets to improved toilets
  - Ensuring 100% access to improved toilets
  - Data base on toilets for all properties

- **Collection**
  - Septic tanks
  - Providing access manhole covers to allow regular cleaning
  - Enforcing regulations on septic tanks design
  - Data base of properties with septic tanks

- **Conveyance**
  - Suction emptier trucks
  - Preparing a schedule for period cleaning of septic tanks, to ensure that all septic tank are cleaned at least once in 3 years
  - Enforcing regulations and penalties for periodicity of septic tank cleaning and safe handling of sludge
  - Payment using local taxes using escrow mechanisms

- **Treatment**
  - Treatment facility
  - Installing treatment facility for the treatment of septage

- **Disposal / Reuse**
  - Revenue from compost
  - Safe dumping of treated fecal matter and/or the sale of septage at a fixed rate to nearby farms or agro-businesses
Both councils has signed resolution to implement FSSM plans

The resolution covers aspects like:

- Citywide FSSM
- Involving Private sector
- Scheduled cleaning
- Land for treatment facility
- Taxes to be levied
- Escrow account
Moving from a consumer complaint system to regular service oriented system

**Current septage management practice**

- ~4% of tanks cleaned per year (once in >8-10 years)

**Recommended septage management practice**

- ~33% of tanks cleaned per year (once in 3 years)

**Current barriers**

1. Cleaning is done on-call by the household, who do not see the need for regular cleaning

2. Wai and Sinnar has only 1 truck of 5kL and 3kL capacity, owned and operated by the ULB

3. Houses pay ~INR 400 – 1000 to the ULB to get tanks cleaned

**Proposed solutions**

1. Septic tanks will be cleaned on a predetermined schedule. Regulations and penalties will be set in place to ensure periodic cleaning

   *Awareness generation* activities to educate HHs about the need for regular cleaning

2. Wai and Sinnar will get addition 2 and 3 nos of 5kL trucks respectively to clean ~3-4 septic tanks a day, which can be operated by a private.

3. All property owners (residential and non-residential) will pay a ‘special sanitary tax’ to be levied by the ULB as per the municipal legislation

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(1) Maharashtra Municipal Councils, Nagar Panchayats and Industrial Townships Act, 1965, Chapter IX : Municipal taxation, Section 108
Scheduled desludging services in towns financed through taxation

3 trucks to desludge ~ 4000 septic tanks annually

2 trucks to desludge ~ 2000 septic tanks annually
Differential taxation rates

Residential Properties with / without toilets – Rs. 300 / annum

Non Residential Properties with toilets – Rs. 300 / annum

Non-residential properties without toilets – Rs. 100 / annum
City is exploring septage treatment options

- Cities have *allocated land* for treatment facility and undertook *septage quality tests*
- **FSTP** by Tide technocrats in Wai and Sinnar has floated **DBOT tender for 70cum/day plant**
To ensure adoption of the FSSM plan, the ULB is undertaking required measures

- The measures taken:
  1. **Septic tank design**: to ensure septic tanks of standard size are installed
  2. **Periodicity of de-sludging**: to ensure septic tanks are cleaned every 3 years
  3. **De-sludging procedures**: to ensure safe handling of fecal sludge
  4. **Sanitation tax**: to persuade households to clean septic tanks regularly
  5. **Penalties**: to deter irregular cleaning and use of substandard septic tanks

- **Regular monitoring and inspection** of septic tanks and **de-sludging procedures** to facilitate the implementation of FSSM plan
Developed Awareness materials for FSSM

Wai Municipal Council has devised a unique “Scheduled Cleaning of Septic Tanks scheme”
A first of its kind in the country under which septic tanks of each and every household of the municipal council will be cleaned at least ONCE in every 3 years

You clean your septic tanks only when it overflows...But are you aware of the side effects of not cleaning it periodically...

- Sewage backflow
- Foul odours
- Dampness in floor and walls near the tank
- Unsettled sewage flowing in effluent drains

As per CPHEEO manual, septic tank needs to be cleaned once in every 2-3 years.

And the good news is...
To clean the septic tank, you do not have to pay while availing the service...
All the expenditure will be done from Sanitation Tax paid by you....

Empty Septic tank regularly

Septic tank should be emptied every 2-3 years
Avail Nagarpalika services!
Notemptying it regularly will result in-

Remember!

- Service is available to each household once every 3 years
- Contractor will visit between 7 am and 5 pm. Be present at home and ready! Keep Septic tank cover open for visit
- Contractor will call 2 days before scheduled visit
- When constructing new septic tank, do not seal cover and give proper access
- Cleaner should be wearing proper safety gear
- No one should enter tank! Manual scavenging is prohibited by law
- 2” sludge leave
City level Database of toilets & septic tanks using SaniTAB

Map depicts HHs with toilets connected to septic tanks
Identified private players offering FSSM services within and nearby town

**Proposed value chain**

**Activities required**

- **Proposed value chain**
  - *Access*
  - *Collection*
  - *Conveyance*
  - *Treatment*
  - *Disposal / Reuse*

- **Pour flush toilets**
  - Proposed value chain:
    - A: refurbishment of septic tanks with access manhole covers
    - B: periodic cleaning of septic tanks along a regulated schedule
    - C: construction of fecal sludge treatment plant (FSTP)
    - D: operation and maintenance of FSTP
    - E: sale of septage at a fixed rate to nearby farms or agro-businesses

- **Activities required**
  - 1. Labor contractors for septic tank cleaning
  - 2. Septic tank cleaning companies
  - 3. Pure-play treatment players
  - 4. Integrated fecal sludge management providers

**Buyers of septage**
- Maharashtra Organic Farming Association
- Agro-based industries
- Local farmers and growers associations

**Small scale players (<10 employees)**

**Medium scale enterprises (>10-50 employees)**

Source: Field visits, online business listings
Assessed work profile, interests and capacity of private sector

Name: Company X

**Geographic focus**: Maharashtra, Karnataka, Tamil Nadu, Goa and Delhi NCR

**Services offered**: Company X core business is the manufacture and supply of recyclable portable toilets, but they also offer commercial and residential septic tank cleaning and septage treatment

**Business model (conveyance):**
- **Scale**: ~60 Mercedes Benz suction emptier trucks, each operated by a driver and a technician
- **Customers**: Mostly residential, but also some commercial clients
- **Payment structure**: Charges INR ~400 – 1000 per trip. Run trucks on a regulated “DHL – like” schedule, but also take emergency calls
- **Expected return**: 20 - 25% EBITDA margin

**Interest in business opportunity**

“We have invested in high quality trucks so that our employees do not have to come into contact with the waste at all. We want them to feel proud of the work they do. Customers don’t care, they just want the job done. But we have a rule book, and it clearly tells the customers what we will and will not do”

“We would be interested in an integrated contract for fecal sludge management. In terms of profitability, the business is only viable if you’re doing at least a 20-25% EBITDA”

**Key Concerns**
Given the interest and capabilities of identified players, there are three possible options for contract bundles:

**Option 1**
- **Contract 1A**: Emptying of septic tanks
- **Contract 1B**: O&M of FSTP
- **Construction of FSTP**

**Option 2**
- **Contract 2A**: Emptying of septic tanks
- **Contract 2B**: Construction and O&M of FSTP

**Option 3**
- **Contract 3A**: Emptying of septic tanks, construction and O&M of FSTP
Followed six processes in structuring a PSP option for FSSM

1. Operational role of the private contractor
2. Source of revenue
3. Investment/ownership of capital asset
4. Payment structure
5. Contract length and value
6. Risk mitigation and allocation

- Bundled or unbundled contract?
- How to address the major risks for the private player and the ULB?
- Revenue stream enough to meet private players' return expectations?
- Who should invest in capital assets?
- What is the appropriate contract duration for private and ULB?
- What is the appropriate payment structure for the private player?
Each contract option along with draft tender clauses was discussed with the private sector and ULB to understand their concern and requirement.

Aspects covered with Private & ULB
- Obligations before and after signing of contract
- Scope of work for contract
- Payment mechanism of contracts
- Critical performance standards – linked to payment terms
- Termination clauses
- Payment delay clauses
- Cost escalation

Additional Aspects covered with ULB
- Pros & Cons of each option
- Contract costs
- Taxes to be levied
- Bid document process and requirements
Following this process bid documents have been rolled out in these cities (1/2)

**CONTENTS**

I. Short Tender Notice

II. Detailed Tender Schedule

Notes

List of documents to be submitted along with tender

III. Detailed Tender Notice – General Conditions

IV. Detailed Tender Notice – Special Conditions

V. Form Formats

Details of suction emptier trucks available with the tenderer for the use of this work...

Details of work of similar type and magnitude carried out by the tenderer

Details of technical personnel with the tenderer

Year wise statement showing cost of completed works

VI. Opening of Tender

VII. Acceptance of Tender

VIII. Declaration of the Contractor

IX. Financial Bid Form

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**Sinnar Municipal Council, Sinnar**

**TENDER DOCUMENT**

**Name of Work**

"Scheduled cleaning of septic tanks, Sinnar"

**Estimated Cost:** To be given by the bidder

**E.M.D.** ₹40,000/-

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**Office of the**

Chief Officer, Sinnar Municipal Council, Sinnar

Sunil S. Patil
Municipal Engineer

Vyanktesh R. Durvasa
Chief Officer

Sanjay Navse
Vice President

Ashwini Deshmukh
President
Following this process bid documents have been rolled out in these cities (2/2)

Sinnar Municipal Council, Maharashtra

TENDER DOCUMENT

Name of Work
A turnkey project on Design, Construction, Commissioning and Operation of Fecal Sludge & Septage Treatment Plant at Sinnar, Nashik, Maharashtra

The work includes (i) Design, Construction and Commissioning of Fecal Sludge & Septage treatment plant (FSSTP) with all appurtenant structures and allied works including all necessary approvals from various government departments etc. complete including testing, trial run for One Month and commissioning of the plant (ii) Operation & maintenance of the complete works of FSSTP and allied works for a period of 3 years

Chief Officer,
Sinnar Municipal Council, Maharashtra

Municipal Engineer    Chief Officer    Vice President    President

Table of Contents
Section-1 Invitation for Bid
Section-2 Instruction to Bidders
Section-3 Qualification criteria and Bid Evaluation Framework
Section-4 Bidding Forms
Section-5 Conditions of Contract
Section-6 Scope of Work
Section-7 Price Bid and Terms of Payment

E-Tender on state web site

Service provider selected following a competitive bidding process

Work has been awarded.
Services to begin after the treatment plant becomes operational

Septage Treatment Plant
DBOT Tender
Escrow Mechanism for payment to contractor is set up.

Key Clauses:

- SMC & WMC will put funds in the Escrow Account to create a Contract Fees Reserve Fund (CFRF) at the start of the Escrow arrangement.

- Minimum balance of three months payment to the Contractor

- Transfers from property tax and sanitation tax every month to pay to the contractor
Key Results in FSSM...

@ State Level

- State-level ODF framework that emphasizes on FSSM
- Budgetary allocation for cities to move towards ODF+ and ODF++
- Guidelines and policies in place to push the FSSM agenda
- Capacity building activities undertaken by State for moving cities towards ODF+

@ City Level

- Scheduled based septic tank emptying services to be rolled out
- Sanitation tax levied for financing FSM services
- Regulations enforced backed by awareness campaign and monitoring
- Private Sector involved for providing FSM services
- Balanced performance based contracts developed for these services
- Exploring reuse possibility of septage
What measures would you take to sustain the ODF status in your cities?

What are your key takeaways from our work in Wai and Sinnar?

What are the current practices and challenges in your city regarding FSSM?
Online Module for performance assessment

Capacity Building of Govt. Officials

SLB cell formation at city/state level

National Roll-Out

Information system improvement plan

Innovative Sanitation Financing

Integration with e-governance system

SAN Benchmarks citywide sanitation assessment framework

IFSM toolkit

SANTab App for Sanitation Survey

Support to Maharashtra State Government in implementing Swachh Maharashtra Mission

Performance Improvement Planning (PIP) tool: SaniPlan

Annual Data for UWSS of 600+ cities

City Sanitation Plans for small and medium town

Tariff setting tool

Integrated faecal sludge management plan for cities

Project Directors: Prof. Meera Mehta and Prof. Dinesh Mehta

www.pas.org.in | pas@cept.ac.in

C-WAS, CEPT University, Ahmedabad, India