

## Workshop Outline

### INTRODUCTION TO DRINKING WATER QUALITY TESTING WORKSHOP

#### WORKSHOP DESCRIPTION

Safe drinking water, sanitation and hygiene (WASH) is the basic need for leading a healthy and dignified life. Marginalized communities in India still struggle with waterborne diseases, mostly due to unsafe drinking water and WASH behavior. According to a Joint Monitoring Program (JMP) Report by WHO in 2021, two billion people across the globe lack safely managed WASH services.

To address this critical issue S M Sehgal Foundation, India in partnership with CAWST, Canada is hosting a **four-day** training workshop on **Drinking Water Quality and Testing (DWQT)**. This workshop is an opportunity that offers valuable insights and expertise to the practitioner interested in conducting drinking water quality testing as part of the implementation, monitoring, or evaluation of household water treatment and safe storage (HWTS) projects or small community water supply systems in developing countries.

The key focuses of the workshop revolve around the use of portable test kits for testing the physical, chemical, and microbiological parameters of drinking water. Beside this, participants will gain essential knowledge in various other areas, including health and safety practices, understanding World Health Organization guidelines and national standards for drinking water quality, proficient water sampling techniques and exploring different test methods for physical, chemical, and microbiological parameters apart from that also gain knowledge on interpreting and reporting water quality data.

The broader objective is to share knowledge and impart skills to practitioners to get familiar with different test methods for checking water quality and understand the nuances of implementing their own drinking water quality-testing project.

#### OBJECTIVES

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

- Understand safe drinking water and define the purpose and scope of drinking water quality testing
- Identify and describe different physical, chemical, and microbiological parameters of drinking water
- Know and interpret national standards and World Health Organization guidelines for drinking water quality
- Collect water samples 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
- Analyze and interpret water quality data
- Read and interpret a laboratory water quality testing report

#### 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
- Health and safety, including proper disposal of waste

### 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

**Dates and Location: SEP 12-15, 2023; Gurugram, Haryana**

**Registration Closes on September 6<sup>th</sup>, 2023**

**Accommodation:** You are expected to make your own travel and stay arrangements. Options for hotels/guest houses closest to the training location can be shared if needed.

**For any other detail, contact:**

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