

# IWRM



IWRM is defined as

*... a process which promotes the coordinated development and management of water, land and related resources, in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital eco-systems.*

Global Water Partnership - 2000

# IWRM

- The principles of IWRM were laid out and accepted at the 1992 International Conference of water and the environment (ICWE) in Dublin.
- The "Dublin principles "start from an understanding of water as a finite, vulnerable resources essential to sustain life



# Water as finite and vulnerable resources..

- Water has two special qualities that make it quite different from other finite or renewable natural resources (oil, forests etc.)
- first, as a prerequisite for all life and most economic development, and
- second, as a finite but renewable natural resource whose availability is driven by powerful and variable natural phenomena



# IWRM cont..

- While the overall amount of fresh water in the world is to all intents and purposes fixed, it is infinitely and naturally renewable, although its availability in space and time is highly variable.
- For example, water used in growing food is not put beyond further use, as happens when oil is consumed. Instead, the state of the water changes, from liquid to vapour, and it re-enters the hydrological cycle and becomes available again for other uses and users through naturally occurring processes.



# IWRM cont..

- Nevertheless, within a single hydrographic unit (basin, aquifer) and a given time-frame, water is finite, and one person's consumption or pollution impacts on another person's use.



# The Dublin - Rio Principles

## Dublin Principles

- Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment
- Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels
- Women play a central part in the provision, management and safeguarding of water
- Water has an economic value in all its competing uses and should be recognised as an economic good

Principle No. 1:

**Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment**

Since water sustains life, effective management of water resources demands a holistic approach, linking social and economic development with protection of natural ecosystems. Effective management links land and water uses across the whole of a catchment area or ground water aquifer.



Principle No. 2:

**Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels**

The participatory approach involves raising awareness of the importance of water among policy-makers and the general public. It means that decisions are taken at the lowest appropriate level, with full public consultation and involvement of users in the planning and implementation of water projects.

Principle No. 3:

**Women play a central part in the provision, management and safeguarding of water**

This pivotal role of women as providers and users of water and guardians of the living environment has seldom been reflected in institutional arrangements for the development and management of water resources. Acceptance and implementation of this principle requires positive policies to address women's specific needs and to equip and empower women to participate at all levels in water resources programmes, including decision-making and implementation, in ways defined by them.

Principle No. 4:

**Water has an economic value in all its competing uses and should be recognized as an economic good**

Within this principle, it is vital to recognize first the basic right of all human beings to have access to clean water and sanitation at an affordable price. Past failure to recognize the economic value of water has led to wasteful and environmentally damaging uses of the resource. Managing water as an economic good is an important way of achieving efficient and equitable use, and of encouraging conservation and protection of water resources.

## Cross-sectoral Integration

- " **Enabling Environment**
- " **Institutional Framework**
- " **Management Instruments**

**Water  
for  
People**

**Water  
for  
Food**

**Water  
and  
Nature**

**Water  
for  
Other  
Uses**

# 'Big Issues' of IWRM

- Scale
  - different processes and actors
  - representation vs. participation
  - Temporal scale
- Institutional and physical boundaries
  - mismatch
- Sectoral coordination
  - or lack of it
- Information
  - necessity, lack, flows

# Integrated Water Resource Management

- Is
  - A paradigm, philosophy or process
- Is NOT
  - Water Engineering
- IWRM is about
  - HOW we work
  - WHO we work with

## The colours of water

White water

Blue water

Green water

Grey/Black water

