Module 1: Introduction to Integrated Water Resources Management.

Aim: Introduce students to the technical, economic, social and environmental complexities of water resources management so that they will be able to appreciate the importance of IWRM approach for sustainable development.

ILOs: At the end of this module, the participants will be able to;

1. explain the evolution of the concepts of sustainable development and IWRM
2. explain the inter relationships between technical, economic, social and environmental aspects (with its conflicts and complementarities) for sustainable water resources management
3. describe the need for an integrated approach to water resources management including the politics of water allocation.

Contents:

- Growth to Sustainable Development
  - Concepts of development over time
  - Shifts from economic growth and modernization as development to sustainable development

- World Water Scene, resource and use
  - Hydrological cycle and global water balance
  - Competing Sectoral Uses and Competition
  - Declining Supply with Increasing Demand
  - Conflicts at different levels: Local to Global
  - Limitations of Conventional Approaches

- Paradigm Shifts in Water Resources Development
  - Five Paradigms
  - Dublin principles and GWP definition of IWRM
  - Conflicts within aspects (social, economic, environmental) and why the allocation is political
  - Need for Integration

- Integration with River Basin Management (Three Approaches)
  - Technical Integration
  - Stakeholders participation and Negotiation
  - Privatization/ Liberalization