

## INTRODUCTION TO FAECAL SLUDGE MANAGEMENT

**LENGTH: 2 to 3 days**

### WORKSHOP DESCRIPTION

Sanitation aims to protect and promote public health by safely managing human excreta, providing a clean environment, and breaking the cycle of disease. On-site sanitation technologies (like pit latrines, septic tanks) are an essential component of sanitation, but sanitation is more than just building latrines. It is a system that addresses human excreta from the moment it is generated, through to its treatment and use. Faecal sludge management focuses on the last three components of a sanitation system: faecal sludge collection and transportation, treatment, and its ultimate use. This is often called the faecal sludge service chain.

In this workshop, participants will learn about faecal sludge management for low-income communities not connected to a sewer. The workshop provides participants with an overview of technologies for faecal sludge collection, transportation, treatment, and use. It also introduces planning and management of faecal sludge management systems.

The workshop was developed in collaboration between CAWST (the Centre for Affordable Water and Sanitation Technology) and Eawag-Sandec (Department of Sanitation, Water and Solid Waste for Development at the Swiss Federal Institute of Aquatic Science and Technology). CAWST provides technical training and consulting services to organizations that implement water, sanitation and hygiene (WASH) projects in developing countries. Eawag-Sandec is a leader in faecal sludge management research and implementation at a city-wide scale, and has published numerous scientific papers and books on this topic.

### OBJECTIVES

The overall goal for this workshop is for participants to be able to apply concepts of sustainable faecal sludge management at a community or city-wide scale. Upon completion of the workshop, participants will be able to:

- Discuss the importance of faecal sludge management to protect public health and the environment
- Describe faecal sludge management in relation to the entire sanitation service chain
- Describe the design approach for the sanitation service chain
- Identify different faecal sludge collection and transportation technologies
- Identify different faecal sludge treatment technologies
- Identify different options for the safe use or disposal of faecal sludge treatment products
- Identify common faecal sludge management implementation challenges and discuss solutions
- Discuss a planning approach for faecal sludge management
- Establish a network of contacts with other faecal sludge management practitioners

## METHODS OF INSTRUCTION

Participatory approaches are widely used to engage and actively involve everyone in the workshop. Effective learning often comes from shared experiences and participants learning from each other. Much of the workshop content is delivered through interactive presentations, group activities, discussions, scenarios and case studies. Active participant engagement in all learning activities is encouraged.

## CONTENT

The following is a tentative list of the topics covered in the workshop material. A specific agenda will be developed for the training based on consultations with the organizer and participants.

### Theory

- Characteristics of excreta and faecal sludge, and the difference between faecal sludge and wastewater characteristics
- Global and local faecal sludge management issues
- Risks of faecal sludge management in relation to public health and the multi-barrier approach
- Faecal sludge management in relation to the entire sanitation service chain
- Design approach to arrive at a sustainable faecal sludge management solution
- Different manual and mechanized methods to collect faecal sludge from on-site sanitation technologies and transport the faecal sludge for treatment
- Faecal sludge treatment objectives and technologies
- Common operation and maintenance challenges of faecal sludge treatment facilities
- Value of using faecal sludge treatment products
- Stakeholder analysis and engagement as a critical part of faecal sludge management
- Financial transfers and flow models for faecal sludge management
- Legal frameworks for faecal sludge management
- Integrated planning process for faecal sludge management
- Incremental improvement plans to reduce faecal transmission routes and implement a sanitation service chain

### Practical

- Identifying solutions to real life case studies
- Developing an incremental improvement plan for different scenarios
- Planning actions and next steps for after the workshop
- Participating in a field trip to visit local faecal sludge management technologies and systems (optional)

*Note: The following topics are outside the scope of this workshop:*

- *Design and construction of on-site sanitation technologies, like pit latrines or septic tanks. For more information on this topic, see CAWST's workshop on Latrine Design and Construction at: [www.cawst.org/services/training](http://www.cawst.org/services/training)*
- *Wastewater transported by a sewer system*

## **PARTICIPANTS**

The target audience of this workshop are practitioners in developing countries who are or will be designing, planning, promoting or managing faecal sludge management systems. Participants are expected to have basic knowledge of sanitation. The workshop does not go into detail on the engineering design of different faecal sludge management technologies.

Participation by women is encouraged. Preferably, two to five people from each organization would attend to ensure that they learn together and benefit most from the workshop.

## **TRAINING MATERIALS**

The following materials will be provided:

- Participant resources such as an Exercise Book and Fact Sheets
- CD or USB flash drive containing all material presented in the workshop and related resources