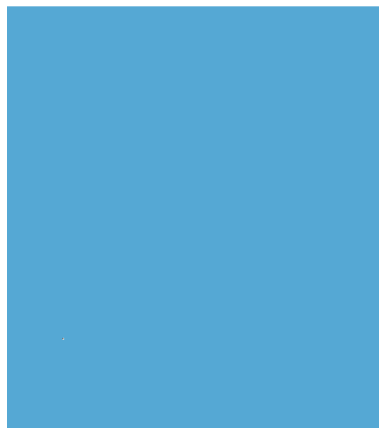
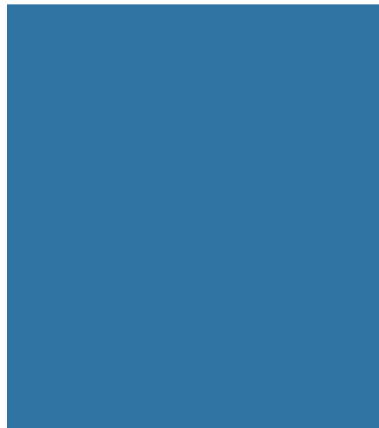


Workshop For Academic Institutes On Faecal Sludge and Septage Management



Workshop Report

March, 2018

CEPT
UNIVERSITY

p a s performance
assessment
system

C-WAS
Center for Water
and Sanitation

NIUA
National Institute of Urban Affairs



Workshop for Academic Institutes
On
Faecal Sludge and Septage Management

6th-7th March, 2018

Ahmedabad

Workshop Report

Introduction

Sanitation has been on the forefront of development agenda in India. The Government of India's Swachh Bharat Mission and AMRUT program have focused on eradicating open defecation and providing proper sanitation infrastructure in the cities. In India, only a few cities have total coverage of sewerage network. In most cities with sewer network, the coverage is partial. On the other hand, a large number of cities are fully dependent on onsite sanitation systems. The Government of India(GoI) also realized that eradicating open defecation is only half the battle; for improving the sanitation situation of a city, the faecal sludge and wastewater generated from on-site sanitation systems also needs to be managed.

In this regard, Government of India, Ministry of Housing and Urban Affairs, has issued a National Faecal Sludge and Septage Management Policy. In recent years, there is an increasing amount of work being done on Faecal Sludge and Septage Management (FSSM). However, a lot more work is needed.

There is also a dearth of qualified professional who can deal with FSSM issues. There is an urgent need to impart skills and knowledge about FSSM to students of Engineering, Planning and other allied disciplines.

It was in this background that Center for Water and Sanitation (CWAS) at CEPT University under NIUA Sanitation Capacity Building Platform (SCBP) organized two day workshop with academic institutes on FSSM in Ahmedabad on 6-7th March 2018.

The two day workshop, organized by NIUA and CEPT University aimed to apprise the faculties of the academic institutes in FSSM. Participants from around 17 renowned universities across India attended the workshop. The participants discussed key aspects of FSSM and designed a course outline on FSSM for their institute.

Highlights:

- The workshop informed participants about the need of FSSM in the present context of sanitation situation in the country and discussed issues related to each component of FSSM service chain.
- In a short span of the workshop duration, the participants managed to develop a course outline on FSSM. In the discussion they enumerated the challenges and opportunities in introducing the FSSM course in their respective institutions.
- The training proved to be catalyst for the participants, enabling them to network over a topic that they had not discussed before and gain comprehensive understanding of FSSM.

Day-1 Session details

A brief introduction was provided about Centre for Water and Sanitation(C-WAS), CEPT University and NIUA Sanitation Capacity Building Platform (SCBP) under which this workshop was organized.

The workshop began with an ice-breaker exercise called **“Flush and Follow”**. In this exercise participants were asked to discuss on “What happens after you flush the toilet?” Each participant was asked to trace it as far as they could. They were told to write it for their own cities along with what they thought is happening in the small cities (i.e. small city with a population of 50,000). Each participant described the situation as they understood. While majority of the participants described their post flush process to be heading in the sewers, they understood the dominance and importance of onsite sanitation in India when discussing the case for small cities. From this exercise participants were introduced to the idea of safe sanitation and importance of faecal sludge and septage management.

Session-1: FSSM- in Indian Context

This session focused on setting the context of workshop and gave overview of training objectives. The session briefed about the importance of safe sanitation in the context of SDG 6.2, and the FSSM situation in India. It highlighted the recognition of FSSM in national policy and in national programs of SBM and AMRUT. In this session various FSSM terminologies were explained. The participants were also briefed about the different technological options across the sanitation value chain. At the end of the session, participants were shown a video on “Implementing FSSM in India – a case of Sinnar”.

Session-2: FSSM course in other universities

This session briefed the participants about the FSSM courses being offered across various platforms. In this session participants were introduced to the existing FSSM courses in various institutions

abroad. Brief description was provided of online course offered by EWAG, the proposed one-year degree programme at IHE-Delft; and the proposed two-year degree programme at CEPT. The Participants were introduced to a didactic toolkit that provides guidance to development of new course outlines that has clear objectives and outcomes. The FSSM toolkit developed by CEPT University was introduced to participants to understand the process of preparation of a FSSM plan. .

[Link to the presentation of session 1 and session 2.](#)

Session-3: Group discussion: Design of a FSSM course outline

In this session, participants were divided in three groups. Each group was asked to design a course on FSSM. The course options could be:

- A subject/module in a degree programme
- A professional certificate programme of short duration
- A degree programme on FSSM at UG/PG level

The groups were asked to reflect on following key points to formulate a course outline:

- What are the course learning objectives/outcomes? Identify 3-5 general outcomes for the course
- Choose appropriate teaching strategies to achieve learning outcomes
- Course structure
- Course outline (describe each module/ subject in as much detail as possible)
- Identify Resources: Who/What can help? What resources do you need (and can you get) to support each of the outcomes listed in #2?
- What will be the student intake? (education/ experience/ pre-requisite knowledge (if any))

First two groups made course outline for one Subject/Module in a semester on FSSM and the third group made outline on professional training certificate course on FSSM.

Key points from discussion:

- Discussion on duration of the course: Participants discussed that initially this course could be introduced as an elective subject for a semester and then later based on the success of the course (based on student intake and interest) the course can be introduced as a core subject.
- Most participant stated that a new course would have to go through an approval process of the university. In this context, they felt that it would be easier to introduce an elective course on FSSM.



Photo Plate Day 1

Day-2

Session-4: Design a course on FSSM: Presentation by each group

Each University/institution team was asked to present their own proposed course outline. They were asked to develop a detailed course outline according to their university system and norms.

All 17 institutions presented their course outlines. . Each university tried to fit the FSSM course according to their university's norm

Most planning institutions proposed FSSM course of 3 credits as a part of the existing programme at UG level, or as an elective at the PG level. Engineering colleges proposed a three credit course as an elective in 4th or 5th semester in B Tech. and in M.Tech program in Environmental and Water Resource Engineering. Architecture departments proposed a course in third semester (fundamentals of FSSM) and fourth semester (Technical and Design of components of FSSM as per policies and guidelines) of B.Arch. A social science institute proposed an introductory course on FSSM for PhD Students of Social Science. After each presentation participants shared their views and feedback.

Key points from discussion:

- The participants discussed about the challenges they foresee to introduce this course in the curriculum. The challenge related to availability of funds to run the course, student intake, meeting threshold number of students, getting expert faculties, additional infrastructure for the courses- space, labs and studios and course outreach.
- They suggested that NIUA should conduct an orientation workshop for the HODs to sensitize them towards FSSM course. This will help to 'open the door' on FSSM in their university.
- It was suggested that topics on manual scavengers, gender issues related to sanitation stigma of reuse treated septage etc. should be incorporated in the course outlines.
- Many universities requested NIUA and CEPT to share the resource materials.

[Link to the group discussion presentations and presentations made by different universities.](#)

Conclusion

At the end NIUA assured support to the institutes. More specifically, NIUA outline following support.

- NIUA will support the universities to develop one course on non-network sanitation that can be integrated within an existing Semester/Credit Course/Module.
- NIUA will meet with Dean or VCs to promote FSSM courses.

- Resource materials on FSSM are provided to all participant in the pen drive provided by CEPT. It was suggested that these materials should be used during course delivery. It was suggested that participants to visit CEPT website <http://www.pas.org.in> and SCBP website : www.scbp.niua.org
- NIUA will help the institutes with guest lectures. They will call experts from SCBP partners like CEPT University etc.
- NIUA may support the students from various universities to do internship and/or dissertation on FSSM. Universities can put up proposals for funding support for Studios/Fieldwork/Research work.
- SCBP will help universities to organize introductory workshop/conference/seminar on FSSM
- They will facilitate the help of the private consultant partners to conduct a professional training programs like training on preparing FSSM DPRs, developing short term professional certification courses and seminars for working professionals like :
 - a. Private sector and ULB staff of state government.
 - b. Skill upgradation for Alumni and NGOs and any others interested
- As many universities expressed their interest to conduct the summer schools, NIUA informed the participants about the “Summer School” short courses on decentralized sanitation organized by Manipal University and suggested that they should encourage students to take part in such courses.

The workshop concluded with vote of thanks to all participants and certificate distribution.

The Way Forward

- During the workshop, many universities agreed to introduce a subject on FSSM in one semester from new academic year. NIUA and CEPT agreed to provide them support in developing course outline and putting together resource material.
- An orientation workshop in few institutions that have expressed interest may further aid in introducing FSSM course in these institutes.
- Short term professional program may be taken up with few universities
- Follow up meet after a month or two with universities that will introduce the FSSM course to gauge the response of students, experience of training faculties, pedagogical style, challenges in terms of suitable reading materials, expert faculties, etc.

Site Visit: STP at Rasalla nursery, Law garden

The participants visited 1 MLD STP (Sewage Treatment Plant) at Rasalla nursery, Law garden. This STP treats the waste water tapped from main sewer line, about 80-100m away. Approximately 0.6 MLD, 0.35MLD and 0.05MLD treated waste water is reused for tree plantation in Parimal garden (1.3 km away from the campus), Law garden (0.6 km away from the campus) and Rasalla nursery respectively. Also sludge generated from the STP is utilized as manure in gardens.



Photo plate 2

Annexure

Annexure 1: Workshop Agenda

CEPT University

Center for Water and Sanitation

Workshop for Academic Institutes on Faecal Sludge and septage management

Venue: Fortune Landmark Hotel, Ahmedabad

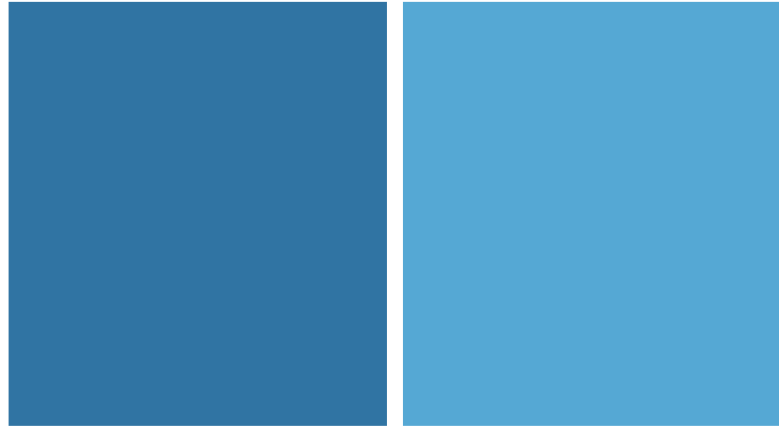
6-7th March, 2018

Time	Sessions
9:30 – 10:00	Registration
Day 1	
10:00-10:30	Welcome and Introduction
10:30-11:30	FSSM in Indian Context
11.30 – 12.00	Tea break
12:00-13:00	FSSM courses in other universities
13:00-14:00	Lunch
14:00-16:00	Group Discussion: Design of a FSSM course outline
16:00-16:30	Tea Break
16:30-17:30	Presentation by each Group
17.30-17.45	Wrap-up
DAY 2	
09:30-10:00	Recap of Day 1
10:00-12:00	Each University/Organization to present their proposed course outline
12:00-13:00	Discussions and Way Forward
13:00-14:00	Lunch
14:00-17:00	Field visit and departure

Annexure 2: List of Participants

Sr. no	Name of contact person	Designation	Email id	Name of Institute
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The Center for Water and Sanitation (C-WAS) at CEPT University carries out various activities – action research, training, advocacy to enable state and local governments to improve delivery of services. In recent years C-WAS has focused its work on urban sanitation.

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