

**GENERAL ASSEMBLIES
OF THE AFRICAN NETWORK OF BASIN ORGANIZATIONS AND
OF THE NETWORK OF TRANSBOUNDARY BASIN ORGANIZATIONS**

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**FINAL RESOLUTIONS
ANNEXES : WORKSHOPS REPORTS**



**1st IWRM WORKSHOP:
STATUTES AND RESPONSIBILITIES OF TRANSBOUNDARY BASIN ORGANIZATIONS**

All the problems linked to water governance are challenges that can no longer be tackled on a sectoral or local basis, or indeed separately. In fact, the search for solutions must pass through an integrated and holistic approach, organized at the relevant level of basins of rivers, lakes and aquifers, either local, national or transboundary.

As regards transboundary rivers, lakes or aquifers, cooperation agreements should be signed or strengthened by riparian Countries and Management Plans designed at the level of all their river basins, especially in international or transboundary Basin Commissions, Authorities or Organizations.

There should be a specific approach, strengthening « basin awareness » for transboundary groundwater.

In each basin and in each country, a clear legal framework must specify 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, and there should be frameworks for coordination and arbitration between the different departments involved.

Meeting the various demands and organizing an effective and integrated management of resources and environments indeed imply that **several functions are continuously fulfilled in a complementary and consistent way on all the territories.**

This concerns:

- overall administration,
- safety, risk prevention and management and policing,
- dialogue at different appropriate levels,
- planning,
- the building of structuring systems, in particular to regulate resources and to prevent erosion,
- the construction of individual and collective facilities, directly related to water use, saving and recycling, and to the treatment of polluting discharges,
- the operation, maintenance and management of hydraulic infrastructures and community services,
- a follow-up of groundwater,
- research and studies,
- training, education and awareness raising,
- the organization of information systems and monitoring networks on the status of surface and groundwater resources and aquatic environments and on the uses, the social and economic environment,
- etc ...

All these functions are the ones that should be organized in a perennial manner and for which the financing of investments and operation should be mobilized and guaranteed whatever the methods used.

All these functions are not usually fulfilled by an organization alone and the most frequent case is the coexistence, on the same territory, of many responsibilities and initiatives, either individual or collective, public or private.

A consensus should be reached.

A SHARED RESPONSIBILITY:

Sustainable management of water resources implies that complementary assignments should be defined for:

- International Commissions, transboundary basin Authorities or Organizations, either existing or to be created,
- the States (Central and Federal Governments),
- local communities and authorities,
- economic stakeholders and users that are each concerned,
- public and private operators in charge of management and operation,
- the civil society in a general manner,

□ DIFFERENT TYPES OF BASIN ORGANIZATIONS:

According to the needs, local situations and history, various formulas were adopted to organize some of the functions useful for water management at the level of the basins. One can mention:

- **Administrative Commissions, with or without a 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, in particular on emergency situations, 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 **International Joint Commission** (IJC) between the USA and Canada, for example.
- **Organizations in charge of contracting large structures or combined installations**; this is the case for navigation, flood control, the building of reservoirs, in particular for irrigation, hydropower production, etc. These organizations, often created as public or private « companies », have usually the concession of community infrastructures for which they are responsible for their construction and long-term management, generally by 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 needed to achieve the set objectives. In some cases they can also be responsible for water policing, studies, data collection or products, etc.
- **« 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, in particular as regards planning, the fixing of taxes, the allocation of available resources, etc.
- **« Associations, syndicates 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 an action plan with specific financing.

□ FOR TRANSBOUNDARY BASINS

When launching a project, an informal cooperation can certainly be established between the basin organizations of 2 border countries, that can effectively solve local crises, but that cannot have an action of any significance, or mobilize the financial resources necessary for the management and development of the basin.

The establishment of a formal framework for international cooperation is thus necessary to ensure a long-term commitment whose obligations are binding for the successive national and local decision-makers.

This framework is usually a prerequisite to the mobilization of the adequate resources at the level of each country. It also enables the creation of a body, whose official statute is essential for the development of programs mobilizing significant financial resources from various donors.

The creation of a small body (secretariat, logistics) is a dynamic and low cost solution.

The creation of a better structured international organization implies the definition, as a prerequisite, of the levels of delegation of possible responsibilities that the riparian States could accept.

The mandate of such an organization could include:

- the organization of the collection, harmonization and dissemination of information,
- assistance at the operational level in case of crisis,
- the contribution to the solving of specific problems exceeding the national territory,
- the planning of actions at the level of the international basin in coherence with national programs,
- the mobilization of financial resources at national and international level,
- other functions according to operational needs, etc.

The ratification by the riparian States of an international agreement may imply a progressive compliance of their national regulations with the agreement requirements.

When negotiating an agreement on a transboundary river, it is necessary to :

- 1 take into account the previous agreements, even when they only concern some parties involved,
- 2 plan for working groups with precise mandates,
- 3 organize mechanisms for solving conflicts,
- 4 clearly distribute the roles and responsibilities among the Basin Organizations and riparian Countries,

- 5 establish, whenever possible, operating rules obtained by consensus,
- 6 share the operating costs,
- 7 ensure that the water-related benefits are shared rather than the water itself,
- 8 take into account the statutes of successful basin organizations,
- 9 whenever possible, look for mechanisms enabling the participation and the sharing of benefits with the citizens and the organizations that represent them.



1st IWRM WORKSHOP:

2nd IWRM WORKSHOP:

FORMULATION OF MANAGEMENT PLANS AND ACTION PROGRAMS.

THERE SHOULD BE A MEDIUM-TERM VISION

Investments in the water sector are highly capitalistic: the building of large infrastructures on the scale of river basins, or of inter-basin transfers, large water intake systems, water and wastewater treatment plants as well as water supply networks, drainage or wastewater collection systems, works for protection against floods, information systems, etc., require significant and progressive financial investments, whose realistic amortization can only be considered on a very long period of several decades.

The same can be said for the orientation of investment efforts of individual users.

The water sector also covers a wide range of activities which are not, to be strictly accurate, great developments, but which are quite significant in an IWRM approach. The complexity of the involved ecosystems and the reaction times necessary to note the effects of actions imply planning in the medium and long term.

A long-term vision is also necessary to take into account the time lengths impossible to circumvent linked to pollution phenomena or to the renewal of water resources. It is also necessary to integrate the requirements to assess the action plans which must be balanced by the monitoring of water resources and uses.

Indeed, this **policy must be scheduled on the medium and long term**, due to the times required for gathering partners and for the study and implementation of projects, and, on the other hand, due to the general limitation of available financial resources that does not allow the implementation of all projects at once everywhere. This either concern the gathering and processing of information for producing an inventory, generating scenarios, or the necessary mobilization of the stakeholders. All these elements are essential for formulating action plans and require time.

A COMPREHENSIVE AND MULTISECTORAL VISION:

It should be reminded that the first goal of IWRM is to ensure sustainability of the natural functions of the ecosystem which supports life, including that of the men who live in it. Maintaining these functions generates a lot of priceless goods and services.

The following must be taken into account:

- water : the resources, its uses, point and non-point pollution, health and ecological impacts (invading species, etc.),
- projects for economic and social development,

- regional planning:
 - . the use of urban and rural lands for economic activities,
 - . protection of natural environments and ecosystems,
- geographical, demographic, historical, social, cultural and religious characteristics as well as local traditions and customs,
- the link between water and land rights.
- recurring natural disasters for which measures should be taken for warning and risk abatement,
- the inevitable changes, either climatic, economic, political or social, which will occur in the more or less short term and for which it will be necessary to plan adaptation measure,

The comprehensive and multisectoral vision must also take into account the integration of other sectoral policies, such as those for agriculture, energy, transport, etc.

WHAT OBJECTIVES AND WHICH DEADLINES?

Any sound water policy implies **regulations, procedures** and **standards** that clearly define a **legal framework** and the **commitments** of each stakeholder. This can take several years.

The objectives to be achieved are not solely defined by standards of use, but can also include environmental objectives or levels of use.

The two possible adjustment variables are:

- on the one hand, **consumption or quality standards to be achieved**, the cost of which is obviously increasing when they are more and more ambitious,
- on the other, **the time limit to achieve them**, which allows the making of efforts according to real availabilities.

THE SIGNIFICANCE OF MASTER PLANS OR MANAGEMENT PLANS:

The objectives to be achieved and the necessary means of any kind must be defined in 15 to 20-year **master plans for water development and management**.

The formulation of **successive Priority Action Plans** is the instrument needed for implementing these master plans.

These plans should:

- **identify the main problems** that arise and anticipate their evolution and **set the objectives to be achieved** in the medium term,

- be based on a participative approach that associates the different categories of users, Local Authorities and the administration,
- be elaborated on the most consistent scale possible, which usually is the watershed of large rivers or of their main tributaries, and of large aquifers,
- take the form of **Priority Action Programs**, that set possible actions to be carried out in the short term (4, 5 or 6 years), actions that should be harmonized according to a cost/effectiveness analysis,
- **plan for update mechanisms** according to the changes that occur on the territory,
- have a **regulatory framework in order to:**
 - on the one hand, adapt regulations and standards to the specificity of the basin,
 - on the other, determine the administrative authorizations needed for developments, uses and discharges in the basin.
- define the financial resources from all origins to be mobilized for the implementation of **Priority Action Programs** and the computation and recovery mechanisms that are related.

PROCESSES FOR FORMULATING PLANS

The preparation of a plan is a process with successive phases:

- *a preliminary phase, inventory, scenarios, involvement of the parties concerned and communities of interest,*
- *a phase for the preparation itself,*
- *a phase for the information, consultation, involvement of the partners and its implementation,*
- *a phase for official approval,*
- *an implementation and evaluation phase.*

The formulation of a « Management Plan » is usually based on inventory techniques, scenarios, trend studies, strategic analysis, techniques for communication, dialogue and mobilization of the stakeholders, cost/effectiveness optimization that should be well understood.

□ **FOR TRANSBOUNDARY RIVER BASINS AND AQUIFERS**

A link between national and international programs is the indispensable condition for optimizing results. It relies on close relations between the international Organizations and national « focal points » that are its permanent correspondents in the riparian Countries concerned.

The implementation of **the new European Water Framework Directive** could be a good example for the formulation of a « Management Plan » and of the action programs that are related, as it retains the concept of « international districts », sets common objectives to be achieved and compulsory deadlines to the Member and Candidate States of the European Union.



3rd IWRM WORKSHOP:
FINANCING BASIN ORGANIZATIONS AND THEIR PROGRAMS.

Socioeconomic development facilitates and allows water management and control. It creates the means for meeting water needs and the damage it generates, including by resorting to palliatives to the rarefaction of availabilities and by treating pollution.

WATER IS NOT A GOOD LIKE OTHERS

In most countries, water, as a natural resource, is considered a public good, which cannot be appropriated, and a « common heritage » of the Nation which should profit from the benefits of joint sustainable management.

Almost everywhere water is a « natural raw material » and is free, but the investments and operating costs needed for its management, abstraction, regulation, transport, storage or treatment must be paid by someone. One does not pay for water but for the services provided which are related to its use.

FINANCING IS ESSENTIAL

In many countries, the amounts paid by the users of services are not enough to cover all the costs, especially those linked to investment amortization. Although the operating costs may be partially covered, appropriation for renewal is still rare. This raises huge problems regarding the life span of the infrastructures built

These new financial requirements will have to be paid by the users, consumers, public administrations and donors.

The States cannot bear all the costs alone and traditional public funding has reached its limits.

It is necessary to establish funding systems everywhere, based, more than before, on the users and consumers' participation and common cause.

All analyses converge to show that, except in some particular cases, the funds to be raised greatly exceed the funding possibilities of national or local public budgets, of bi- or multi-lateral aid to development that only represent about 10% of the investments made in the sector worldwide.

□ COMPLEMENTARY FINANCING MECHANISMS

Complementary specific means are needed. They should have a reducing effect and create an incentive to limit wastage and decontaminate discharges.

Solutions have been efficiently implemented and have proven themselves for several years or are being implemented in some countries and provide varied possibilities

1 - ADMINISTRATIVE TAXES:

1. a - general administrative taxes for the issue of regulatory authorizations (deed cost) or for the use of State property (taxes for granulate extraction, concession taxes for hydroelectric falls or infrastructure or reservoir land width, taxes on waterway transportation...) and **penal fines,**

1. b - A new « ecological tax » on polluting activities.

2 - WATER-RELATED TAXES:

These national, local, or combined water-related special taxes are based on the « water must pay for water » principle. The amount of these taxes transits through specific or individualized financial systems.

3 - INDUSTRIAL AND COMMERCIAL PRICING OF COMMUNITY SERVICES RELATED TO WATER USES:

The consumers and users pay all the direct, and whenever possible, the indirect costs of the community utilities (investment and operation costs, services provided). It uses various **pricing** methods (agreed price, proportionality, quantitative, geographic or social equalization, etc...), with or without external **equalizing devices** (subsidies or public communities bearing the costs of infrastructures, administrative costs, etc...).

Significant financial resources can only be levied, in an acceptable manner, from rather large populations or economic activities, therefore in territories where sufficient « **ability to pay** » may be found.

□ PUBLIC SUBSIDIES

The history of economy shows that no drinking water supply, sanitation or irrigation utility of today's industrialized countries has been set up without any direct or indirect equipment subsidy.

Subsidies out of the budget, or their equivalent in the form of soft loans, will continue in most cases, at least in a transitory period in developing Countries, although the principle of the recovery of all costs from the users must be a long-term objective.

UNDERPRIVILEGED POPULATIONS

The main traditional objection is that some low-income categories of the population in underprivileged urban districts or in isolated villages have not enough money to get access to drinking water. Generally speaking, small farmers are too poor to have collective access to irrigation water.

However, the rare studies dealing with the expenses borne by individuals to compensate the lack of services, show that in total they could finance huge improvements in community facilities.

In addition, equalizing devices could be established for the poorest.

THE CREATION OF A BASIN ORGANIZATION MAY BE A « PROFITABLE » PROJECT

The creation of new basin organizations is a large project, that will last 4 or 5 years or more, depending on the institutional system of the country concerned. It will imply a significant first investment.

The economic studies carried out usually show that, with a very small yearly participation of the users, such a basin financial instrument may mobilize huge amounts for investments and the good operation of the organizations and, of course, pay off the expenses of the starting up (creation).

THE ROLE OF THE PRIVATE SECTOR

Additional private financial resources can be raised provided that:

- their returns are acceptable.
- their reimbursement is guaranteed by way of an appropriate guarantee system.

The main problem of financing water infrastructures is first of all a guarantee problem.

EVERYONE MUST CONTRIBUTE

Unless nothing is done, in any case, there is always somebody who pays somewhere in some way or another, either:

- ♦ **The taxpayer**, who pays his income tax into the general budget, whether central or local,
- ♦ **The offender**, who must pay a fine when negligent or when the law, standards and regulations are not complied with,

- ◆ **The user**, who buys the services either *directly* or *indirectly* provided.

More and more, the users are being requested to bear all the costs as a principle of :

- « **common cause for basins and aquifers** »,
- « **internalization of external costs** ».

The fact that **the « right people » must pay** is important if we want things to **improve**. This means that anyone whose activities result in an adverse effect on the water cycle, must reduce the dysfunction he generates to pay less money.



4th IWRM WORKSHOP: **MONITORING AND INFORMATION SYSTEMS** **IN TRANSBOUNDARY BASIN MANAGEMENT**

To aim at effective water resource management, in particular at the level of river basins, it is of prime importance that the decision makers (Managers of Basin Organizations and Administrations, members of Basin Committees, representatives of Local Authorities, users and associations) have access, at all relevant levels, to reliable, complete and real-time information on:

- ◆ the qualitative and quantitative status of surface and ground water resources and on seasonal and inter-annual evolutions,
- ◆ the situation of biotopes and aquatic environments and their degrees of sensitivity,
- ◆ water uses (abstractions), especially irrigation and drinking water supply to the inhabitants, and on point and non-point pollution sources (discharges),
- ◆ risks of extreme phenomena, such as floods or drought as well as accidental pollution,
- ◆ economic challenges related to water.

However, this information, these studies and data, are often dispersed, heterogeneous, incomplete... and not always comparable, nor adapted to the requirements for objective decision-making. Often, several public, para-public or even private organizations can have very useful information, without having sufficient means for exchanging, pooling, harmonizing, summarizing and capitalizing this information between them.

Special care should be given to thinking about the organization of the subcontracting of measurement networks and databases, about financing and the advisable role of specific basin institutions as compared to other possible institutions concerned.

Mobilizing this information indeed requires a consistent organization of measurement networks, analysis laboratories, data transmission, checking and control, of the management of databases, of their access mode and their « products », which implies lasting means, that must be optimized to have the necessary information, but limited to the very useful one, at public lower cost.

In addition, information should be usable and made available in the best appropriate forms.

Information systems on shared rivers and aquifers should be designed in a consistent and comprehensive way on the scale of the whole basin within the framework of agreements between the riparian countries.

It is then necessary to define common standards to gather, in a comprehensive way, the comparable information produced by the various producers, to organize real information systems at the level of the basins and also to centralize the summarized information necessary for defining and controlling the public policies implemented.

The implemented infrastructures should last, and this implies clear mechanisms for a long-term financing of the operating and renewal costs. Too many infrastructures were built, which have then been degraded or abandoned for lack of sufficient human and financial resources to ensure their adequate operation and maintenance.

THE FUNCTION OF DATA ADMINISTRATION IS NOT YET SUFFICIENTLY TAKEN INTO CONSIDERATION:

Although very significant work was undertaken, especially by the United Nations Agencies or the European Union, a methodological, national, regional and, a fortiori, international harmonization is not yet really possible and the practices of the various data producers and database managers remain very heterogeneous.

However, it is essential to aim more than ever towards:

- dictionaries describing precisely the information required for each parameter,
- general nomenclatures,
- harmonized geographical and cartographic frames of reference,
- standard formats for computerized data exchange,
- catalogues of data sources, etc.,
- the networking of information centers allowing the pooling of their data and studies,

and this all the more so that several authorities share responsibilities for the management of a common resource.

PROMISING INITIATIVES WERE LAUNCHED:

One can quote, without wanting to be exhaustive, the initiative inspired by the World Meteorological Organization (WMO), « **WHYCOS** » (*World **HY**drological **C**ycle **O**bserving **S**ystem*), the « **FRIEND** » program (*Flow **R**egimes from **I**nternational **E**xperimental and **N**etwork **D**ata*), organized within the framework of the **International Hydrological Program (I.H.P.) of UNESCO**, the **Global Environment Monitoring System GEMS « Waters »** program, under the aegis of UNEP in liaison with WHO, the **FAO AQUASTAT** program, etc.

Among the regional projects concerning inter-States collaboration for the creation of new information systems, it is necessary to mention « **EMWIS** » (*Euro-Mediterranean **W**ater **I**nformation **S**ystem*), the « **inland water** » **Topic Center of the European Environment Agency**, for the **creation of a future European Water Network (EUROWATERNET)**.

At the national or federal level, other integrating projects of this kind do exist or are under study.

Of course, **harmonized data exchanges** have already been organized for a long time in some International Commissions or transboundary basin Organizations.

However, it is vital to double efforts to extend these practices to all the other basins concerned and to develop research and work to improve the methods to be used.