



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



**International
Office
For Water
PARIS-FRANCE**



**International
Network
Of Basin
Organizations**



Mr. Jean - François DONZIER

General Manager

International Office for Water

Permanent Technical Secretary

INTERNATIONAL NETWORK OF BASIN ORGANIZATIONS



International
Office
For Water
PARIS-FRANCE

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



International
Network
Of Basin
Organizations



Transboundary basins per continent.

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



International
Office
For Water
PARIS-FRANCE

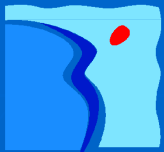
In Europe a majority of basins being transboundary ones!



International
Network
Of Basin
Organizations



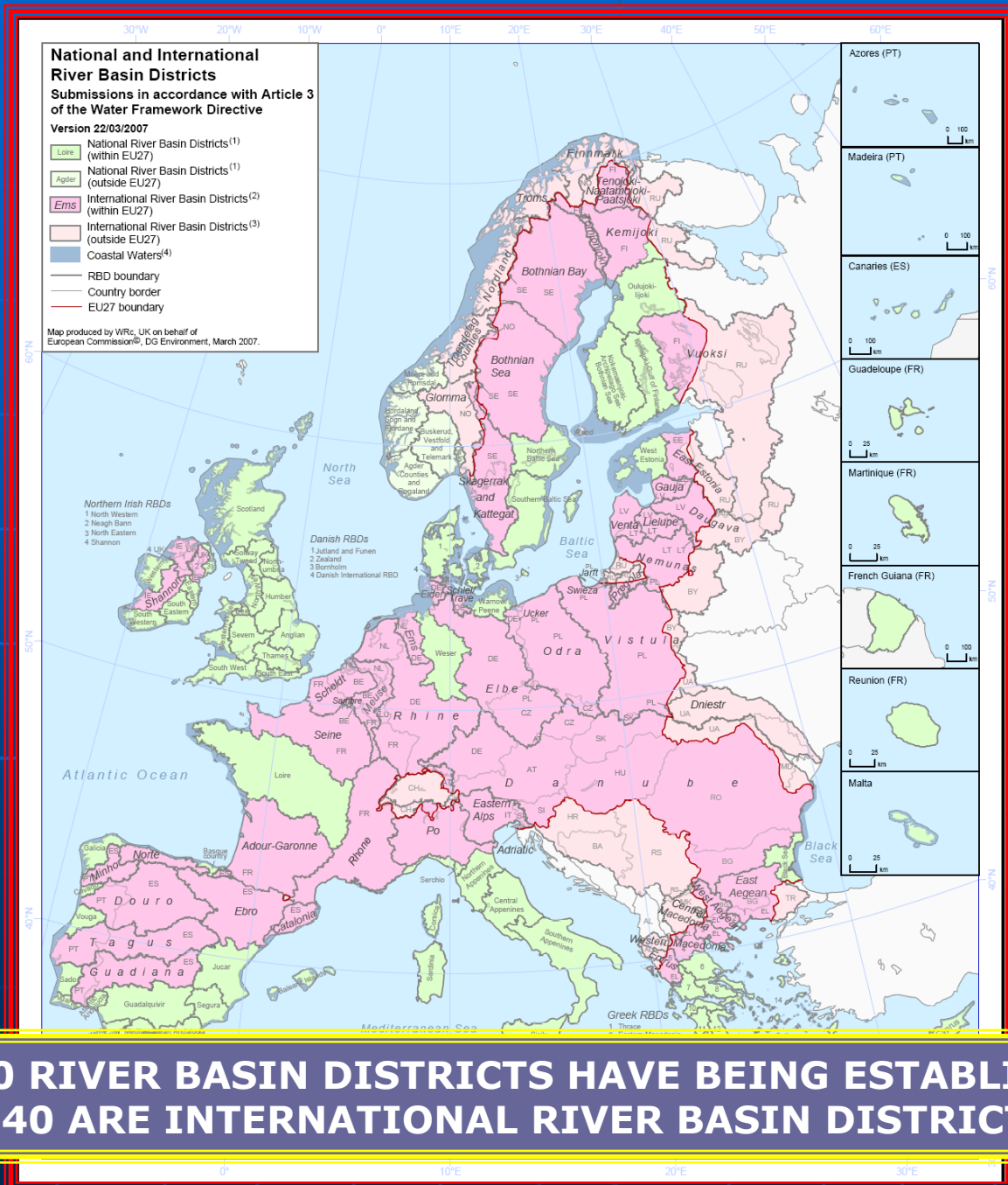
**HUGE WORK IS STILL NEEDED:
MANAGEMENT PLANS OF INTERNATIONAL RIVER BASIN DISTRICTS
STILL TOO OFTEN LOOK LIKE A PATCHWORK OF NATIONAL ELEMENTS**



**International
Office
For Water
PARIS-FRANCE**



**International
Network
Of Basin
Organizations**



**110 RIVER BASIN DISTRICTS HAVE BEEN ESTABLISHED
40 ARE INTERNATIONAL RIVER BASIN DISTRICTS**



**International
Office
For Water
PARIS-FRANCE**



**International
Network
Of Basin
Organizations**



**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,**

Directive 2000/60/EC of 23 October 2000

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



International
Office
For Water
PARIS-FRANCE

The European Water Framework Directive

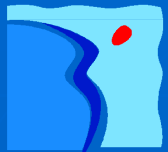


International
Network
Of Basin
Organizations



VERY AMBITIOUS CHALLENGES:

- PREVENTING THE DETERIORATION OF WATER RESOURCES,
- REDUCING THE EMISSIONS OF SUBSTANCES,
- ACHIEVING A "GOOD STATUS" FOR WATER AND AQUATIC ENVIRONMENTS.



International
Office
For Water
PARIS-FRANCE

As everything is linked in each Water Body,
for a real implémentation of the WFD,

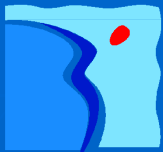
it's important to take into account:

- not only the problems of quality of water and the environments,
- **BUT**, all the aspects of water management and their impacts,
- **AND**, in particular, obvious interfaces with navigation, energy production, agriculture, the prevention and protection against floods and droughts...



International
Network
Of Basin
Organizations





**International
Office
For Water
PARIS-FRANCE**



**International
Network
Of Basin
Organizations**



■ **Directives:**

- **Water Framework Directive**
- **Groundwater Directive**
- **Directive on Environmental Quality Standards (EQS)**
- **Urban Waste Water Directive**
- **Nitrates Directive**
- **Floods Directive**

■ **+ quantitative and adaptive water management issues:**

- **Communication on Water Scarcity and Drought**
- **Policy paper accompanying the White Paper on Adapting to Climate change on Water, Coasts and Marine Issues.**



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



International
Network
Of Basin
Organizations

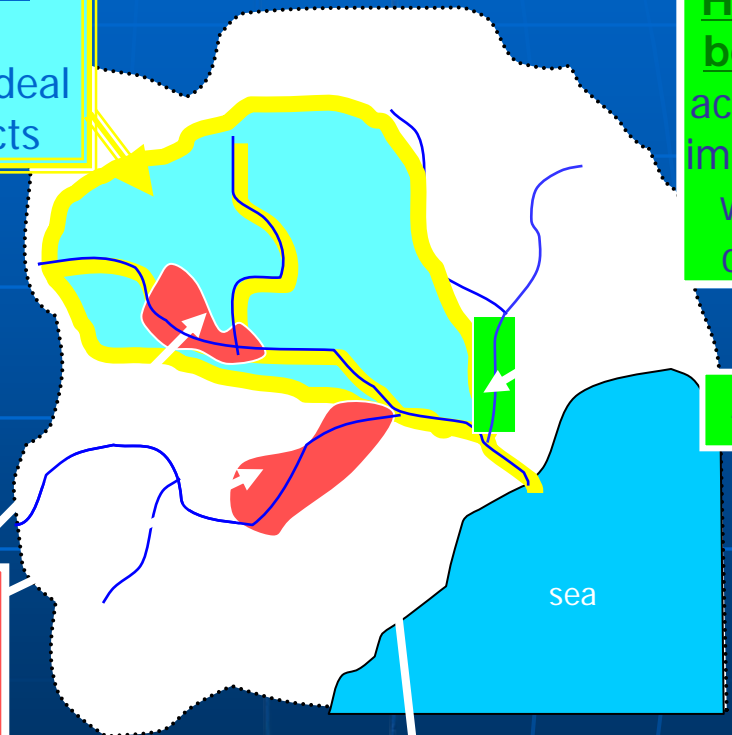
Sub-basin/Sector/
Water type
element of district to deal
with particular aspects

Heavily modified water
bodies (HMWB): human
activity carried out makes it
impossible to reach the goal
without disproportionate
costs (change activity...)

⇒ *no link with pollution*

THE DIFFERENT HYDROLOGICAL SCALES:

Water bodies
scale of evaluation
of the achievement
of good status



District =
river basins + associated
groundwaters and coastal waters

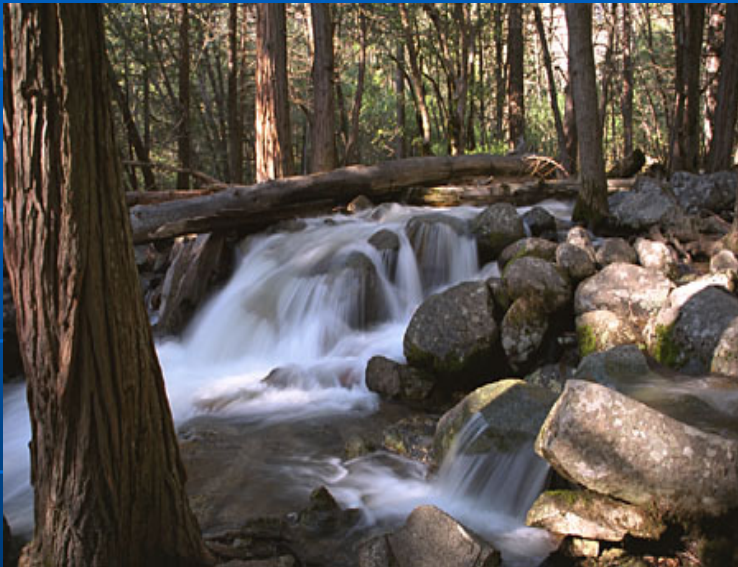


International
Office
For Water
PARIS-FRANCE

All kinds of water Are taken jointly into consideration



International
Network
Of Basin
Organizations



- * surface waters
- * groundwater



- * transitional water
- * coastal waters...



International
Office
For Water
PARIS-FRANCE

What do we consider as a *Basin* ?



International
Network
Of Basin
Organizations

the concept includes all

SURFACE and



Groundwater



International
Office
For Water
PARIS-FRANCE

INTEGRATED WATER RESOURCE MANAGEMENT :



International
Network
Of Basin
Organizations

DEFINING ROLES AND RESPONSIBILITIES OF EACH:



basin organizations?



Multilateral organizations

International commissions

Central or federal government

**Local authorities = states (Federation)
= municipalities
= villages**

Large public regional planners

**Water users : = community
= individuals**

**Civil Society : = enterprises
= researchers
= NGOs**



International
Office
For Water
PARIS-FRANCE

DEFINING ROLES AND RESPONSIBILITIES OF EACH:



International
Network
Of Basin
Organizations

- **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,

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



International
Network
Of Basin
Organizations

The Rhine : an international river basin district

185 000 km²
50 millions inhabitants

9 States involved

Austria
Belgium
France
Germany
Italy
Liechtenstein
Luxemburg
Switzerland
The Netherlands



Secretariat

**Plenary assembly (PLEN)
Coordination Committee (CC)**

Delegation Head

Strategy Group (SG)

Editorial Group

Riparian states *

**WG Flooding
(H)**

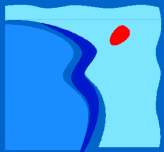
**WG Water
Quality /
Emissions (S)**
incl. Groundwater (GW)

**WG Ecology
(B)**

**Expert Groups
GIS
Economy (E)**

RHINE

*cf. Diagram 2: Expert coordination / Coordination of reporting



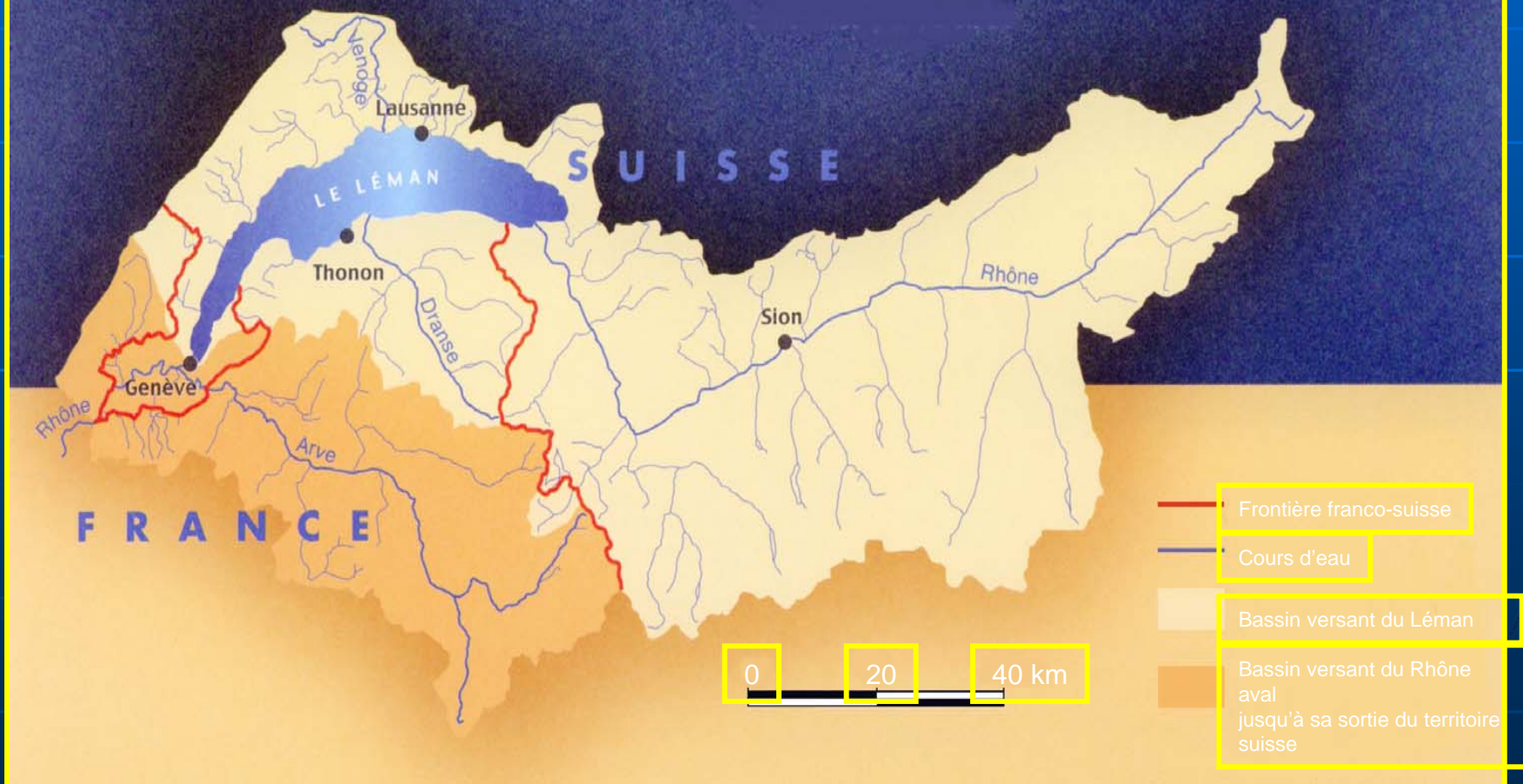
International
Office
For Water
PARIS-FRANCE

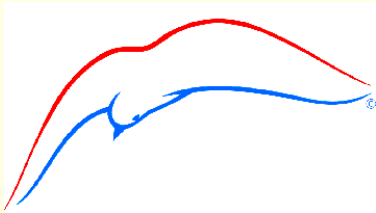
International Commission for the Léman Lake



International
Network
Of Basin
Organizations

Zone géographique concernée par la CIPEL





Vaud
Valais
Genève

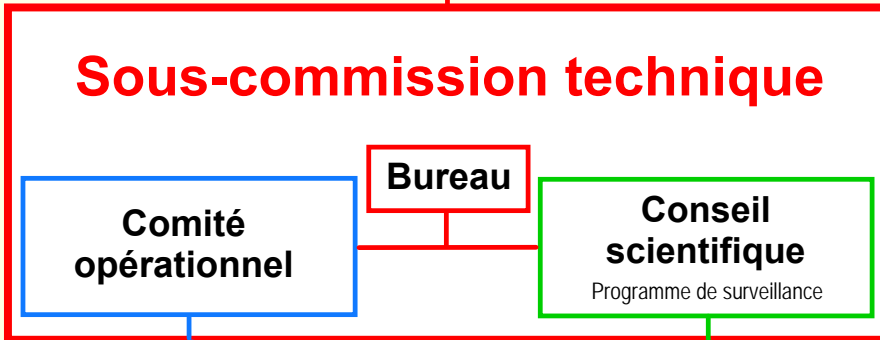


Secrétariat
permanent

Collaboration F - CH
en cas de pollution

Relations
publiques

**International
Commission
for
the Léman Lake**



Pollutions
domestiques

Pollutions
agricoles

Pollutions
industrielles

Renaturation

Méthodologie

Subvention à la
déphosphatation



International
Office
For Water
PARIS-FRANCE



International
Network
Of Basin
Organizations

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



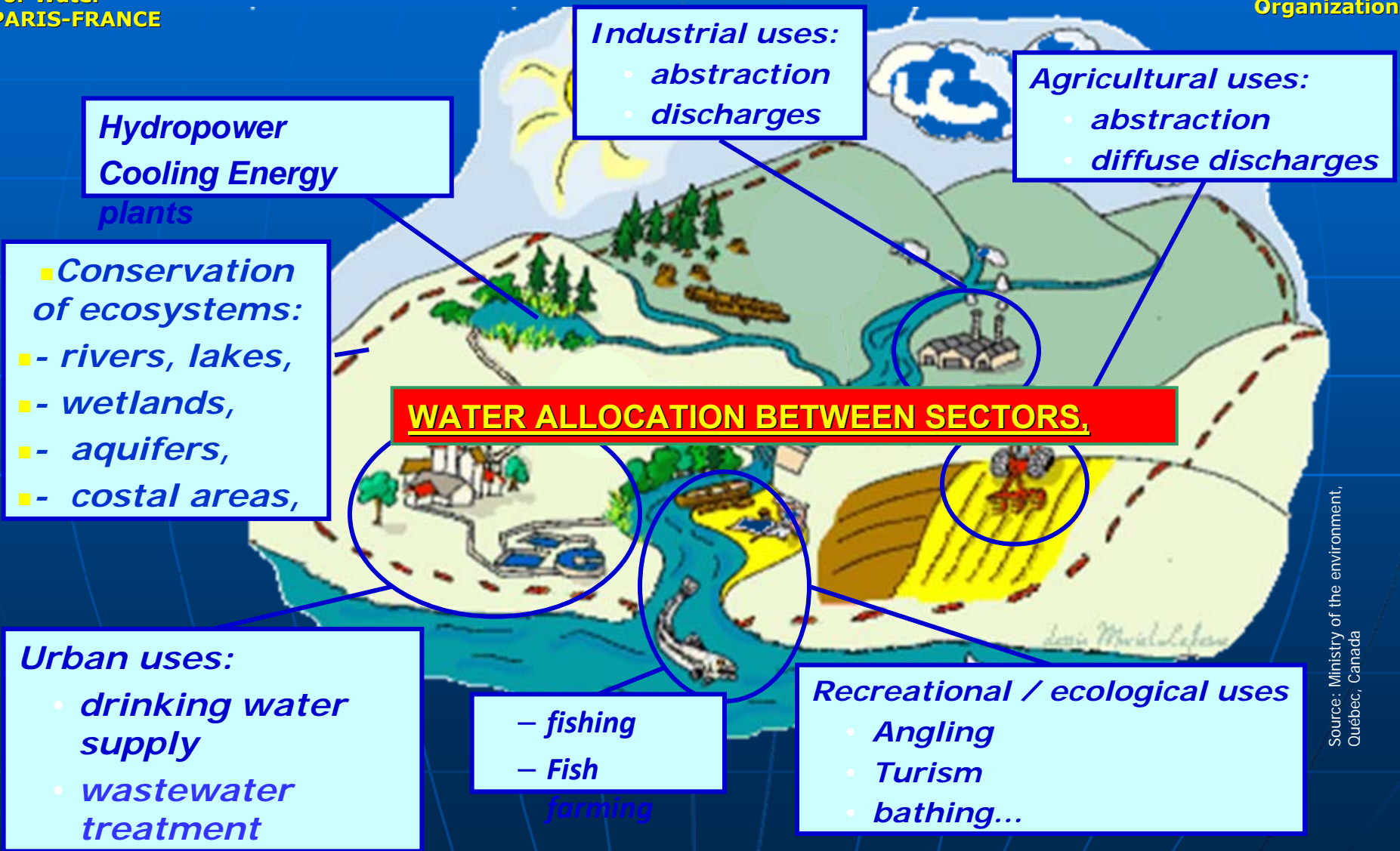
International
Office
For Water
PARIS-FRANCE



International
Network
Of Basin
Organizations

IWRM CONCERNS

ALL MAJOR WATER USES





**International
Office
For Water
PARIS-FRANCE**



**International
Network
Of Basin
Organizations**

FLOOD CONTROL: FORECAST, PREVENTION, PROTECTION

- **Foreseeing hazardous events,**
- **Reducing vulnerabilities,**
- **Protecting people and properties,**
- **Warning and educating.**



International
Office
For Water
PARIS-FRANCE

WITH REGARD TO DROUGHTS:



International
Network
Of Basin
Organizations

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

... MUST BECOME PRIORITIES.



International
Network
Of Basin
Organizations

Conflicts

requirements collected
from each point of view



Designing a program
through **dialogue**



Reaching **agreement**
with an ambitious program

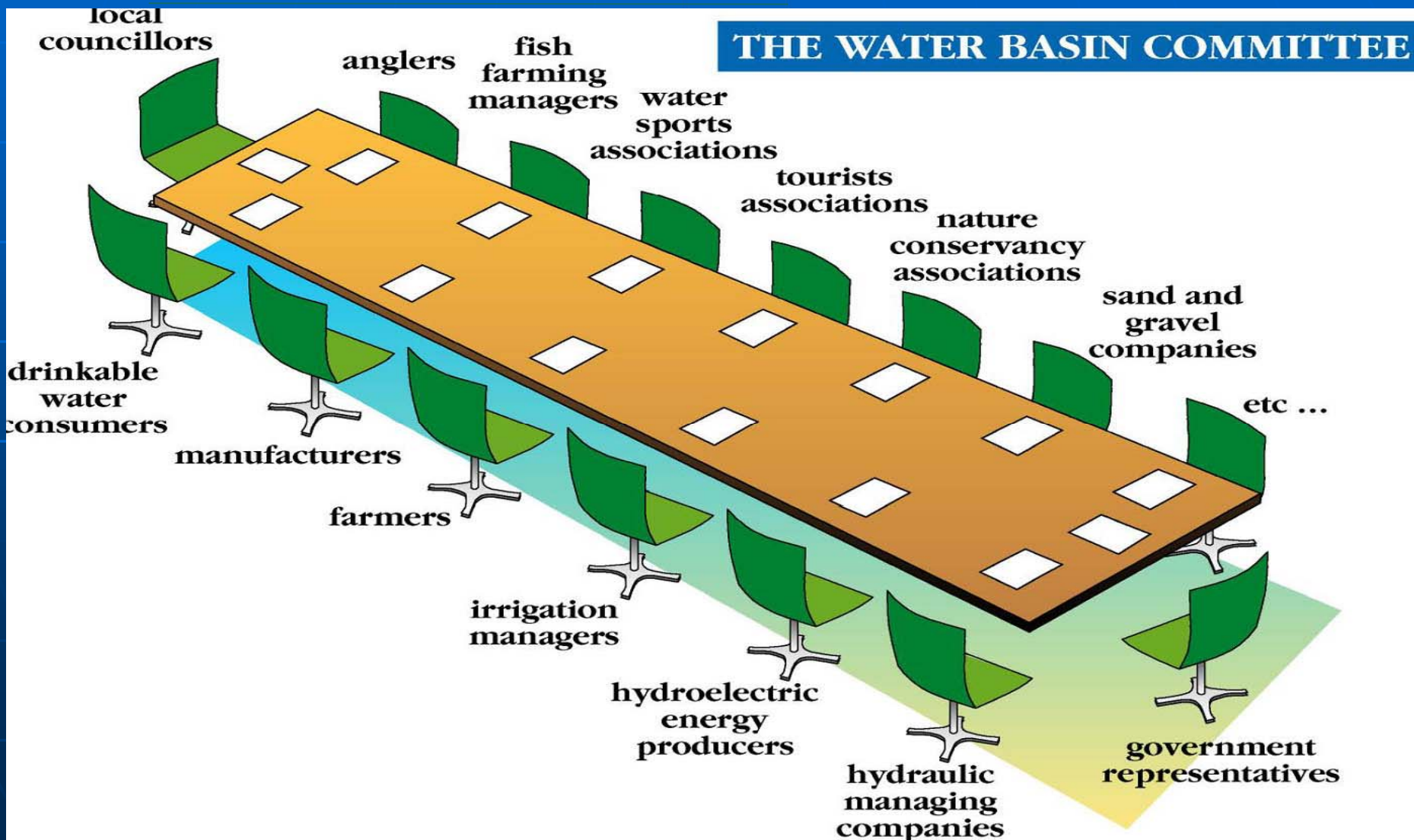


A River Basin Management is integrating various stakeholders



International
Network
Of Basin
Organizations

International
Office
For Water
PARIS-FRANCE





If we cannot measure, we cannot manage!!



DIALOGUE



INFORMATION



Resources

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



Uses

- Quantity
- Quality
- Ecology
- Requirements
- Abstractions
- Discharges
 - Flowrates
 - Pollution



Seasonal variations

- Frequencies



Geographic locations

- G.I.S



Economical informations

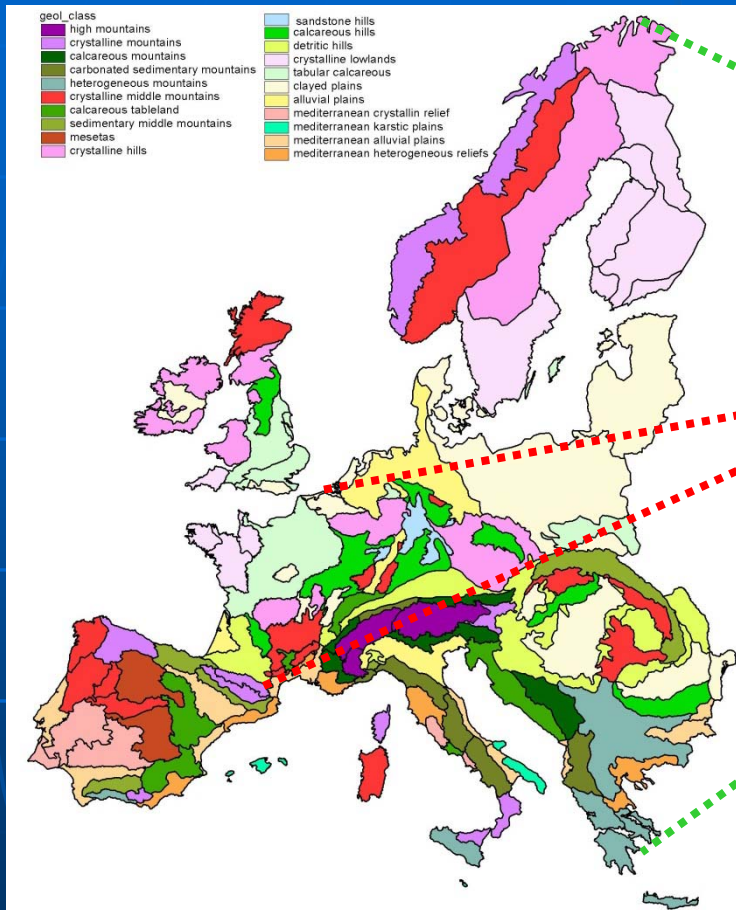
- Cost, budget...



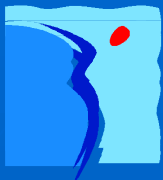
Integrated information and monitoring systems



International
Network
Of Basin
Organizations



■ Integrated information and monitoring systems which are reliable, representative, harmonized and easily accessible, and specific research should be organized in each basin,



ASSESSING WATER QUALITY:



International
Network
Of Basin
Organizations

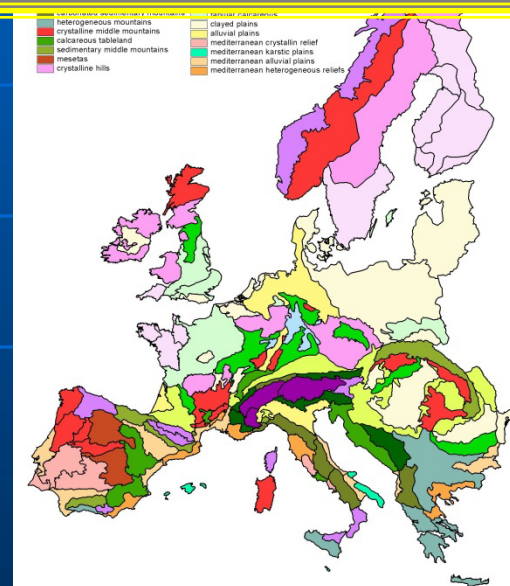
International
Office
For Water
PARIS-FRANCE

In Europe,

50,000 "WATER BODIES" have been identified:

- River WB = 27 455
- Lake WB = 10 060
- Groundwater WB = 7 719
- HMWB/AWB = 5 783

European Hydro – eco-regions



IN FRANCE :

- River WB = 3 522
- Lake WB = 471
- Groundwater WB = 539
- HMWB/AWB = 912
- Good Status = 984
- At Risk = 941

**THE DEFINITION
OF COMMON FRAMES
OF REFERENCES.**



water resources management should be organized:

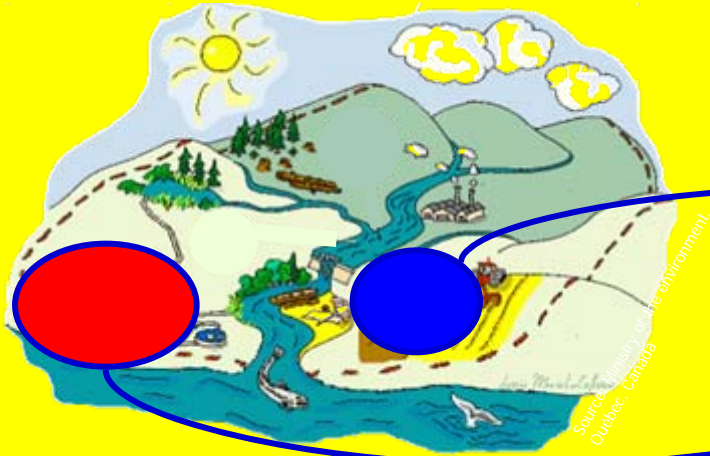


International
ork
sin
ons

International
Office
For Water
PARIS-FRANCE

2000

*Description
of the initial situation*

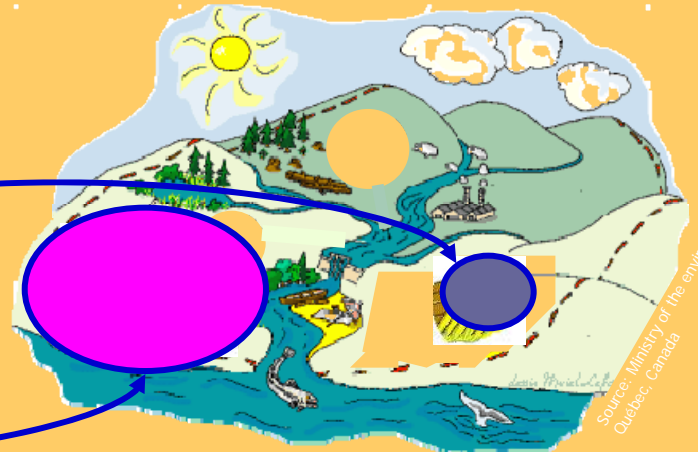


Focus on economic aspects:

- 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

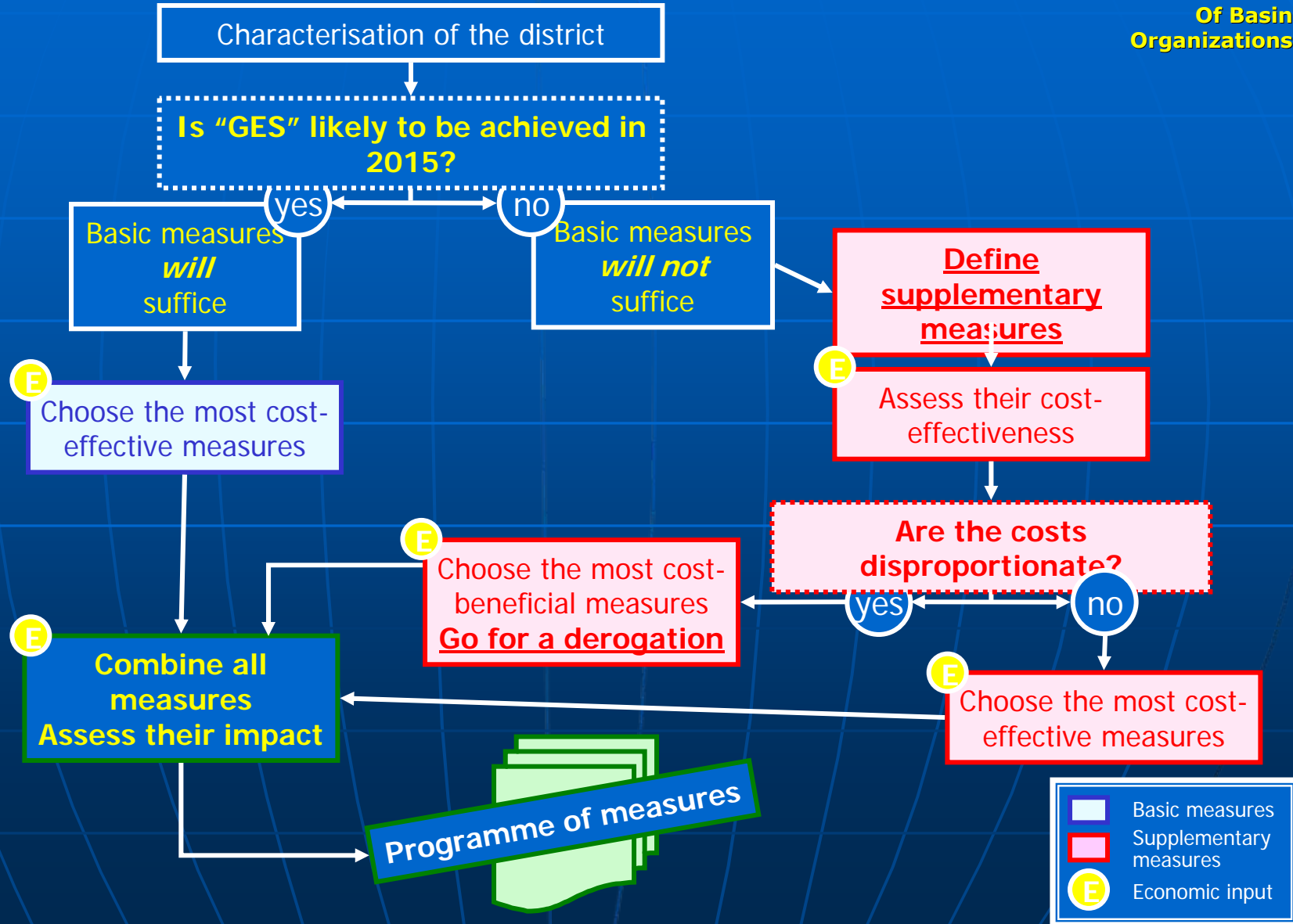
based on management plans or master plans

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**



FLOW CHART OF THE CONSTRUCTION OF THE PROGRAMME OF MEASURES



	Basic measures
	Supplementary measures
	Economic input



TRANSPARENCY OF COSTS AND POLLUTER-PAYS PRINCIPLE:



Costs	Definition	Example
Direct cost	Capital costs	<i>Principal and interest, depreciation</i>
	Operating costs	<i>Wages, electricity, maintenance of equipment, analyses of the quality of water...</i>
Environmental cost	Costs of the damages to the environment caused by a given activity	<i>Contamination of an aquifer, destruction of wetlands...</i>
Resource cost	Value of the alternative foregone by choosing a particular activity (= opportunity costs)	<i>Cost of electricity that could have been produced if water would be available instead of being pumped for irrigation</i>

Sum = full cost

**MERCI DE VOTRE ATTENTION!
THANK YOU FOR YOUR ATTENTION!**

www.inbo-news.org

www.riob.org

mail: inbo@wanadoo.fr

riob2@wanadoo.fr

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