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**International
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Of Basin
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Mr. Jean - François DONZIER

General Manager

International Office for Water

Permanent Technical Secretary

INTERNATIONAL NETWORK OF BASIN ORGANIZATIONS



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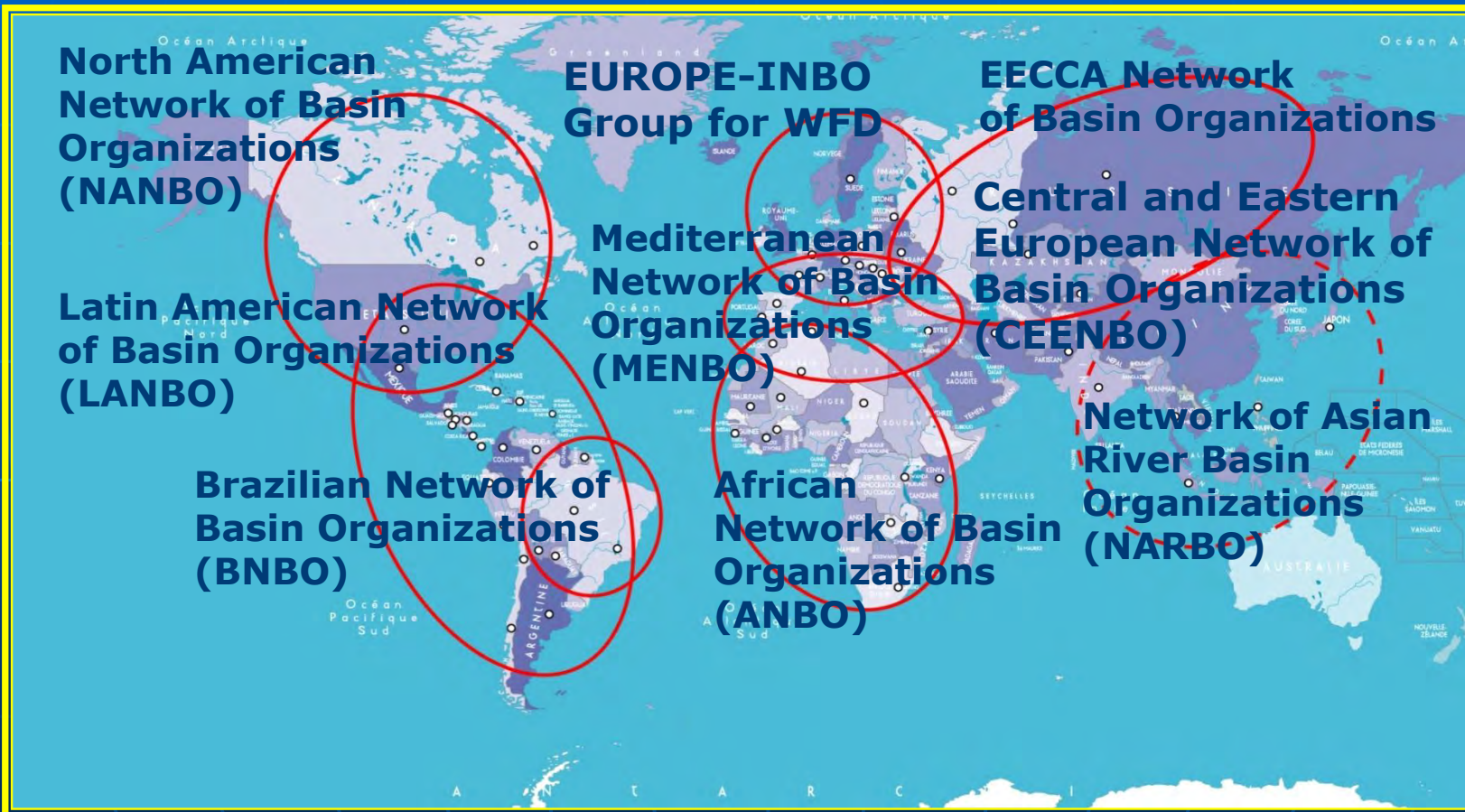
Created in 1994 to facilitate
operational exchanges between BO



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INBO's REGIONAL NETWORKS



191 FULL MEMBERS or PERMANENT OBSERVERS
in 81 COUNTRIES



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« Water has no boundary »

?!?

**RESEAU INTERNATIONAL DES ORGANISMES DE BASSIN
INTERNATIONAL NETWORK OF BASIN ORGANIZATIONS
RED INTERNACIONAL DE ORGANISMOS DE CUENCA**



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



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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 % |
| TOTAL | | 276 | 45 % |



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In Europe a majority of basins are transboundary ones!

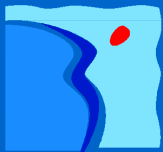


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International River Basins of **EUROPE**



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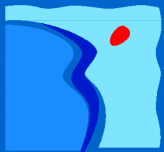


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**IN NOTHERN AFRICA
THE MAIN AQUIFERS
ARE SHARED**



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*EX: the Algerian hydrological basin Agency
of the Sahara is mainly concerned by their management.*

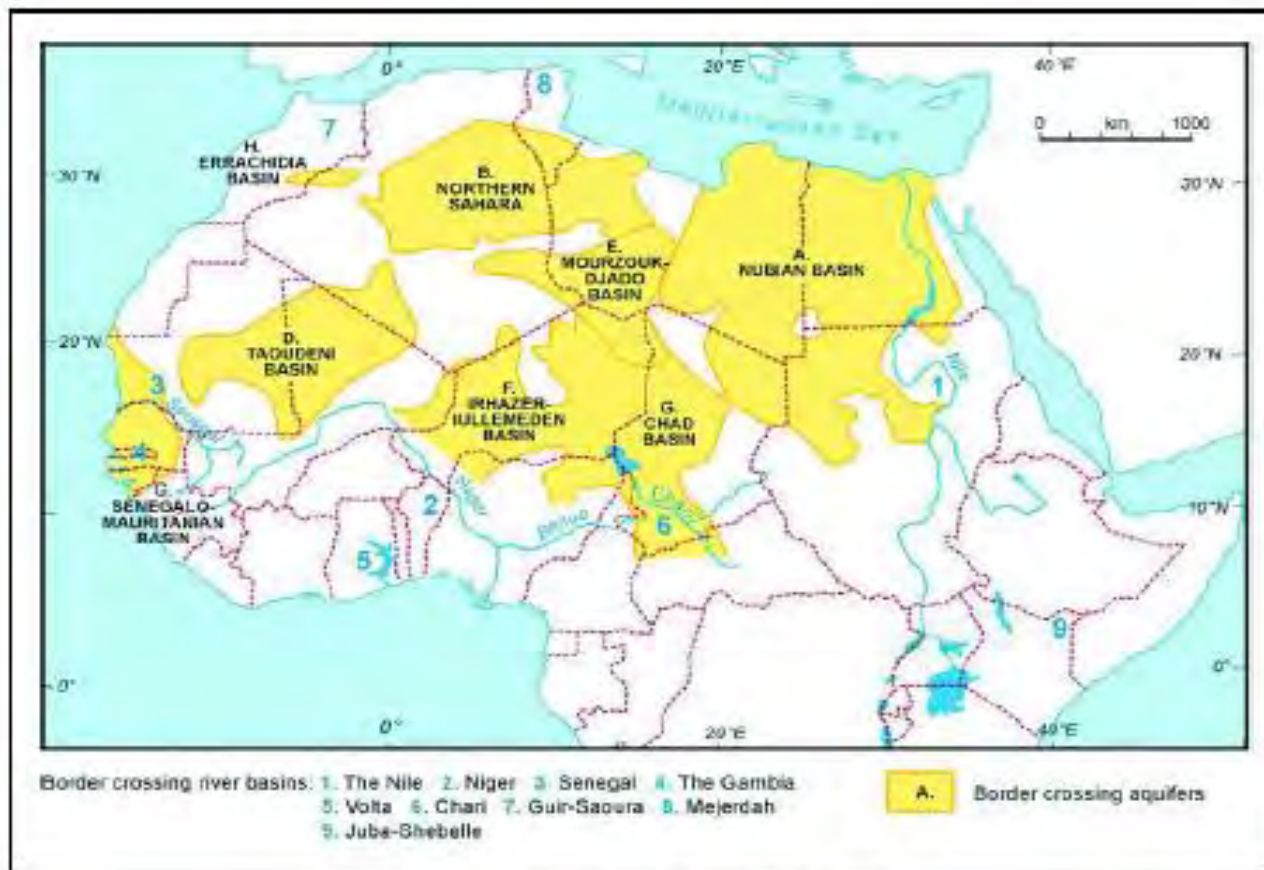
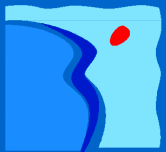


FIGURE 1. Transboundary aquifers in N Africa



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International River Basins of NORTH AMERICA



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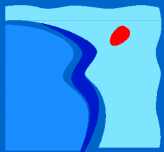
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International River Basins of **SOUTH AMERICA**





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International River Basins of ASIA





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What do we consider as a *Basin* ?



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the concept includes all

SURFACE and



Groundwater

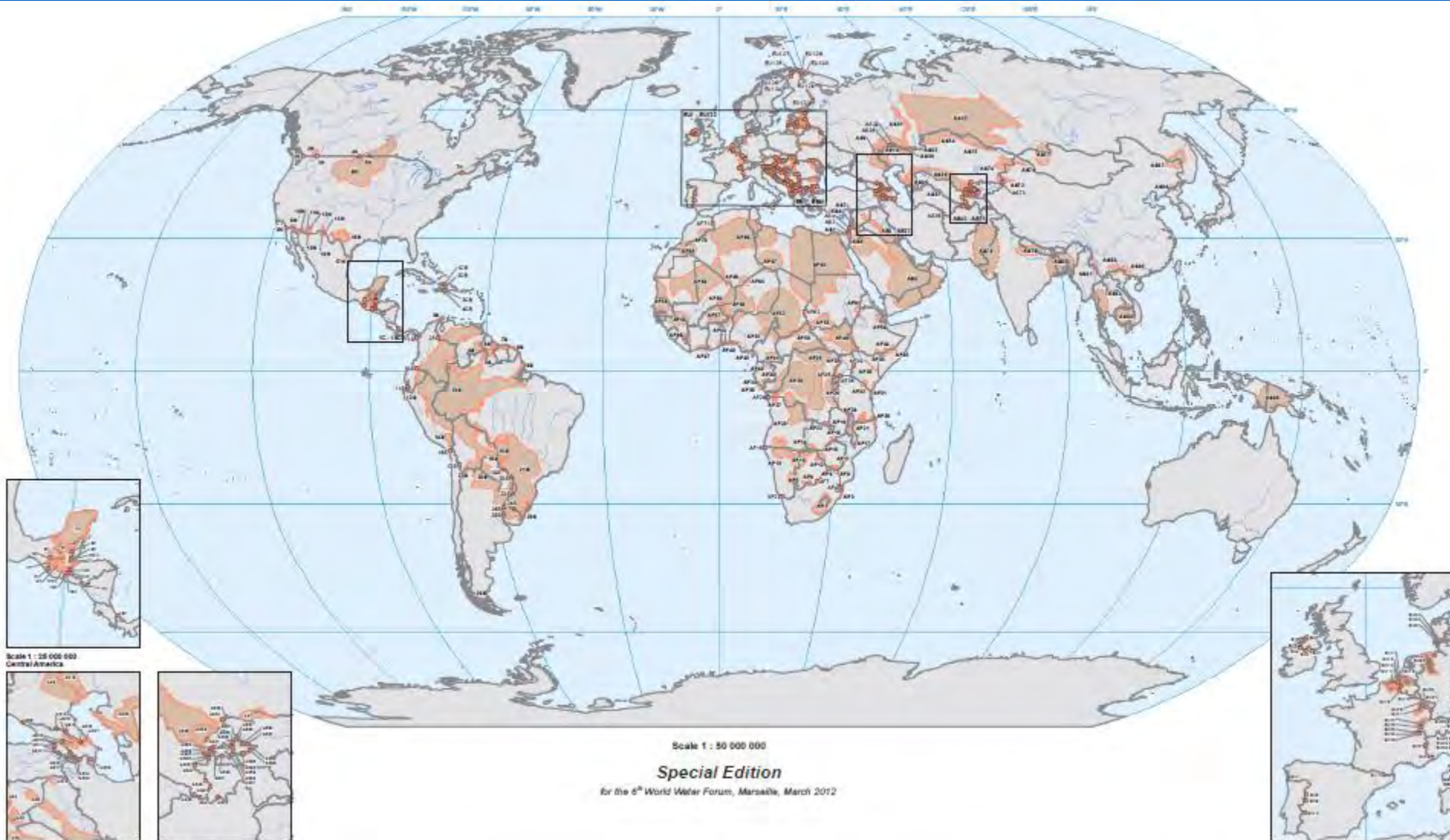


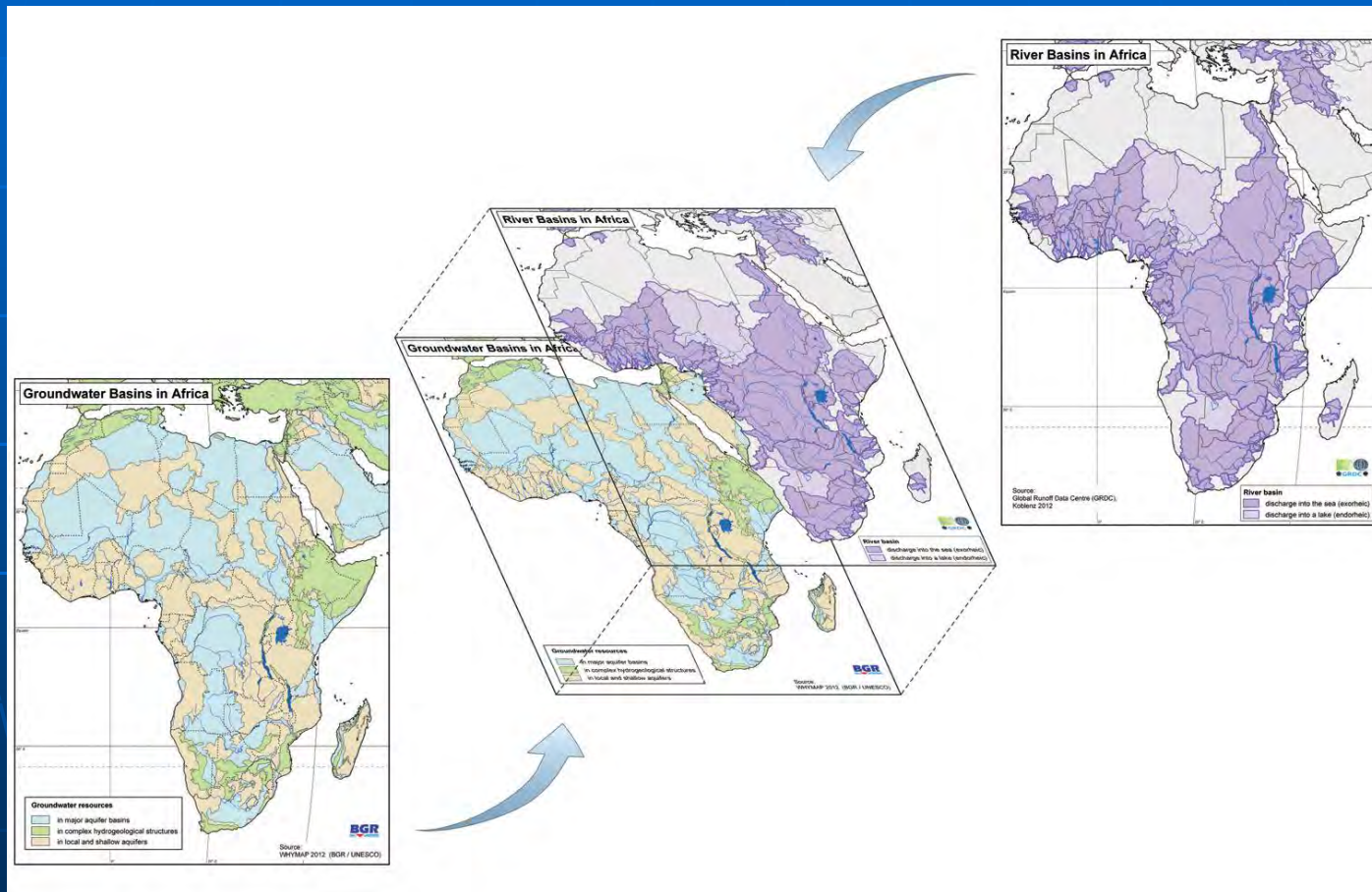
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Transboundary aquifers



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Areal extent of surface basins and aquifers sometimes differs radically



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**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.**



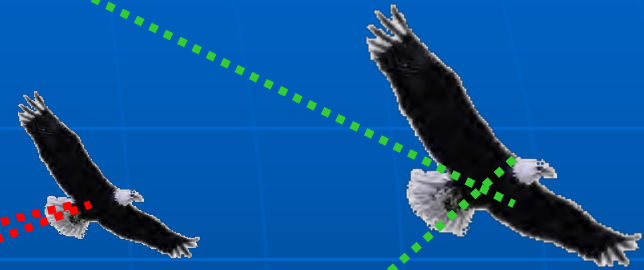
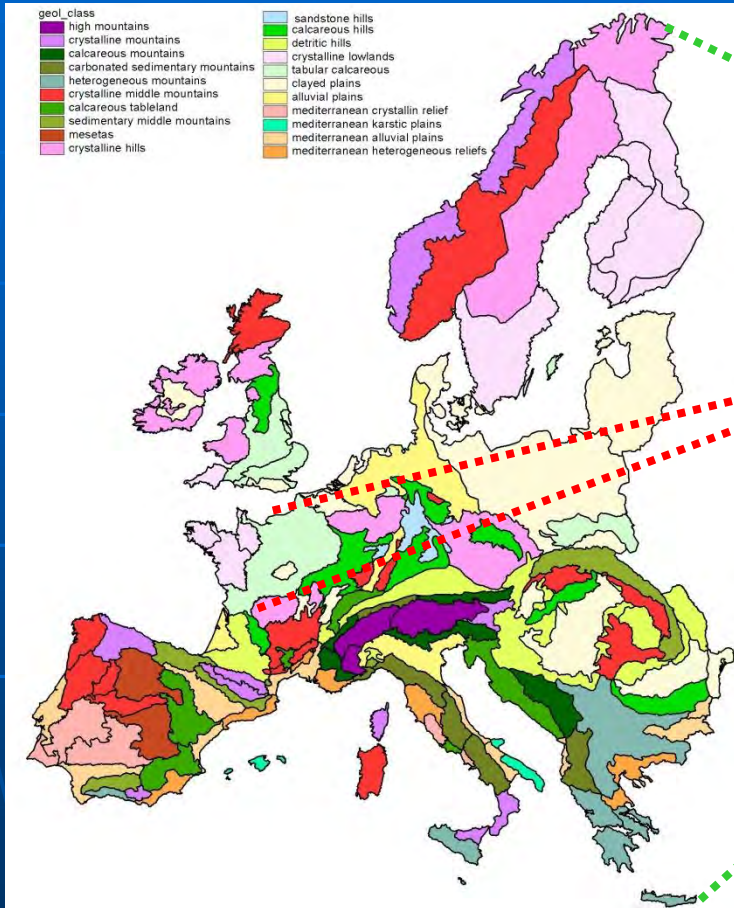
**An overall approach should be organized
on the relevant scale
of basin areas of rivers, lakes and aquifers,**

We cannot manage that we cannot measure!!



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



Key Performance Indicators project



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- **Niger** (ABN / NBA)
- **Volta** (ABV / VBA)
- **Lake Victoria** (LVBC)
- **Nil** (NBI)
- **Congo** (CICOS)
- **Sénégal** (OMVS)
- **Gambie** (OMVG)
- **Okavango** (OKACOM)
- **Orange** (ORASECOM)
- **Lake Chad** (CBLT / LCBC)



ACP-EU WATER FACILITY / ACTIONS IN ACP COUNTRIES
Development of IWRM performance indicators for African
Transboundary Basins management





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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,

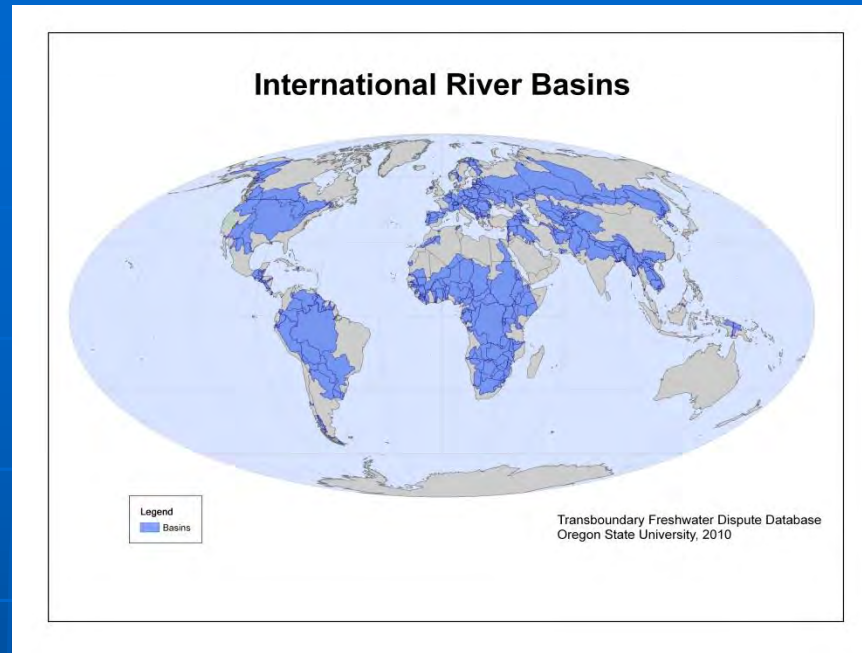
« UPSTREAM-DOWNSTREAM » COMMON CAUSE
ON THE SCALE OF BASINS AND SUB-BASINS



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Many agreements were signed,
in the past centuries,
between riparian countries
of transboundary rivers, to ensure:

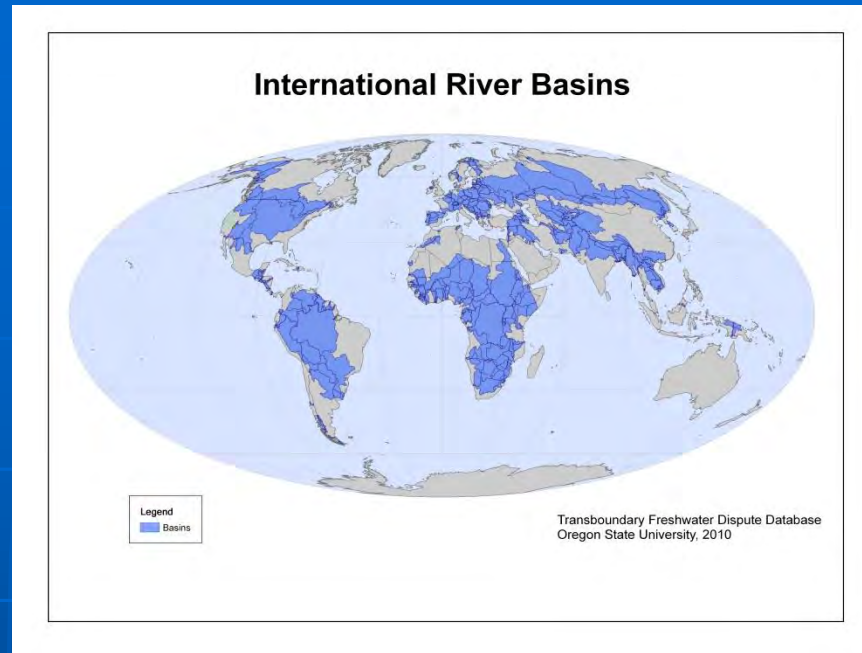
- free navigation,
- the share of river flows,
- the prevention of floods,
- the building of hydropower dams.



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But,

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

- **pollution control,**
- **aquifers management,**

and, a fortiori,

- **the integrated management of shared river basins.**



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INTEGRATED WATER RESOURCE MANAGEMENT : MAIN BASIC FUNCTIONS



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- ❑ **International agreements**
- ❑ **Legislation - Regulations**
- ❑ **Standardization**
- ❑ **Authorizations for abstraction or discharge - Water policing**
- ❑ **Monitoring**
- ❑ **Follow-up of the environment and uses**
- ❑ **Warning and protection**
- ❑ **Planning**
- ❑ **Funding - Programming**
- ❑ **Investments**
- ❑ **Operation - Maintenance**
- ❑ **Research**
- ❑ **Training**
- ❑ **Information**



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**Many riparian Countries in transboundary basins
have created joint managing bodies
.... sometime for decades.**

Such International Organizations 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.**



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INTEGRATED WATER RESOURCE MANAGEMENT :



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DEFINING ROLES AND RESPONSIBILITIES OF EACH:

Multilateral organizations

Central or federal government

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

Large public regional planners

**Water users : = community
= individuals**

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

**Joint Transboundary
Basin Organization ?**

basin organizations?



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DIFFERENT TYPES OF BASIN ORGANIZATIONS:



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- **Administrative Commissions, with or without permanent secretariat,** in which mainly participate representatives of the « ministries » concerned to coordinate their various projects on the same river or aquifer, to exchange information or data, formalized or not, on emergency situations in particular, to define common rules (navigation, etc.), and whenever necessary, to allocate the available resources between the categories of uses, the countries or regions, especially in periods of crisis or when regulation structures do exist, etc.,
- **Arbitration « Authorities »,** to which the interested « parties » refer for decision-making on the conflicts which arise; this is the case of the **Joint International Commission** (IJC) between the USA and Canada, for example.



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DIFFERENT TYPES OF BASIN ORGANIZATIONS:



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- **Organizations taking charge of contracting large structuring or combined installations;** this is the case for navigation, flood control, the building of reservoirs, especially for irrigation, hydropower production, etc.

These organizations, often created as public or private « companies » have usually the concession of community facilities for which they are responsible for their construction and long-term management, generally for providing services, raw water or by levying specific taxes.

- **« Agencies »**, which are in charge of carrying out tasks for medium-term planning and for collecting taxes on abstractions and discharges to finance or support the investments necessary for achieving the set objectives. In some cases, they can also be responsible for water policing, studies, data production or collection, etc.



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DIFFERENT TYPES OF BASIN ORGANIZATIONS:



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- « **Basin Committees or Councils** », which gather, at the side of administrations, representatives of local authorities, economic sectors using water, the civil society, etc. They can be advisory or decisional, especially regarding planning, the definition of taxes, the allocation of available resources, etc.
- « **Associations, unions or consortiums** », of local authorities, users or NGOs, which are often spontaneously organized to solve a common problem or to have some influence in water management.
- « **Projects** », which are usually temporary for specifically implementing and action plan with specific financing.



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Partnership**

**185 000 km²
50 millions inhabitants**



The Rhine : **an international river basin district**

- 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)**

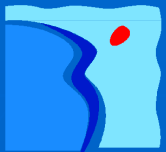
**WG Water
Quality /
Emissions (S)**
incl. Groundwater (GW)

**WG Ecology
(B)**

**Expert Groups
GIS
Economy (E)**

RHINE

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



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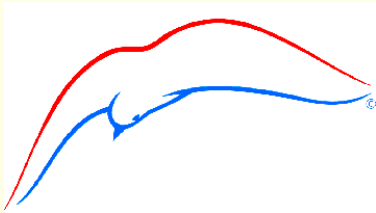
International Commission for the Léman Lake



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Zone géographique concernée par la CIPEL





Vaud
Valais
Genève

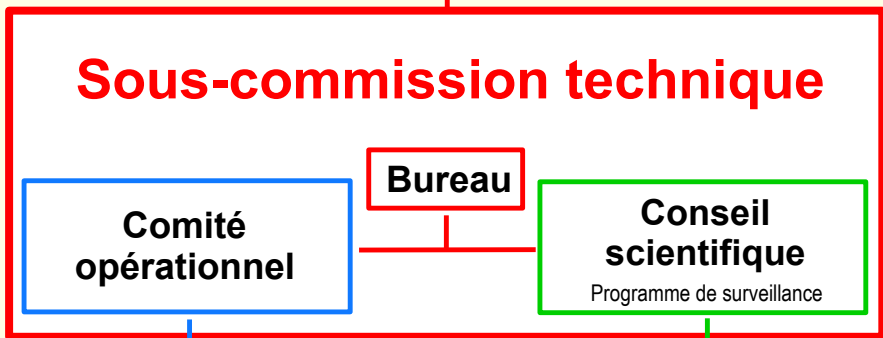


Secrétariat
permanent

Collaboration F - CH
en cas de pollution

Relations
publiques

**International
Commission
for
the Léman Lake**



Pollutions
domestiques

Pollutions
agricoles



Pollutions
industrielles

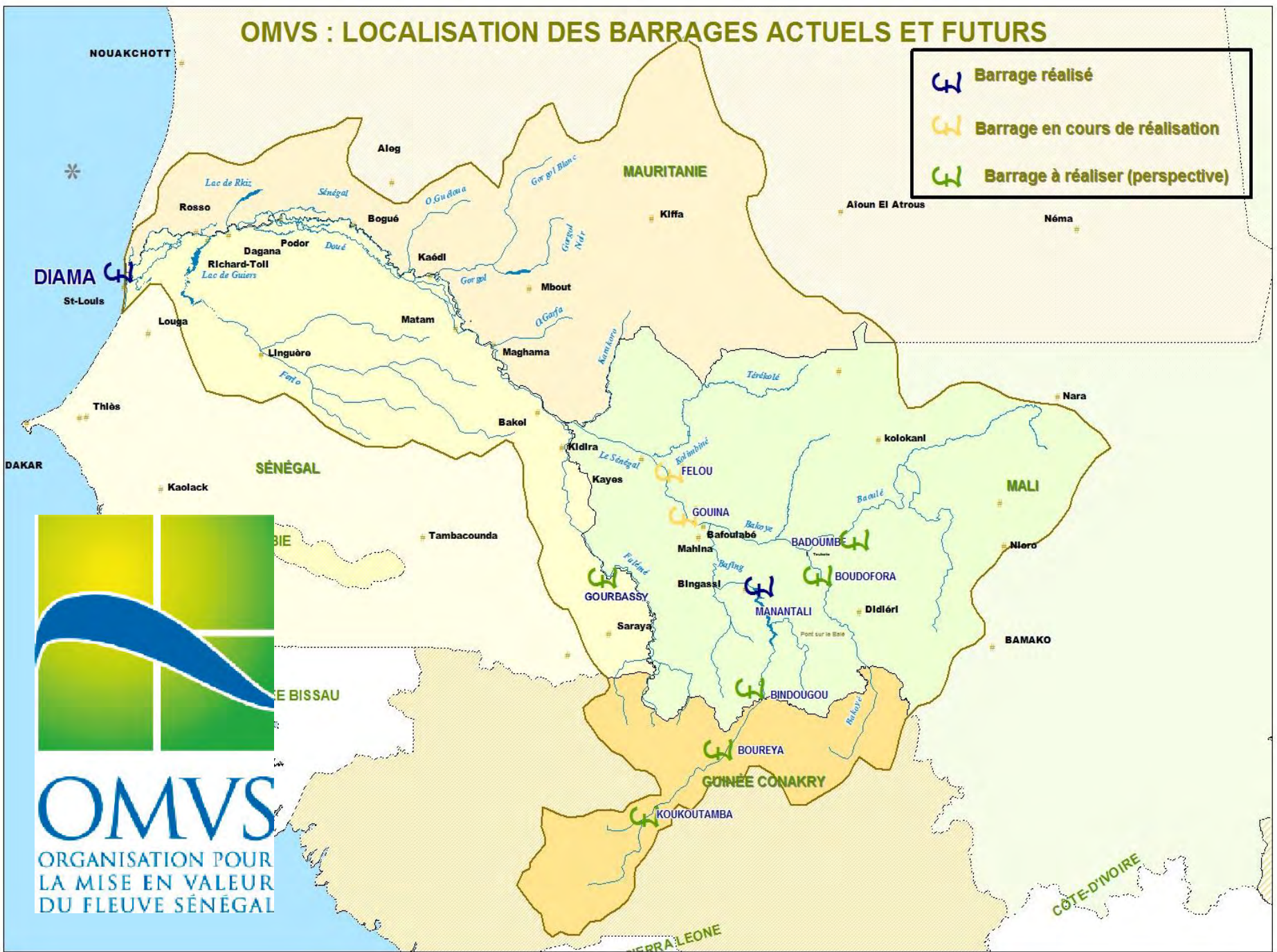
Renaturation

Méthodologie

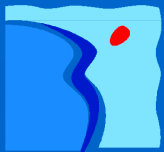
Subvention à la
déphosphatation

OMVS : LOCALISATION DES BARRAGES ACTUELS ET FUTURS

| | |
|---|----------------------------------|
|  | Barrage réalisé |
|  | Barrage en cours de réalisation |
|  | Barrage à réaliser (perspective) |



OMVS
 ORGANISATION POUR
 LA MISE EN VALEUR
 DU FLEUVE SÉNÉGAL



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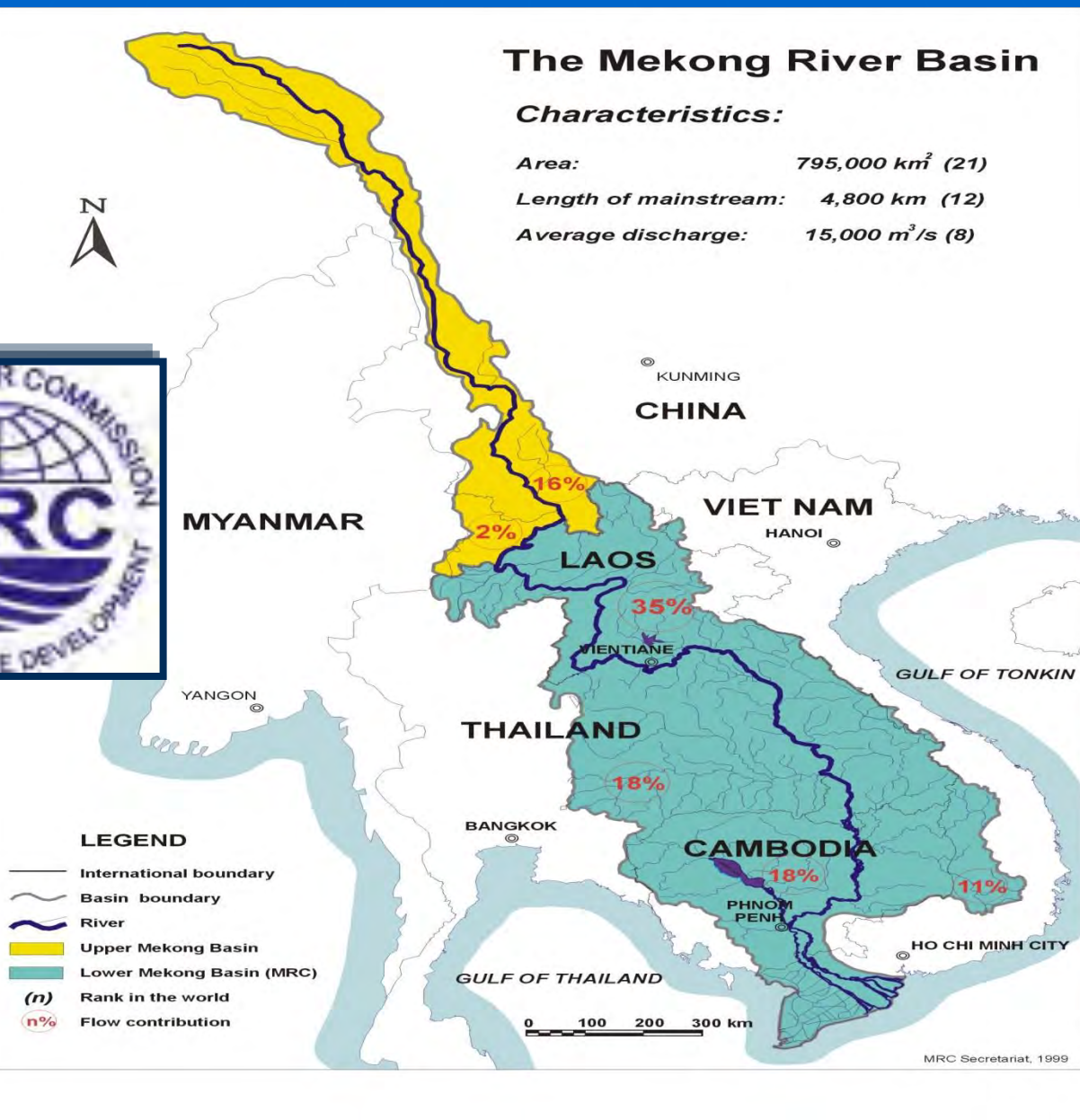


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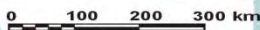
The Mekong River Basin

Characteristics:

- Area: 795,000 km² (21)
- Length of mainstream: 4,800 km (12)
- Average discharge: 15,000 m³/s (8)



- LEGEND**
- International boundary
 - Basin boundary
 - River
 - Upper Mekong Basin
 - Lower Mekong Basin (MRC)
 - (n) Rank in the world
 - n% Flow contribution



MRC Secretariat, 1999



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INVESTING IN IWRM... IT PAYS BACK!



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■ CONCLUSION:

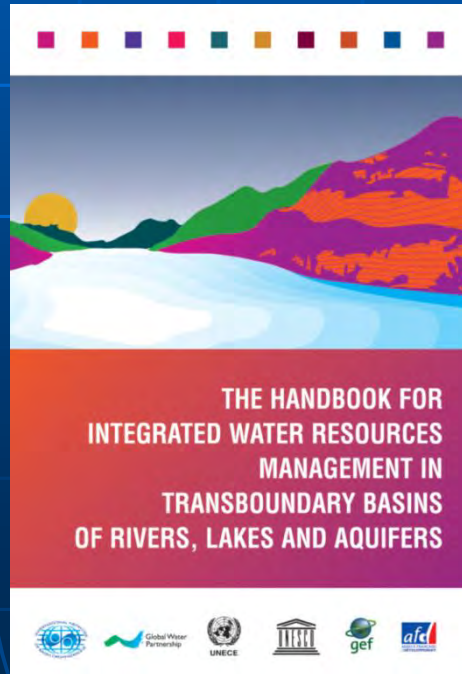
- Various combinations of responsibilities are possible,
- There is no system better than the others:
 - The results depend on:
 - ❖ A strong political will,
 - ❖ A long-term stability of the established mechanisms,
 - ❖ The efficiency of the management of each organization,
 - ❖ The available human and financial resources.
 - The implementation of reforms can only be gradual,
 - The real involvement of local authorities, users and collective interest groups in decision-making facilitates its « acceptability », an offer/demand adequacy and the establishment of new financing systems.



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The International Network of Basin Organizations (INBO), The Global Water Partnership (GWP), The French Development Agency (AFD), The GEF, UNESCO and UNECE,



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Réseau International des Organismes de Bassin
International Network of Basin Organizations
Red Internacional de Organismos de Cuenca

الشبكة الدولية لقيادات الـ حوض



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your inputs are welcome !

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basin organizations over the world***