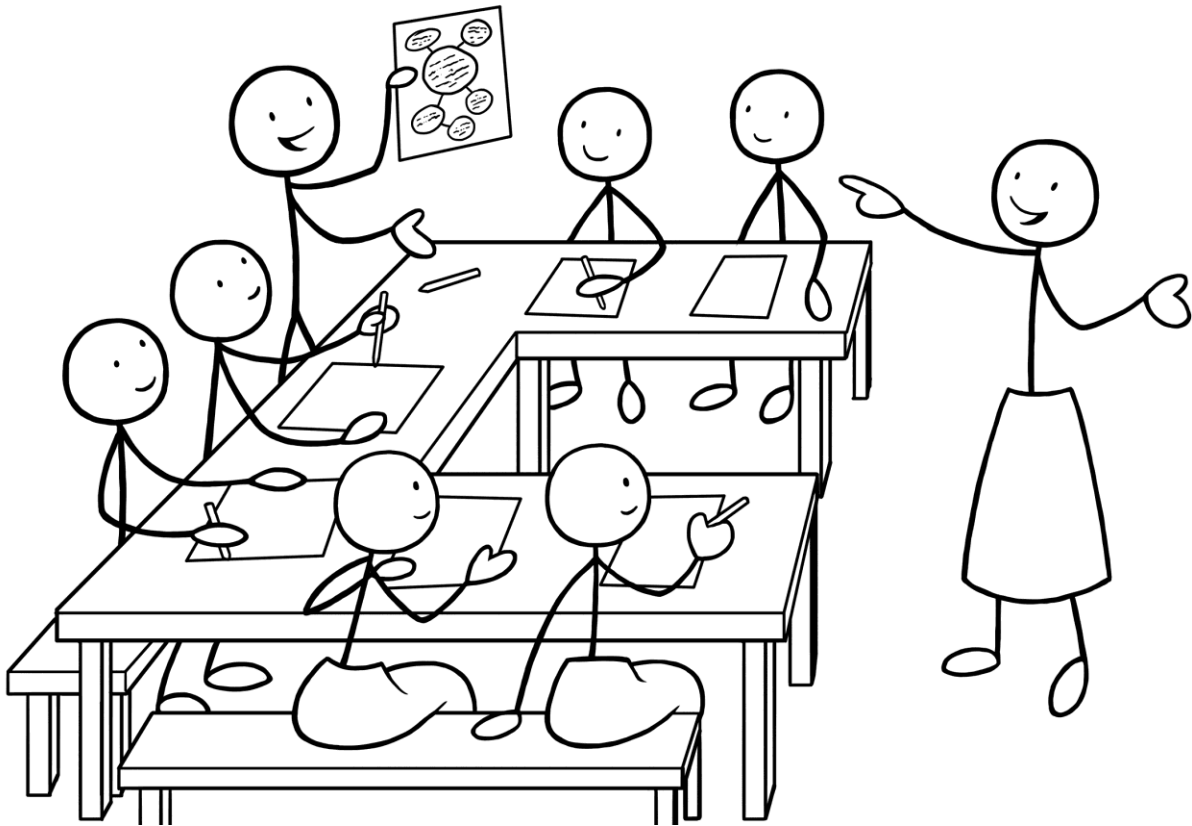


# CAWST Workshop Outlines

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# INTRODUCTION TO HOUSEHOLD WATER TREATMENT AND SAFE STORAGE (HWTS)

LENGTH: 1 to 4 days

## WORKSHOP DESCRIPTION

This workshop is designed for those interested in starting or strengthening household water treatment and safe storage (HWTS) projects in developing countries. It provides an introduction to water sources and contamination, the water treatment process, household water treatment and safe storage options, and selection criteria for choosing between options. Participants will use criteria to practice selecting locally appropriate treatment options using the multi-barrier approach for safe water. Implementation strategies and project planning steps for successful projects are discussed. Participants will be able to observe and practice correct use of treatment technologies.

## LEARNING OUTCOMES

Upon completion of the workshop participants will be able to:

- Discuss the importance of household water treatment and safe storage
- Identify different water sources, contaminants and water-related diseases
- Identify and select appropriate HWTS options
- Make informed decisions about planning and implementing HWTS projects

## PARTICIPANTS

The workshop is oriented towards participants who are:

- Working in water and sanitation, community development, or health projects
- Motivated to work with households in developing countries to provide safe water
- Currently implementing HWTS projects and motivated to expand, improve or strengthen their projects

Participants may be:

- Decision makers who are planning or considering HWTS projects
- Non-governmental organizations (NGO), international NGOs, government agencies, or individuals considering how best to provide safe water for a community
- Community leaders and community health promoters who inform and educate households on their options for safe water

This is an introductory level workshop. Participants will observe demonstrations and practice using various HWTS options. However, this workshop is not intended to provide full training on the construction of each technology.

Participation by women is encouraged. Preferably, 2 to 5 people from each organization would attend to ensure that they learn together and benefit most from the workshop.

## METHODS OF INSTRUCTION

This participatory style workshop includes theory, classroom exercises, open discussion, case studies, demonstrations, and hands-on practice. Active participant engagement in learning activities is encouraged.

## CONTENT

The following is a tentative list of the topics to be covered. A specific agenda will be developed for each workshop based on consultation with the organizer and the participant's needs.

- Similarities and differences between household water treatment and community water treatment
- The water treatment process and the multi-barrier approach to safe water
- Water sources, contaminants, and water-related diseases
- Household water treatment options for sedimentation, filtrations and disinfection
- How to use and maintain different HWTS options
- How to select HWTS options that are locally appropriate
- Different implementation strategies including creating demand, supplying products and services, monitoring for improvement, building capacity and program financing
- Planning a successful HWTS project

### **TRAINING MATERIALS**

The following materials will be provided to all workshop participants:

- Participant Manual
- CD containing all material presented in the workshop and related resources

# BIOSAND FILTER FOR TECHNICIANS

**LENGTH:** 3 to 5 days

## WORKSHOP DESCRIPTION

This workshop includes instruction and hands-on experience in construction of the biosand filter – including the concrete container, filtration sand and gravel, diffuser, and lid. The participant will gain a clear understanding of how to construct a filter, how to install the filter, and how to instruct end users on its correct use and maintenance.

Depending on participant needs and expectations, the workshop can be tailored to address specific issues and troubleshooting requirements. The agenda can be arranged to accommodate the group's learning needs, such as more time to focus on construction of the filter, background water treatment theory, or user education and follow-up.

## PARTICIPANTS

Participants may be individuals or groups who are:

- Working for an existing biosand filter project, but could use a refresher course or troubleshooting advice
- Planning a biosand filter project and want to learn how to properly construct and install filters
- Motivated and prepared to construct, install and educate users about biosand filters

Participants may be:

- Filter technicians who construct and/or install biosand filters, and who may educate and/or conduct follow-up visits with users
- Project leaders or engineers who have a hands-on role in the construction of biosand filters, troubleshooting, and/or the monitoring of biosand filter construction, installation and use
- Community health promoters or labourers who may be involved in some aspects of the construction and installation of biosand filters

It is an advantage if participants:

- Have basic skills related to constructing biosand filters, such as masonry (working with concrete)
- Are familiar with the biosand filter
- Are familiar with how drinking water treatment relates to health
- Have basic literacy skills

Participation by women is encouraged. Preferably, at least 2 people from each organization would attend to ensure that they learn together and benefit most from the workshop.

## LEARNING OUTCOMES

Upon completion of the workshop participants will be able to:

- Demonstrate how to construct and install a biosand filter correctly
- Describe the operation and maintenance of a biosand filter
- Select a suitable source of filtration sand and prepare it for installation in the filter
- Assemble and prepare the required tools and materials
- Describe the key operating parameters of the filter (those things that must be done correctly in order for the filter to work properly)
- Troubleshoot construction, installation and operation & maintenance of a filter - to identify if something is wrong with the filter and if so, to fix it
- Demonstrate how to conduct a follow-up visit
- Fill out monitoring forms for construction, installation and follow-up visits

## **METHODS OF INSTRUCTION**

The participatory workshop includes hands-on construction, demonstrations, classroom activities, theory and open discussion. Approximately one-third to two-thirds of the workshop is spent constructing and installing a biosand filter and troubleshooting, depending on the group's learning needs. Active participant engagement in all learning activities is encouraged. Learning methods for people with low literacy levels are accommodated.

## **CONTENT**

The following is a tentative list of the topics to be covered. A specific agenda will be developed for each workshop.

### Theory

- Transmission of water related diseases (water, sanitation & hygiene)
- Multi-barrier approach for drinking water treatment
- Biosand filter design and operation
- Safe water storage
- Water related diseases (optional)
- Household water treatment options (optional)
- Global and local water issues (optional)

### Practical

- Constructing, installing, operating and maintaining the biosand filter
- Selecting and preparing filtration sand
- Educating users and conducting follow-up visits
- Troubleshooting
- Record keeping (monitoring forms)

## **TRAINING MATERIALS**

The following materials will be provided:

- Biosand Filter for Technicians Manual with information on how the biosand filter works, and instructions on construction, installation, operation and maintenance
- CD containing all material presented in the workshop and related resources

# BIOSAND FILTER PROJECT IMPLEMENTATION

**LENGTH:** 4 or 5 days

## WORKSHOP DESCRIPTION

This workshop includes information and hands-on experience on the construction, use and monitoring of the biosand filter. The hands-on topics include checking the steel mold, making the concrete filter container, preparing filtration sand, installing filters and conducting follow-up visits. The participant will gain a clear understanding of the rationale behind the filter design and why proper preparation of the filtration sand is so important.

The construction sections of the workshop are balanced with interactive learning sessions in the classroom. The relationship between water, sanitation and hygiene (WASH) and health in developing countries is explored. Participants will learn about the role of household water treatment and the biosand filter in improving health, as well as effective ways to implement WASH projects. The trainer will lead the participants in investigating the challenges and opportunities that can present themselves during implementation of a biosand filter project. Integrated throughout the workshop are opportunities to discuss and begin planning a project.

Training of project staff and filter users is essential to ensure the proper and sustainable use of biosand filters in diverse regions of the world. This workshop is taught in a way that demonstrates concepts and tools that participants can later use to teach others in communities and households.

## PARTICIPANTS

Participants may be individuals or groups who are:

- Working in water and sanitation, community development or health projects seeking solutions for safe water
- Aware of the need for safe water and may have some familiarity with household water treatment
- Motivated and prepared to implement a biosand filter project
- Mid-level managers within their organization with the responsibility for organizing projects and making decisions
- Program organizers, community liaison people, technicians, front line supervisors, project managers, or project engineers

It is an advantage if participants:

- Are already starting to plan their biosand filter project
- Have a source of funding in place to begin implementation (as this will allow for immediate application of the knowledge gained in the workshop)
- Have the support of a committed organization which recognizes that a household water treatment program is beneficial for their local communities

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.

## METHODS OF INSTRUCTION

The participatory workshop includes theory, classroom activities, demonstrations, open discussion, case studies and hands-on construction activities. Approximately one-third of the workshop is spent constructing and installing a biosand filter. Active participant engagement in all learning activities is encouraged.

## LEARNING OUTCOMES

Upon completion of the workshop participants will be able to:

- Demonstrate how to construct and install a biosand filter
- Demonstrate the operation and maintenance of a biosand filter
- Describe the relationship between water and health
- Explain the need for education on household water treatment, hygiene and sanitation
- Describe the roles required in a project and how they relate to successful project implementation
- Describe how to successfully plan a biosand filter project
- Describe why and how to monitor a biosand filter project
- Establish a network of contacts including other program implementers

## CONTENT

The following is a tentative list of the topics to be covered. A specific agenda will be developed for each workshop.

### Theory

- Global and local water issues
- Water sources, contamination and environmental issues
- Water related diseases
- Transmission of water related diseases
- Sanitation and hygiene
- Multi-barrier approach to water treatment
- Household water treatment options
- Safe water storage and handling
- Gender considerations in WASH projects
- WASH and the needs of vulnerable people (may include mothers and children, people living with HIV/AIDS, the elderly, disabled people)
- Biosand filter design and operation

### Practical

- Constructing, installing, operating and maintaining the biosand filter
- Selecting and preparing filtration sand
- Troubleshooting
- Educating users and conducting follow-up visits
- Monitoring a biosand filter project

### Implementation

- CAWST model for roles in biosand filter projects
- Project planning
- Requirements for a successful biosand filter project
- Developing a plan and the next steps after the workshop

## TRAINING MATERIALS

The following materials will be provided:

- Biosand Filter Manual with instructions on construction, installation, operation and maintenance
- CD containing all material presented in the workshop and related resources



# MONITORING FOR BIOSAND FILTER PROJECTS

LENGTH: 5 days

## TRAINING DESCRIPTION

This training is the first step in setting up monitoring for a biosand filter project. The base of the training is on developing monitoring to fit the needs of a biosand filter project. The participants will also gain a clear understanding of why monitoring will contribute to the overall success of a project and how to monitor for improvement.

Monitoring is integral to a project to help identify what is working and what is not working. It is designed with fixing problems that arise in project implementation and how to make improvements in process and capacity for a greater level of success. As such, key stakeholders will actively participate in activities and discussion to design a monitoring plan that is specific for the project they are working on.

## CONTENT

The following is a tentative list of the topics to be covered. A specific agenda will be developed for each training depending on the needs of the organization.

### Theory

- Monitoring vs. Evaluation
- The benefits and challenges to monitoring
- The purpose of monitoring
- Developing a monitoring plan
- How monitoring fits into a project
- Logistics and resourcing needs

### Practical

- How monitoring is different than evaluation
- The purpose of monitoring
- How to collect the right information in the right way
- How to analyze information that is collected
- How to fix problems on the spot and/or organize follow up
- How to make improvements to activity processes and staff capacity
- How to communicate results and to who
- How to plan for project growth and scale up

### Implementation

- Develop indicators
- Develop monitoring forms
- Develop analysis and improvement systems
- How to integrate monitoring into project activities

## METHODS OF INSTRUCTION

Throughout the training, the theory of monitoring will be reinforced through the practical use of CAWST training materials. The training includes theory, practical components, participatory activities, and open discussion to share experiences. There will be opportunities for participants to prepare and practice monitoring techniques as part of the training. Active participation in all learning activities is required.

## LEARNING OUTCOMES

Upon completion of the training participants will be able to:

- Identify how monitoring fits into the project's logical framework model
- Adapt indicators that will measure the success of the project
- Establish a baseline to compare progress against
- Set SMART targets for each indicator
- Collect necessary information for analysis and identifying problems
- Use various methods and techniques to maintain reliability of the information collected
- Use monitoring forms to collect information at the biosand filter production site and in households
- Analyze the information collected to make conclusions on what is working and what needs to be fixed
- Make improvements by fixing existing problems and improving processes and staff capacity
- Create a flow chart to track how information will be managed and by who
- Anticipate the logistics and resources required for all monitoring activities
- Establish necessary roles and responsibilities
- Estimate existing capacity of current staff, staffing gaps and a capacity building plan
- Project how monitoring activities will be managed to grow with the project activities
- Budget how much monitoring will cost: human and financial
- Create an overall monitoring plan that will include all the details of the activities

## PARTICIPANTS

Participants will be chosen by the organization to include representatives from all key stakeholder groups:

- Biosand filter technicians
- Community Health Promoters
- Trainers
- Data management
- Supervisors
- Project manager
- End users (optional)

## TRAINING MATERIALS

The following materials will be provided:

- Participant Manual containing theory and practical exercises
- CD containing all material presented in the workshop and related resources

# INTRODUCTION TO DRINKING WATER QUALITY TESTING

**LENGTH:** 4 or 5 days

## WORKSHOP DESCRIPTION

This workshop is designed for those interested in conducting drinking water quality testing as part of the implementation, monitoring, or evaluation of household water treatment and safe storage (HWTS) or small community water supply systems projects in developing countries.

The workshop offers instruction on using portable test kits for testing the physical, chemical, and microbiological parameters of drinking water. Other topics to be addressed include health and safety; sanitary inspections; World Health Organization guidelines and national standards for drinking water quality; water sampling; different test methods for physical, chemical, and microbiological parameters; and interpreting and reporting water quality data.

The broader objective of this training workshop is to transfer knowledge and skills for participants to become familiar with different water quality test methods and understand the practicalities of implementing their own drinking water quality testing project.

## LEARNING OUTCOMES

Upon completion of the workshop, participants will be able to:

- Explain the purpose and scope of drinking water quality testing
- Define safe drinking water
- Describe different physical, chemical, and microbiological parameters of drinking water
- Find and interpret national standards and World Health Organization guidelines for drinking water quality
- Take a water sample from various sources
- Discuss different testing options, including observation, using portable test kits, and using a commercial laboratory
- Use portable water quality test kits to determine the physical, chemical, and microbiological quality of drinking water
- Use good techniques to maintain quality control
- Analyze and interpret water quality data
- Read and interpret a laboratory water quality testing report
- Conduct a sanitary inspection using a standardized form

## METHODS OF INSTRUCTION

The participatory workshop includes theory, demonstrations, open discussion, case studies, and hands-on practice. Approximately two-thirds of the workshop will be spent in practical sessions. Active participant engagement in learning activities is encouraged.

## CONTENT

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

### Theory

- Water quality issues and the connection to public health
- Drinking water quality guidelines and standards
- Physical, chemical, and microbiological parameters of safe drinking water
- Water sampling from various locations
- Quality assurance and control, including sterilization and aseptic techniques
- Different test methods for physical, chemical, and microbiological parameters
- Selection of appropriate test methods, equipment, and products
- Record keeping, interpreting results, and reporting
- Sanitary inspections
- Health and safety, including proper disposal of waste
- Project planning (optional depending on time and interest from the participants)

### Practical

- Collecting water samples from various sources
- Testing for physical parameters using portable test kits
- Testing for chemical parameters using portable test kits
- Testing for microbiological parameters using portable test kits
- Interpreting results from water quality data
- Conducting sanitary inspections

## **PARTICIPANTS**

The ideal participants are those who are:

- High school educated (minimum)
- Able to understand, read, and write in the language of instruction
- Working in water, sanitation and hygiene (WASH), community development, or health projects seeking solutions for drinking water quality testing
- Program organizers or project managers with the responsibility for organizing projects and making decisions
- Technicians or individuals who will be taking water samples, conducting water quality tests using portable test kits, and interpreting results

It is an advantage if participants have the following:

- Source of funding in place to begin implementation (as this will allow for immediate application of the knowledge and skills gained in the workshop)
- Support of their organization which recognizes that drinking water quality testing may be beneficial for their project

This is an introductory level workshop. It is NOT intended for people already trained in drinking water quality testing procedures. However, the workshop can be refresher training, especially on how to use portable test kits.

## **TRAINING MATERIALS**

The following materials will be provided to all workshop participants:

- Introduction to Drinking Water Quality Testing Manual
- CD containing all material presented in the workshop and related resources

## INTRODUCTION TO ENVIRONMENTAL SANITATION

**LENGTH:** 2–2.5 days

### WORKSHOP DESCRIPTION

Environmental sanitation aims to protect and promote human health and well-being by providing a clean environment and breaking the cycle of disease. Environmental sanitation is more than just building latrines. It takes a broader look at the community and addresses different, but interconnected, aspects, including human and animal excreta management, solid waste management, vector control and domestic wastewater management.

In this introductory level workshop, participants will gain an overall understanding of the issues and best practices for on-site environmental sanitation management in low-income communities.

The workshop explores the relationship between environmental sanitation, disease transmission and health. It addresses technical topics such as human excreta management including different latrine designs; animal excreta management; solid waste management; vector control for mosquitos and rodents; and domestic wastewater management. Aspects of hygiene, such as handwashing and menstrual hygiene are also discussed as they relate to sanitation.

The workshop also introduces a framework for implementing a sustainable and successful project, and participants discuss behaviour change and sanitation promotion to create demand for environmental sanitation. Finally, participants will learn to perform an environmental sanitation inspection and/or an environmental sanitation walk.

### LEARNING OUTCOMES

Upon completion of the workshop, participants will be able to:

- Discuss local and global issues and how environmental sanitation is connected to the poverty cycle
- Identify diseases related to environmental sanitation and explain how to prevent disease transmission
- Discuss the five components of a sanitation system to properly manage human excreta
- Identify different latrine technologies and describe their basic design, advantages, and limitations
- Discuss the importance of animal excreta management and identify some good practices
- Describe safe and proper solid waste management practices including, recycling, composting, burning and final disposal
- Discuss the importance of domestic wastewater management and identify different treatment, use and disposal options for greywater and overflow water
- Identify different types of vectors and discuss control methods for mosquitos and rodents
- Discuss the importance of handwashing with soap, describe the critical times and procedure for proper handwashing, and discuss the need for handwashing hardware and software
- Discuss the purpose of the project framework and describe the five components needed for a successful and sustainable environmental sanitation project
- Discuss how understanding behaviour change and sanitation promotion will shape their approach to implementing a project
- Identify factors that contribute to poor environmental sanitation

- Use environmental sanitation inspection forms to evaluate communities and identify environmental sanitation challenges
- Establish a network of contacts with other project implementers

## **METHODS OF INSTRUCTION**

The participatory workshop includes theory, activities, demonstrations, open discussion, case studies, and a field visit to identify and discuss local environmental sanitation practices. 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

- Local and global environmental sanitation issues
- Pathogens and transmission of environmental sanitation related diseases
- Sanitation system to manage human excreta
- Sanitation ladder and different latrine technologies
- Animal excreta management
- Solid waste management including recycling, composting, burning and final disposal
- Domestic wastewater treatment, use and disposal
- Vector control for mosquitos and rodents
- Handwashing with soap
- Project framework
- Behaviour change and sanitation promotion

Note: Stormwater management is outside the scope of this workshop.

### Practical (Optional)

- Field trip to identify and discuss environmental sanitation challenges

## **PARTICIPANTS**

Participants may be individuals or groups who are:

- Working in water, sanitation and hygiene (WASH), community development or health projects seeking solutions for environmental sanitation
- Program organizers or project managers with the responsibility for organizing projects and making decisions
- Motivated to start or strengthen projects for improving environmental sanitation

It is an advantage if participants have the following:

- Source of funding in place to begin implementation (as this will allow for immediate application of the knowledge and skills gained in the workshop)
- Support of their organization which recognizes that environmental sanitation may be beneficial for the communities where they work

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

This is an introductory level workshop. It is NOT intended for people already trained in environmental sanitation.

### **TRAINING MATERIALS**

The following materials will be provided:

- Participant resources including Technical Briefs and Fact Sheets
- CD containing all material presented in the workshop and related resources

# LATRINE DESIGN AND CONSTRUCTION

**LENGTH:** 5 days

## WORKSHOP DESCRIPTION

Sanitation aims to protect and promote human health and well-being by safely managing human excreta and breaking the cycle of disease. Latrines 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 collected in a latrine, through to treatment and use or disposal of the sludge.

In this workshop, participants will learn how to design and construct latrines for low-income communities not connected to a sewerage system. The focus is on designing latrines that are technically and environmentally appropriate, and that people will actually want and use.

The workshop explores the relationship between sanitation, disease transmission and health. It gives participants experience selecting appropriate latrine parts, such as the toilet, slab, superstructure, and pit, tank or chamber. It also addresses technical and environmental topics including siting latrines and sizing latrine pits. Modifying latrines to make them accessible for different user groups, including children, women, and people with limited mobility, is discussed. Aspects of hygiene, such as handwashing and menstrual hygiene, are also discussed as they relate to sanitation. Finally, participants will learn a framework for implementing a sustainable and successful project.

The theory in the course is balanced with practical design exercises and hands-on construction work. Participants may work with concrete and construct basic latrine components and handwashing stations. However, this workshop is not intended to provide full training on the construction of latrines or masonry training.

## LEARNING OUTCOMES

Upon completion of the workshop, participants will be able to:

- Discuss local and global issues and how sanitation is connected to the poverty cycle
- Identify pathogens related to sanitation and explain how to prevent disease transmission
- Discuss the five components of a sanitation system to properly manage human excreta
- Identify the parts of a latrine and describe their function
- Identify technology options for each latrine part and describe their basic design, advantages, and limitations
- Explain user-focused design and how it can be used to design latrines that people want and will use consistently and sustainably
- Calculate the required size of latrine pit
- Explain how to excavate and line a latrine pit
- Construct some basic latrine components, such as a slab, superstructure or pit lining
- Explain the factors to consider when siting a latrine
- Discuss different options to manage full latrines
- Describe how latrine sludge can be safely treated and used or disposed of
- Discuss the importance of handwashing with soap, describe the critical times and procedure for proper handwashing, and discuss the need for handwashing hardware and software



- Discuss latrine options for challenging environments such as areas with high groundwater, flooding, high population density, cold climates or fragile ecosystems
- Identify the materials required and basic costs to build a latrine
- Discuss the purpose of the project framework and describe the five components needed for a successful and sustainable sanitation project
- Establish a network of contacts with other project implementers

## **METHODS OF INSTRUCTION**

The participatory workshop includes theory, activities, demonstrations, open discussion, case studies, design scenarios and hands-on construction. Active participant engagement in all learning activities is encouraged.

## **CONTENT**

The following is a tentative list of the topics covered in the workshop. A specific agenda will be developed based on consultations with the organizer and participants. In general, one to two practical construction sessions listed below will be selected for each workshop.

### Theory

- Local and global sanitation issues
- Pathogens and transmission of sanitation-related diseases
- Sanitation systems for managing human excreta
- User-focused latrine design
- Latrine parts and functions
- Selecting latrine technologies
- Designing latrine slabs
- Sizing, excavating and lining pits
- Siting latrines
- Emptying latrines and transporting sludge
- Treating, using and disposing sludge
- Handwashing with soap
- Estimating costs of building a latrine
- Introduction to the project framework

### Practical

- Constructing latrine slabs
- Constructing a superstructure
- Constructing a toilet seat and pedestal
- Designing and sizing a latrine pit
- Excavating and lining a latrine pit
- Constructing a handwashing station
- Latrine design scenario exercises
- Next steps in project planning

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

- *Sludge treatment, use and disposal*
- *Animal excreta management, solid waste management, vector control and domestic wastewater management*

- *Implementation approaches for sanitation projects (for example, ways to create demand, supply products and services, or finance latrines)*

*For more information on these topics, please see the following CAWST workshops:*

- *Sludge Treatment, Use and Disposal*
- *Environmental Sanitation*
- *Latrine Project Implementation*

## **PARTICIPANTS**

Participants may be individuals or groups who are:

Working in water, sanitation and hygiene (WASH), community development or health projects seeking solutions for sanitation

- Program organizers or project managers with the responsibility for organizing projects and making decisions
- Engineers or technicians with responsibility for designing and constructing latrines
- Community liaison people or sanitation promoters who educate households about sanitation and selecting latrines
- Motivated to start or strengthen projects for improving sanitation

It is an advantage if participants have the following:

- Source of funding in place to begin implementation (as this will allow for immediate application of the knowledge and skills gained in the workshop)
- Support of their organization which recognizes that sanitation may be beneficial for the communities where they work

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

This is an introductory level workshop. It is NOT intended for people already trained in latrine design and construction. However, the workshop can be refresher training for those interested.

## **TRAINING MATERIALS**

The following materials will be provided:

- Participant resources including Technical Briefs and Fact Sheets
- CD containing all material presented in the workshop and related resources

# COMMUNITY HEALTH PROMOTION FOR FIELD WORKERS

**LENGTH: 3-4 days**

## WORKSHOP DESCRIPTION

The Community Health Promoter is essential for the successful implementation of any household water treatment, sanitation or hygiene project. This course will provide participants with the skills to effectively deliver water, sanitation, or hygiene education programs as part of a new or existing project.

The workshop reviews the fundamentals of global water issues, water quality, disease transmission, household water treatment, proper hygiene and basic sanitation. The emphasis is placed on behaviour change, participatory learning and action tools, facilitation techniques, social marketing, and communication methods. Topics are covered in an interactive fashion using learning tools and activities the participants can then apply within the communities they are working.

This workshop is delivered for a specific household water treatment technology program. The purpose of these sessions is to teach community health promoters operation, maintenance, and how to conduct follow-up visits for the technology. Community health promoters will also learn how to do some technology troubleshooting with the household.

## LEARNING OUTCOMES

Upon completion of the workshop, participants will be able to:

- Describe how to prevent illness through improved water, sanitation and hygiene
- Describe the multi-barrier approach to household water treatment
- Describe how to operate, maintain and troubleshoot a specific household water treatment technology
- Describe role of Community Health Promoters
- Identify skills, knowledge and attitudes required of Community Health Promoters
- Discuss factors that influence behaviour change
- Apply various participatory learning and action tools to effectively work with households and community groups
- Design appropriate social marketing messages and choose effective communication methods for different target audiences
- Describe how to monitor project progress and behaviour change within the community and household

## PARTICIPANTS

The participants may be:

- Household water treatment project coordinators and/or managers who will train, manage and monitor community health promoters
- Technicians or individuals who will be installing the technology and play a large role in explaining the use of the household water treatment technology to the household
- Community leaders, health promoters, or individuals in the community who have a desire to teach others about water, sanitation and hygiene
- Individuals motivated to improve the water, hygiene, and sanitation situation in their communities

The ideal community health promoters:

- Have current skills in presenting, working with the community, and educating
- Have a desire to teach others about good health practices
- Are leaders in his/her community in hygiene and sanitation

- Have a basic understanding of the importance of safe water for health

Participation by women is encouraged. Preferably, 2 to 5 people from each organization or community would attend to ensure that they learn together and benefit most from the workshop.

### **METHODS OF INSTRUCTION**

The workshop includes theory, classroom exercises, demonstrations, role playing, small group work, open discussion, and case studies. Active participant engagement in learning activities is encouraged.

### **CONTENT**

The following is a tentative list of the topics to be covered in the workshop. A specific agenda will be developed for each workshop depending on the needs of participants.

#### Water, Sanitation, and Hygiene

- Global and local issues
- Water quality and disease transmission
- Improved hygiene and sanitation

#### Household Water Treatment

- Community versus household water treatment
- Multi-barrier approach to provide safe water
- Locally available technologies
- Household water treatment technology operation, maintenance, and troubleshooting

#### How to be a Community Health Promoter

- Role of the Community Health Promoter
- Key skills, knowledge and attitudes
- Model of behaviour change
- Participatory learning and action tools
- Facilitation techniques
- Social marketing and communication methods
- How to work with different target audiences, including households and community groups
- Monitoring behaviour change and project progress in the community

### **TRAINING MATERIALS**

The following materials will be provided to each participant:

- Education materials, including posters and games

The following materials will be provided to each organization:

- CD containing all material presented in the workshop and related resources

# COMMUNITY HEALTH PROMOTION FOR TRAINERS

**LENGTH:** 4-5 days

## WORKSHOP DESCRIPTION

The Community Health Promoter is essential for the successful implementation of any household water treatment, sanitation or hygiene project. This course will provide participants with the skills to effectively organize, train and monitor Community Health Promoters as part of a new or existing project.

The workshop reviews the fundamentals of global water issues, water quality, disease transmission, household water treatment, proper hygiene and basic sanitation. The emphasis is placed on behaviour change, participatory learning and action tools, facilitation techniques, social marketing, communication methods, and training programs. Topics are covered in an interactive fashion using learning tools and activities the participants can then apply to train Community Health Promoters.

This workshop can also be delivered for a specific household water treatment technology program. The purpose of these sessions is to teach community health promoters operation, maintenance, and how to conduct follow-up visits for the technology. Community health promoters will also learn how to conduct initial technology troubleshooting with the household.

## LEARNING OUTCOMES

Upon completion of the workshop, participants will be able to:

- Describe how to prevent illness through improved water, sanitation and hygiene
- Describe the multi-barrier approach to household water treatment
- Describe how to operate, maintain and troubleshoot a specific household water treatment technology (optional)
- Describe the different roles of Community Health Promoters and Trainers
- Identify skills, knowledge and attitudes required of Community Health Promoters and Trainers
- Discuss factors that influence behaviour change
- Apply various participatory learning and action tools to effectively work with households, community groups, and schools as well as to train Community Health Promoters
- Design appropriate social marketing messages and choose effective communication methods for different target audiences
- Describe how to monitor behaviour change within the community and household
- Plan and implement a training program for Community Health Promoters
- Describe how to supervise and manage a team of Community Health Promoters

## PARTICIPANTS

The participants may be:

- Individuals and organizations working in household water treatment, hygiene, sanitation, community development or health projects
- Motivated and prepared to implement a project to promote household water treatment, hygiene or sanitation

The ideal participants are:

- Trainers or managers within their organization who oversee the education, sensitization, or community awareness component of their household water treatment, hygiene, and/or sanitation program
- Household water treatment project coordinators or managers who will train, manage and monitor

community health promoters

Participation by women is encouraged. Preferably, 2 to 5 people from each organization would attend to ensure that they learn together and benefit most from the workshop.

### **METHODS OF INSTRUCTION**

The workshop includes theory, classroom exercises, demonstrations, role playing, small group work, open discussion, and case studies. Active participant engagement in learning activities is encouraged.

### **CONTENT**

The following is a tentative list of the topics to be covered in the workshop. A specific agenda will be developed for each workshop depending on the needs of participants.

#### Water, Sanitation, and Hygiene

- Global and local issues
- Water quality and disease transmission
- Improved hygiene and sanitation

#### Household Water Treatment

- Community versus household water treatment
- Multi-barrier approach to provide safe water
- Locally available technologies
- Household water treatment technology operation, maintenance, and troubleshooting (optional)

#### How to Be a Community Health Promoter

- Role of the Community Health Promoter
- Key skills, knowledge and attitudes of Community Health Promoters
- Model of behaviour change
- Participatory learning and action tools
- Facilitation techniques
- Social marketing and communication methods
- How to work with different target audiences, including households, community groups and schools
- How to create a field kit
- Monitoring behaviour change in the community

#### How to Train Community Health Promoters

- Role of the Trainer
- Key skills, knowledge and attitudes of Trainers
- How to conduct a needs assessment
- How to develop a training program
- Content, format, logistics, evaluation, reporting
- How to monitor Community Health Promoters and community progress

### **TRAINING MATERIALS**

The following materials will be provided to each participant:

- Reference manual
- Education materials, including posters and games
- CD containing all material presented in the workshop and related resources

## Delivering Effective WASH Training

**LENGTH: 5 days**

### WORKSHOP DESCRIPTION

In this workshop, participants learn to effectively facilitate and adapt lessons on WASH (water, sanitation, and hygiene). They discuss what learners need, practice creating a safe learning environment, motivating learners, and ensuring that information is relevant and appropriate. Through lessons and practical experience, participants also learn to formulate effective questions, respond to learners, and manage challenging training situations.

Introduction to WASH or equivalent experience is a prerequisite for this workshop. Delivering Effective WASH training is a prerequisite for the workshop Creating Effective WASH Training.

### PARTICIPANTS

Participants may be individuals or groups who are:

- Training on WASH, as part of a WASH, community development or health project
- Knowledgeable about WASH solutions and good practices, such as household water treatment and safe storage, sanitation and/or hygiene
- Staff of a Water Expertise and Training (WET) Centre
- People seeking to enhance their facilitation skills
- People who work with others and have to communicate to individuals or groups of people

It is an advantage if participants:

- Have participated in another CAWST workshop, for example, household water treatment and safe storage, sanitation or community WASH promotion

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

### METHODS OF INSTRUCTION

Throughout the workshop, the theory of active learning and effective training skills is reinforced through the practical use of CAWST training materials. The participatory workshop includes theory, practical components, participatory activities, and varied discussion types to share experiences. There will be opportunities for participants to prepare and practice training techniques as part of the workshop. Active participation in all learning activities is required.

### CONTENT

The following is a tentative list of the topics to be covered. A specific agenda will be developed for each workshop.

- The qualities of an effective trainer
- Safe learning environments
- Motivation
- The four things learners need
- Active learning
- Lesson planning and adapting lessons
- Effective questioning and think time
- Active listening
- Responding to participants
- Presentation skills
- Giving clear instructions

- Analyzing energizer activities
- Trainer identity
- Overcoming barriers to participation
- Managing challenging training situations
- Action planning

### **LEARNING OUTCOMES**

Upon completion of the workshop participants will be able to:

- Demonstrate the qualities of an effective trainer
- Create a safe learning environment
- Explain how new information is connected to prior knowledge in the brain
- Increase learner motivation
- Support participants in all stages of learning
- Deliver active learning instructional strategies and activities
- Describe the components of a lesson plan
- Ask effective questions
- Use effective presentation skills
- Give clear instructions
- Engage all learning styles
- Support participants experiencing challenges
- Adapt a lesson
- Use energizers to enhance learning
- Examine the impact of identity and perceptions of identity on training
- Address training challenges
- Promote equitable participation
- Practice self-assessment and goal setting

### **TRAINING MATERIALS**

The following materials will be provided:

- Participant materials containing theory and practical exercises
- Digital copies of all material presented in the workshop and related resources



## PROJECT PLANNING

**LENGTH:** 3 days

### WORKSHOP DESCRIPTION

The workshop is designed to develop a project plan for the successful start-up, expansion, and replication of a future or existing household water treatment (HWT) project.

This workshop is designed to:

- Review the CAWST dissemination model
- Introduce key project planning concepts
- Prepare for and create the plan
- Measure success
- Write a proposal

Participatory techniques are used to actively engage participants throughout the learning process.

### LEARNING OUTCOMES

By the end of this workshop, participants will be able to:

- Describe the CAWST dissemination model.
- Discuss key project planning concepts.
- Develop a project plan with a mission, key milestones, activities and timelines.
- Explain how to measure success.
- Create an effective proposal.
- Establish a network of contacts of other HWT project implementers.

### PARTICIPANTS

The ideal participants are individuals or groups who are:

- Committed to starting or expanding a household water treatment project
- Working in water and sanitation, community development or health projects
- Familiar with the need for safe water and household water treatment
- Mid-level managers within their organization with the responsibility for organizing projects and making decisions
- Program organizers, front line supervisors, project managers, or project engineers

Participation by women is encouraged. Preferably, 2 to 5 people from each organization would attend to ensure that they learn together and benefit most from the workshop.

### METHODS OF INSTRUCTION

The participatory workshop includes theory, classroom exercises, open discussion, case studies, and guest speakers. Active participant engagement in learning activities is encouraged.

### CONTENT

The following is a tentative list of the topics to be covered. A specific agenda will be developed for each

workshop.

- CAWST dissemination model
- Key project planning concepts and criteria for sustainability
- Getting ready: Why are you doing this?
- Creating the plan:
  - What are you going to do?
  - Who is doing what?
  - When will it get done?
  - How much will it cost?
- Measuring success:
  - How will you measure success?
  - What do you do when things go wrong?
- Proposal Writing

### **TRAINING MATERIALS**

The following materials will be provided:

- Participant Manual
- CD containing all material presented in the workshop and related resources

# RAINWATER HARVESTING

LENGTH: 4-5 days

## WORKSHOP DESCRIPTION

Rainwater harvesting for domestic use is an option to be considered when planning an improved water supply system for a household or within a community. Depending on the local needs and conditions, rainwater harvesting may provide a supplementary or an alternative water supply.

The workshop offers instruction on the concept and technology of rainwater harvesting for domestic use and how it fits into the overall picture of appropriate rural and urban water supply in developing countries. Topics to be addressed include water supply and demand, selection of appropriate rainwater harvesting technology, and the basic construction, installation, operation and maintenance of roof top and surface catchments. Focus will be placed on recent technologies and current applications.

The workshop includes teachings on the fundamentals of water quality, household water treatment alternatives and project implementation. A proper understanding of these elements is essential for the correct application of domestic rainwater harvesting systems. The workshop also introduces the global impact of clean water, hygiene and sanitation.

## CONTENT

The following is a tentative list of the topics to be covered. A specific agenda will be developed for each workshop.

### Theory

- Global water issues
- Rainwater harvesting technologies
- Water supply and demand
- Roof catchment systems
- Ground catchment systems
- Water quality
- Household water treatment technology options

### Practical

- Construction
- Installation
- Operation
- Maintenance

### Implementation

- Role of rainwater harvesting within a domestic water supply system
- Selecting an appropriate technology
- Developing an effective implementation plan
- Requirements for a successful program
- Lessons learned and case studies
- Developing the vision and next steps after the workshop

## METHODS OF INSTRUCTION

Throughout the training, the theory of rainwater harvesting will be reinforced through the practical use of CAWST training materials. The training includes theory, practical components, participatory activities, and

open discussion to share experiences. There will be opportunities for participants to prepare and practice construction techniques as part of the training. Active participation in all learning activities is required.

### LEARNING OUTCOMES

Upon completion of the workshop, participants will be able to:

- Identify various solutions for water and sanitation for the poor in developing countries
- Describe the main components of any rainwater harvesting system for domestic use: catchment, storage and delivery systems
- Identify, assess and select appropriate rainwater harvesting technologies to meet local needs and conditions
- Construct various rainwater harvesting system components and instruct users on its correct installation, operation and maintenance
- Calculate rainwater supply and demand, tank sizing, catchment area, and the necessary delivery system
- Discuss water quality and various household water treatment technologies
- Explain different ways to implement a water, hygiene, and sanitation program in association with a rainwater harvesting system
- Establish a network of contacts with other project implementers

### PARTICIPANTS

The ideal participants are:

- Individuals and organizations interested in starting a rainwater harvesting program in a developing country. They may have some background in international development or water management, but it is not necessary.
- Motivated and prepared to implement a household rainwater harvesting program.
- This is an introductory level workshop. It is **not** intended for current rainwater harvesting practitioners in developing countries or for applications in North America.

### TRAINING MATERIALS

The following materials will be provided:

- Participant Manual containing theory and practical exercises
- CD containing all material presented in the workshop and related resources