



WATER RESOURCE MANAGEMENT

Community scale water harvesting, watershed management, rainwater harvesting.

A shortage of water or unreliable access to water is one of the biggest issues in development. Community water sources dry up during climate change related drought—or seasonally during the dry season.

Overview

There is competition among different segments of the community for available water. Discussing community water challenges calls for stepping back from the immediate problem and looking at the relevant underlying causes for the shortage of water in order to begin developing solutions.

This past quarter GNBI has seen a number of water related partner projects worldwide. We are seeing tremendous similarities between the projects: not enough water, too much water—and contaminated water. These challenges lead to reduced harvests, reduced income, reduced food security and nutrition, chronic ill health from waterborne disease, and flooding.

Agricultural families suffer from widespread malnutrition caused by climate variability—including extreme drought that reduces crop yields & negatively impacts livestock. These challenges exacerbate the already complex problem of poverty due to a lack of agricultural income. Combined, they lead to chronically malnourished and frequently ill children—and an inability to purchase food and pay for children's education and health care.

The solutions that GNBI participants have been developing include a community-based water use management plan. Community members will first develop a participatory mapping of water resources and uses, and then consult with a water management expert to develop a participatory process and training program for developing the water use management plan.

The course includes an overview of water conservation technique

COURSE CONTENT

Week 1.

- Developing a participatory process and training program.
- Facilitate the organization of community-based Water Conservation and Management Committee.
- Survey community members to identify their knowledge of water use. Identify local knowledge on conservation techniques.
- Community workshop on participatory mapping of water resources, uses, challenges and ecosystem services.
- Identify important water sources and challenges.
- Prioritize degraded watersheds, water springs, rivulets, ravines and man-made waterways for protection/restoration.

Week 2.

Water Resources Management

Setting up a Water Management Committee. The committee will be in charge of developing a Water Management plan. Setting up a subcommittee is a much more rapid process than setting up a full committee.

Design Techniques: Environmental Restoration

- Evaluate results of participatory mapping of water resources and challenges.
- Watershed management and soil and water conservation.
- Watershed restoration and conservation through reforestation.
- Check dams for controlling runoff and plugging gullies.

Design Techniques: Water Harvesting. What is water harvesting?

- Investigate water sourcing alternatives for the community.
- Household rooftop rainwater harvesting.
- Water collection and rainwater storage. Rainwater harvesting tank.
- Work with local designers and material providers to design affordable, appropriate, rainwater harvesting systems.
- Simple point of use water purification systems.
- Community-level rainwater harvesting.
- Subsurface dams. Small earth dams. Water from rocks. Reservoirs.
- Rain water storage tanks

COURSE OUTCOMES

After successful completion of this course, you will be able to:

- Understand Water Management principles and processes
- Identify and assess key role-players and stakeholders in the community water management process
- Perform a SWOT- and Force-Field Analyses
- Understand the importance of culture and values in water management
- Formulate suitable strategies for community water management
- Manage the implementation of water harvesting strategies by applying Project Management principles
- Understand the importance of strategic community water resource management
- Apply basic water resource management tools, techniques and applications
- Facilitate a Community planning session in your institution

Course Dates

First Workshop Course Date	10 December 2018- 20 December 2018
Second Workshop Course Date	4 February 2019- 15 February 2019
Third Workshop Course Dates	15 April 2019- 25 April 2019
Fourth Workshop Course Date	17 June 2019- 28 June 2019
Price Per Person	\$ 3 622.50 Incl 15% VAT
Accommodation	\$1122 Incl 15% VATper person for 13 days (This include bed and Breakfast)