

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.

OBJECTIVES

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