



Sana'a University

**Water and**  
*Environment Centre*

# Water Conflicts Management

## Short Course Information Sheet

### Objective:

Increase the capacity building of trainees on understanding types of water conflicts and factors affecting raising of conflicts over water resources in Yemen, be able to analyze certain water conflict cases and know how to identify stakeholders, key stakeholders and other water players. Gain skills required for negotiation and be able to plan for manage water conflict cases until reaching an agreement to rend conflicts over water resources into cooperation for water resources development.

### Duration Time:

30 hours over five days (6hr/day)

### Targeted Audiences:

Water resources engineers, students in related faculties, interests, water resources planners' responsible, members from water users associations and water basin councils.

### Expected Outputs:

Attendees of the short course will be able to:

- 1- Understand types of water conflicts,
- 2- Recognize factors affecting raising of conflicts over water in Yemen,
- 3- Analyze certain water conflict cases,
- 4- Identify stakeholders and key stakeholders and related water players,
- 5- Determine role of water sectors for resolving water conflict cases,
- 6- Plan for managing water conflict cases until reaching an agreement

**A Short course with support of:**





## Contents

### Introduction

- A. General Worldwide Water Conflicts Causes
  - 1. Excessive withdrawal from surface waters / underground aquifers:
  - 2. Pollution of freshwater resources (downstream / up-stream):
  - 3. Inefficient Use:
  - 4. Inequitable distribution:
  - 5. Lack of control, law enforcement and sanctions applied:
  - 6. Water development (hydropower plant construction, infrastructure, irrigation) and downstream effects:
- B. Situation of Yemen Water Resources
- C. Legal Status of Water Ownership in Yemen
  - 1. Priority of use
  - 2. Quantity of use
  - 3. Places of use and sharing
  - 4. Water allocation mechanisms
  - 5. Operation and maintenance
- D. Types Water Conflicts in Yemen
  - 1. Sharing groundwater resources:
  - 2. Sharing surface water resources:
- E. Factors Affecting Raising of Water Conflicts in Yemen
  - 1. Scarcity of water resources
  - 2. Impact of climate change
  - 3. Rapid population growth
  - 4. Instability of Political Situation
  - 5. Inequity distribution of limited water resources (Inadequate allocation of water supply project)
  - 6. Improper technical determination for location of water structures (low quality of pre studies of water projects and poor technical information)
  - 7. Low enforcement of water law
- F. Water Conflict Management
  - 1: Sources of conflict
  - 2: Manifestation/s of conflict
    - a) Conflict as perception
    - b) Conflict as feeling
    - c) Conflict as action
  - 3: Conflict resolution
    - a) Expression
    - b) Outcome
      - 1. Understanding history of conflict



2. Analyze water stakeholders
  3. Determine Roles of Main Players and Influencers
- G. Managing Processes to Resolve Water Conflict Case
- H. Negotiation
1. Negotiation approaches
    - a. INTEREST-BASED NEGOTIATION
    - b. RIGHTS-BASED NEGOTIATION
    - c. POWER-BASED NEGOTIATION
  2. INTERESTS–NEEDS
  3. OPTIONS
  4. STANDARDS AND CRITERIA
  5. COMMUNICATION
  6. RELATIONSHIP
  7. AGREEMENT AND COMMITMENT
- I. Negotiation Skills
1. COMMUNICATION SKILLS: ACTIVE LISTENING
  2. COMMUNICATION SKILLS: TALKING CLEARLY AND PRECISELY
  3. RE-FRAMING POSITIONS AS INTERESTS
  4. UNDERSTANDING AND PERCEPTION
  5. OPEN QUESTIONS
  6. SEPARATE THE PEOPLE FROM THE PROBLEM
- J. MEDIATION
1. The Role of the Mediator
  2. Mediation Skills and Tools
  3. Mediation Approaches
    - a. THE EVALUATIVE APPROACH
    - b. THE TRANSFORMATIVE APPROACH
- K. CONSENSUS BUILDING: PRINCIPLES, AND PROCEDURES
- L. Principles and Procedures
- Dispute Regulation Mechanisms
1. *Property rights*
  2. *Financing water management*
  3. *Participative capacity*
  4. *Regulations and agreements*
  5. *Engineering and Monitoring*
  6. *Conflict prevention*
  7. *Conflict resolution*
- M. Toolkit and Guidance for Preventing and Managing Land and Natural Resources Conflicts
- N. The analytical framework is used to answer the key questions



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- O. Case studies of local water conflicts
  - a. Sana'a
    - Case 1 - Shahik dam: villagers of Shahik vs. villagers of Tan'im
    - Case 2 - Arrowdah: villagers of Ber Julah against grape farm owner
    - Case 3 - Bani Matar: villagers of Al Kharabah, Mahiab, Bait Awad and Bait Habes against villagers of Jalal
  - b. Taiz
    - Case 1: Bani Yusof: villagers of Qihaf vs. Person 93
  - c. Houdeidah
    - Case 1: Person 81 versus local farmers along the Debashiya canal
- P. Operationalizing the Conceptual Framework: Indicators and Questions
  - A. *Context and contextual changes*
  - B. *Conflict description and stakeholder analysis*
  - C. *Dispute regulation mechanisms*

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