



Centre for Science and Environment

# TRAINING ON DISTRICT LEVEL PLANNING FOR FAECAL SLUDGE MANAGEMENT (FSM) IN RURAL AREAS

**Mode of delivery for training programme:** Classroom training at AAETI

**Participants:** Swachh Bharat Mission Gramin officials

**Objective:** To train the participants to develop the district level FSM planning and implementation

**Outcome:** The participants learn FSM concepts and prepare district level FSM plan for their towns

**Training programme dates:** 26<sup>th</sup> – 30<sup>th</sup> April, 2022

Time	Title	Outcomes	Trainer
<b>Day 1: 26/04/2022</b>			
<b>Module 1: Introduction to faecal sludge management and the importance of safe sanitation</b>			
10:00 – 10:30	Ice-breaking session	<ul style="list-style-type: none"><li>• Introduction of the participants.</li><li>• Overview of SBM – phase 1, needs for SBM – phase 2. (Types of toilets created and issues with the design).</li><li>• Need for safe sanitation and experiences in the country.</li><li>• Connection between sanitation and health (SDG 6).</li><li>• Introducing the concept of greywater/Blackwater.</li></ul>	Sushmita Sengupta, CSE
10:30 – 11:00	Overview of faecal sludge management	<ul style="list-style-type: none"><li>• Problem identification, need for FSM, basics of onsite and offsite solutions and need of good/related IEC activities- Case studies and field experience.</li></ul>	Swati Bhatia, CSE
<b>11:00 – 11:15 Tea Break</b>			
11:15 – 12:30	Quantification of faecal sludge	<ul style="list-style-type: none"><li>• Amount of FS generated household/village/ block/district level.</li></ul>	Ravi Kumar, CSE
	Group exercise	<ul style="list-style-type: none"><li>• Quantification of faecal sludge.</li></ul>	Ravi Kumar, CSE
12:30 – 1:00	Desludging and conveyance	<ul style="list-style-type: none"><li>• To describe and brief on various sludge emptying and conveyance in practice.</li></ul>	Ravi Kumar, CSE
<b>1:00 – 2:00 Lunch</b>			
2:00 – 2:40	Selection criteria for on-site and off-site treatment systems	<ul style="list-style-type: none"><li>• Understanding various selection criteria's necessary for selection of onsite sanitation systems.</li><li>• Understanding various selection criteria for faecal sludge treatment systems.</li></ul>	Ravi Kumar, CSE
<b>Module 2: Onsite sanitation systems (OSS) – in-situ treatment</b>			
2:45 – 3:30	OSS design and exercise	<ul style="list-style-type: none"><li>• Discussing the design specifications and hands-on exercise for onsite sanitation systems – honeycomb twin pit latrines.</li><li>• Hands-on design of twin pits.</li></ul>	Swati Bhatia, CSE
3:30 – 4:00	OSS design and exercise	<ul style="list-style-type: none"><li>• Design specification of septic tank</li><li>• Hands-on design of septic tanks.</li></ul>	Ravi Kumar, CSE
4:00 – 4:30	OSS design and exercise	<ul style="list-style-type: none"><li>• A small video film on design of biogas digester toilets.</li></ul>	Swati Bhatia, CSE
<b>3:30 – 4:00 Tea Break</b>			

4:30 – 5:30	Introduction to green features of AAETI Visiting green features at AAETI		Gita Kavarana, Head, AAETI
End of day 1			
Day 2: 27/04/2022			
Module 3: Retrofitting of toilets, IEC and awareness generation			
9:30 – 11:00	How to identify faulty toilets and retrofit?	<ul style="list-style-type: none"><li>Understanding the challenges/ technologies/approaches for retrofitting existing toilets and community experiences.</li></ul>	Anurag Gupta, Water Aid
11:00 – 11:15 Tea Break			
11:15- 12:30	Role of strong IEC and awareness generation for management of on-site and off-site FSM	<ul style="list-style-type: none"><li>IEC and awareness generation activities for promoting faecal sludge management.</li></ul>	Rushab Himani, UNICEF
Module 4: Planning and designing of faecal sludge treatment technologies			
12:30 – 1:30	Description of faecal sludge treatment process	<ul style="list-style-type: none"><li>Description of biological processes involved.</li><li>Data required for design of treatment plants.</li></ul>	Santhosh G.S., BORDA-SA
1:30 – 2.30 Lunch			
2:30 – 4:30	Design of faecal sludge treatment technologies	<ul style="list-style-type: none"><li>Design of established technologies for faecal sludge treatment.</li><li>Hands on training on designing faecal sludge treatment technologies.</li></ul>	Santhosh G.S., BORDA-SA
3:30 – 3:45 Tea Break			
4:30 – 5:30	Co-Treatment of Faecal Sludge	<ul style="list-style-type: none"><li>Co-Treatment of faecal sludge in a Sewage Treatment Plant-technical modifications and additional infrastructure requirements.</li></ul>	Santhosh G.S., BORDA-SA
7:00 Onwards	Get Together Night		
End of day 2			
Day 3: 28/04/22			
9:30 – 11:30	Urban-Rural convergence –Introduction to cluster approach	<ul style="list-style-type: none"><li>Understanding the nuances of cluster approach and various modalities involved (hands on exercise).</li></ul>	Avinash Y.Kumar, National Institute of Urban Management
11:00 – 11:15 Tea Break			
11:30 – 12:30	Funding options for treatment of faecal sludge	<ul style="list-style-type: none"><li>Description on various sources of funds available for FSM implementation.</li><li>Understanding various financial models.</li></ul>	Avinash Y.Kumar, National Institute of Urban Management
12:30 – 1:30 Lunch			
1:30 – 2:30	Institutional arrangement to manage faecal sludge treatment plants	<ul style="list-style-type: none"><li>Understanding on institutional arrangements – role and responsibilities of stakeholders.</li></ul>	Avinash Y.Kumar, National Institute of Urban Management

2:30 – 4:00	Urban-Rural convergence-experience sharing from Dhenkanal, Odhisa	<ul style="list-style-type: none"><li>• Virtual visit to Dhenkanal FSTP.</li><li>• Online discussion on Urban-Rural convergence.</li></ul>	Smruti Das, Dhenkanal, Odhisa
	District level planning	<ul style="list-style-type: none"><li>• Description on implementation framework.</li><li>• Group Exercises.</li></ul>	Ravi Kumar and Swati Bhatia, CSE
3:30 – 3:45 Tea Break			
Module 5: Reuse of by-products			
4:00 – 5:30	Characterisation of faecal sludge	<ul style="list-style-type: none"><li>• Lab Visit- To understand how the quality influence the selection of treatment technology to be adapted</li></ul>	Arvind Senger, CSE
5:30 – 6:30	Reuse standards	<ul style="list-style-type: none"><li>• Understanding of standards necessary for various reuse options.</li></ul>	Arvind Senger, CSE
End of day 3			
Day 4: 29/04/2022			
Module 6: Management of dry waste			
9:30 – 11:45	Dry waste management	<ul style="list-style-type: none"><li>• Dry waste management-reduction on plastic waste- probable solutions.</li></ul>	Atin Biswas, CSE
11.45 – 1:00	Group activities	<ul style="list-style-type: none"><li>• Presentation of group exercises.</li></ul>	Ravi Kumar and Swati Bhatia, CSE
1:00 – 01:30	Feedback and certificate distribution.		Gita Kavarana, Head, AAETI
Lunch and dispersal			
Day 5: 30/04/2022			
7:00 – 3:00	Field Trip: Lalsot FSTP		

**Contact:**

Shivangi Agarwal, Research Associate  
**Mobile:** 9599426168, **Email:** shivangi.agarwal@cseindia.org



Centre for Science and Environment  
 41, Tughlakabad Institutional Area, New Delhi-110062  
 Phone: 011-29956110, 29955124-25  
 Fax: 011-29955879