



DICASTERY FOR PROMOTING
INTEGRAL HUMAN DEVELOPMENT



**Governing a common good:
access to drinkable water for all**

Rome - 8 November 2018

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



FRESH WATER IS A TIME BOMB!!!



United Nations 9–18 July 2018



Economic and Social Council

**High-level political forum on
sustainable development**



“The world is not on track to reach Sustainable Development Goal 6 (SDG 6) on Water and Sanitation by the deadline set for 2030”.

“If we remain off track to deliver on SDG 6, then we jeopardize the entire 2030 Agenda for Sustainable Development”.



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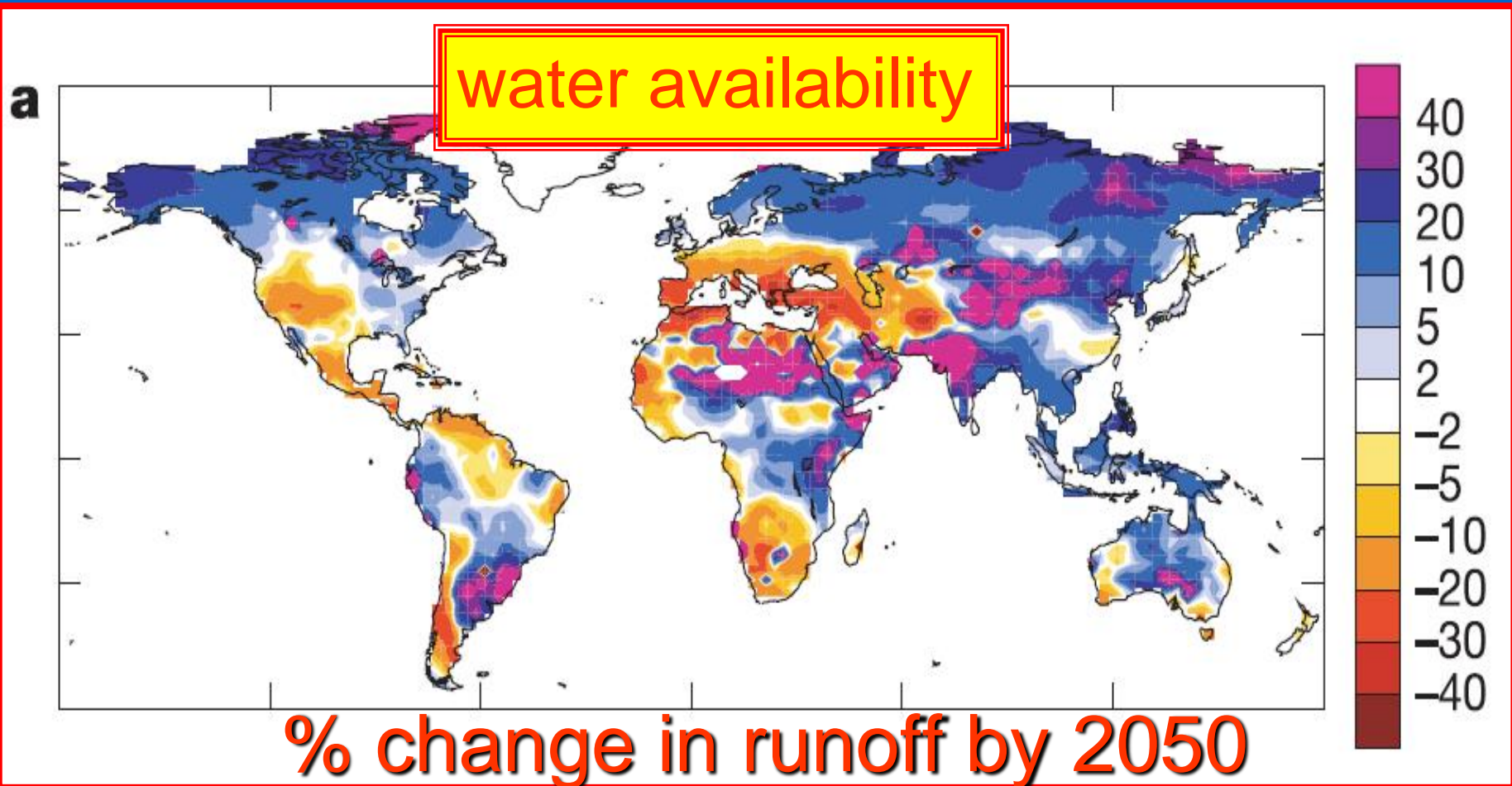
**WATER OVER THE WORLD,
A worrying situation:**

- Natural hazards are poorly controlled,
- Wastage is inadmissible,
- Water pollution is significantly increasing,
- The situation of the poorest people is intolerable,
- Ecosystems are destroyed...

**Wastage and pollution of inland freshwater
might limit development
in most countries of the world!**

Global warming cannot now be avoided.

Fresh water resources will be directly affected in the coming years!



- Many of the major “food-bowls” of the world are projected to become significantly drier
- Globally there will be more precipitation
- Higher temperatures will tend to reduce run off
- A few important areas drier (Mediterranean, southern South America, northern Brazil, west and south Africa)



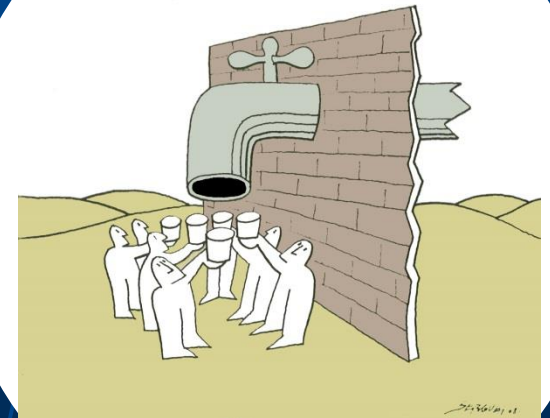
Climate change consequences



The climate change is likely to increase the frequency of extreme events, such as floods and droughts:

Freshwater is "the first victim of climate change"

Water resources and global changes



Conflicts!!

The fundamental problems of water resources management and protection, are too often put in the background!

What will we do if...

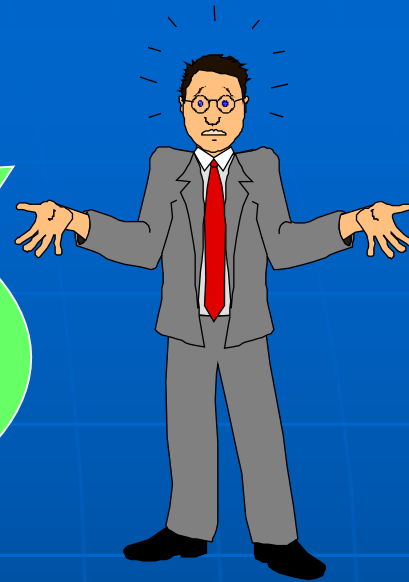
- For the supply of drinking water, catchments are drying up?
- For hydropower, dam reservoirs are no longer filled?
- For food, there's shortage of irrigation water?
- We remain unable to cool thermal power plants and, even worse, nuclear power plants?
- How can we guarantee waterway transport or the production of fish for food?





**TODAY, IT IS USELESS TO
"REINVENT THE WHEEL"**

!



**AS ALL EFFECTIVE TOOLS ARE AVAILABLE TO MOVE FORWARD FAST,
IF THERE IS A POLITICAL WILL TO DECIDE TO DO SO!**

**Many successful experiments have already been made:
We must therefore identify good practices and disseminate them...**

The problems are mainly not technical but institutional and financial!



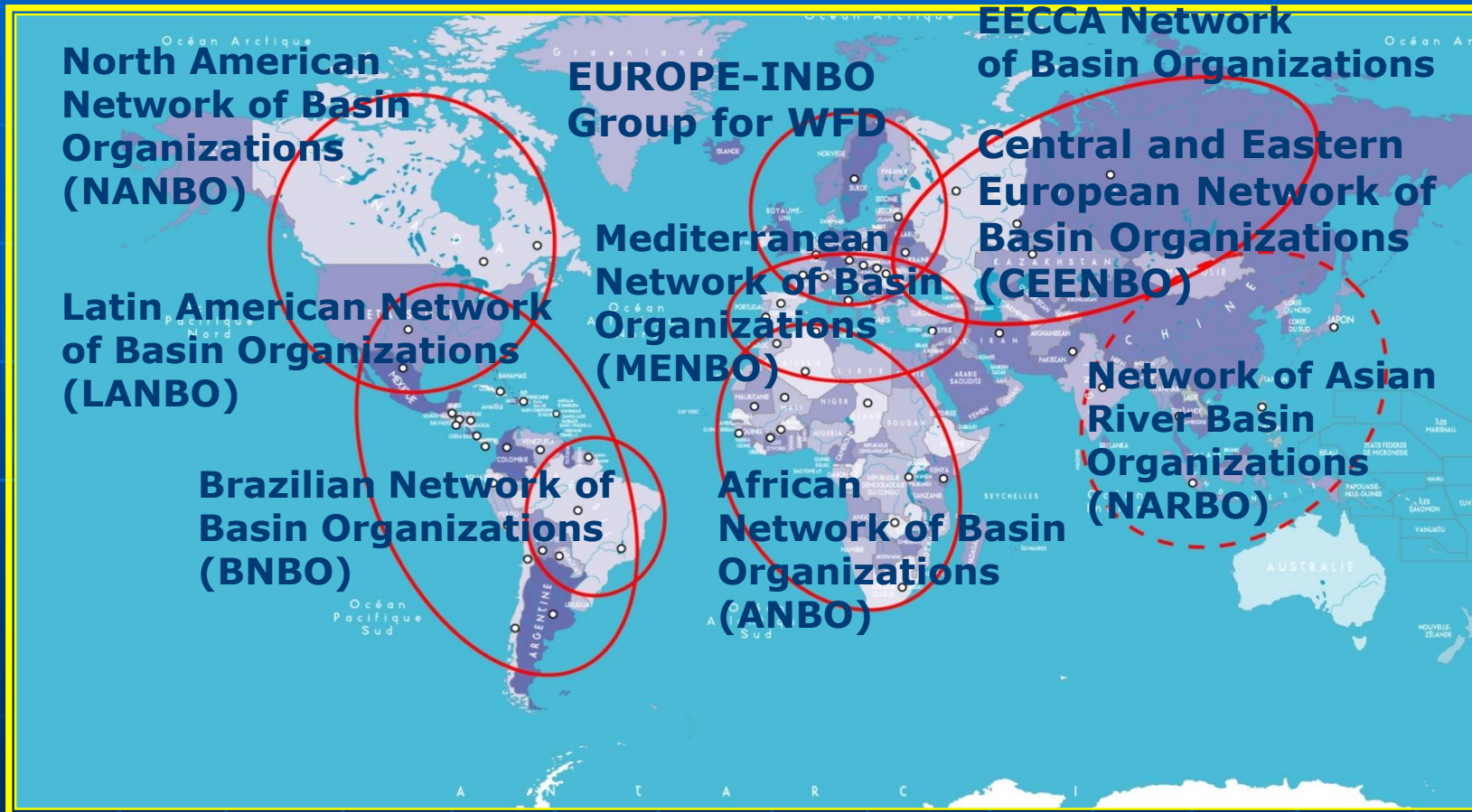
INTERNATIONAL NETWORK OF BASIN ORGANIZATIONS

Created in 1994 to facilitate
operational exchanges between BO



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INBO's REGIONAL NETWORKS



192 FULL MEMBERS or PERMANENT OBSERVERS
in 88 COUNTRIES



**Indeed, basins are the natural territories,
in which water runs,
on the soil or in the sub-soil,
whatever are the national or administrative boundaries
or limits crossed.**



**An overall approach should be organized
on the relevant scale of rivers, lakes and aquifers.**

**“UPSTREAM-DOWNSTREAM COMMON CAUSE”
ON THE SCALE OF BASINS AND SUB-BASINS**



RIVER BASIN MANAGEMENT EXPERIENCED A QUICK DEVELOPMENT IN MANY COUNTRIES

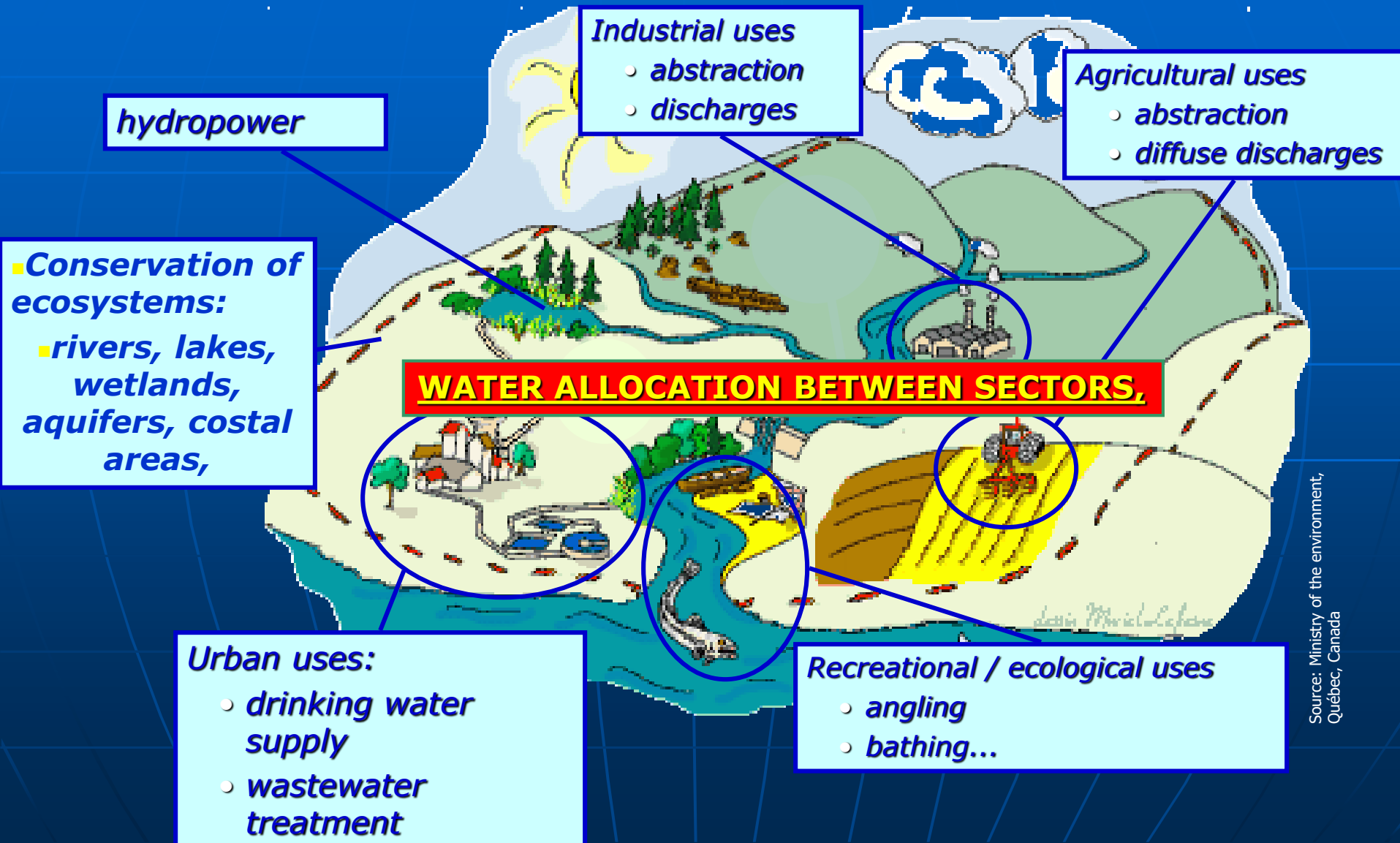


INTEGRATED WATER RESOURCE MANAGEMENT

- OVERALL MEETING OF RATIONAL AND LEGITIMATE DEMANDS
 - Agriculture
 - Domestic uses
 - Industry
 - Fish farming
 - Electricity
 - Transports
 - Leisure
 - Fishing
- WASTEWATER TREATMENT AND RECYCLING,
- CONSERVATION OF ECOSYSTEMS:
rivers, lakes, wetlands, aquifers, costal areas,
- RISK PREVENTION :
 - Erosion
 - Drought
 - Floods



CLIMATE CHANGE CONCERNS ALL MAJOR WATER USES



What do we consider as a *Basin* ?

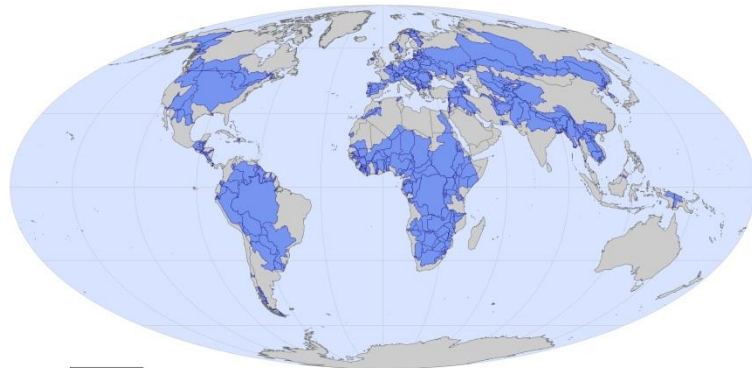
The concept includes all water resources

SURFACE and



▸ **groundwater**

International River Basins



Transboundary Freshwater Dispute Database
Oregon State University, 2010

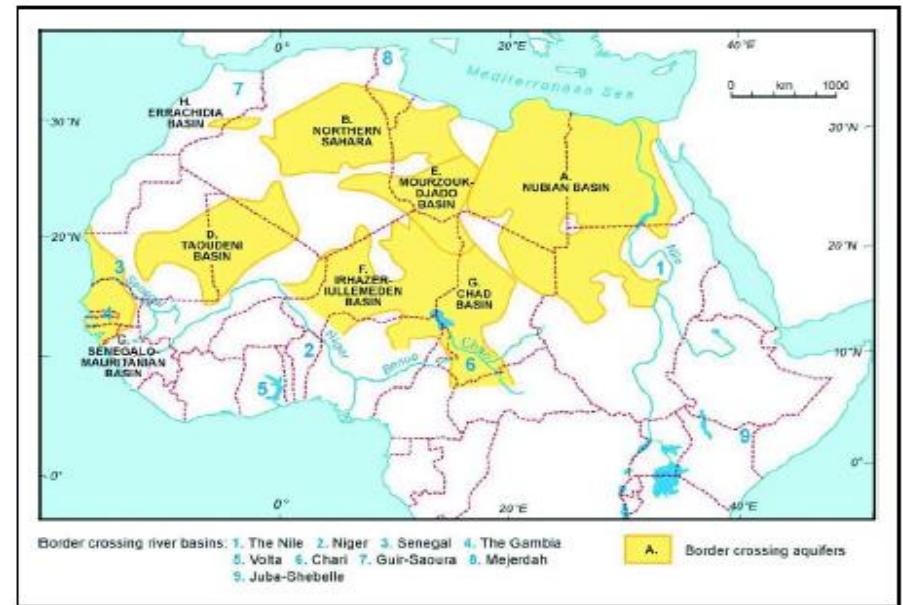


FIGURE 1. Transboundary aquifers in N Africa

« Water has no boundary »

Today, there are still too few agreements, conventions or treaties, dealing with:

- pollution control,
- aquifers management,
- the integrated management of shared river and aquifers basins.



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



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Transboundary basins per continent.

		2002	Percentage Of territory
<i>Africa</i>		59	62 %
<i>Asia</i>		57	39 %
<i>Europe</i>		69	54 %
<i>America North</i>		40	35 %
<i>America South</i>		38	60 %
<i>TOTAL</i>		276	45 %



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Implementation of the UN Convention for the international water courses management in Europe – HELSINKY 1992

Building the data administration and sharing capacities of the national and local Authorities involved in 2 pilot basins, by using methodologies that can be replicated in other transboundary basins of the region.





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Implementation of
the European Water Framework Directive
in the 28 countries
of the enlarged European Union,
as well as in the candidate countries for accession,
is a major milestone for promoting the principles
of good governance advocated by INBO.

Directive 2000/60/EC of 23 October 2000

establishing a framework for the Community action in the field of water policy.



FLOOD CONTROL: PROTECTION, FORECAST, PREVENTION.



**PROTECTION AGAINST FLOODS
MUST PASS THROUGH A COORDINATED APPROACH,
COMBINING, ON THE SCALE OF BASINS AND SUB-BASINS:**

- Protecting people and properties,
- Reducing vulnerabilities,
 - *Restoring the free flow of rivers,*
 - *Preserving - rehabilitating the natural flooding areas,*
- Foreseeing hazardous events,
 - *Identification of hazardous areas,*
 - *Prohibition of buildings in the exposed areas,*
- Warning and educating.

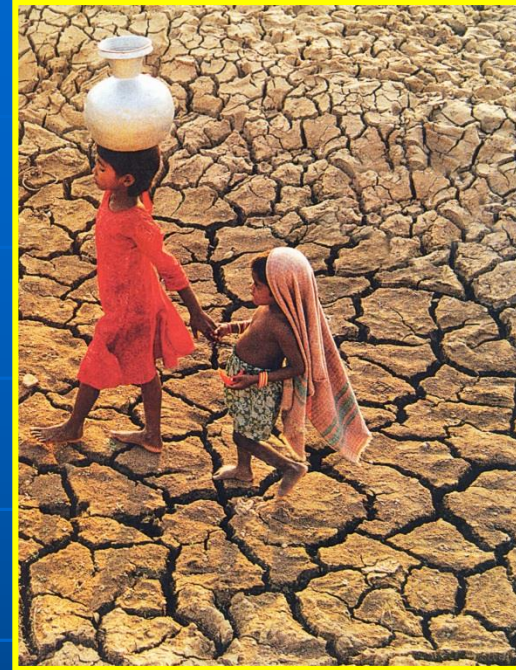


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WITH REGARD TO DROUGHTS:



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AVOIDING WASTAGES!

- WATER SAVING,
- LEAK DETECTION,
- RECYCLING,
- THE REUSE OF TREATED WASTE WATER,
- GROUNDWATER RECHARGE,
- THE DESALINATION OF SEA WATER,
- RESEARCH ON LOW-CONSUMPTION USES...

... MUST BECOME PRIORITIES.



A NEW APPROACH TO WATER USES IN AGRICULTURE SHOULD BE LOOKED FOR.



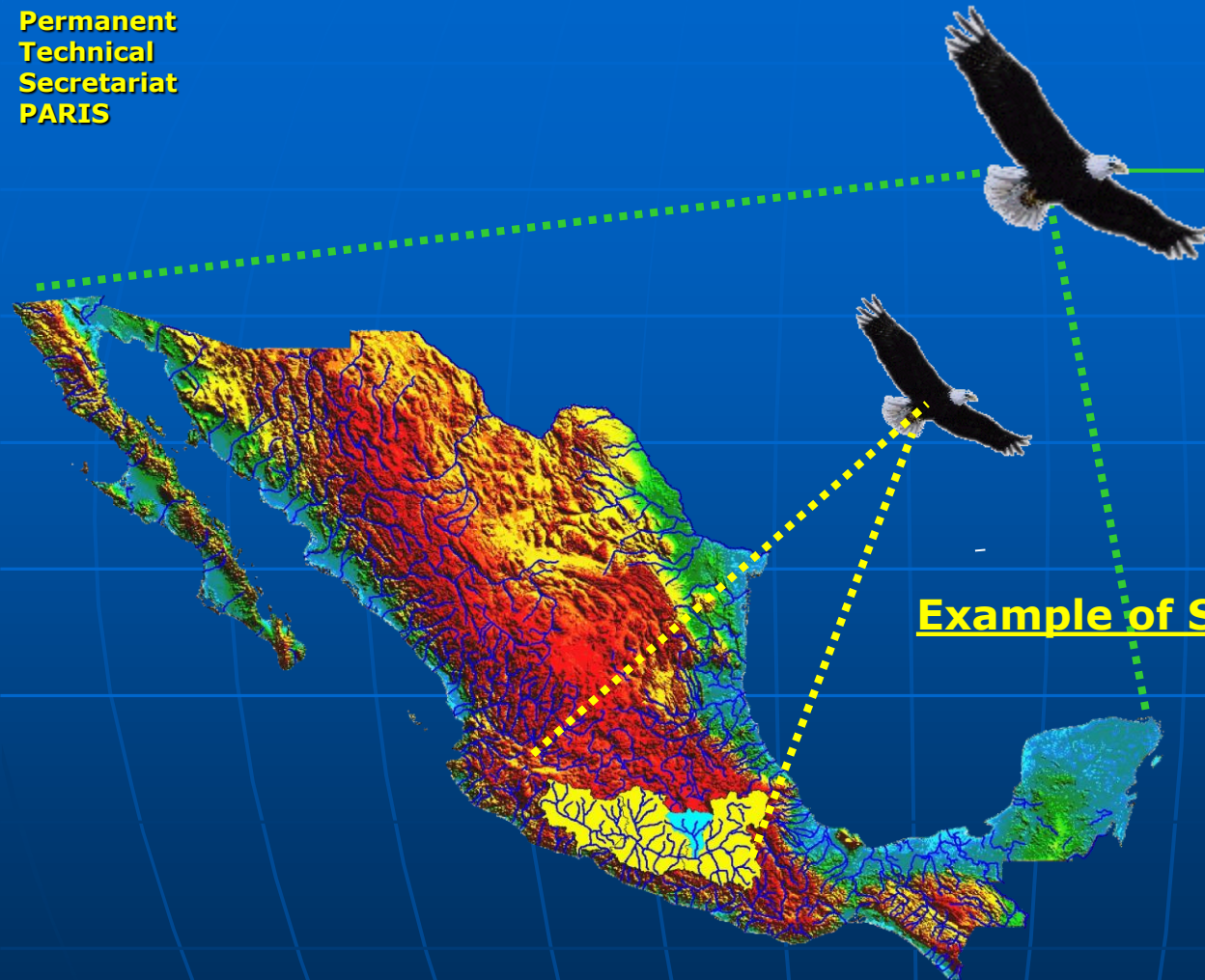


water resources management should be organized:



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Example of SINA and SIRA in Mexico

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.



If we cannot measure, we cannot manage!!



DIALOGUE



INFORMATION



Resources

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



Uses



Seasonal variations



Geographic locations



Economical informations

- Quantity
- Quality
- Ecology

- Requirements
- Abstractions
- Discharges
 - Flowrates
 - Pollution

- Frequencies

- G.I.S

- Cost, budget...

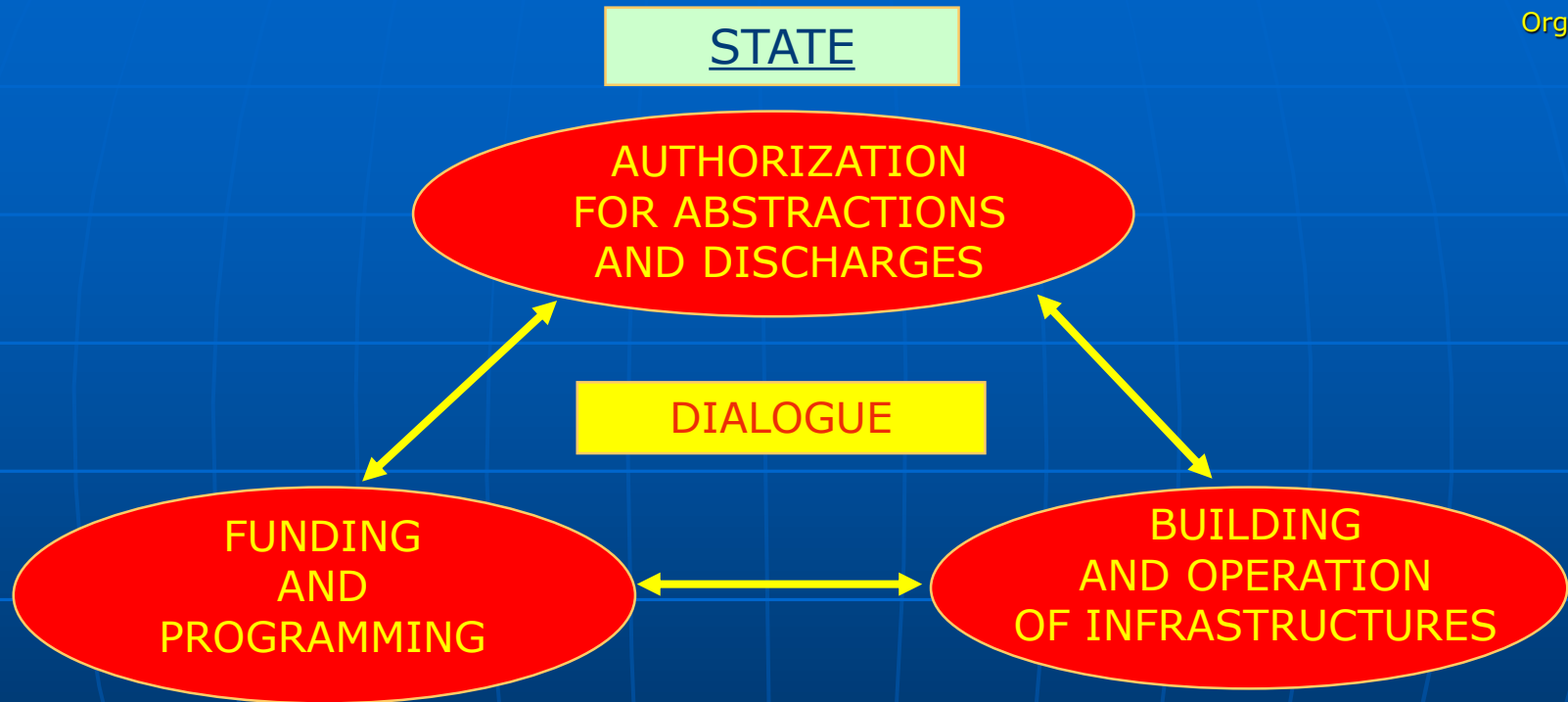


MORE AND MORE STAKEHOLDERS ARE INVOLVED IN WATER MANAGEMENT



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- Water Agencies
- River Basin Committees

- State administrations
- Municipalities
- Industrialists
- Farmers
- Developers

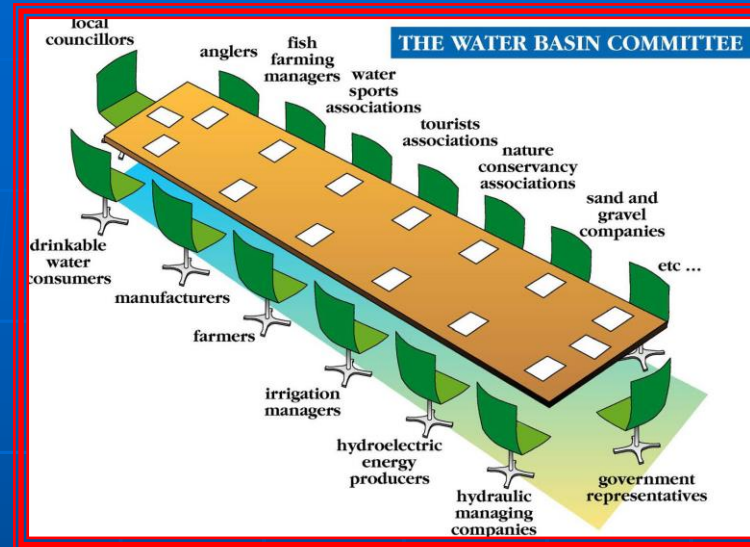


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with the participation in decision-making

of the concerned Governmental Administrations and local Authorities, the representatives of different categories of users and associations for environmental protection or of public interest,

especially, in Basin Councils or Committees.

- Information, awareness and education of populations or users and of their representatives are essential,

TO SOLVE POSSIBLE CONFLICTS ON WATER USE:
"DIALOGUE IS THE BEGINNING OF WISDOM".



Conflicts

requirements collected
from each point of view



Designing a program
through **dialogue**



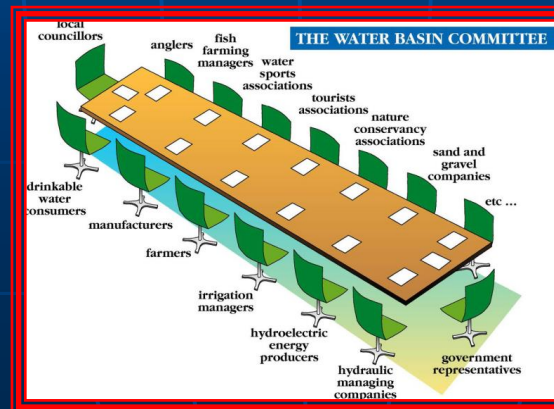
Reaching **agreement**
with an ambitious program



- **INBO RECOMMENDS THAT THIS PARTICIPATION BE ORGANIZED IN BASIN COMMITTEES OR COUNCILS.**

IN PARTICULAR, THEY SHOULD BE ASSOCIATED TO:

- THE DEFINITION OF LONG-TERM OBJECTIVES,
- **THE PREPARATION OF MANAGEMENT PLANS OR MASTER PLANS,**
- THE SELECTION OF DEVELOPMENT AND EQUIPMENT PRIORITIES,
- **THE JOINT IMPLEMENTATION OF PROGRAMMES OF MEASURES AND MULTIYEAR PRIORITY INVESTMENT PROGRAMMES,**
- THE ESTABLISHMENT OF FINANCING PRINCIPLES AND THE CALCULATION OF WATER TAXES THAT CONCERN THEM.



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2000

Description of the initial situation

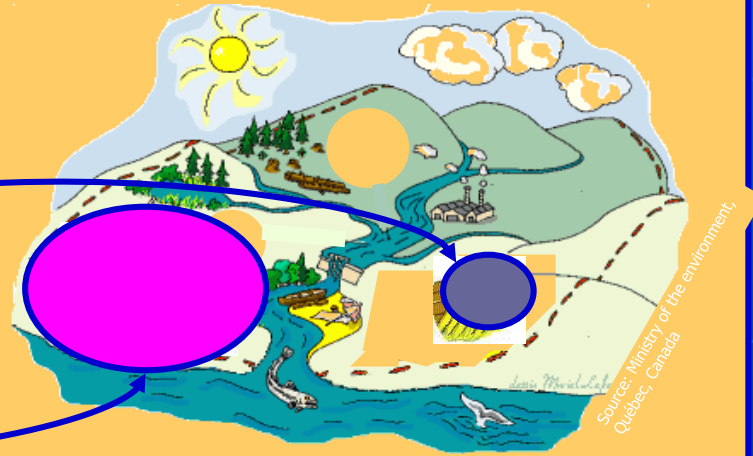


Focus on economic aspects:

- 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;

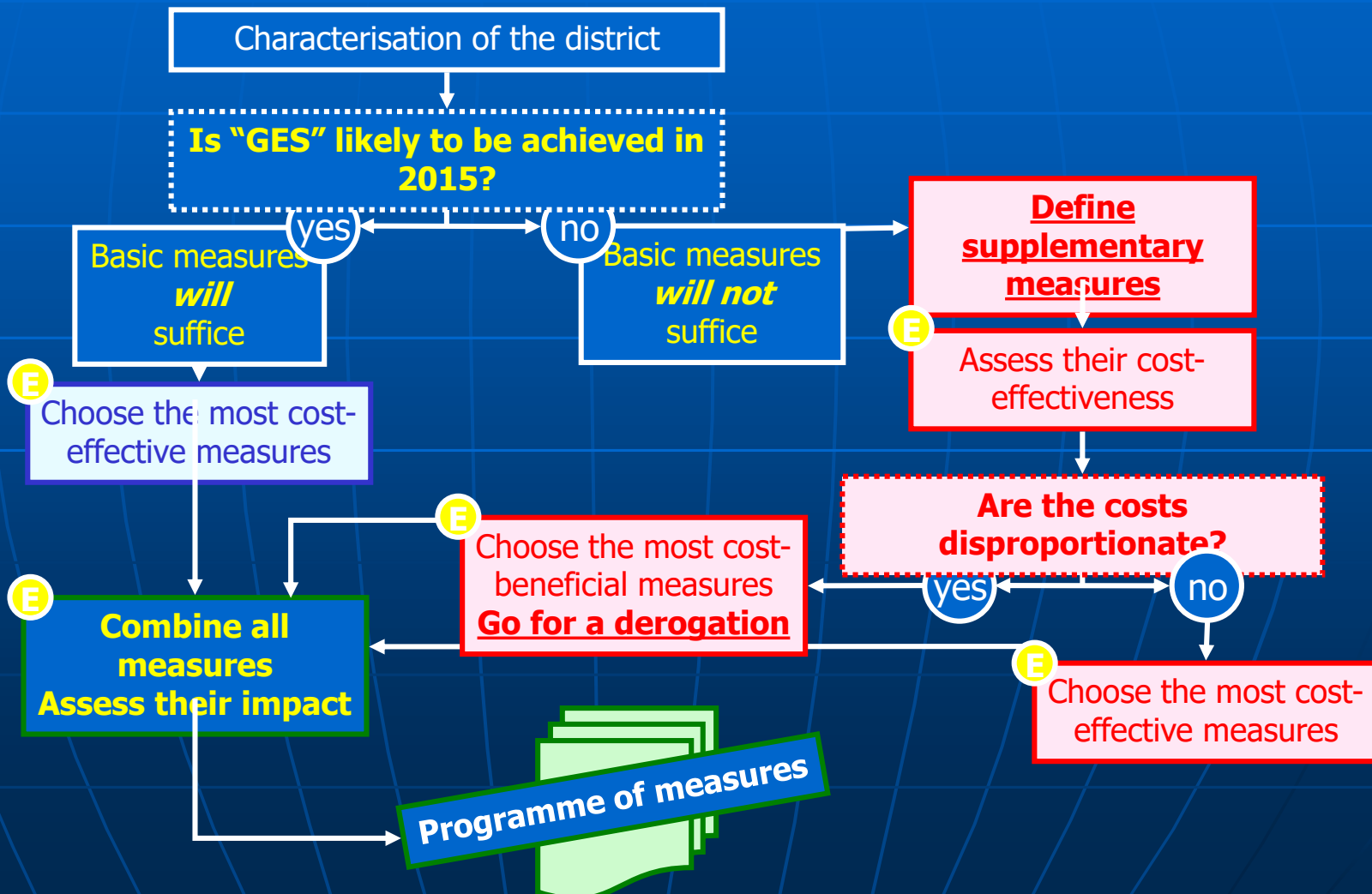


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Through the development of Programs of Measures and multiyear priority investments;



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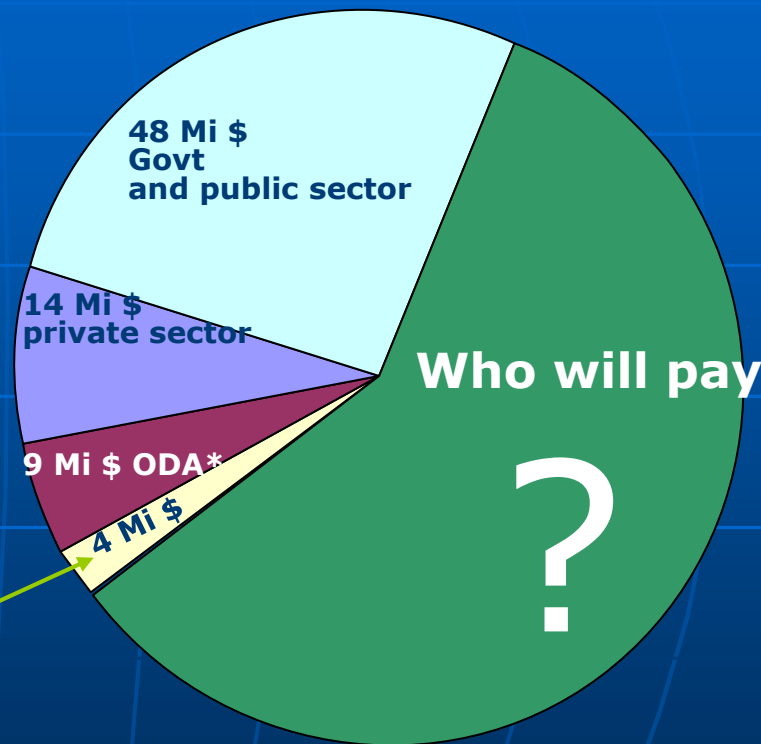
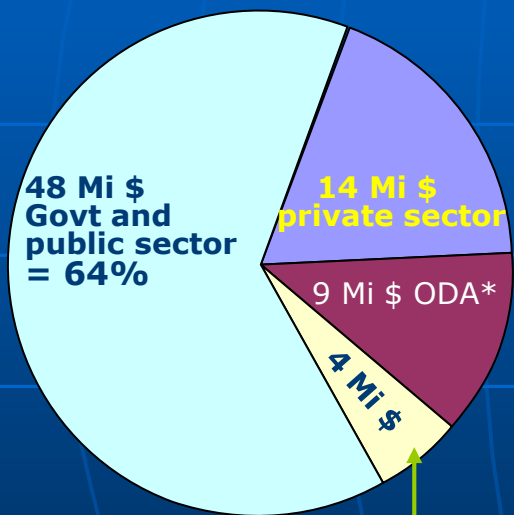


IF WE ARE NOT ABLE TO MOBILIZE ENOUGH MONEY, WE SHALL NOT HAVE THE FRESH WATER WE NEED!

Who will pay ?

FOR THE NEXT 25 YEARS

NOW



75 milliards \$ / year

180 milliards \$ / year

* Official Development Assistance



water resources management should be organized:



With the mobilization of specific financial resources,

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

ADMINISTRATIVE TAXES: paid to the general 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

THE PRICING 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.

With the mobilization of specific financial resources,

THE « POLLUTER - USER – PAYS » PRINCIPLE

Abstraction taxes

Pollution taxes

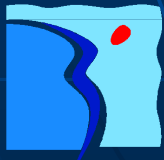
The Water Agency's Budget adopted by the Board of Directors with approval of the Basin Committee

10 % ↓

- Studies & Research
- Operation
- Measurement networks

90 % ↓

- Aid = 6-year Program
- Big developers
- Local authorities
- Farmers
- Industrialists





FINANCING WATER POLICY :



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EQUALIZATION OF FINANCIAL EFFORTS:

- Territorial equalization:
in the same geographic area or basin
- Sectoral equalization:
between public services – drinking water – electricity – sanitation – solid wastes ...
- Equalization between users:
rich, poor, big consumers / polluters,
small consumers / polluters
- Equalization between functions:
between upstream and downstream areas,
between commercial services and administrative functions



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DEFINING ROLES AND RESPONSIBILITIES OF EACH:



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- **A clear legal framework** must specify, in each country, the rights and obligations, the possible levels of decentralization, the institutional responsibilities of the different stakeholders, the processes and means needed for good water governance,



IN CONCLUSION:
BUSINESS AS USUAL CANNOT CONTINUE!

- integrated and sound water resources management is more than ever a priority when this scarce resource is already a limiting factor for sustainable development in many countries in the world.

**MOBILIZATION IS ESSENTIAL
FOR HUMANITY TO WIN
THE WATER BATTLE
AND PREPARE THE FUTURE!**



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Investing in IWRM,
it pays back!



**LET'S GET MOBILIZED !
YES WE CAN.....**