



WATEC Israel 2015

October 13-15, 2015 Water Technology and Environment Control
Exhibition & Conference

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- IOWater -

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WATEC
Israel 2015
October 13-15, 2015



WISDOM
IN EVERY
DRP



FRESH WATER IS A TIME BOMB!!!





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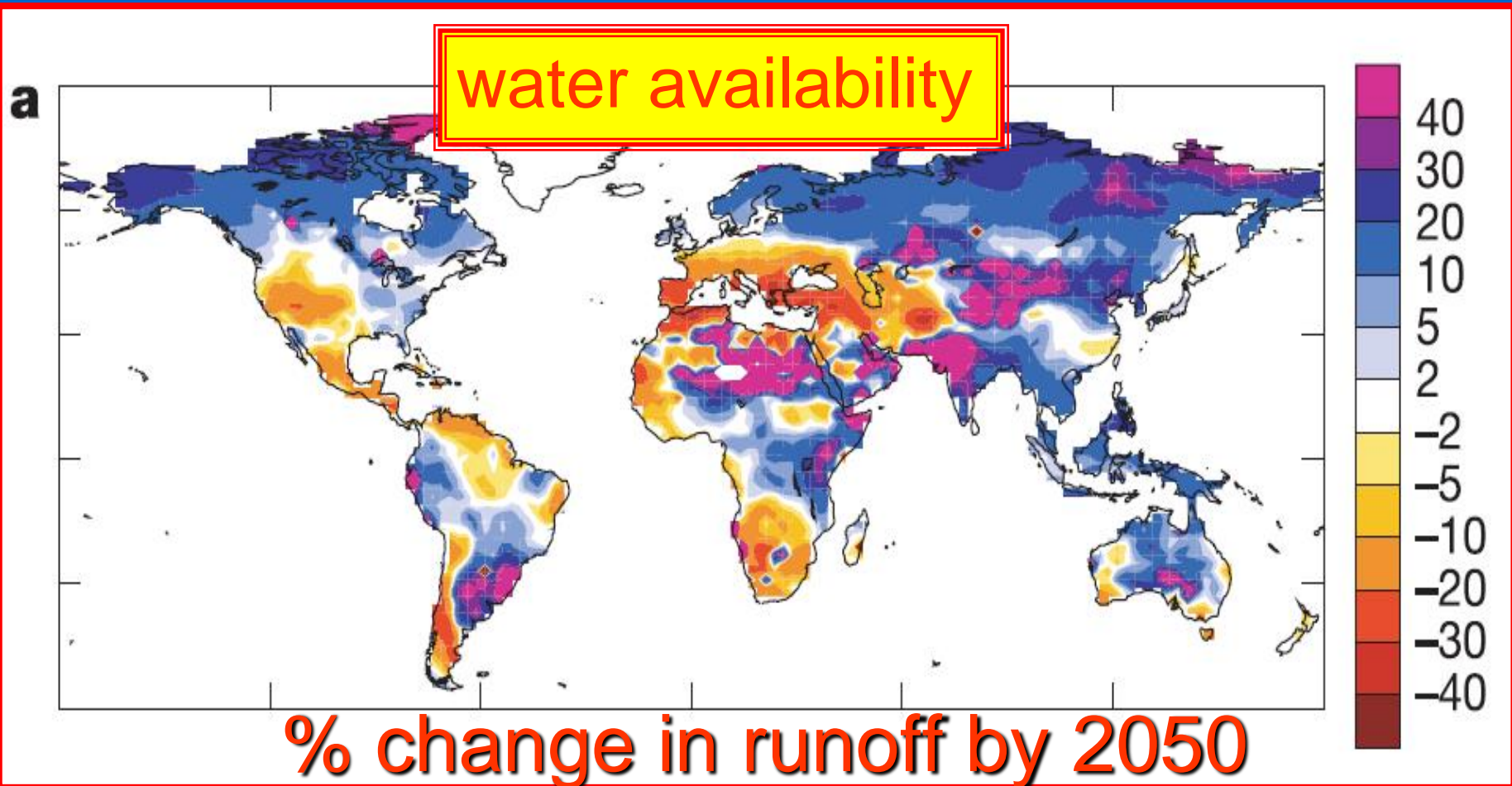
**WATER OVER THE WORLD,
A worrying situation:**

- 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:



**Adaptation of water management
to climate change is needed**

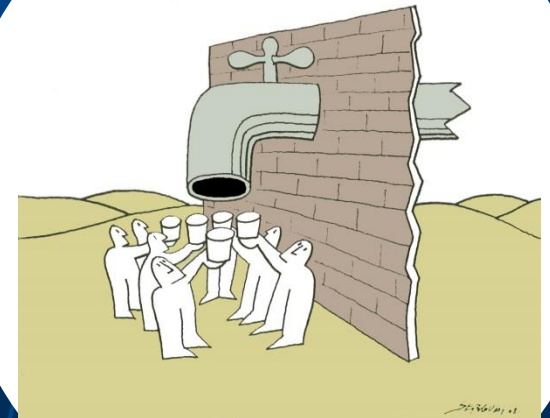


The demographic, economic and ecological consequences of the climate change are likely to be very significant.

It is thus essential to adapt water resources management policies, by taking into account the new elements of this change.

It is especially necessary to quickly evaluate the hydrological consequences of this change, according to various scenarios, to increase the thinking about and prospective, by developing adapted research programs.

Water resources and global changes



Conflicts!!



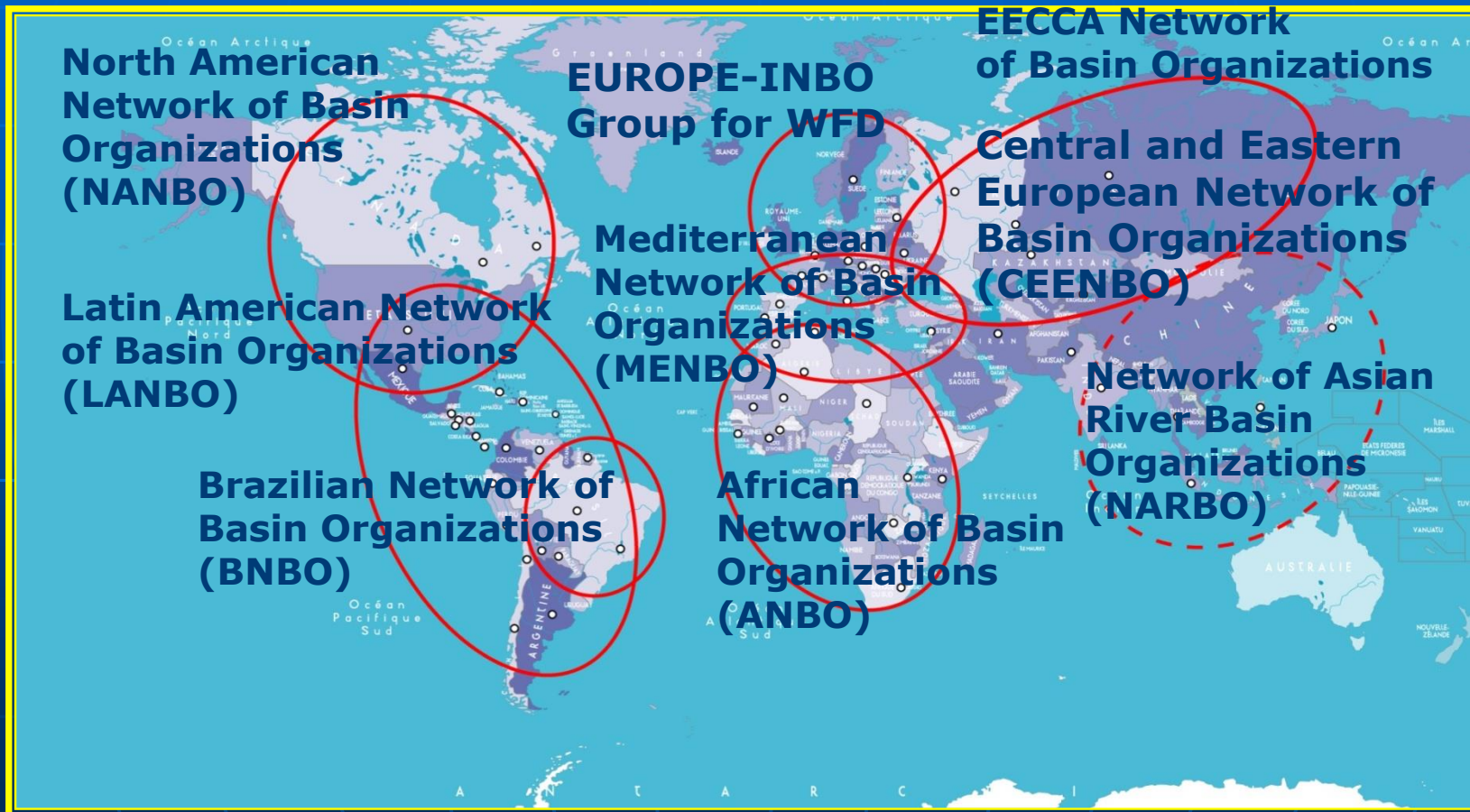
INTERNATIONAL NETWORK OF BASIN ORGANIZATIONS

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 81 COUNTRIES



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WISDOM
IN EVERY
DROP



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TECHNICAL SOLUTIONS DO EXIST,

BUT :

THE PROBLEMS ARE ABOVE ALL
INSTITUTIONAL ONES:



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



**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 basin areas of rivers, lakes and aquifers,**



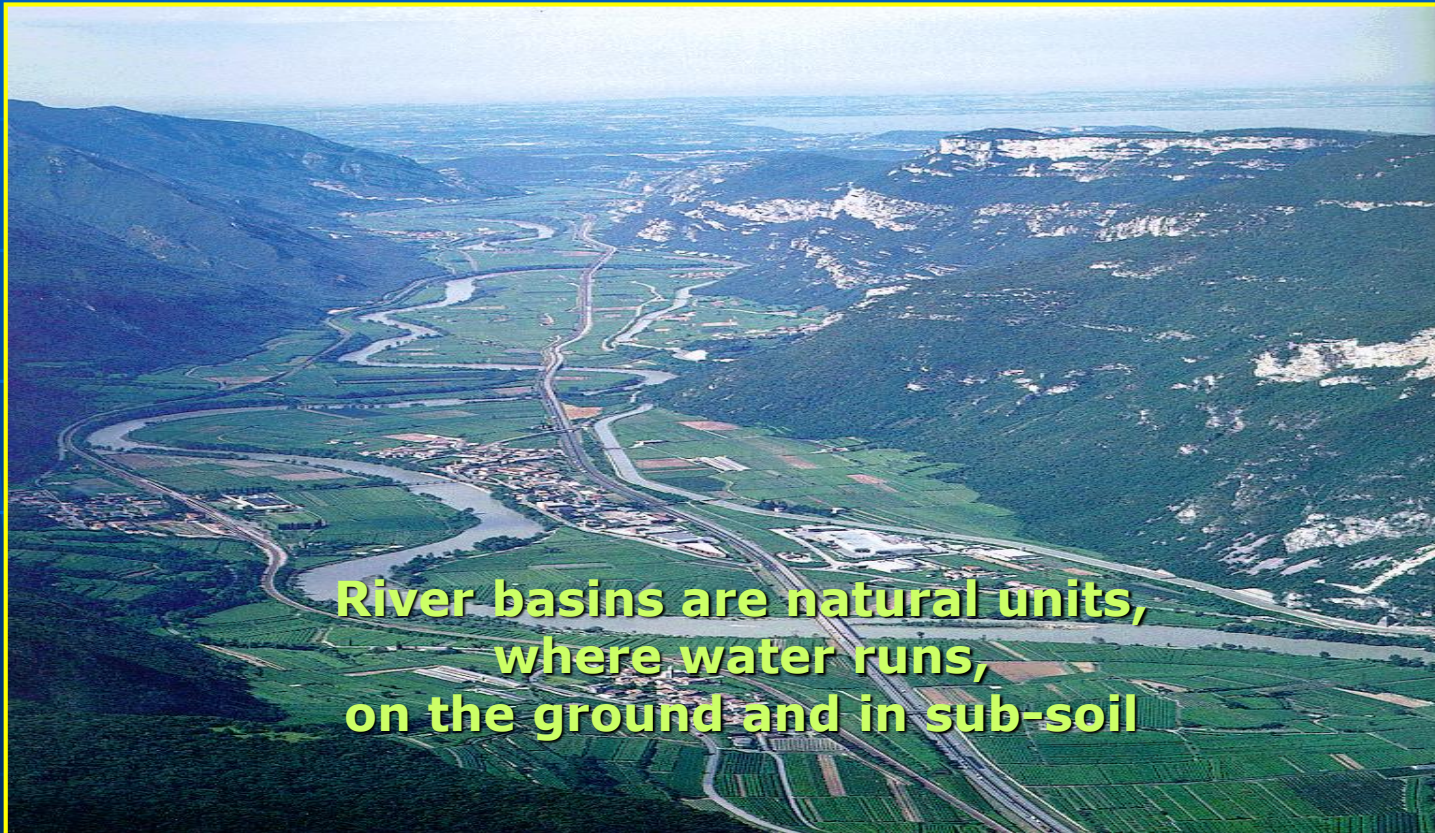
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water resources management should be organized:



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



**River basins are natural units,
where water runs,
on the ground and in sub-soil**

**« UPSTREAM-DOWNSTREAM » COMMON CAUSE
ON THE SCALE OF BASINS AND SUB-BASINS**

What do we consider as a *Basin* ?

The concept includes all water resources

SURFACE and



Groundwater

« UPSTREAM-DOWNSTREAM » COMMON CAUSE ON THE SCALE OF BASINS AND SUB-BASINS

Sub-basin/Sector/ Water type

element of district to deal
with particular aspects

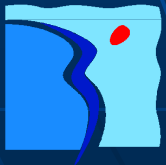
THE DIFFERENT HYDROLOGICAL SCALES:

Water bodies

scale of evaluation
of the achievement
of good status

District =

river basins + associated
groundwaters and coastal waters





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.



WITH REGARD TO DROUGHTS:



**MOBILIZING NEW RESOURCES
COULD BE PLANNED
WHEN THEY ARE ECOLOGICALLY ACCEPTABLE
AND ECONOMICALLY REASONABLE.**





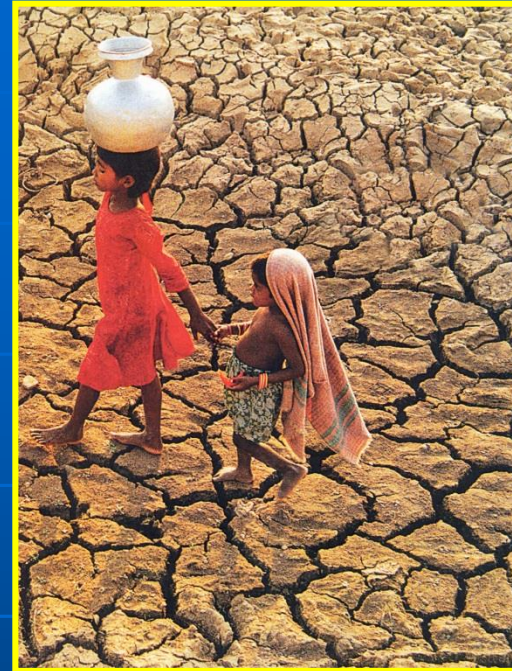
WITH REGARD TO DROUGHTS:



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AVOIDING WASTAGES!



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

... 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

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.

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

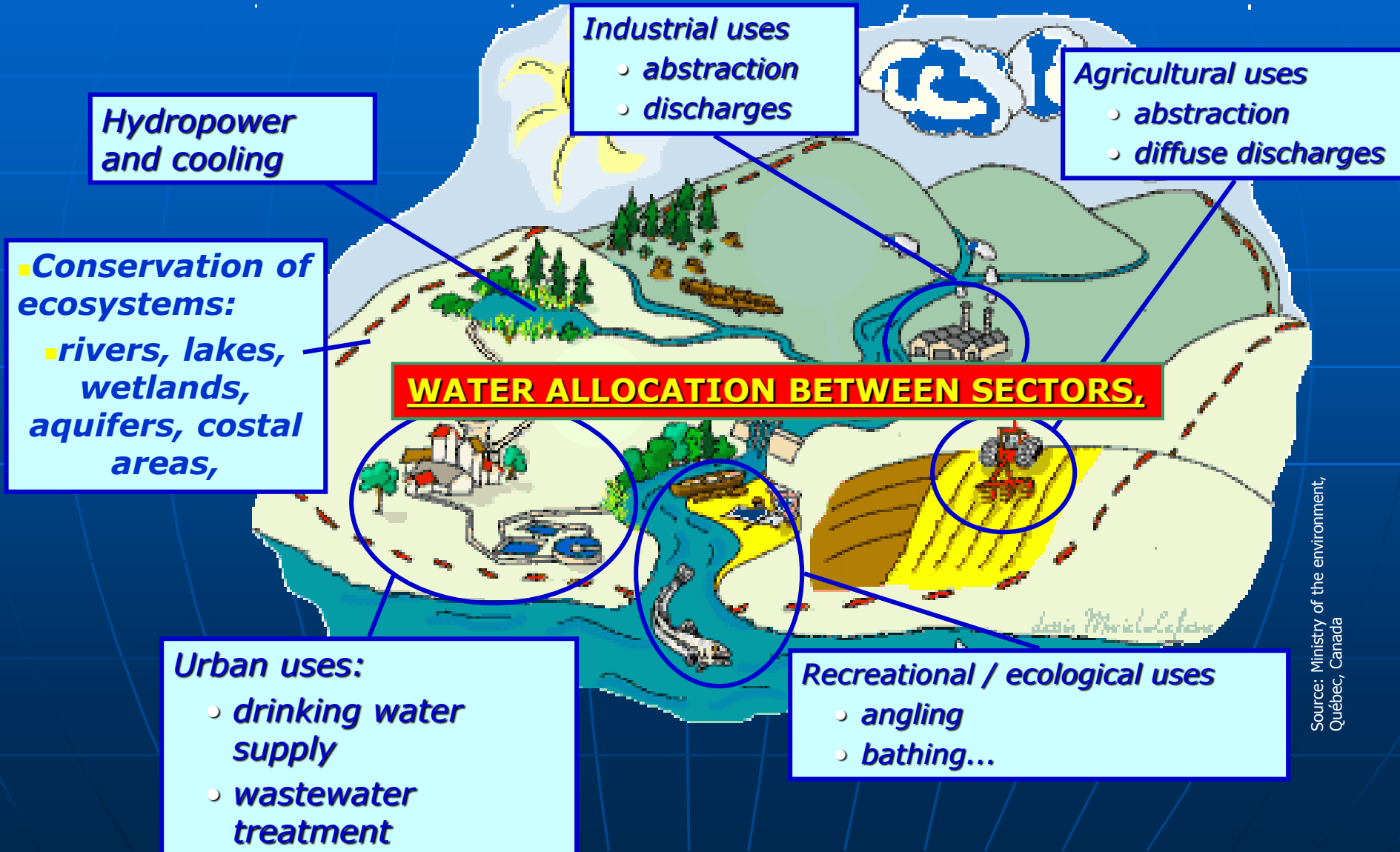


Economical informations

- Cost, budget...



ALL MAJOR WATER USES ARE CONCERNED





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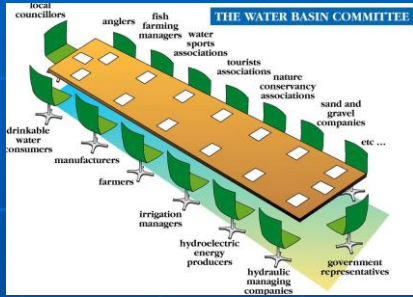
STATE

**AUTHORIZATION
FOR ABSTRACTIONS
AND DISCHARGES**

DIALOGUE

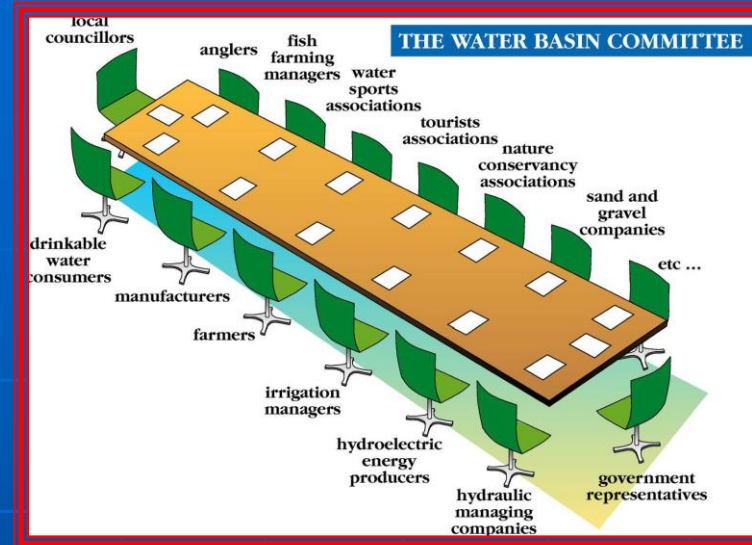
**FUNDING
AND
PROGRAMMING**

**BUILDING
AND OPERATION
OF INFRASTRUCTURES**



- Water Agencies
- River Basin Committees

- State administrations
- Municipalities
- Industrialists
- Farmers
- Developers



2) 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,



water resources management should be organized:



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2000

Description of the initial situation

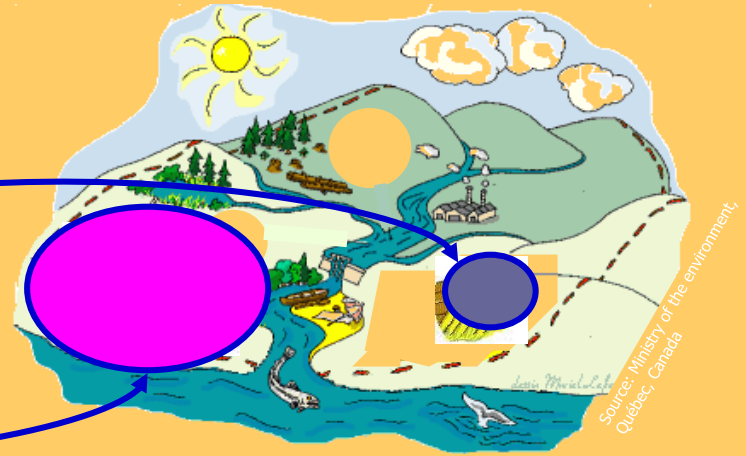


Focus on economic aspects:

- 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

4) based on management plans or master plans
that define the medium and long-term objectives to be achieved;



Conflicts

requirements collected
from each point of view



Designing a program
through **dialogue**



Reaching **agreement**
with an ambitious program





FINANCING WATER POLICY :



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EQUALIZATION OF FINANCIAL EFFORTS:

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- 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



water resources management should be organized:



6) with the mobilization of specific financial resources,

VARIOUS COMPLEMENTARY SYSTEMS FOR COST RECOVERY

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.



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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INBO OFFICIALLY ACCREDITED



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**UNITED NATIONS GENERAL ASSEMBLY SEPT 2015
ON NEW SUSTAINABLE DEVELOPMENT OBJECTIVES**



WATER and adaptation
to the effects of climate change:
- Agenda of solutions -
COP21 - Paris
2 December 2015

**Come and sign the Pact
on water and adaptation
to climate change
in the basins
of rivers, lakes and
aquifers !**

cop21-Paris-pact.inbo-news.org



**Paris Pact on water
and adaptation to climate change
in the basins of rivers, lakes and aquifers**

At the twenty-first Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21 / CMP11) organized from 30 November to 11 December 2015 in Paris, **We**, representatives of governments, international organizations, donors, national and transboundary basin organizations of rivers, lakes or aquifers, local authorities, of the civil society and companies, support the integration of Water into the Climate change Action Agenda, especially for initiating or strengthening necessary adaptation actions in the basins of rivers, lakes, aquifers and large wetlands.

GENERAL STATEMENT

Climate change is already affecting and will increasingly affect the quantity and quality of freshwater and aquatic ecosystems, especially through the intensity and greater frequency of extreme hydrological events, such as floods and droughts, as well as the increase in ocean level, which threaten security, economic and social development and the environment.

We recognize that adaptation actions should be undertaken without delay to minimize the impacts of climate change on the populations' health and safety, on economic development and the environment, considering the importance of the protection of water-related ecosystems.

The basins are natural areas where water flows on the surface and in the subsoll: they are the relevant territories for organizing water resources management.

In order to ensure more effectiveness, these actions to adapt to climate change should thus be implemented at the level of river, lake and aquifer basins, through a joint, participative, integrated and sustainable water resources management.

We should act quickly before it is too late!

To that end, mobilizing new and increasing funding dedicated to climate change adaptation in basins is essential. Therefore, new basin organizations and existing ones should be financed and strengthened to facilitate the cooperation, coordination and exchange of information, dialogue, consultation and prevention of conflicts between stakeholders and to enhance the implementation of adaptation measures and the sharing of benefits on the basin scale,

We encourage donors to support prior assessments and actions for adaptation to climate change in basins,

Local authorities and communities, economic sectors and the civil society should be better associated and involved in basin management, including in the definition and implementation of adaptation measures.

Cooperation and exchange should increase between the institutions involved, especially among the basin organizations at the global and regional levels in order to facilitate the transfer of experience and know-how on best practices in basin management and adaptation to climate change.



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SUR LES CHANGEMENTS CLIMATIQUES
COP21·CMP11

v14

Paris Pact



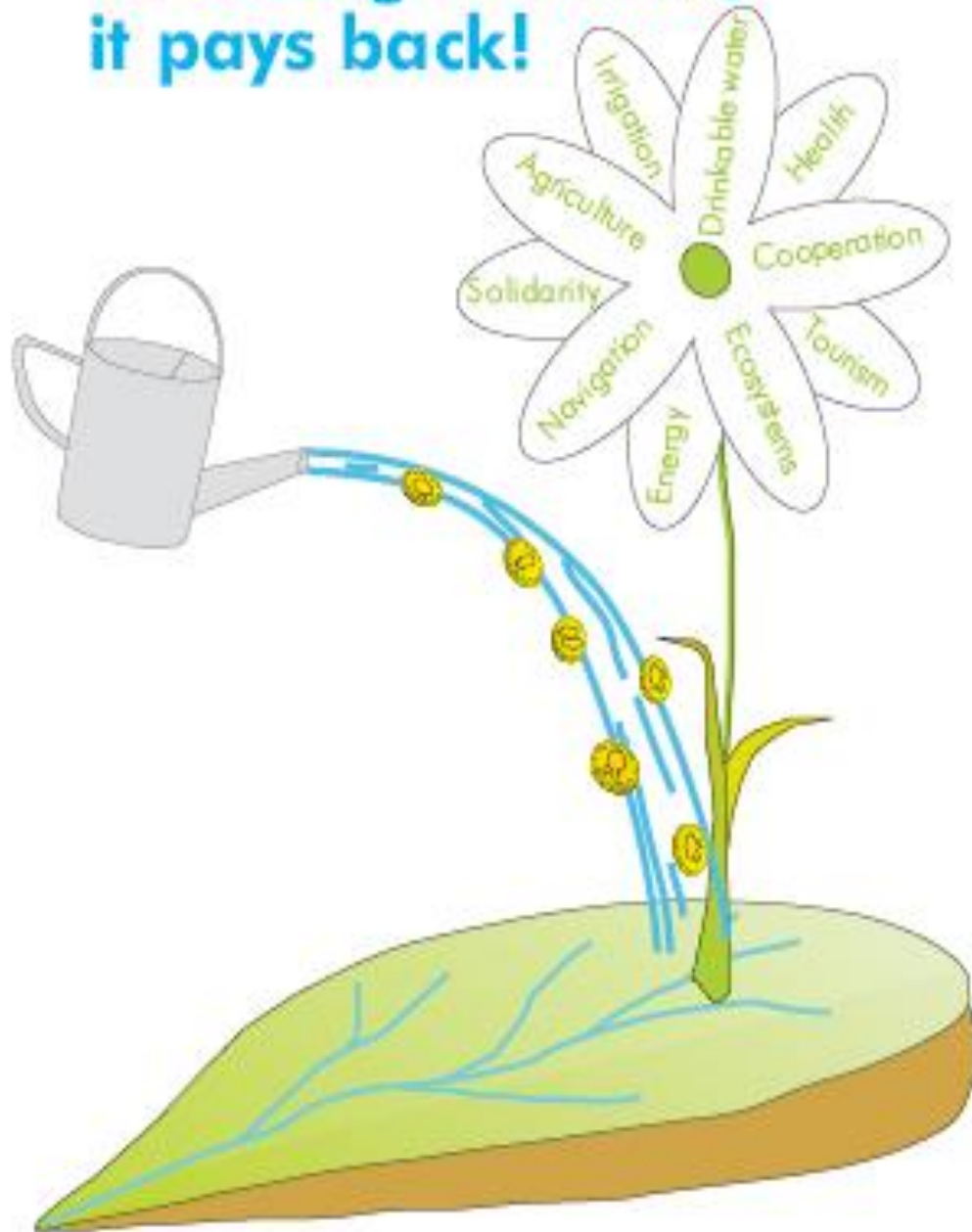
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Investing in IWRM, it pays back!



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THANK YOU FOR YOUR ATTENTION!



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