International
Office
For Water
PARIS-FRANCE

International
Network
Of Basin
Organizations

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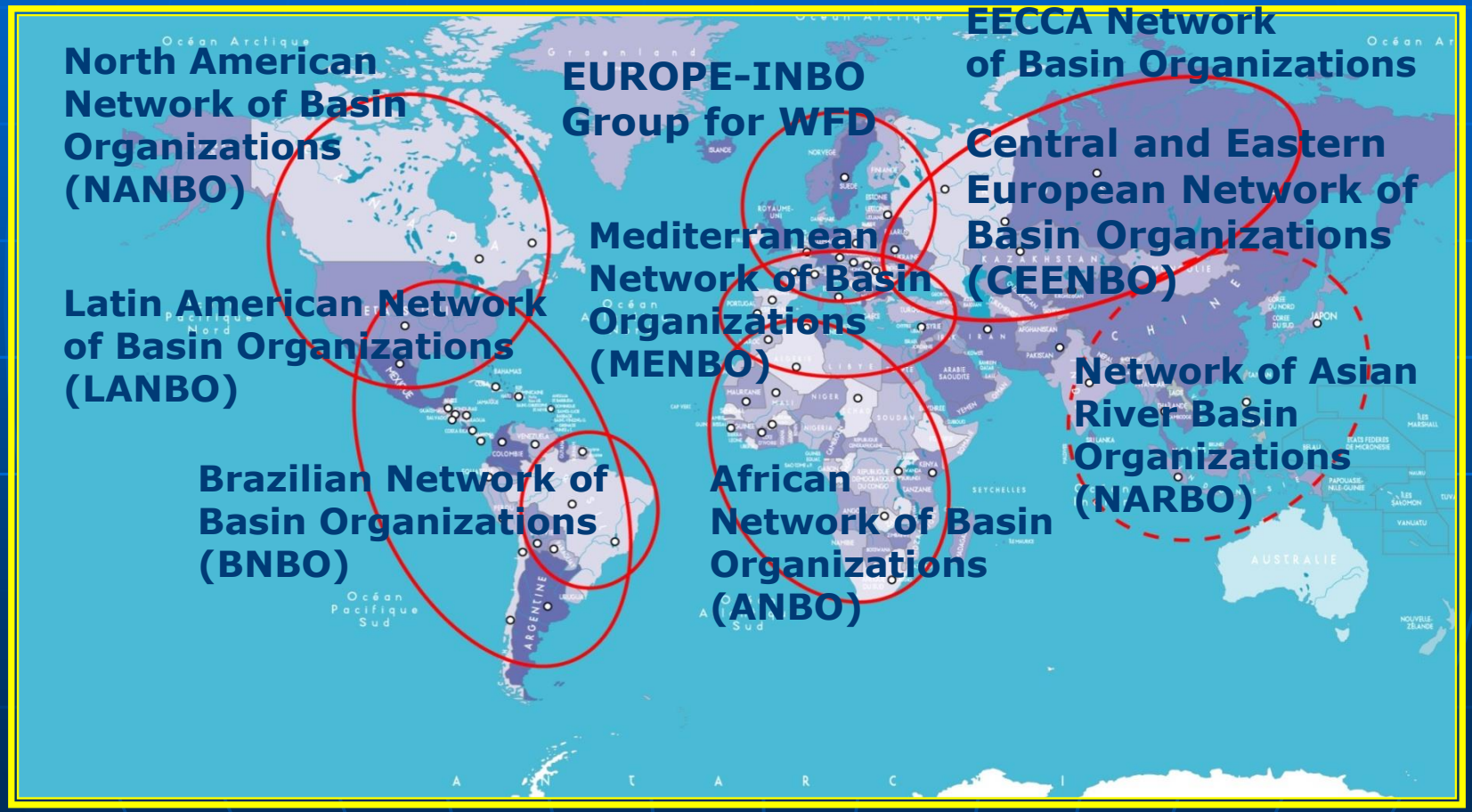
INTERNATIONAL NETWORK OF BASIN ORGANIZATIONS

Created in 1994 to facilitate operational exchanges between BO

International Network Of Basin Organizations

INBO's REGIONAL NETWORKS



188 FULL MEMBERS or PERMANENT OBSERVERS in 68 COUNTRIES

Thematic Work Group 3 - Basin governance

Basin fundamentals

Basins are the natural territories in which water flows – on the soil or in the sub-soil – *and are independent of the national or administrative boundaries or limits crossed*

THE BASIN CONCEPT CAN BE USED TO DELIMIT THE RECHARGE AREAS AND THE AREAS WHERE WATER FLOWS IN:

- **Rivers**
- **Lakes**
- **Aquifers**
- **Estuaries and coastal zones**
- …

Conjunctive uses and management of water systems should be organized on the scale at which these natural systems occur – and are used for human activities - at the basin level.

All kinds of water
Are taken jointly into consideration

* ***surface waters***
* ***groundwater***

* ***transitional water***
* ***coastal waters…***

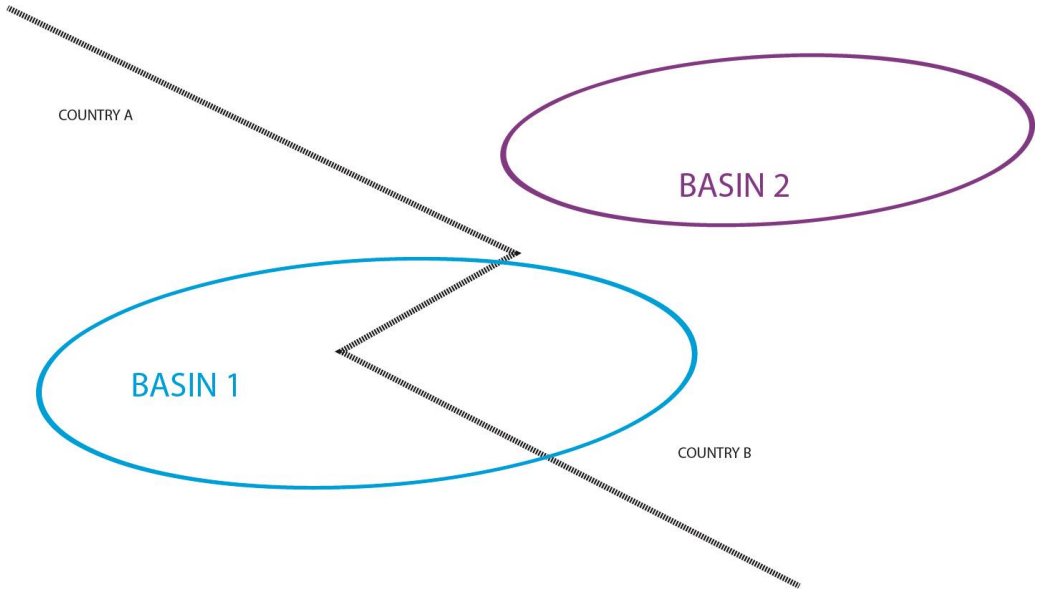
What do we consider as a *Basin* ?

For the purpose of the working group the concept includes all

SURFACE and

Groundwater

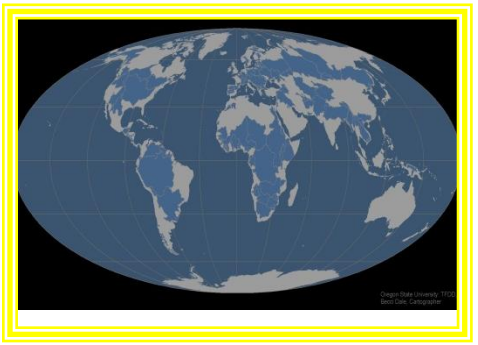
Basin governance



LOCAL
NATIONAL
TRANSBOUNDARY

The geographic extent of a basin will determine the mix of actors for management activities:
local, national and/or international organizations.

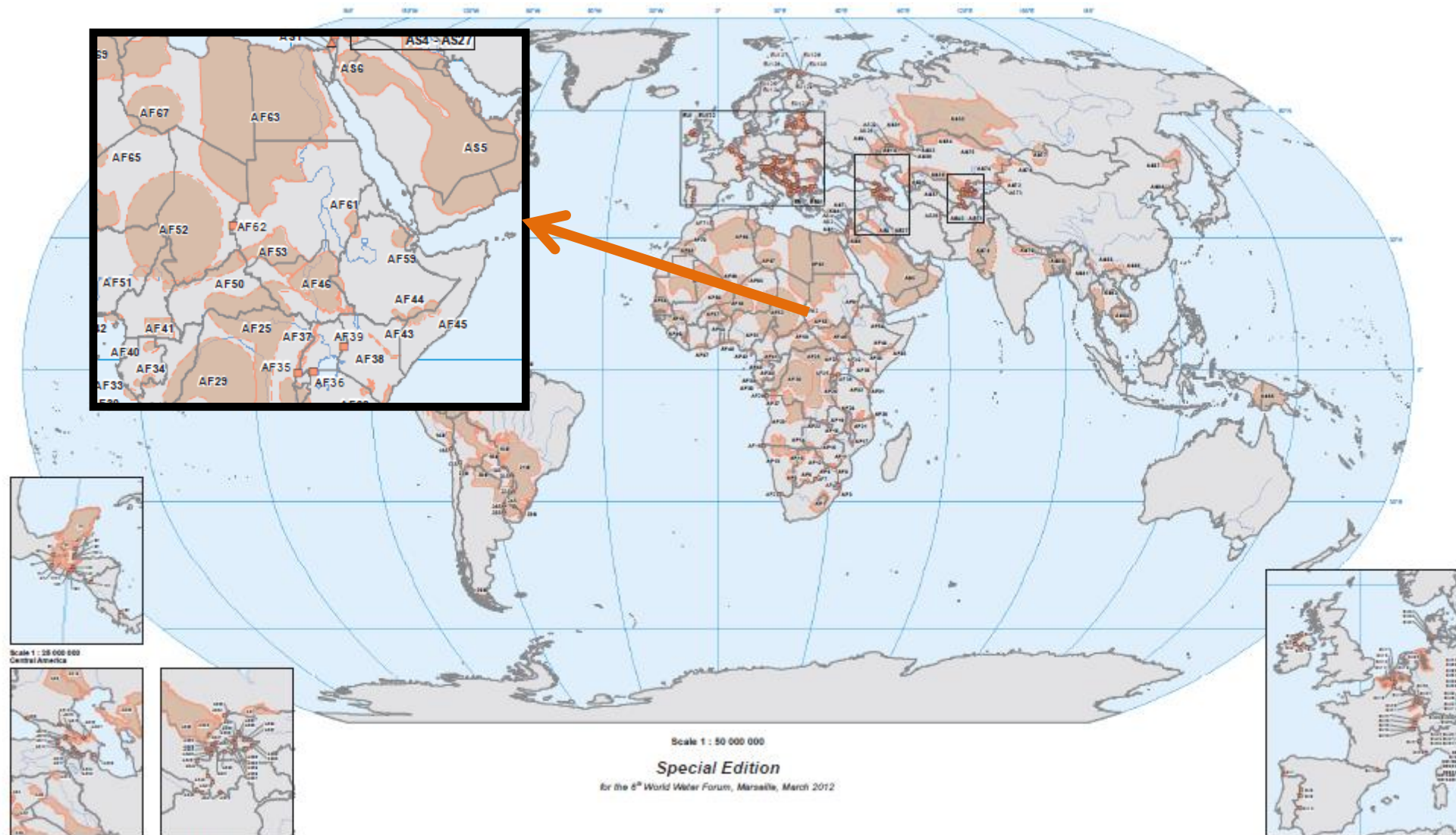
TWO HUNDRED AND SEVENTY SIX RIVERS 156 LAKES AND HUNDREDS OF AQUIFERS ARE TRANSBOUNDARY ONES



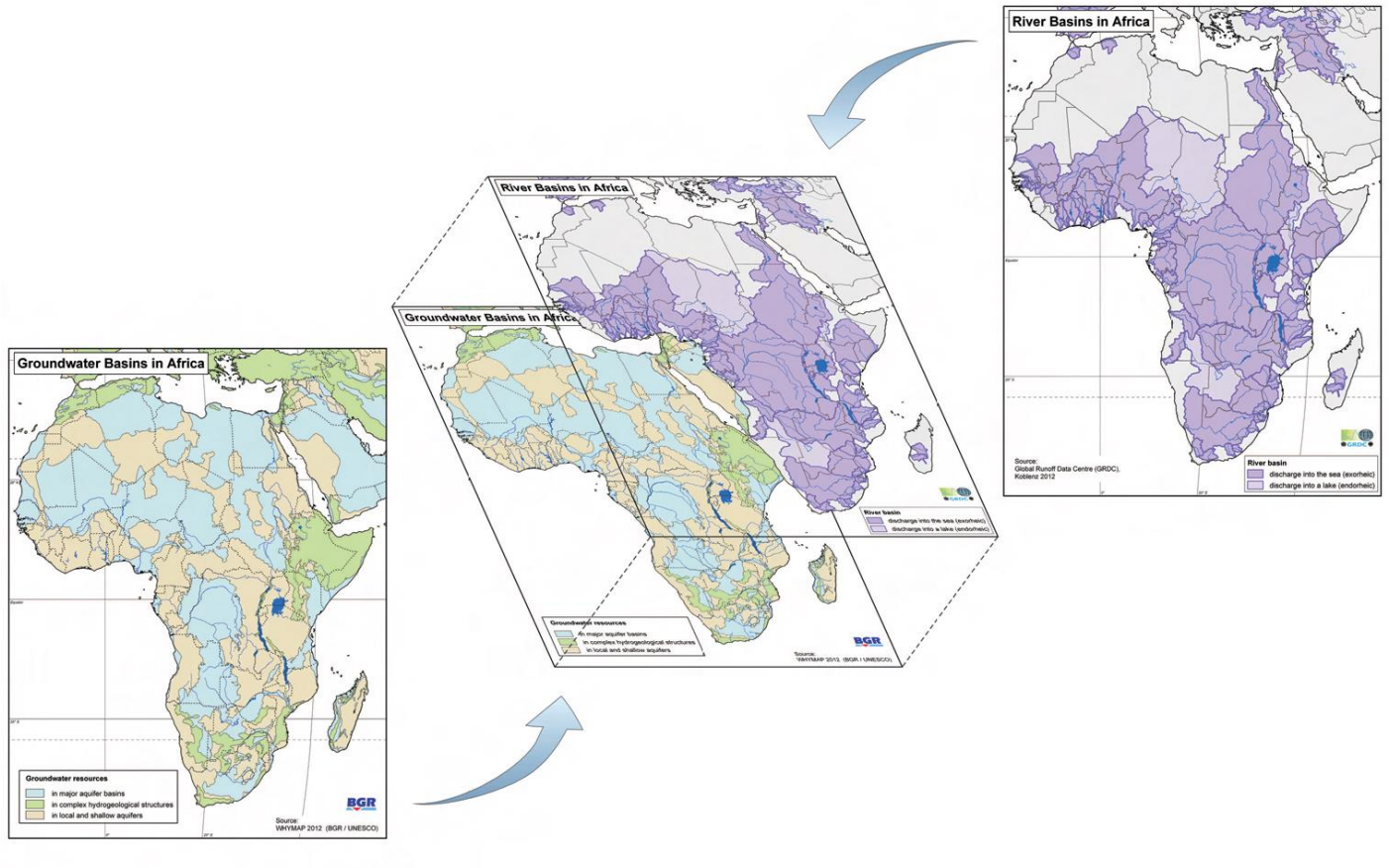
Transboundary basins per continent.

			Pourcentage du territoire
Afrique		59	62 %
Asie		57	39 %
Europe		69	54 %
Amerique du Nord		40	35 %
Amerique du Sud		38	60 %
TOTAL		276	45 %

Transboundary aquifers



Map of the River and Groundwater Basins of the World



Even if Area extent of surface basins and aquifers sometimes differs

A solution to face global changes?

IWRM:

Integrated Water Resources Management at rivers, lakes and aquifers basins' level

United Nations Educational, Scientific and Cultural Organization

International Hydrological Programme

Could we say that water resources management would be organized:

?

1) on the scale of local, national or transboundary basins of rivers, lakes and aquifers;

2) with a joint management of surface and groundwaters,

3) based on integrated information systems, allowing knowledge on resources and their uses, polluting pressures, ecosystems and their functioning, the follow-up of their evolutions and risk assessment.

4) with a set of indicators to follow progresses and to facilitate comparisons,

United Nations Educational, Scientific and Cultural Organization

International Hydrological Programme

5) based on management plans or master plans that define the medium and long-term objectives to be achieved: "the share vision of the future";

6) through the development of Programs of Measures and multiyear priority investments;

7) with the mobilization of specific financial resources, "OECD 3T" ; If possible based on the « polluter-pays » principle and « user-pays » systems;

8) with the participation in decision-making of the concerned Governmental Administrations and local Authorities, the representatives of different categories of users and associations for environmental protection or of public interest.

International Office For Water PARIS-FRANCE

International Network Of Basin Organizations

In Europe,
Riparian Countries in transboundary basins have created joint managing bodies
…. sometime for decades.

Such International Commissions allow:

- **better dialogue,**
- **exchanging useful information and warning,**
- **resolving potential conflicts,**
- **sharing benefits from better joint management and**
- **strengthening transboundary cooperation.**

However, these institutions may be effective only if they have mandates clearly defining their tasks and responsibilities and if they have the necessary and sufficient human, technical and financial resources and their sustainability guaranteed.

IWRM

INTEGRATED WATER RESOURCE MANAGEMENT

- **OVERALL MEETING**
  OF RATIONAL AND LEGITIMATE DEMANDS

Agriculture	Electricity
Domestic uses	Transports
Industry	Leisure- Tourism
Fish farming	Fishing

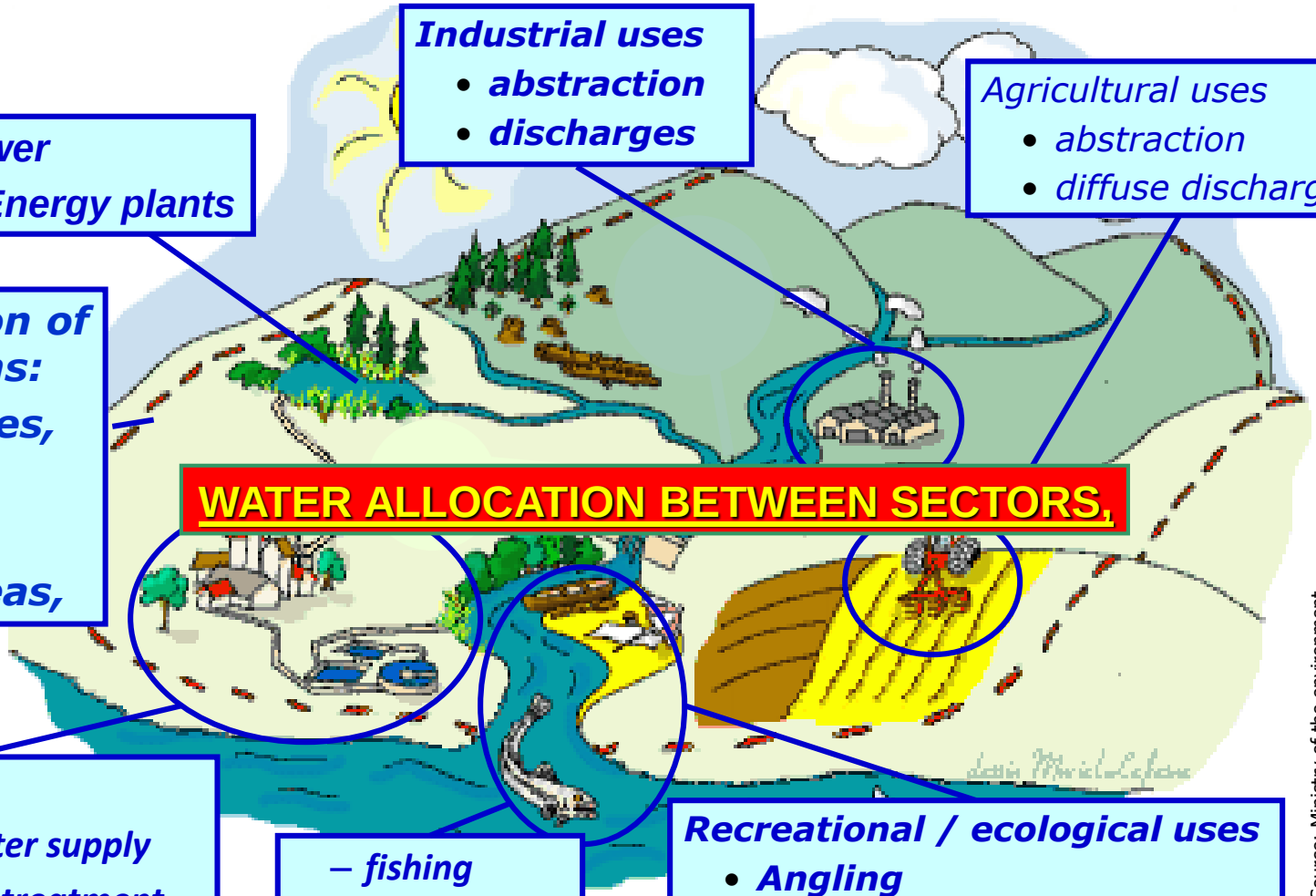
- **WASTEWATER TREATMENT AND RECYCLING,**

- **CONSERVATION OF ECOSYSTEMS:**
  rivers, lakes, wetlands, aquifers, costal areas,

- **RISK PREVENTION :**
- Erosion
  Drought
  Floods

IWRM CONCERNS

ALL MAJOR WATER USES



Industrial uses
- ***abstraction***
- ***discharges***

Agricultural uses
- *abstraction*
- *diffuse discharges*

Hydropower
Cooling Energy plants

- ***Conservation of ecosystems:***
- ***- rivers, lakes,***
- ***- wetlands,***
- ***- aquifers,***
- ***- costal areas,***

WATER ALLOCATION BETWEEN SECTORS,

Urban uses:
- ***– drinking water supply***
- ***– wastewater treatment***

- ***– fishing***
- ***– Fish farming***

Recreational / ecological uses
- ***Angling***
- ***Turism***
- ***bathing…***

Source: Ministry of the environment, Québec, Canada

Conflicts

requirements collected
from each point of view

Designing a program
through **dialogue**

Reaching **agreement**
with an ambitious program

If we cannot measure, we cannot manage!!

DIALOGUE ⟷ **INFORMATION**

Resources

- Surface water (Rivers –Lakes)
- Groundwater
- Wetlands

→ - Quantity
→ - Quality
→ - Ecology

Uses

- Requirements
- Abstractions
- Discharges
  - Flowrates
  - Pollution

Seasonal variations - Frequencies

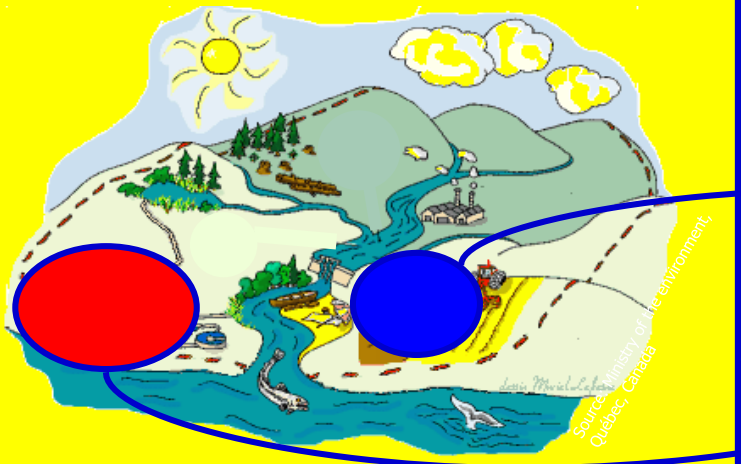
Geographic locations - G.I.S

Economical informations - Cost, budget…

water resources management should be organized:

2000

Description of the initial situation

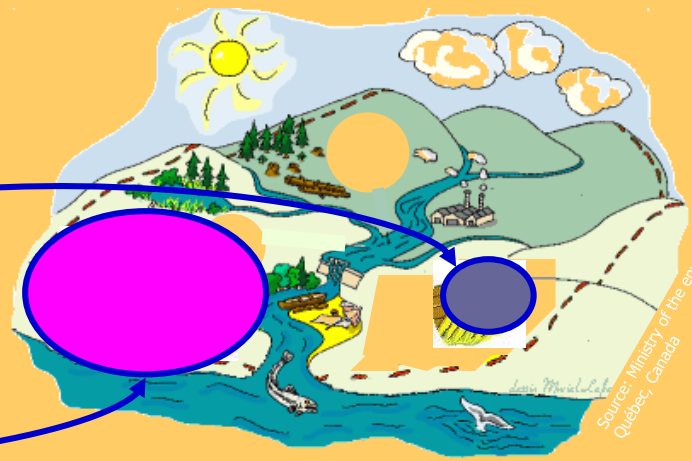


Focus on economic aspects:

- estimate the economic "weight" of water uses and services
- assess the level of recovery of costs of water services

2025

Baseline scenario: projection for 2025



Baseline scenario:

- appraisal of evolutions of uses, pressures...
- identification of potential gaps in water status with GES

based on management plans or master plans

that define the medium and long-term objectives to be achieved;

As adaptation actions will take several decades before having a visible and significant effect

water resources management should be organized:

the mobilization of specific financial resources,

VARIOUS COMPLEMENTARY SYSTEMS
FOR COST RECOVERY: THE 3x"T"

- TAXES:
  - * Paid to the GENERAL STATE BUDGET:
    - General taxes or penal fines
    - New ecological tax.
  - * Water-related CHARGES:
    - National water charges – transiting through "Special Accounts of the Treasury"
    - Basin water charges – levied by the Water Agency
- TARIFFS OF COMMUNITY SERVICES:
  - Price of raw water – levied by big developers
  - Price of drinking water – levied by the municipalities or water suppliers
- TRANSFERTS: International aid or from other economical sectors.

MERCI DE VOTRE ATTENTION!
THANK YOU FOR YOUR ATTENTION!

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流域组织国际网

Международная сеть водохозяйственных организаций,

Réseau International des Organismes de Bassin
International Network of Basin Organizations
Red Internacional de Organismos de Cuenca
الشبكة الدولية لهيئات الأحواض