Distr.
LIMITED
E/ESCWA/ENR/1996/WG.1/WP.9
20 November 1996
ORIGINAL: ENGLISH

**UNITED NATIONS**
**ECONOMIC AND SOCIAL COUNCIL**

**Economic and Social Commission for Western Asia**

**Expert Group Meeting on Water Legislation in the ESCWA Region**
**Amman, 24-26 November 1996**

# LEGAL ASPECTS OF BASIN AUTHORITIES AS EFFECTIVE MEANS FOR SUSTAINABLE WATER MANAGEMENT

**by**

**SERGIO MARCHISIO**

**Institute of Legal Studies on the International Community**

**Summary**: 1. Sustainable Development and Water Resources: the UNCED Output **2.** The Legal Status of the Principles on Sustainable Development **3.** The Right to Water as a Basic Human Right **4.** The Principle of Cooperation and the Shared Water Resources **5.** Agenda 21: the Integrated Water Resources Management **6.** The Unitary Concept of Hydrologic Basin **7.** The Model Type-Basin Agency **8.** River Basin Authorities in National Legislation: the Spanish Case **9.** The French System of Agences de l'eau **10.** The Italian Laws on Water Basin Administration **11.** The European Union Legal Framework **12.** The Harmonisation of European Legislation on Water Management Conclusion.

1. It is at the beginning of the Nineties that two international conferences have highlighted the growing international consensus about the need to adopt equitable and sustainable-oriented approaches to water resources management.

Reference is made to the January 1992 Dublin Conference on Water and the Environment, and, above all, to the UN Conference on Environment and Development (UNCED) held in Rio de Janeiro in June 1992.

It is well known that the output of the UNCED - including the framework Convention on Climate Change, the Convention on Biodiversity, the Declaration on Forests, Agenda 21 and the Rio Declaration on Environment and Development - has underlined new trends in the evolution of environmental and natural resources law at the global and regional level.

In fact, the international instruments adopted at Rio have endorsed a set of principles which can be defined as the emerging legal principles on sustainable development. The notion of "international law in the field of sustainable development" is mentioned in Principle 27 of the Rio Declaration and in Chapter 39 of Agenda 21, the Rio master plan of action. These instruments stress the importance of the further developments of this new branch of law, calling special attention to the delicate balance between environmental and developmental concerns.

The tendency inaugurated at Rio is now bearing fruit. Many principles on sustainable development approved by UNCED are reflected in international treaties, acts of international organisations, State practice and national legislation.

More in general, the systematization of the newly emerging principles on sustainable development has been the object of various initiatives, like the 1995 IUCN's Draft International Covenant on Environment and Development; the Expert Group Meeting on Identification of Principles of International Law for Sustainable Development, convened in Geneva by the UN Department for Policy Co-ordination and Sustainable Development (DPCSD) in September 1995; and the two 1996 UNEP Workshops focused on implementation of and compliance with environmental conventions, following UNEP Governing Council decision 18/9.

Finally, on the matter of progressive identification of legal concepts and principles of water resources sustainable development, a useful role has being played by the International Association for Water Law, which is contributing to their analysis and elaboration.

2. Even if the legal status of the principles on sustainable development varies considerably (some of them seem to be more firmly established, while others are only in the process of gaining relevance), it is commonly understood that States are committed to cooperate, individually and collectively, in order to achieve sustainable development as a common goal of the international community. At the same time, planned efforts to formulate water laws and regulation, as well as institutional mechanisms for water resources management, should be consistent with the legal framework consolidated at Rio and after.

In fact, water is a natural resource that every State is free to manage and utilize within its jurisdiction, pursuing its own environmental and developmental policies, in line with the 1962 Declaration on Permanent Sovereignty over Natural Resources, contained in UNGA Resolution 1803(XVII). But sovereignty over natural rescurces as a principle of international law has evolved since the Sixties. If the mentioned Declaration still serves as a basic instrument in this matter, Principle 2 of the Rio Declaration (restating Principle 21 of the 1972 Stockholm Declaration on Human Environment, the 1978 Shared Natural Resources Principles, other legally binding texts, and thus consolidating a well established rule of customary international law) stipulates that this sovereignty must be exercised without causing transboundary interferences. The Principle calls for water resources management preventing extraterritorial effects that could provoke environmental damage in other countries or in areas outside national jurisdiction.

On the other hand, the principle of interrelationship and integration forms the backbone of sustainable development. National water resources legislations can contribute to sustainable development to the extent that their rules are applied in a comprehensive and holistic way. Law-making and interpretations of laws on water resources require coordination among all relevant actors and interests

**3.** At the same time, a sustainable development-oriented management of water resources could lead more easily to the human right to development, which, according to Principle 3 of the Rio Declaration, must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations. The realization of this basic right, as well as the right to a healthy environment, definitely depends on access to water and sanitation. In developing and using water resources, priority has to be given to the satisfaction of basic needs and to the safeguarding of ecosystems.

Moreover, the principle of sustainable use of natural resources requires States and peoples to pay due care to the environment and to make rational use of the natural wealth and resources of the areas within their jurisdiction so as to ensure sustainable production and consumption. Definitions of sustainable use of water resources can vary somewhat, but typically reflect concepts of intergenerational equity. We can define it as the use of freshwater resources in a way and at a rate that does not lead to the long-term decline of them, thereby maintaining their potential to meet the needs and aspirations not only of present but also of future generations.

**4.** Another principle on sustainable development concerns the international cooperation of States, according to their common but differentiated responsibilities. The principle of cooperation imposes an obligation of solidarity in solving the shared water resources problems in transboundary contexts and includes, among others, these main components: equitable and reasonable use of transboundary water resources; prior notification and relevant information to neighbouring States regarding activities that may have a significant adverse transboundary environmental effect on shared water resources; the obligation to consult with those States at an early stage and in good faith (Principle 19 of the Rio Declaration) and, finally, the obligation to immediately notify natural disasters and emergencies concerning water resources (Principle 18).

Without going into further details, we can say that other general principles applicable to sustainable development concern environmental and natural resources policy to be applied mainly at the national level: the precautionary principle (following which the lack of scientific certainty is no reason to postpone action to avoid potentially serious or irreversible harm to water resources); the internalization of natural resources costs, in accordance with the polluter-pays or user-pays principle (according to which, beyond basic needs, water polluters and users should be charged appropriately); the environmental impact assessment requirements (Principles 15, 16 and 17 of the Rio Declaration). Finally, sustainable water management cannot be achieved without widespread adoption of good governance principles that ensure broader participation in development decisions and an open and transparent decision-making process.

5. Agenda 21 devotes Chapter 18 to the specific issue of the "Protection of the Quality and Supply of Freshwater Resources: Application of Integrated Approaches to the Development, Management and Use of Water Resources".

We find in this Chapter the operational level of the aforementioned general principles, starting from the recognition of freshwater resources not only as key global renewable components of all terrestrial ecosystems, but also as limited and vulnerable resources. For this, the integration of sectoral water plans and programmes within the framework of economic and social policies, appears to be of paramount importance for national and international action.

If the overall objective is to satisfy the freshwater needs of all countries for their sustainable development, Chapter 18 focuses on two main concepts: the first, following which water is not only a natural resource, but also a social and economic good, whose quantity and quality determine the nature of its utilization; the second, according to which integrated water resources management "should be carried out at the level of the catchment basin or sub-basin" (see Chapter 18, para. 9)

The first assumption implies, as it is known, a greater reliance on pricing, incentives and demand management, with special attention to means like different values in urban and agricultural uses, transaction costs of water reallocation, prices for urban and industrial use, fees for irrigation, cost recovery through user groups, indirect methods of setting irrigation charges and so on. The main aim of national water legislations is that

water resources are distributed in the desired quality and at the lowest possible price taking into account the special needs of poor peoples.

As far as the second element is concerned, we must recall the failure of many national legislations to address water resources administration in a comprehensive manner. Criticisms deal mainly with the so-called fragmented management, for which each type of water use is regulated by a separate agency (irrigation, municipal supply, power, transportation) or separately considered (surface and groundwater, quality and quantity, health and environment).

6. Here comes the reference to the integrated approach, realizable at the national and international level via the unitary concept of hydrologic basin. In essence, this comprehensive approach breaks down the very complex problems existing in a water basin into more manageable elements to achieve coherent cross-sectoral water management.

From a comparative point of view, it is noteworthy that most water institutions already belong to the category of agencies with an inter-basin or basin's level of jurisdiction. Indeed, following many commentators, the basin-oriented administration of water resources is to be considered as the best approach for guaranteeing the environmental protection, the perenniallity and the sustainable development of water resources, for it allows to coordinate the interests of all water users, to establish quality standards in function of needed utilizations, to organize industrial, rural and municipal activities in the basin's territory consistently with the overall planned objectives.

According to these views, national water legislations should indeed recognize the prominent role of river basin organizations in coordinating water-related agencies and in establishing mutually agreed priorities for regulations, investment and allocations. In this way, the river basin system realizes a form of water participatory governance which covers an entire region's water resources.

Furthermore, it must be stressed that river basin authorities have been often set up in order to coordinate the conflicting interests of international units, like States, regions or provinces, according to the particular legal system concerned (federal, quasi-federal, regional or centralized). The same applies, as it is evident, to international river basin agencies, which have been developed in recent years in order to manage in a sustainable way the shared water resources among different riparian States.

7. Although being necessarily consistent with the traditional elements of each national legal system, a model type-basin agency will require at least five main components: *a*) the governing bodies made up not only by public organs either governmental and/or local, but also by users; *b*) the consultative representatives bodies, like water parliaments or assemblies; *c*) the adequate attribution of regulatory powers to coordinate and review water activities and enforce with national strategies; *d*) the financial autonomy, in order to establish pricing and incentives; *e*) the competencies in matter of water quality.

The basin authority organization should indeed be determined by a legislative charter, which clearly defines statutory responsibilities and structures. Generally speaking, the basin authorities should be like policy-making bodies which coordinate the activities related to water utilization undertaken by individuals, development institutions or governments, responsible for a series of important functions, like the formulation of overall water resources policy and planning; the coordination of all projects, schemes or plans for the use of the water resources; the collection of data relating to water availability, quantity and quality-wise; the determination of the respective rights and obligations of users; the assessment - with a view of their approval - of all activities that are likely to affect the quantity and/or quality of the waters. The existence of regulatory water basin institutions does not preclude, of course, the existence of development institutions or of mixed-functions agencies.

8. I have already mentioned the existing differences among national legislations as far as the basin authorities functions, powers and organs are concerned.

Let me concentrate now on the general aspects of basin authorities in some European countries, such as Spain, France and Italy, which, among many others, have created basin agencies. I will then make some considerations on the evolution of the European Union legislation on this matter, showing how the previous experience of the mentioned member States has influenced the proposed reforms at the EU level.

Beginning from Spain, which was the first country to establish basin authorities in 1925, we can say that the Water Act in force (*Ley de Aguas*, August 2, 1985), in recognizing that freshwaters are an indivisible resource of general interest belonging to the public domain, establishes that the State has the exclusive hydrologic planning competence.

Besides, the Water Act introduces a distinction between hydrographic basins totally contained in the territories of the autonomous communities (the regional institutions) - which are subject to the latter's administration - and inter-communities basins subjected, on the contrary, to the regulatory powers of the basin agencies called *confederaciones hidrográficas*.

Although the central government retains some powers, like that of approving the programs elaborated by the basin agencies and of appointing their president, the said institutions - structured in an Administration Council, an Assembly, an Exploitation Committee and a Water Council - act as real water agencies at the basin level, carrying out all the planning and regulatory functions necessary for the efficient performance of water management.

**9**. The French system of water management, developed in the Sixties, is basically founded on the fight against pollution and on the polluter pays principle. The 1964 and 1992 Water Acts, considering water resources as national heritage, attribute regulation and enforcement powers to different ministries. At the same time, they create a framework for water charges to be administrated by public establishments at the level of river basin. Charges may be levied on public or private groups or individuals if they contribute to the deterioration of water quality, extract water use from natural sources, or alter a river basin's aquatic environment. Subsidies for measures aimed at improving or safeguarding water quality may also be granted to private or public concerns. A compensation system, known as the subsidy for waste water treatment, was introduced to offset the water pollution charge for those persons or bodies that treat waste water before discharging it into rivers or lakes. This measure was intended to act as an economic incentive for polluters to take steps to avoid the deterioration of water quality.

The total sum of the water charges to be levied and collected by each river basin agency is set out in a pluri-annual intervention program geared toward developing water resources and reducing pollution. The program (called SDAGE, to be integrated by several executive projects, the SAGEs) establishes all expenditures to be met by each agency within a fixed time frame, that is for the duration of the intervention program.

The water charges system is managed by six water basin agencies and covers the whole of France. Notwithstanding the excellent features of the French system, it is true indeed that these *agences de l'eau* are not real management authorities, but rather

planning and financial institutions: their main function is to establish the water charges to be collected, based on a compulsory declaration made to them by all persons or bodies liable for the charge. In any case, the system contains a high degree of comprehensive management, decentralization and participation, namely through the basin committees and the water boards.

10. Besides the Spanish and French models, a similar institutional framework has been set up in Italy by the 1989 Land Conservation Act and the 1994 Water Resources Act, which, making an extensive reform of the Italian legal system, are aimed at realizing an integrated approach of water resources management and soil conservation, for the purposes of rational economic and social development, and protection of the relevant environmental aspects.

To achieve its objectives, the 1989 Act assigns different functions to all the traditional competent authorities dealing with land use and water management, but, at the same time, introduces a new institution, the basin authority. This has as its reference the river basin or watershed, a division which supersedes the earlier regional and sub-regional administrative boundaries. The Act gives a detailed definition of hydrographic basin as an area of land drained by rainwater or melting snow and glaciers, which collects in a given waterway either directly or from tributaries, as well as the area of land that may be flooded by the water of that same waterway, including the terminal branches flowing into the sea and the surrounding coastal zone; if an area of land may be flooded by several waterways, it is understood to be part of the watershed which has the largest mountain catchment basin.

In the Italian legislative framework, the main operative instrument is the basin plan, which relates to the mentioned hydrographic basins, classified into three groups (national, interregional and regional) and lays down rules and guidelines in order to achieve the protection and sustainable management of water resources in the basin area. Practical and organizational difficulties have delayed the approval of the basin plans, which, from the end of 1990 have been temporarily replaced by preliminary provisional schemes.

The legislative framework has been largely completed by the mentioned 1994 Water Resources Act, which establishes a set of principles for the sustainable use of water resources, all declared as pertaining to the public domain.

Here we find in fact a real framework for rational and sustainable water administration going from water uses regulation to water saving and reutilization measures, from the institution of an integrated hydrographic service to the establishment of pricing and incentives policies.

Notwithstanding this positive evolution, some problems have not been adequately solved, like the users' participation at regional level and the overlapping of competencies in a system which, despite the adoption of the river basin functional approach, continues to be too centralized.

11. Moreover, the tendency towards the adoption of basin or inter-basin integrated and comprehensive approaches in water resources legislation in European countries is perfectly in line with the more recent evolution at the European Union level. It is true indeed that the Treaty on European Union signed on 7 February 1992 has introduced as a principal objective the promotion of sustainable growth respecting the environment. It includes among the activities of the Union a policy in the sphere of the environment, specifies that this policy must aim at high level of protection and that environmental protection requirements must be integrated into the definition and implementation of other Community policies. The Treaty on European Union also attaches special value to the principles of shared responsibilities and subsidiarity, and states that decisions should be taken as closely as possible to the citizens.

The Fifth Community Action Programme concerning the environment, approved in 1992 and covering the period 1992-1997, took fully into account the new approach "towards sustainability", and, in line with the guidelines outlined in the Hague Declaration on the future Community Groundwater Policy as agreed at the EC Ministerial Meeting on 26 and 27 November 1991, called for a more comprehensive legislative framework aimed at ensuring that water demand and water supply be brought into equilibrium on the basis of more rational use and management of water resources. Analogous recommendations were contained in Ministerial Council Resolutions of 25 February 1992 and 20 February 1995.

In fact, the Community legislation concerning water resources is precedent to the Maastricht Treaty and concerns basically, on one side, water quality standards and, on the other , the control of industrial and urban discharges as water pollution sources. This

requires a revision process in order to make this legislation consistent with the new legal horizon of the Maastricht Treaty.

12. On 21 February 1996, the European Commission has adopted a communication concerning an innovative EU water resources policy, following which a new directive (according to Article 189 of EC Treaty) shall be adopted as a basic legal setting of the new policy. According to para. 7.8 of this communication, the river basin will be a functional unity to be adopted for the integrated water resources administration. It is of course recognized that a "natural" unity for water resources management does not exist, even if the basin model seems to be the most suitable way of water resources organisation. In the meantime, the European Commission has presented to the European Parliament and to the Ministerial Council a proposal for a binding decision concerning the protection and integrated management of groundwaters, which is inspired by the same approach.

Let me conclude by saying that the European States legislations and the propositions for the harmonization of these legislations at the European Union level seem to confirm, if necessary, that basin oriented water administrations are effective means for better achieving sustainable development and protection water resources protection.