

JUNE 2020 to DECEMBER 2021 | ISSUE 1

PROJECT UPDATE SERIES

A quarterly update

SKILL DEVELOPMENT IN FSSM SECTOR IN INDIAN TOWNS AND CITIES

About the Project

Over 48 percent of urban households in India depend on on-site sanitation (OSS) facilities and only 32.7 percent of households (Census 2011) are connected with sewerage network and rest all on OSS systems. Water and sanitation infrastructure facilities available in India are already stressed and there are no treatment facilities in majority of towns/cities. The desludged septage / fecal sludge (FS) from the OSS systems are often dumped in open environment especially in water bodies.

In the recent years, fecal sludge and septage management (FSSM) is gaining importance that has led to significant momentum in terms of Government rolling out programs and funding support for implementing FSSM infrastructure. However, there are no mainstream programs or initiatives yet that assess and build the capacities of decision makers and implementing personnel at the ground level. Many Government staff working with urban local bodies are still unaware of the realm of FSSM and its approaches.

The Project “Skill Development in Fecal Sludge and Septage Management (FSSM) Sector in Indian Towns and Cities” aims to increase the number of skilled professionals in the water, sanitation and hygiene (WASH) sector at state, city and town levels across India and enhance access to people in safely managed disposal services through FSSM. In order to achieve this, WASH Institute is carrying out various capacity building trainings/certificate courses on FSSM across India through classroom training/online training. Water Sanitation and Hygiene Institute (WASH Institute) is the implementing agency and United States Agency for International Development (USAID) as the funding partner. The project duration is three years from July 2020 till July 2023.

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The capacity building initiatives are targeted to support activities to address the knowledge gap in the sector. The key objectives of the project are as follows:

1. Building capacities of government workforce involved in FSSM & Wastewater management for effective service delivery
2. Enabling a sustainable ecosystem of skilled workforce for FSSM & Wastewater Management by engaging NGOs, private & public sector professionals
3. Fostering a multi-stakeholder partnership, leading to increased private sector engagement & investment in FSSM & Wastewater Management

Project Initiatives

Capacity Building (Short-term Trainings)

1. Tailor-made trainings for ULB officials to prepare an implementable CSAP and CSWAP to achieve effective citywide sanitation
2. Tailor-made trainings focusing on dissemination and further understanding of SBM-U (2.0) guidelines
3. Orientation training of State and ULB level officials for effective Used Water and Fecal Sludge Management
4. Advanced Training for used water and FSSM, where participants supervise the construction of a STP / FSTP based on local conditions
5. Flagship trainings conducted for NGOs and other Non-Profits working in the WASH sector, specially at grassroot level
6. Tailor-made trainings for college students for orientation towards fecal sludge and used water management and SBM-U (2.0)

Capacity Building (Long-term Trainings)

1. One-year PG. Diploma in Sanitary Inspector's Course. This course provides skills in Public Health Administration & Special Sanitation Problems
2. Two-years Diploma Course in Health Inspector / Sanitary Inspector / Multipurpose Health Worker. In this course, participants gain knowledge and skills pertaining to Sanitation, Health, Nutrition and Hygiene
3. One-year PG. Diploma in Water and Wastewater Quality Management (Approved by Madurai Kamaraj University). It is a semester-based course aimed to capacitate participants design & operate domestic & industrial water and wastewater treatment systems
4. One-year PG. Diploma in Non-Sewered Sanitation (Approved by Madurai Kamaraj University). The course envisages to create a cadre of professionals capable of identifying, formulating, designing and investigating complex sanitation problems

Skill Development

1. Emergency Response Sanitation Unit (ERSU) Training for Sewer Entry Professionals. The participants are made aware of the latest Standard Operating Protocol (SOP) to be followed as per the directives of the ERSU Advisory with practical trainings
 2. "Wastewater Treatment Plant Technician – Operation & Maintenance" Three-months placement-based Skill Training & Certification. The participants are skilled to operate, monitor and maintain STPs / FSTPs
 3. Recognition of Prior Learning (RPL) of Sanitation Workers. The participants learn the methodology for cleaning of public areas and buildings, washrooms with mechanized equipment.
 4. RPL of Desludging Operators. The participants are made aware of the SOPs leading to enhanced preparedness, knowledge levels and the safety conditions by way of conducting mock drills.
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LMS for e-learning creates a buzz

Successful use of LMS to deliver online training and facilitate e-learning:

Since August 2021, 18 trainings have been conducted using learning management system (LMS) linked to www.washacademy.org and 750 number of government officials have been trained. This unique initiative has been awarded by Brandon Hall Group. Efforts made for Change Transformation for learning, Games and Simulations and Content Customization have been recognized and awarded giving the e-learning modules a boost.



**Best learning Program
Supporting a Change
Transformation Business
Strategy**



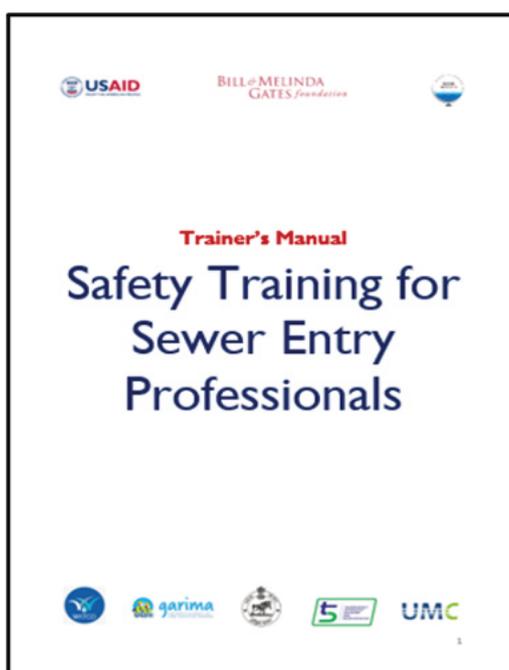
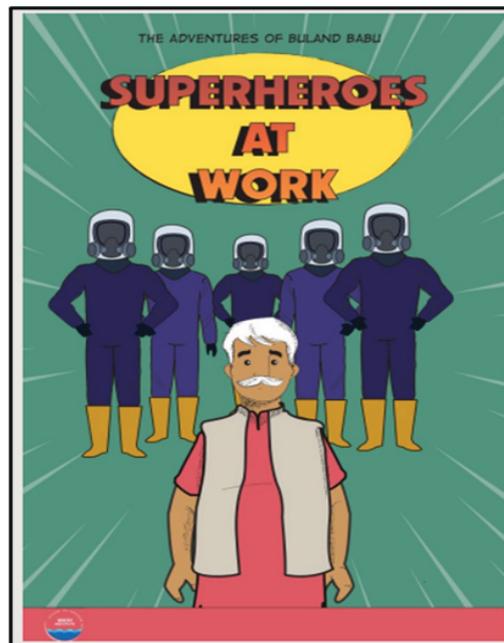
**Best use of Games and
Simulations for Learning**



**Best Advance in Custom
Content**

Training Manuals in local languages reach a larger audience

1. A training manual titled ‘**Trainer’s Manual – Training for Sanitation Workers**’, in line with the Government of India’s Safaimitra Suraksha Challenge has been developed to build the capacity of future trainers in order to train as many sanitation workers as possible under the aegis of the national level programme. These modules have also been translated into Tamil and Odiya for wider reach.
2. A comic book titled ‘**SUPERHEROES AT WORK**’ was created for the Sewer Entry Professionals of Odisha state, consisting Government of Odisha’s Emergency Response Sanitation Unit (ERSU) advisory and Standard Operating Procedures (SOPs) for safe maintenance of a sewer or septic tank. The book has been developed in both English and Odia languages for wider reach.



3. A training manual titled ‘**Trainer’s Manual – Safety Training for Sewer Entry Professionals**’ has been developed by WASH Institute in collaboration with Odisha Water Academy (OWA) and the Technical Support Unit (TSU) – Garima. This manual consists of lesson plans for plenary sessions, standard operating procedures to be followed for sewer entry and the circumstances in which it is permitted among other aspects that need to be kept in mind for the safety of Sewer Entry Professionals and successful delivery of such a training.

4. Apart from this, in consultation with various NSFSSM Alliance partners, WASHi team streamlined and curated training contents for FSSM related training modules such as SBM-U 2.0 Guidelines, AMRUT 2.0 Guidelines, Integrated Wastewater Management, Orientation on FSSM, and Issues & Practices in Waste Management, to name a few.

Reaching target through partnerships

Partnerships with Government departments, Parastatal agencies, Academic institutions and Private organizations supported us to implement these trainings across the country. These partnerships helped us to reach our target numbers in terms of the project and for wider reach in terms of beneficiaries.

In order to train the government officials across the state of Karnataka and Kerala, WASHi partnered with the respective state governments. In addition to this, partnership with local level training institutes such as RCUES, Lucknow and ESCI, Hyderabad was formulated to work with them in building the capacities of the Government resource in their implementation areas. Partnership with NMCG supported us in delivering trainings related to wastewater management and FSSM in Uttar Pradesh and Bihar.

Similarly, collaborations with Ernst & Young (EY), Odisha Water Academy (OWA), Orissa Water Supply & Sewerage Board (OWSSB), The Centre for Advocacy and Research (CFAR), Madurai City Corporation and Chennai City Corporation also gave results and were able to deliver flagship training of Sanitary workers in Odisha and Tamil Nadu respectively.

Discussions were held with Delhi Skill and Entrepreneurship University to explore areas of mutual collaboration to scale up the post graduate and certificate courses. Similar discussions were held with AIILSG (All India Institute of Local Self Government) to scale up post graduate courses. Discussions were held with the TSU team of UNICEF, to support FSSM scale up in Chhattisgarh.

Online and Classroom trainings for various target groups

So far, 34 short-term capacity building trainings has been conducted benefiting 2,166 stakeholders including Mission Directors and other State-level Officials; Mayors and Councillors at the ULB level; Health Officers and Sanitary Inspectors from the ULBs; Technical Officials of ULBs; Academic and Training Institutions; Project Management and implementation units; Administrative Officials of the ULBs; NGOs, CBOs, SHGs and other Non-Profits (refer Table).

| S. No. | Trainings | Location | No. of trainings | No. of beneficiaries |
|--|---|---|------------------|----------------------|
| 1. | Orientation trainings of State & ULB level official for effective Fecal Sludge, Septage and Used water management | Assam, Gujarat, Jharkhand, Karnataka, Kerala, Maharashtra, Madhya Pradesh, Tamil Nadu, Uttar Pradesh | 13 | 771 |
| 2 | Advanced Trainings for FSSM | Andhra Pradesh, Chhattisgarh, Delhi, Goa, Jharkhand, Kerala, Madhya Pradesh, Maharashtra, Tamil Nadu, Telangana | 4 | 287 |
| 3 | Tailor-made trainings focusing on dissemination & further understanding of SBM 2.0 guidelines | Assam, Bihar, Jharkhand, Madhya Pradesh, Uttarakhand, Uttar Pradesh | 11 | 650 |
| 4 | Flagship trainings conducted for NGOs & CBOs working in the WASH sector, specially at grassroot level | Andhra Pradesh, Bihar, Chhattisgarh, Delhi, Gujarat, Haryana, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh, West Bengal | 2 | 135 |
| 5 | Tailor-made trainings for college students for orientation towards fecal sludge and used water management and SBM 2.0 | Andhra Pradesh, Bihar, Chhattisgarh, Delhi, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Maharashtra, Odisha, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh, West Bengal | 4 | 323 |
| Capacity Building Trainings (Total) | | | 34 | 2,160 |

Training Feedback:

"I have enjoyed the interactive modules, frankly I must say these modules forces the learner to be active enthusiastic and alarmed. Case studies are fantastic, hope to enroll for more such courses."- Mr. Vikrant

"It was wonderful being part of the 5-day training program, organized by the concerned State SBM Team along with training partner WASH Institute. It's always been a pleasure learning new things and I really feel that no matter what you do learning is something from its principle. Anticipating more such programs."- DSBM(G), Adilabad District, Telangana.

The collage consists of three screenshots from Zoom meetings. The top-left screenshot shows a Zoom meeting interface with a grid of participants and a 'Communication Tools' sidebar. The top-right screenshot shows a Zoom meeting with a slide titled 'Treatment Systems' and a list of participants. The bottom screenshot shows a Zoom meeting with a slide titled 'Urban Sanitation situation in India, 2011' and a list of participants.

Urban Sanitation situation in India, 2011

Containment → Emptying → Transport → Treatment → Reuse/Disposal

26% WC → 89% On-Site Facility → 85% Oo / Open Discharge

18% Domestic Environment, 7% Agriculture field, 26% Receiving Wazans

12% Reuse/Disposal, 83% Focus on sewerage has led to only 33% coverage

With 80% untreated disposal

How do we provide sanitation for all? A paradigm shift is needed

West Bengal Situation

Used water generation – 5,457 MLD
Treatment capacity – 1,202 MLD (65 STPs) [22%]
Utilized capacity of STP – 337 MLD [6%]

Training Feedback:

"The online training program on FSSM which started from 9th April and ended on 21st April 2021 was very well organized. The topics covered were helpful. Even though we couldn't attend all the classes, the uploaded ppt and video in LMS has helped us to gather more knowledge. The course coordinator has strived and dedicated her level best to get connected with all the participants and many thanks to WASH Institute for giving us a very good platform to get connected and learn more subject knowledge. Hope to be part of more such online trainings in future."

Shabarinath Rai
Assistant Executive Engineer (Env.), CMC Puttur

With respect to Skill Development, 28 trainings have been conducted benefiting 1,355 stakeholders including Sewer Entry Professionals; Treatment Plant Operators; Vehicle Operators; Conservancy Staff; Waste Pickers; Scrap Vendors; Kabbadiwalas (refer Table).

| S. No. | Trainings | Location | No. of trainings | No. of beneficiaries |
|--------|---|--|------------------|----------------------|
| 1. | Emergency Response Sanitation Unit (ERSU) – Training for SEPs | | | |
| 2 | “Wastewater Treatment Plant Technician – Operation & Maintenance” Three-months Placement-based Skill Training & Certification | Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh | 28 | 1,355 |
| 3 | RPL for Desludging operators | | | |
| 4 | Recognition of Prior Learning (RPL) of Sanitation workers | | | |





Training Feedback:

“Recently I had the opportunity to attend the orientation program for FSSM by WASH institute. I am obliged for the opportunity given to me as the sessions were so informative and eye opening. Special mention to the LMS format which facilitated revisiting the session content and extra information provided with beautiful videos of best practices and methodologies proved to be assets for professionals in the sector. Tests, Surveys, and activities maintained the enthusiasm and interest to the topic with giving opportunity to self assess the leaning levels. I hope more sessions will be provided in advance learning of the topic and take the opportunity to thank all who are part of this from presenters to facilitators for giving such a fabulous training experience.”



Rahul N, UIE, CMMU, AMRUT Mission Thrissur, Thrissur Municipal Corporation



Training Feedback:

“I have learned something new in this session. It’s most useful session for all the girls. Toilets is must need for all especially for women. Thank you for making me understand about this problem”- Ms. Yuvashree (student-3rd Year B.Sc. Chemistry).

“We really enjoyed. Nice session. We got more information. Superb explanation.”
 - Ms. Kokia (student-3rd Year B.Sc. Chemistry)

Certificate Courses give weight to skill development

Certificate course on skill building of Wastewater Treatment Plant and Fecal Sludge Treatment Plant operators:

This course conducted during December, 2021 – March, 2022 is a three months skilling and certification program that aims to create a pool of skilled workforce who can efficiently manage the O&M of existing, as well as future Wastewater Treatment Plants (WTP) and Fecal Sludge Treatment Plants (FSTP) across various ULBs in Indian cities/towns. WASH Institute has collaborated with Pune based KAM Foundation and Professor Ramakrishna More Arts, Commerce & Science College to conduct this programme. This certificate course curriculum is in line with the National Skill Development Corporation (NSDC). The first batch consisting of 31 students have completed this course recently, and 12 students of this batch have already got job offers.



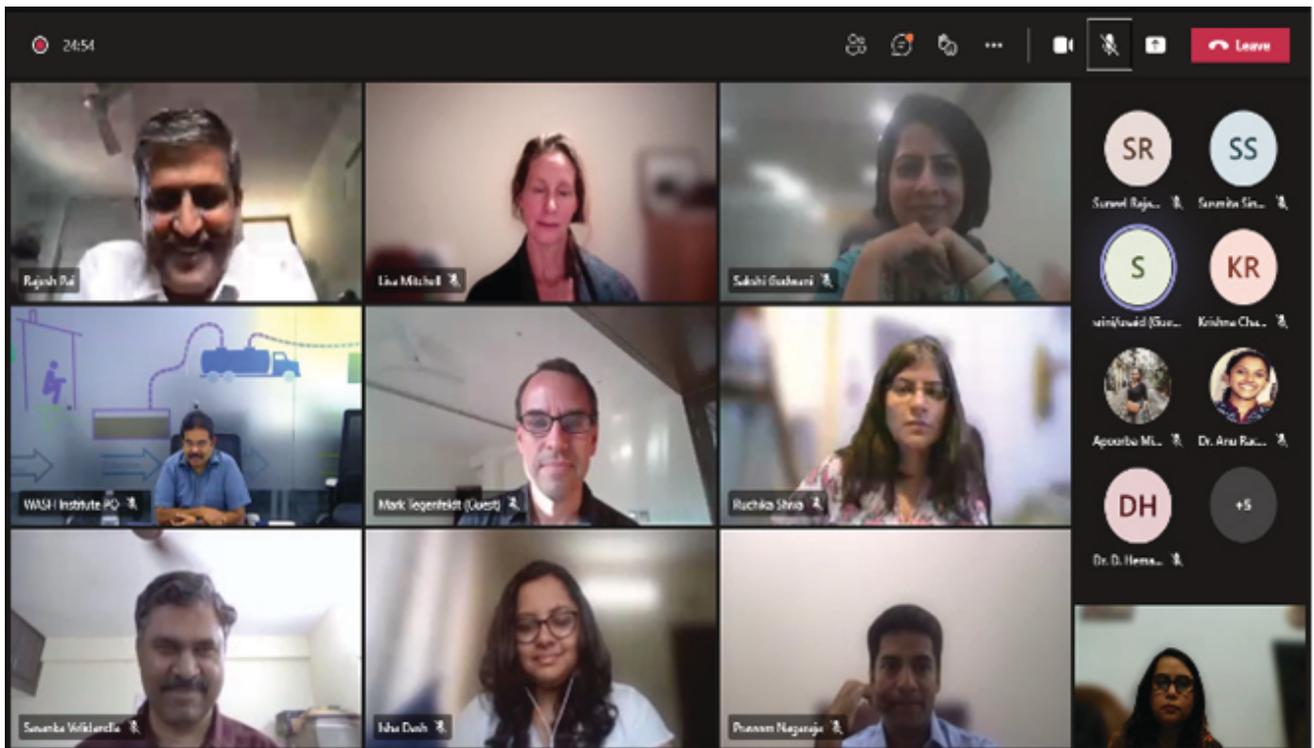
Making sanitation a subject of interest for graduate courses

Post Graduate Diploma in Water & Wastewater Quality Management (PGD-WWQM) and Non-Sewered Sanitation (PGD-NSS): These two courses aim at imparting knowledge as well as skills on principles and practices of wastewater & fecal sludge and septage management. This course is being conducted during October, 2021-2022 and has been recognized by the Madurai Kamaraj University in August, 2021. For the first batch started in October, 2021, a total of five students were enrolled in the PGD-WWQM course. The PGD-NSS course did not get students enrolment for the first batch.



Consultations and reviews to assess and improve

- 1. Advisory Committee Meeting:** The Second Advisory Council Meeting held on 25 August, 2021 provided an update on the work completed in the previous months, and to discuss and take suggestions on strategies and activities planned for the forthcoming period. The meeting was attended by Ms. Lisa Mitchell and Mr. Suneel R from CAWST, Mr. Mark Tegenfeldt and Mr. Srinivasan R K from USAID, Ms. Rucjika S from IRC, Ms. Sakshi G from BMGF, Ms. Susmita S, an independent consultant and the WASH Institute project team.



- 2. Annual Review and Planning Meeting (ARMP) – WASH Academy:** The meeting conducted at WASH Academy in Dindigul from September 13 – 17, 2021 for the project staff and senior management brainstormed the plan of action needed for the upcoming year, trainings to be offered to stakeholders, and reviewed the past year's performance. The opportunity was also used to understand the gaps and opportunities existing in the Skilling Sector in India. There is a lack of recognition of skill needed in the sanitation sector especially in FSSM, opportunities to work with the National Skill Development Council and Skill Council for Green Jobs were explored during this week-long meeting. The meeting was also combined with exposure visits of project staff to FSTP plant and meeting with various community-based sanitation projects.



3. **DMA Karnataka visit to FSTP:** Karnataka government is in the process of implementing FSM for ULBs in the State for AMRUT towns. In this regard, WASH Institute offered to facilitate an exposure visit to key officials from the Directorate of Municipal Administration (DMA), Government of Karnataka, to the FSTP at Periyanaickenpalayam, in Coimbatore District of Tamil Nadu. The visit was conducted on 28th September and was organized with the support of Indian Institute of Human Settlements (IIHS), Keystone Foundation and Tide Technocrats.



4. **Conversations around Capacity Building in WASH – with WASH Institute, NIUA, USAID and BMGF:** The brainstorming session held on 07 October, 2021 discussed the work NIUA and WASH Institute are doing in the WASH sector, especially in the area of skill development and capacity building and the gaps in the sector that can be bridged with collaboration of the institutions.
